

Waste Management Strategy – Update Report

REPORT OF: Assistant Chief Executive
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Wards Affected: All MSDC Wards
Key Decision: Yes
Report to: Scrutiny Committee for Customer Services and Service Delivery
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Purpose of Report

1. In 2015, The West Sussex Waste Partnership produced an initial “Road Map” to outline the options available to the Council to reach the 2020 recycling and composting targets.
2. The options have been explored in some detail with our contractors Serco, and some of the more complex issues are being worked up in conjunction with the West Sussex Waste Partnership with input from all participants.
3. Mid Sussex District Council has sought detailed advice from Ricardo AEA on some of the options, costs and likely effectiveness of implementing each option to inform the Council’s Waste Strategy. This paper contains recommendations and identifies future work streams which will be included in the Council’s Waste Strategy.

Summary

4. In 2005, Mid Sussex District Council agreed with the West Sussex Waste Partnership’s proposal to move to a comingled recycling collection arrangement. The guarantee of dry recycling material and tonnages being provided to West Sussex County Council’s processing contract has underpinned the development and future operation of the Material Recycling Facility (MRF). This is designed to separate out comingled material into high quality single material streams suitable for reprocessing.
5. Following the introduction of the Mid Sussex Waste Management contract in 2007 which included; Alternate Weekly Collections (AWC), and the provision of wheeled bins, the service has been well received by residents. It quickly achieved upper quartile performance. Recently, following the downturn in the recycling markets, the value and quality of recycling has become a key driver for the Council. With the investment made in improving recycling quality, the Council can demonstrate significant improvement in quality. However, due to the industry wide approach to “light weight” packaging the overall weight of recycling has dropped despite the increase in houses and the new materials that can be recycled.
6. Recognising the simplicity and success of the existing recycling arrangements within the West Sussex Waste Partnership, any departure from these arrangements is likely to require additional infrastructure, operational cost and risks.
7. Following the meeting of Scrutiny Committee for Customer Services and Service Delivery held on the 8th February 2017, Members have requested that the details of the existing Waste Management contract key performance indicators are included. These are set out as Appendix 1 to this report.
8. Having evaluated the alternative delivery options, set out in Appendix 2 to this report, the following options are recommended to move towards achieving the 2020 recycling targets.

Recommendations

9. The Scrutiny Committee is requested to recommend to Cabinet that the following options are progressed:-
 - a) Retain the existing comingled dry recycling service and frequency of collection;
 - b) Instruct Serco to reproduce the fleet on the basis of current service provision;
 - c) Develop the business case for other work strands that can enhance recycling and composting collections and waste reduction initiatives.

Background

Road Map options

10. An overarching aim of the Council's Waste Strategy is to achieve 50% recycling and composting target by 2020. In 2015/16 the Council achieved a recycling and composting rate of 39.2% and needs to exceed an 11% increase over the next 3 years to meet the 50% target. Each percentage point equates to approximately 500 tonnes of material collected.
11. During 2017/18 reprocessing mechanical road sweepings will be implemented by West Sussex County Council and this could contribute between 1200-1500 tonnes towards Mid Sussex recycling targets per annum. This could make approximately a 1.5-2.5% improvement in performance compared with 2015/16 figures.
12. A step change is required for Mid Sussex to reach these targets. Therefore Ricardo AEA has been commissioned to model a range of options which could further increase recycling rates. The recycling "Road Map" options are designed to improve recycling performance and will have resource and financial implications. The purpose of this report is to confirm the option the Council wishes to take to meet statutory targets and legal obligations.
13. The detailed explanation of the alternative recycling and waste collection options, frequencies and their comparative performance are set out in detail in Appendix 2. It shows that a wide range of options to achieve this stepped change have been explored in detail. For example, the Waste Partnership is reviewing the viability of operating a dedicated food waste collection service, as it is already processing food waste within the overall residual waste stream, through the Mechanical Biological Treatment plant (MBT) at Brockhurst Wood.
14. Alternative delivery models cannot guarantee future performance as each model will have varying levels of popularity, uptake and compliance. The waste service will continue to evolve over time. Positively, there are options the Council can take which can assist in the short term and which limit any significant changes to vehicle specifications. This will also allow a replacement fleet to be procured within a reasonable timeframe.

Behaviour Change and Communications Programme

15. An increase in recycling rates will require a new way of engaging with residents to encourage them to put the "right stuff into the right bin". The government's advisory body Waste and Resources Action Programme (WRAP) recommends that Council's spend approximately £1.10 - £1.50 per household on communications. Recent survey work undertaken by Serco has indicated that residents are keen to receive waste related information in a wide variety of formats. Additionally the new Customer Relationship Management System will enable us to contact customers in the way that suits them quickly and effectively.

16. The waste composition analysis completed in December 2015 provides an opportunity to calculate the indicative value of lost recycling income and the additional Landfill Tax payable on landfilled dry recycled material. Based on this analysis, the estimated value of the “lost” recycling could be as much as £670k per annum, attributable to recycling behaviours in Mid Sussex.
17. Encouraging residents to put recyclable material in the right bin, and waste minimisation messages will need to feature in future plans. The use of social marketing methods would need to be adopted to drive these messages home.
18. Waste Management in conjunction with the Council’s Customer Services and Communications team and the Waste Partnership communications specialists will develop a costed behaviour change and engagement plan. The aim will be to increase dry recycling tonnage to close the performance gap. The plan would be presented to this Committee with a recommendation for future funding.

Further Expansion of Garden Waste Service

19. The current growth of the garden waste service, which has expanded from 14,200 to 18,200 subscribers, could collect an additional 1,400 tonnes per year when completed in March 2018. This is approximately 1.5 % pa improvement in performance compared with 2015/16 results. If the Council continued to expand the garden waste service to a fourth vehicle and participation levels to 22,200 subscribers, this could result in an approximate 5.4% improvement compared with the 2015/16, if completed by 2020.
20. Subject to final costings at the time of the procurement decision on the fourth vehicle, the estimated income generated from new subscriptions would cover the bin purchase and operating running costs when the scheme was fully rolled out. Currently with vehicle procurement lead time of over 30 weeks, a decision in early summer 2017 will be required to ensure a vehicle is in place for spring 2018.

Summary of Service Options

21. The following table outlines how the 11% gap in recycling and composting could be closed by implementing a range of Waste Management Options.

Table 1

	Dry recycling	Composting	Other	Potential Combined
Baseline 2015 / 2016	28.%	11.%		39.%
Existing growth of garden service by end of 2017 / 2018	As is	2.7%		42%
Proposed reprocessing of road sweepings by end of 2017 / 2018	As is	As is	1.5 – 2.5%	43% - 44% if combined with above
Potential garden waste growth to 22,200 subscribers by 2020.	As is	2.7%		46% - 47% if combined with above
Target additional 1500 – 2000 tonnes of recycling material due to extensive and sustained behaviour change projects / altered bin size configuration	(2.9% - 3.9%)	As is		48.90 – 50.9% if combined with above
Additional food waste collection service	As is	As is	5 - 6%	Additional 5-6% increase if introduced.

22. These options assume that the residual waste stream is static or reducing during a period when more recycle is collected.

Current Service Provision

23. The existing service is simple and cost effective. If fines are not going to be levied on Councils, it is hard to justify the introduction of complex and expensive collection methods.
24. The actual tonnage of dry recycling has dropped in the last year and relying on growth, as set out in table 1 above, has a level of risk. What is clear is that it is the bulk of dry recycling, particularly mixed plastics, rather than the weight, which is presenting a problem for our residents. The improvement in recycling quality in the last three years is demonstrable by the sampling of loads undertaken at the Materials Recycling Facility (MRF) at Ford. However, to maintain these standards some tonnage is sacrificed as rejected collections. The way forward is to minimise waste and get recycling material out of the residual bin and into the recycling bin.
25. If the additional recycling tonnage targets are not fully achieved, then the introduction of food waste would be needed to guarantee initial compliance with the national 50% target in conjunction with other options including a fourth garden waste vehicle.
26. The West Sussex Waste Partnership is looking at the feasibility of introducing standalone food collection arrangements. It believes that if sufficient numbers of residents participated, it is feasible to deliver the required percentage change. The Council will continue to work with the Waste Partnership to explore the introduction of a food waste service in the future.
27. One final option that has been discussed with Serco was to seek a further year's life to the Serco vehicle fleet, which could buy further time to get clarification on the likelihood of the Waste Partnership agreeing to implement food waste collections. The risk is that an aged vehicle fleet is likely to suffer far more breakdowns and expensive repair costs that Serco would expect the Council to pick up. This would also have a significant impact on customer satisfaction and increase volumes of contracts to the Council.
28. In light of the complex arguments, lack of clarity about future waste targets, and the high financial costs associated with service change, it is recommended that a number of waste management options as set out in table 1 above, are implemented. This will assist the Council in working towards the statutory targets without committing to introducing food waste collection at this stage.
29. In conclusion, all the new service delivery options have cost implications. However, it is likely that without introducing food waste collections at some stage in the future, existing UK statutory targets may not be met or sustained.

Future Work Streams

30. The waste strategy review has considered a range of other work streams that could impact on the waste management service and performance going forward as follows:-

- Behaviour change programme;
 - Food waste collections;
 - Collection of textiles and small electrical items;
 - Bin replacement programme, including future wheeled bin storage requirements.
 - Enhanced cleansing of the A23 Trunk Road.
31. Decisions on implementing these service changes / enhancement are not required at this stage but will need to be considered in the near future, when additional information is available.

Summary

32. The information provided in this report uses Mid Sussex modelled 'Technically, Environmentally and Economically Practicable (TEEP)' data which has recently been updated to reflect the service since the last TEEP assessment. The service delivery model allows comparison of various options outlined in this report and the general conclusions based on indicative illustration of cost and effectiveness of each model.
33. If the specification for the waste and recycling collection service remains the same there would not be any changes to the cost of replacing the refuse collection vehicle fleet. As the contract has evolved over the first ten years the Council's aspirational requirements for the next ten years are identified in future contract requirements summarised at Appendix 3 to the report.

Financial Implications

34. The value of the total Waste Management Contract as at 1st August 2016 is £3,852,077 per annum.

Risk Management Implications

35. Failure to provide a collection service that copes with the tonnages and volume of dry recycling and garden waste materials needed to deliver a 50 % recycling and composting performance figure ahead of the 2020 deadline. This would potentially lead to a financial risk of fines. At present there is no clear advice on whether and how such a fine might be imposed.
36. Potential legal challenge to comingled collection service due to poor quality recycling.

Equality and Customer Service Implications

37. This universal service has a very high public profile and recent work to enhance the Council's Contact Centre and CRM systems are ideally placed foundations onto which to bolt In Cab solutions from 2018 onwards.

Background papers:

27th February 2013 Full Council - Bridge Road Depot Project – Council approval of Budget and Service Plans 2013- 2014

Better Lives Advisory Group report 9th March 2011 - Commercial and Industrial Waste Strategy

Scrutiny Committee of Leisure and Community - Recycling Quality Project 29th November 2012, and 19th June 2012.

Scrutiny Committee of Leisure and Community - Waste Strategy Review Reports 6th July 2016, 2nd March 2016 and 9th February 2016

24th February 2016 Full Council Service Plans / Budget papers 2016 - 2017 – Expansion of Garden waste service and/ garden waste service price increases.

Scrutiny Committee for Customer Service and Service delivery - Waste Management Contract Review Reports 8th February 2017.

Appendix 1

Key Performance Indicators

1. A number of key performance indicators were set out in the contract specification. The current key indicators for contract year 10 August 2016 – 31st July 2017 are set out below:-
 - a) Local Environmental Quality Systems (formerly NI195) litter target to remain below 4% fails.
 - b) Local Environmental Quality Systems (formerly NI195) detritus target to remain below 6% fails
 - c) Number of missed bins per 100,000 collections less than 20.
 - d) Customer satisfaction for Street cleansing greater than 83.5%
 - e) Customer satisfaction for Refuse collections greater than 86%
 - f) Customer satisfaction for Recycling collections greater than 82.5%
 - g) Street Cleansing - Fly tipping within 3 days of a consignment notices being issued.
2. These KPI's are monitored by the Partnership Board and the information is obtained from the following sources:-
3. LEQS is measured using the NI195 methodology Based on 800 client surveys of street scene environment taken over the year in three four month survey periods.
4. Missed bin calculations will come from Salesforce incidents logged into the system and are based on closing claims with a three day period of the missed bin.
5. Customer satisfaction surveys are undertaken by "Future Thinking" an independent telephone survey company and results are based on 200 surveys taken each quarter. The results are geographically and demographically balanced and the breakdown of the results allows the identification of problem areas and issues.
6. The fly tipping data is gathered by the Serco case returns which the Council uses to populate the Defra data analysis website.

Appendix 2

Alternative models for collection of waste and recycling materials (Bin sizes and frequency of collection)

1. Increasingly residents are leaving out additional recycling material as “side waste” and / or asking for additional recycling bins. There is a foreseeable need to either provide additional bins or increase the size of recycling bins to 360 ltr. Alternatively, the frequency of collection could be increased.
2. To ensure a level of due diligence, a range of alternative collection methods and frequencies have therefore been modelled in conjunction with the introduction of food waste collection (which enables residual waste to be collected every third week in some options) to show that an extensive range of options have been fully compared.
3. A “baseline or existing service model ” option is included to enable comparison of effectiveness and costs. The additional alternative collection options which have been modelled are set out below:-

Alternative models options

- Option 1 - This option is based on having a separate pod or tank mounted on a freighter which allows a second waste stream (in this case food waste) to be collected from the households at the same time as other collections are being made. Households are required to place a food caddy out when presenting their standard wheeled bin on an Alternative Weekly Collection (AWC) frequency.
- Option 2 - This option is to continue with existing collection method and vehicle configuration, but at some point in the future to introduce a standalone food waste collection service, which would be utilising a standalone vehicle fleet and crew specifically collecting food waste from caddies. This food waste option modelling assumes a universal service provided to all residential properties.
- Option 3 - This option will require a freighter which has a rear hopper split into two separate sections and is operated in conjunction with a smaller food collection vehicle. The split vehicle is capable of collecting, fortnightly recycling and garden waste and three weekly residual. The separate fleet of food waste vehicles would collect weekly.
- Option 4 - This option is similar to the option 3 above, but is introduced with replacement smaller residual bins (180 ltr) and larger recycling bins (360 ltr.) to approximately 50% of properties. It is felt that some properties would be unable to accommodate and elderly or infirmed residents would struggle to manoeuvre the larger recycling bins.
- Option 5 - This option is formerly known “fully source separated” is used to describe a service where an authority asks residents to place the four statutory dry elements (paper/card, metal cans, plastic bottles, glass bottles and jars) out separately. The option does not provide any food waste to be collected but allows recycling materials to be collected every week in a specialist recycling vehicle which can store each element separately and therefore requires residents to separate all recycling into four types of box or bag. Residual waste and Garden waste would be collected alternative weeks from standard vehicles.

- Option 6 - This option is formally known as “Twin Stream” is used to describe a service where an authority asks residents to separate recycle into two bins; this normally allows the separation of fibre based material (paper and card) from glass, which can be a cause of contamination problems as glass shards stick to the fibres. This service increases the number of vehicles and crews required but does not allow for food waste is collected.
- Option 7 - This option is similar to option 6 above but introduces a food waste collection but collects residual and recycling on three weekly cycles.
- Option 8 - This option is modelled on the existing system and vehicle configuration but allows for growth of the garden waste service.
- To better understand the frequency of collection for each option element (recycling, residual, food or garden), the frequency for each, are set out in the following table:-

Table 2 - Frequency of collections

(For ease of reading Alternate Weekly Collection is shown below as AWC below).

Options	Recycling	Residual	Food	Garden
Baseline	AWC	AWC	N/A	AWC
Option 1	AWC	AWC	Weekly	AWC
Option 2	AWC	AWC	Weekly	AWC
Option 3	AWC	3 Weekly	Weekly	AWC
Option 4	AWC	3 Weekly	Weekly	AWC
Option 5	Weekly	AWC	N/A	AWC
Option 6	AWC	AWC	N/A	AWC
Option 7	3 Weekly	3 Weekly	Weekly	AWC
Option 8	AWC	AWC	N/A	AWC

Indicative assessment of options

4. Using the definitions set out above, Table 3 below shows the effectiveness and gross cost of each option. The costs relate only to the collection costs and do not reflect the impact of processing individual dry elements.

Table 3

Options	Dry recycling rate	Combined recycling and composting rate	Comparison of total gross service costs (£Million)	Comment
Baseline	28%	39.52 (2014 – 2015) rate	£2.41	2014 – 2015 rates prior to PTT included in recycling
Option 1	27%	50%	£2.79	Will require standard gauge vehicles
Option 2	27%	50%	£3.17	Could be combined with option 8
Option 3	29%	53%	£3.60	Major service change.
Option 4	30%	53%	£3.73	Greater take up of larger bins could improve this
Option 5	27%	49%	£4.06	Current legal requirement for new service. TEEP
Option 6	27%	38%	£3.03	More complex and won't hit required targets
Option 7	30%	52%	£3.00	Complex collection system
Option 8	27%	42%	£2.56	Could be combined with option 2

5. Clearly major service changes as outlined including options 1, 3, and 4 have significant operational implications. Any option that introduces a split body RCV vehicle or RCV with a pod for food waste collections will initially introduce inefficiency until the food waste collection and processing arrangements are available. The food compartment would be empty and reduced capacity would require a greater number of vehicles and crew to deliver the normal service. Split body vehicles and RCV with pods are standard gauge vehicles, rather than the narrow gauge vehicles preferred by our contractors to reduce access problems.
6. More complex recycling collection services (such as option 5, 6 and 7) are likely to confuse residents and again will not reach the potential target rates, until food waste collection service can be processed (option 7). There are also the potential problems associated with source separated and twin stream recycling with the existing operation of the Material Recycling Facility (MRF).
7. Members are recommended to retain the existing service namely an Alternate Weekly Collection and comingled dry recycling collections. The continued expansion beyond the existing garden waste service should also be explored as set out in Option 8.
8. Subject to current discussions with the West Sussex Waste Partnership continue to work up the introduction of a future food waste collection service, either as a standalone service as outlined in option 2, or other business models the Partnership wishes to explore, ahead of a final decision by this Council.

Appendix 3

Future Contract Requirements Summary

1. The following summary sets out the Council's aspiration goals for the next ten years of the Waste Management Contract.

Personnel

2. The contract drivers are to enable increased dry recycling and garden waste tonnage to be collected to meet 2020 targets, but as the West Sussex Waste Partnership payment mechanism and the risks associated with poor quality recycle i.e. loss of TEEP exemption are dependent on high quality recycling to meet agreed input specifications; both elements (higher tonnage and high quality) are business critical to the Council.
3. The contract requires a staff structure that ensure this is continually delivered to a consistent and high service and to work with Council colleagues as new materials are added in the future to the dry recycling streams
4. In common with other "pay to use" and specialist services that will require the highest standards of customer service for Garden Waste and Bulky, Clinical and Assisted collection services to be provided².
5. We can see from the 2015 / 2016 waste composition analysis there is a significant amount of value to the dry recycle that is being thrown away as landfill. The Waste Management Contract needs to be able to respond to this challenge and in a relatively quick period. Therefore there needs to have an agreed level of direct engagement between operational staff and residents going forward.
6. Back office staff and those involved with public engagement need to have customer service training to an agreed standard (which would hopefully fall in line with Serco's own aspirations in this area). We would stress that consistency is key for service delivery.
7. Recognising the authorities legal position, we need to be able to respond to the A23 cleansing arrangements, and that will require a new level of trained staff and appropriate modified vehicle to be able to organise , facilitate and implement all A23 works and similar higher speed road area.
8. Operational staff need to be capable of using standard industry equipment such as "In-Cab" technology and other mobile devices.
9. In the event of emergencies we want to be able to build on the excellent track record and to ensure this is further strengthened by encouraging joint working when the opportunity arises.
10. We need the future workforce that will meet the Council's future Waste Management team structure at all levels.

Fleet

11. The combination of narrow gauge RCV vehicles backed up with the difficult access RCV "Garwood" to provide the maximum flexibility to tackle the problems of tight rural roads urban development and the increasing access issues. Moving forward we believe that rear steer vehicles would similarly be advantageous.

12. With the Council's commitment to deliver improved customer service and maintain high levels of recycling activity and quality, we will wish to continue to develop "In Cab" technology based on the foundation work undertaken with Salesforce. We will wish to utilise GPS tracking of vehicles to enhance crew safety and improve customer service.
13. The continued flexibility to be able to deliver a range of services utilising the combined resources refuse / recycling and street services to facilitate service delivery needs to be maintained and anything suggestions how the fleet could be enhanced to provide more resilience but without significant round changes would be welcomed.
14. As been evidenced in growth in housing numbers over the last two contract years we have seen growth in house numbers rise from 600 per annum to 1500 per year with a sustained level likely to be 900 year on year.
15. Vehicles need to be able to handle the tonnages needed to reach and maintain 50% + recycling and composting rates and we believe that would necessitate at least another for the Garden waste vehicle.
16. With a "Safety First" contract we wish for future fleet to be provided with 360 degree CCTV cameras for the safety of the staff.
17. With the popularity of the existing garden waste service, it is suggested that Serco retains a number of the existing vehicle fleet vehicles with a view to help with the transition to a further extended garden waste service, if approved.