

FAREHAM

BOROUGH COUNCIL

AGENDA

STREETSCENE SCRUTINY PANEL

Date: Thursday, 28 January 2021

Time: 6.00 pm

Venue: Virtual Meeting - Microsoft Teams

Members:

Councillor Miss T G Harper (Chairman)

Councillor G Fazackarley (Vice-Chairman)

Councillors J E Butts

Mrs L E Clubley

J M Englefield

Mrs K Mandry

R H Price, JP

Deputies: Mrs T L Ellis

J S Forrest

L Keeble



1. Apologies for Absence

2. Minutes (Pages 5 - 8)

To confirm as a correct record the minutes of the meeting of the Streetscene Scrutiny Panel held on 15 October 2020.

3. Chairman's Announcements

4. Declarations of Interest and Disclosures of Advice or Directions

To receive any declarations of interest from members in accordance with Standing Orders and the Council's Code of Conduct and disclosures of advice or directions received from Group Leaders or Political Groups, in accordance with the Council's Constitution.

5. Deputations

To receive any deputations of which notice has been received.

6. Executive Business (Pages 9 - 10)

To consider any item of business dealt with by the Executive since the last meeting of the Panel, that falls under the remit of the Streetscene Portfolio. This will include any decisions taken by individual members during the same time period.

(1) Review of Garden Waste Collection Service (Pages 11 - 12)

7. Kerbside Glass Collection Study (Pages 13 - 24)

To consider a report by the Head of Streetscene which outlines the results of a study carried out in respect of a kerbside glass collection service in Fareham.

8. Refuse and Recycling Collection Modelling (Pages 25 - 34)

To consider a report by the Head of Streetscene which sets out several models for the collection of recycled materials that are in line with the requirements in the Government's Resources and Waste Strategy.

9. Streetscene Scrutiny Panel Priorities

To provide an opportunity for Members to consider the scrutiny priorities for the Streetscene Panel.



P GRIMWOOD
Chief Executive Officer

Civic Offices
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18 January 2021

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FAREHAM

BOROUGH COUNCIL

Minutes of the Streetscene Scrutiny Panel (to be confirmed at the next meeting)

Date: Thursday, 15 October 2020

Venue: Virtual Meeting via Microsoft Teams

PRESENT:

Councillor Miss T G Harper (Chairman)

Councillor G Fazackarley (Vice-Chairman)

Councillors: J E Butts, Mrs L E Clubley, Mrs K Mandry, R H Price, JP and L Keeble

**Also
Present:**



1. APOLOGIES FOR ABSENCE

Apologies for absence were put forward by Councillor L Keeble on behalf of Councillor J M Englefield who was unable to attend the meeting due to ongoing work commitments.

2. MINUTES

RESOLVED that the Minutes of the Streetscene Scrutiny Panel meeting held on 24 September 2020 be confirmed and signed as a correct record.

3. CHAIRMAN'S ANNOUNCEMENTS

There were no Chairman's announcements.

4. DECLARATIONS OF INTEREST AND DISCLOSURES OF ADVICE OR DIRECTIONS

There were no declarations of interest made at this meeting.

5. DEPUTATIONS

There were no deputations made at this meeting.

6. EXECUTIVE BUSINESS

(1) Covid-19 Public Spaces Recovery Plan

There were no comments or points for clarification on this item of Executive Business.

7. HEDGE CUTTING AND SPORTS PITCH RENOVATIONS

The Panel considered a report and supporting presentation in respect of the performance of the hedge cutting and sports pitch maintenance service. A copy of the presentation is attached to these minutes as Appendix A.

Members thanked officers for a very informative report and excellent presentation and commented that it was an excellent decision to bring the service back in house.

RESOLVED that the Streetscene Scrutiny Panel notes the content of the report.

8. COVID-19 LOCKDOWN - A REVIEW OF STREETSCENE SERVICES

The Panel considered a report and supporting presentation in respect of the challenges faced by the Streetscene service during the Covid-19 pandemic lockdown period. A copy of the presentation is attached to these minutes as Appendix B.

The Chairman asked that her personal thanks to the Streetscene team be placed on record for the way they have managed to maintain service levels across the Borough during these challenging times and under ever-changing circumstances. These thanks were echoed by several of the other members of the Panel.

RESOLVED that:

- (a) the Streetscene Scrutiny Panel notes the content of the report; and
- (b) thanks be placed on record to the Streetscene team for the way they have managed to maintain service levels across the Borough during these challenging times and under ever-changing circumstances.

9. STREETSCENE SCRUTINY PANEL PRIORITIES

Members considered the Scrutiny priorities for the Panel and agreed that as a follow up to the presentation given to Members at the Panel meeting held on 14 March 2019 in respect of the government's proposed Resources and Waste Strategy, follow up reports be brought to the next meeting which outline the results of a kerbside glass collection study and the results of the cost modelling of kerbside collection arrangements proposed in the Strategy.

Members also requested that Project Integra be invited to attend a future meeting of the Panel to explain how other Local Authorities in the area are moving forward with arrangements to implement the proposed Resources and Waste Strategy.

RESOLVED that the Streetscene Scrutiny Panel agrees that:

- (a) a report on the kerbside glass collection study be added to the agenda for the next Panel meeting;
- (b) a report on the Resources and Waste Strategy kerbside collection modelling costs be added to the agenda for the next Panel meeting; and
- (c) Project Integra be invited to attend a future meeting of the Panel to explain how other Local Authorities in the area are planning to implement the Resources and Waste Strategy.

(The meeting started at 6.02 pm
and ended at 7.29 pm).

FAREHAM

BOROUGH COUNCIL

Report to Streetscene Scrutiny Panel

Date **28 January 2021**

Report of: **Head of Streetscene**

Subject: **EXECUTIVE BUSINESS**

SUMMARY

One of the key functions of this Scrutiny Panel is to hold the Executive Portfolio Holder and Senior Officers to account in the delivery of the service and the Improvement Actions identified in the Council's Corporate Priorities and Corporate Vision.

Members are therefore invited to consider the items of business which fall under the remit of the Streetscene portfolio and have been dealt with by the Executive since the last meeting of the Panel. This also includes any decisions taken by individual Executive Members.

The relevant notices for decisions taken are attached for consideration.

RECOMMENDATION

It is recommended that Members consider the items of Business discharged by the Executive since the last meeting of the Panel and make any comments or raise any questions for clarification.

FAREHAM

BOROUGH COUNCIL

2020/21
Decision No.
2217

Record of Decision by Executive

Monday, 12 October 2020

Portfolio	Streetscene
Subject:	Review of the Garden Waste Collection Service
Report of:	Head of Streetscene
Corporate Priority:	Dynamic, prudent and progressive Council; Protect and enhance the environment

Purpose:

This report sets out the results of a review into the garden waste collection service.

The Council has provided a free garden waste collection service since 2005. This discretionary service costs approximately £336,000 a year to provide.

A recent decision taken by Hampshire County Council will mean that the Borough Council will no longer benefit from the recovery of costs for material recycling, from April 2021 onwards. This decision will place a financial burden on the Borough Council estimated at approximately £400,000 a year. To offset this additional cost, it will be necessary to introduce a charge for the garden waste collection service.

The proposals for the future are set out in the report and have the potential to ensure that the Garden Waste Service is self-funded. The proposals would also generate a significant new revenue stream for the Council which would help to offset the loss of material recycling income as well as contributing to the £4.3 million shortfall in the Council's medium-term financial plan.

Options Considered:

The Executive received a deputation in respect of this item from Mr Gareth Jones.

This item was brought forward on the agenda.

At the invitation of the Chairman, Councillors L Keeble and R H Price, JP addressed the Executive on this item.

The comments of the Streetscene Scrutiny Panel were taken into account in considering this item.

As recommendation.

Decision:

RESOLVED that the Executive agrees that:

- (a) the introduction of a new chargeable garden waste scheme, commencing on 01 February 2022, be approved;
- (b) an annual subscription of £50 for a 140-litre and £60 for a 240-litre wheeled bin be approved;
- (c) a bin purchase charge of £32 for a 140-litre and £34 for a 240-litre wheeled bin be approved;
- (d) a 50% early bird discount for a bin purchase be offered in year 1 of the scheme;
- (e) a budget of £296,400 for the procurement and delivery of wheeled bins, a marketing campaign and temporary administration support be approved; and
- (f) the Council will work with Hampshire County Council to further promote home composting of garden and food waste.

Reason:

The introduction of a chargeable garden waste service would help to offset the loss of income due to changes to the recovery of costs for material recycling and make a significant contribution to closing the £4.3 million gap in the Council's future finances.

Confirmed as a true record:

Councillor SDT Woodward (Executive Leader)

Monday, 12 October 2020

FAREHAM
BOROUGH COUNCIL

Report to
Streetscene Scrutiny Panel

Date **28 January 2021**

Report of: **Head of Streetscene**

Subject: **KERBSIDE GLASS COLLECTION STUDY**

SUMMARY

The members of the Panel are invited to scrutinise the report which outlines the results of study considering a kerbside glass collection service in Fareham.

RECOMMENDATION

It is recommended that the Panel scrutinises the information as set out in this report.

INTRODUCTION

1. In Fareham, glass makes up 5.5% of material placed in household residual waste bin. 1,067 tonnes or approximately 35% of household glass waste is not being recycled. If all this glass was sent for recycling it has the potential to improve Fareham's recycling rate by approximately 2%.
2. Fareham currently relies on bring banks to collect household glass for recycling while other local authorities in Hampshire, including Fareham's neighbouring authorities Eastleigh and Winchester, provide kerbside glass collections.
3. Kerbside glass collections provide a convenient service to residents which also increases the amount of glass diverted from the residual waste stream reducing the tonnages of waste sent to the Energy Recovery Facility (ERF).
4. This report provides a summary of two options, with estimated costs, for introducing a kerbside glass collection in Fareham.

BACKGROUND

5. The UK currently recycles around 50% of container glass, however this figure is small compared to other European countries. Glass bottles and jars are some of the most valuable recyclable materials as they are 100% recyclable and can be endlessly reprocessed with no loss of quality.
6. As part of wider cost saving measures, Hampshire County Council (HCC) have announced that they will remove glass banks from their Household Waste and Recycling Centres (HWRC) from April 2021.
7. Last year 348 tonnes of glass were received at Segensworth HWRC. The decision by HCC will make disposing of glass more inconvenient for some residents as they won't be able to recycle their glass when they visit the HWRC.
8. The proposed changes to arrangements for the collection of recyclables at the kerbside, as set out in the government's Resources and Waste Strategy, will impact on glass recycling in the future. The strategy outlines a core set of materials that waste collection authorities will have to collect at the kerbside and glass is listed as one of these materials.
9. The strategy also contains proposals for the introduction of a Deposit Return Scheme (DRS). The DRS offers a financial incentive for people to recycle by adding a small deposit to the price of a beverage when purchased which is then refunded to the consumer when they return the bottle. This would encourage people to recycle their glass bottles via the DRS scheme rather than using glass banks or a kerbside collection. Modelling undertaken suggests that this could reduce the capture of glass at the kerbside by up to 50%.

10. In conjunction with the Resources & Waste Strategy, Hampshire County Council are currently investigating the possibility of building a twin stream Materials Recovery Facility (MRF). Twin stream recycling collections involve collecting fibres (paper and card) separately to containers (plastics, metals and glass). If twin stream collections were introduced it would remove the need for a separate glass collection.
11. The future of recycling in Fareham will depend on both central government guidelines and the level of infrastructure that can be provided by Hampshire County Council. However, these proposals are still under review and are unlikely to be finalised until 2021/22.

CURRENT GLASS COLLECTIONS

12. Currently Fareham collects glass from bring banks located at 35 locations across the Borough. The frequency that bring banks are emptied depends on their location and can range from three times a week to fortnightly.
13. Glass is also collected from 25 blocks of flats and sheltered accommodation sites. They have communal glass bins which are collected at varying frequencies similarly to bring bank sites.
14. Collections are operated by one crew, made up of one driver, one loader and a designated top loading glass collection vehicle. The annual cost of providing these collections is £139,400.
15. For the financial year 2019/20, Fareham collected 1,869 tonnes of glass for recycling. This generated an income of £28,600 for the Council. The net cost of current glass collections is therefore, £110,800.
16. The Council currently receives recycling credits from Hampshire County Council to account for glass diverted from the residual waste stream. In 2019/20 this generated an income of £84,846. Due to Hampshire's cost saving measures, from April 2021 the Council will no longer receive these credits.

GLASS COLLECTIONS IN HAMPSHIRE

17. Glass is collected at the kerbside across eight local authorities in Hampshire. Four of these authorities collect once a month and the other four collect fortnightly. Fareham is among five Hampshire authorities that do not provide kerbside glass collection.
18. Under the current arrangement, Hampshire County Council distributes income generated from the sale of glass between waste collection authorities based on the tonnage they deliver to the Veolia facility.

19. Fareham receives the second lowest income from the sale of glass in Hampshire (£28,600 in 2019/20). The average annual income allocated to authorities in Hampshire, that provide a kerbside glass collection, is £55,127. This is higher than the £31,702 average for authorities that rely on bring banks. There is no significant difference between the average incomes of authorities that provide monthly or fortnightly kerbside collections.
20. The Waste Composition Analysis study conducted by Project Integra, illustrates the impact that glass collections have on the composition of residual waste. On average glass makes up 5.9% of waste placed in residual bins amongst Hampshire authorities that rely on glass bring banks. The average amongst authorities that provide fortnightly glass collections is 3.1% and for those that provide monthly collections is 2.9%.

FORTNIGHTLY GLASS COLLECTIONS

21. Within Hampshire, Hart, Basingstoke and Deane, Rushmoor and Southampton Councils all provide fortnightly kerbside glass collections.
22. The most common method of collection among these authorities is to collect glass simultaneously to dry mixed recycling. Split back Refuse Collection Vehicle (RCV) with two separate compartments with a 65/35 split are used to make collections. The smaller side is used for glass collections and the larger side for dry mixed recycling.
23. Glass is emptied from 40Ltr crates that residents present at the kerbside into a 240L slave bin which is kept on the back of the RCV. Hart and Basingstoke also allow residents to purchase 140L bins to store their glass which are loaded onto the same vehicle. In most properties with communal bins, glass bins are also provided.
24. All the Councils continue to collect glass from bring banks but from a reduced number of sites.
25. Although the Councils have not recorded an exact participation rate for their glass collection scheme, Hart, Basingstoke and Rushmoor Councils estimate it is between 30-40%.

MONTHLY GLASS COLLECTIONS

26. Within Hampshire, Winchester, East Hampshire, New Forest and Eastleigh Councils operate monthly kerbside glass collections.
27. Glass is collected in a very similar way to fortnightly collections with residents presenting 40Ltr crates at the kerbside for collection. These are then emptied into a 240Ltr bin which empties into a standard single bodied RCV.
28. The Councils continue to collect from bring banks but from a reduced number of sites.

FORTNIGHTLY KERBSIDE MODEL

29. The estimated cost of a fortnightly kerbside glass collection in Fareham has been modelled on the assumption that collections would cover all 51,362 households in the Borough. Storage boxes with 40 litre capacity would be issued to all residents.
30. Collections would be made using dedicated RCVs. Three would be required to service the whole Borough fortnightly. Glass would be loaded into 240Ltr bin attached to the bin lifts and then tipped into the vehicle periodically.
31. Residents would also be given the option to purchase a 140Ltr bin in which to store their glass. This would give residents additional capacity should they need it and would make loading large quantities of glass easier for crews.
32. Three crews would be needed to run the service across the Borough, made up of three drivers and six loaders as well as an additional Fitter in the Transport Repair Unit to service and maintain the vehicles.
33. The estimated cost of a kerbside collection, assuming the removal of several glass bring banks, is estimated at £397,956 per year. The cost of glass collection would therefore increase by £287,156 a year.
34. This cost does not include initial start-up expenses. Three Rotopress RCVs (£540,000) would be required as well as glass collection containers for every household, (£260,000).
35. The income generated from the sale of glass would be likely to increase to £50,444 based on the income of Fareham's benchmarking authorities who provide kerbside collections.
36. A summary of the cost implications is contained in Appendix A.

MONTHLY KERBSIDE MODEL

37. Monthly kerbside glass collections would be operated almost identically to fortnightly collections. Residents would have a 40Ltr box in which to store their glass and present monthly for collection. Two dedicated RCVs would be used to carry out collections by loading glass into a 240Ltr bin attached to the vehicle. There would likely be increased demand for 140Ltr glass bins if collections were monthly rather than fortnightly.
38. Two crews would be required to run the service across the Borough, made up of two drivers and four loaders. An additional Fitter would be required in the Transport Repair Unit.

39. The estimated cost of a monthly kerbside collection, assuming the removal of several glass bring banks, is estimated at £260,223 per year. The cost of glass collections would therefore increase by £149,423 a year.
40. The start-up costs are slightly lower for monthly collections as only two Rota Press RCVs (£360,000) would be required as well as glass collection containers for every household, (£260,000).
41. The income generated from the sale of glass would be likely to increase to £50,444, based on the income of Fareham's benchmarking authorities that provide a kerbside collection.
42. A summary of the cost implications is contained in Appendix A.

FORTNIGHTLY OR MONTHLY COLLECTIONS

43. Fortnightly collections provide a more convenient service to residents as glass would only have to be stored for two weeks instead of up to a month. Additionally, the weight of glass that residents and loaders would have to lift would be less. This would improve the safety and efficiency of the service for both residents and operatives.
44. The overall cost of fortnightly collections (£397,956) is significantly higher than the cost of providing monthly collections (£260,223).
45. The tonnages of glass collected by other Hampshire authorities does not appear to be affected by the frequency of kerbside collections. The average annual tonnage of glass collected amongst authorities that provide fortnightly kerbside glass collections is 3,561 and amongst authorities that provide monthly collections it is 3,649.
46. The average amount of glass in the residual waste stream is slightly less amongst authorities that provide a monthly glass collection, 2.9% compared to 3.1% for those who provide fortnightly collections.
47. Therefore, the performance of kerbside glass collections appears to be slightly better among authorities that provide monthly rather than fortnightly collections.
48. Both the monthly and fortnightly kerbside glass collection would increase carbon emissions and therefore increase the Councils carbon footprint although the impact would be less for monthly collection.

VEHICLES

49. There are various vehicle options to consider when designing a glass collection service. These include, standard RCVs, top-loading RCVs and Rotopress RCVs.

50. Standard RCVs can be purchased new for £170,000. When fitted with reinforced floors they can be used to collect glass. However, due to the compacting mechanisms of standard RCVS the payload is reduced to approximately 5 tonnes compared to the usual 11 tonnes.
51. Used RCVs could be considered, these can be purchased for approximately £80,000, however there is no certainty that second hand RCVs would be available as supply is unreliable under normal circumstances and especially so as a result of the Covid-19 pandemic.
52. Top loading RCVs are currently used to collect glass and could be used to operate kerbside collections. However, the current vehicles are very old and unreliable. While the top loading mechanism gives the vehicles a relatively high pay load of approximately nine tonnes, there are health and safety issues to consider. As glass bins are raised so high when lifted into these vehicles usually glass collection crews fence off the loading area when emptying glass bring banks however this would not be practical when operating a kerbside collection service.
53. Rotopress RCVs have cylindrical bodies with a rotating mechanism inside which constantly moves the contents of the vehicle backwards This gives them a high payload of 11 tonnes even when collecting glass. They can be purchased for £180,000.
54. The higher payload of Rotopress RCVs would make them the most efficient vehicle for glass collections as crews would have to make fewer trips to the glass tipping point before the vehicles reach capacity. This would help to reduce the carbon emissions.
55. The Rotopress vehicles have been trialled in Fareham collecting glass from bring bank sites. The trials were successful however the rotating mechanism of the vehicles means that the glass inside becomes powdery. During the trial this glass was accepted by the Veolia glass tipping facility however an investigation would be required to ensure that the facility would accept all Fareham's glass recycling in this form.
56. The noise levels of all the vehicles would need to be investigated further as glass collections would be operating close to residents' homes.

CONCLUSION

57. The introduction of kerbside glass collection would most likely increase the amount of glass Fareham would send for recycling and increase the income it receives for the sale of glass. It would provide a more convenient service for residents and has the potential to improve Fareham's recycling rate by up to 2%.
58. However, the cost of delivering a kerbside service is significantly higher than the current collection from bring banks. If a monthly kerbside collection was introduced the cost of glass collections would increase by £149,423 a year with start-up costs of up to £630,000.
59. Both the monthly and fortnightly kerbside glass collection would increase carbon emissions and therefore increase the Council's carbon footprint.
60. While the income from the sale of glass would increase (estimated £50,444) this would not offset the increase to the cost of service.
61. Glass recycling is likely to change significantly as a result of the government's Resources and Waste Strategy and changes to the recycling infrastructure provided by Hampshire County Council.

Appendices:

Appendix A - Cost Breakdown of Glass Collection Options

Appendix B – Comparison of Fareham's service compared to other Hampshire Authorities.

Background Papers:

None

Reference Papers:

None

Enquiries: For further information please contact Mark Bowler (Ext. 4420)

Appendix A

Cost of Glass Options

Breakdown Collection

	Current Bring Bank Collection			Fortnightly Kerbside Glass Collections			Monthly Kerbside Glass Collections		
Revenue									
Costs									
Drivers	x1	£33,000		x3	£99,000		x2	£66,000	
Loaders	x1	£26,500		x6	£159,400		x4	£106,000	
Fitter	x1	£38,400		x1	£38,400		x1	£38,400	
Overtime		£4,000			£12,000			£8,000	
Agency		£5,000	£100,600		£30,000	£319,700		£20,000	£213,133
TRU		£17,500			£56,500			£36,667	
Fuel Costs		£10,000			£43,500			£29,000	
Equipment		£5,000			£10,000			£6,600	
Total Expenditure		£139,400			£448,400			£310,667	
Income		£28,600			£50,444			£50,444	
Outcome		£110,800			£397,956			£260,223	

Appendix B

Comparison of Fareham's Service Compared to other Hampshire Authorities

	Fareham	Fortnightly Collections	Monthly Collections	Other authorities with no kerbside glass collection
Average Annual Tonnage	1,869	3,561	3,649	2,119
Average % glass in residual waste stream	5.5	3.1	2.9	5.9

FAREHAM

BOROUGH COUNCIL

Report to Streetscene Scrutiny Panel

Date **28 January 2021**

Report of: **Head of Streetscene**

Subject: **REFUSE & RECYCLING COLLECTION MODELLING**

SUMMARY

The report sets out several models for the collection of recycled materials that are in line with the requirements set out in the Government's Resources and Waste Strategy.

RECOMMENDATION

The Members of the Panel are invited to scrutinise the refuse and recycling collection models set out in the report.

INTRODUCTION

1. In December 2018, the UK Government released the 'Our Waste, Our Resources: A Strategy for England' (known as the Resources and Waste Strategy, or RaWS). RaWS sets out key objectives for dealing with waste at a national level and suggests ways in which these objectives might be achieved.
2. The focus of RaWS is moving towards a circular economy by maximising the value of resources and minimising waste, with the aim of achieving a 65% recycling rate by 2035.
3. RaWS covers a range of proposals including, Deposit Return Scheme (DRS), Extended Producer Responsibility (EPR) and Consistency in Household Recycling Collections.
4. A report was presented to the Streetscene Scrutiny Panel in March 2019 that outlined the Governments consultation on the Resources and Waste Strategy. Comments from the panel members were incorporated into a formal response from the Council on the four consultations published by DEFRA in relation to RaWS.
5. Consistency in Household Collections focuses on how municipal recycling in the UK can be modernised in order to improve the quantity and quality of household recycling collected at the kerbside.
6. The precise collection arrangements are still unknown, with further consultations expected summer 2021, but it is evident that co-mingled recycling collections, that currently operate in Fareham, won't deliver the ambitions outlined in RaWS.
7. Officers have considered alternative collection arrangements in line with the requirements set out in RaWS and prepared some high-level cost models. These are summarised in the report and give an indication of the potential implications for the future of waste and recycling collections in Fareham.

BACKGROUND

8. The Government's aim is to make household waste and recycling collections across the country consistent in order to make recycling simpler and easier for residents. There is a requirement for separate collections of dry recyclable materials to help improve the quality of recycling collected at the kerbside.
9. Fareham currently collects dry mixed recycling at the kerbside, as a co-mingled collection, which is then sorted at the Portsmouth MRF. Unfortunately, the MRF cannot take glass or plastic pots, tubs and trays.

10. RaWS specifies a core set of dry materials to be collected at the kerbside. Each recyclable waste stream must be collected separately unless it is not technically or economically feasible to do so or where there is no significant environmental benefit in doing so. These include:
 - Glass
 - Metal
 - Paper & card
 - Plastic (including pots, tubs and trays)
11. In addition, there is a requirement for a weekly collection of food waste and fortnightly collection of garden waste. RaWS suggests that the collection of garden waste could be free of charge.
12. In conjunction with the modelling of new collection arrangements, Hampshire County Council (HCC), as the Waste Disposal Authority (WDA), are investigating how it can provide appropriate infrastructure to meet the requirements of RaWS.
13. This includes proposals for a new food waste processing plant and a twin stream Materials Recovery Facility (MRF). Plans to create a new Super MRF that could sort co-mingled dry recyclable materials, including glass, has been shelved by HCC as it is not considered financially viable.
14. The final decision regarding waste and recycling collections in Fareham will be dependent on both central government guidelines and the level of infrastructure provided by Hampshire County Council.

COLLECTION MODELS

15. Integrated Skills Ltd (ISL) have been employed by the Council to assist with the collection round re-balancing exercise. The data compiled to create the new rounds has been used as the basis for modelling several collection options. These include:
 - Separate Weekly Food Waste
 - Twin Stream Dry Recycling (Containers & Fibres)
 - Kerbside Sort
 - Fortnightly Residual Waste
 - Fortnightly Garden Waste

Food Waste

16. Food waste can be collected as either:
 - A standalone service; includes two containers (caddies) per household – a smaller one for internal use and a larger one for external use. Liners can be used for the smaller internal caddy.

- Or mixed with garden waste; collected in a wheeled bin. This has implications on disposal infrastructure, meaning garden waste could not be sent for open windrow composting as with the current system. It also means that garden waste collection could no longer be charged for. This is not the option favoured in the RaWS.

Twin Stream

17. Twin stream recycling involves collecting dry mixed recycling in two separate streams:
 - Householders are provided with two containers for their dry recyclable materials.
 - The main intention is to keep glass and fibres (paper and card) separate, as glass can bind with the fibres and reduce their quality
 - Generally, the two streams of recyclables would be collected on the same vehicle in two separate compartments
 - Apart from the separation of the two streams, any further sorting required is completed post-collection (i.e. at a MRF).
18. Kerbside sort requires residents to separate their recycling into different containers for paper, cardboard, cans and plastics, glass and food. These are then manually loaded onto a specialised vehicle with various compartments for each recycling stream.
 - Multiple recycling containers of varying sizes are provided to residents. They could be a mix of boxes and bags
 - Materials are usually collected weekly on a single multi-compartment vehicle.
 - Some element of kerbside sorting may be required by the collection crew
 - When the material is offloaded from the vehicle, the waste transfer facility needs to be able to store multiple material streams separately while awaiting onward transport for reprocessing.
 - Note: a kerbside sort vehicle could also collect food waste.
19. The main benefits of twin stream and kerbside sort recycling, compared to co-mingled dry recycling collections, is they can help to achieve lower levels of contamination and a higher quality of recovered material.

MODELLING ASSUMPTIONS

20. The data collected from the round re-balancing exercise has been used to calculate round sizes for each of the collection options. The model then calculates the number of properties for each round, the time it takes for collections and the mileage covered. This then determines the number of collection vehicles required and the crew size. Costs are then applied for staff, fuel, maintenance and an annualised cost for purchasing the collection vehicles required.
21. The model then calculates a baseline operational cost for each collection option. These costs are indicative and do not include, tipping costs, crew absence cover, cost of purchasing containers or internal recharges. However, the high-level cost models do give an indication of the potential cost of introducing new collection arrangements.
22. The following provides an outline of the assumptions made when producing the different models.
23. **Households** - currently Fareham Borough Council collects waste and recycling from 51,362 properties.
24. **Participation and Set-out Rates**- Waste and recycling collections are made available to all households but not all will participate. Fareham's current recycling participation rate is approximately 75% and residual waste 93%. However, the model assumes 100% for recycling and residual waste, 80% for food waste and 40% for garden waste.
25. **Vehicle Costs** - The purchase cost of the vehicles are spread over a period of 10 years to account for depreciation. Therefore, the annual cost applied to the model is one tenth of the vehicle cost.
26. **Vehicle Maintenance** – An allocation has been made for the annual cost of maintenance and replacing tyres, based on the size of the vehicle.
27. **Fuel** – The annual mileage covered by the collection vehicles for each model has been multiplied by the market average cost of fuel.
28. **Tipping** - Currently Fareham delivers waste and recycling to the Veolia facilities in Portsmouth. Future infrastructure (such as food waste processing plants) maybe located elsewhere in Hampshire. The round times in the model are based on the time it takes for crews to travel to the Portsmouth facility.
29. **Crew Costs** – The cost includes basic salary and overheads for employing a driver and loader. No allowance has been made for overtime, training or absence cover.

MODELLING RESULTS

Weekly Food Waste Collection

30. The Waste Composition Analysis undertaken by Project Integra partnership (PI) in 2018 identified 7.5% of material in Fareham's residual waste stream could have been recycled via the kerbside recycling service. Food waste accounted for 35.4% of lost recyclable material with the majority being avoidable food waste (28.6%).
31. The food waste collection model is based on the main method of collecting food waste already in operation in many authorities across the UK. The RaWS requires a separate weekly collection in which householders present a 23-litre caddy for collection which is then loaded onto a dedicated 7.5T food waste vehicle.
32. Residents are supplied with a 7-litre caddy, to be stored in the kitchen, in which to collect food waste. The RaWS has stated that these collections will be provided to all households including flatted properties, who would empty their kitchen caddies into a larger communal food waste bin.
33. To carry out weekly food waste collections across the borough requires five 7.5T food waste vehicles, each with a crew of one driver and two loaders. The indicative baseline costs for delivering this service is £555k per annum.

Twin Stream Recycling Collection

34. Twin stream recycling collections would be carried out fortnightly and would replace the co-mingled recycling collection currently operated in Fareham. Households would present two containers, one containing fibres (paper and card) and another for containers (plastics, glass and metal). The type of container used can be standard wheelie bin, plastic box or large sack (sometimes favoured for paper and card).
35. The most efficient collection method is using split body RCVs where both recycling streams can be collected simultaneously. Split body RCVs have two compartments that keep the two recycling streams separated.
36. The alternative is to use conventional RCVs and have separate collections of fibres and containers. While this may be less efficient, for Fareham it could reduce the start-up costs as existing RCV's can be utilised rather than purchasing new split back vehicles.
37. A total of six split body RCVs would be required to service all the normal access properties in the Borough as well as a narrow access vehicle that would collect the two recycling streams separately by visiting these properties twice a week. Seven crews would be required to service all properties. The indicative baseline cost for twin stream recycling collection with a split back vehicle is £831k per annum.
38. Separate collections of fibres and containers would require eight vehicles as well as the narrow access vehicle that would collect the two recycling streams separately by visiting these properties twice a week as above. Eight crews would be required to

service all properties. The indicative baseline cost for twin stream recycling with open back RVC is £1.025m.

Kerbside Sort Collection

39. Kerbside Sort requires the greatest separation of recyclable materials by both residents and collection crews. While it is a more complex collection method it achieves the highest quality of recyclable materials with the lowest levels of contamination but does have a longer service time.
40. Residents are supplied with a variety of containers (often stackable crates) in which to store each recyclable material (paper, cardboard, plastics, metal, food waste and glass). These are presented weekly at the kerbside for collection and the crews then manually load each crate into the various compartments on a specialised RCV.
41. Kerbside Sort collections are operated weekly as food waste is collected at the same time as the dry recycling streams. Therefore, although residents are required to sort their recycling to a greater degree, they receive more collections and store their recycling for a shorter amount of time. Kerbside sort also removes the need for separate glass and food waste collections.
42. Fareham would require 12 specialised kerbside sort vehicles with one driver and two loaders to deliver a weekly collection service across the Borough. This includes one small vehicle to carry out the NAV round. The indicative baseline cost for kerbside sort collections is £1.268m per annum.

Residual Waste Collection

43. Residual waste collection has been modelled to provide a baseline cost to enable like for like comparisons between different collection arrangements. Residual waste requires five 26T RCV's with a crew of one driver and two loaders plus a smaller NAV vehicle with one driver and one loader. The indicative baseline cost for fortnightly residual collections is £661K per annum.

Garden Waste

44. The model for garden waste collection is based on a wheeled bin service with a participation rate of 40%. This requires three RCV's with one driver and one and a half loaders plus a NAV vehicle with one driver and one loader. The one and a half FTE reflects the need to have two loaders during the growing season when weights are high but only one in the winter when weights reduce.
45. Although the garden waste collection service in Fareham will be chargeable, no income has been included in the model which only accounts for the gross cost of the service. The indicative baseline cost for fortnightly garden waste collection is £395k per annum.

FINDINGS

46. The table in appendix A provides a summary of the different collection arrangements with the number of vehicles required and a base line cost for each recycling stream. A model for the current collection arrangements has been included in the table with the same methodology applied to provide a base line cost comparison. While this is not an accurate reflection of the current budget for providing the service, it does enable a high-level cost comparison to be made against the other collection arrangements.
47. It can be clearly seen from the total cost of all the new collections, that there is a substantial increase in the cost of providing alternative collection arrangements.
48. The addition of a weekly food waste collection requires an additional five vehicles and five crews and would cost £555K. The twin stream recycling, using a split back RCV, adds an additional £230k to the total cost of service with the twin stream collection using single back RCVs nearly double the cost of the existing co-mingled dry mixed recycling collection.
49. Kerbside sort collection has one of the highest costs of an individual service at £1,268,253 as it requires 12 dedicated vehicles with a driver and two loaders for each. However, because they combine food waste collections with dry recycling collections, the overall costs are slightly lower than twin stream recycling collections.

IMPLICATIONS

50. **Fleet Management** - The vehicle operator licence required to run the Council's fleet would need to be extended should any additional recycling collections be introduced. Currently the Council has capacity for 30 HGV's and have 30 vehicles listed on the licence already. Additional Fitters would need to be employed to service and repair the extra vehicles.
51. **Depot Capacity** - There is currently very limited capacity at the Broadcut Depot to accommodate the extra vehicles required to run the extended recycling collections. Therefore, consideration will need to be given to how and where vehicles and equipment are stored.
52. **Processing Facilities**- Kerbside sort and twin stream recycling collections will require new processing facilities as existing infrastructure is unable to deal with these collection arrangements. There are currently no food waste processing facilities for household food waste in Hampshire. Food waste collected by Eastleigh and Portsmouth is currently deposited in containers at the Portsmouth MRF, which serves as a transfer station, before being taken by road to a food processing plant in Dorset.
53. HCC are currently undertaking feasibility works for the provision of dry recycling and food processing facilities which will require significant capital investment to deliver.

Early indications are that infrastructure for Kerbside Sort materials requires a significant number of new bulking and transfer stations in Hampshire which is likely to be cost prohibitive.

54. **New Burdens** – The government has indicated that any additional funding required to deliver the new collection arrangements will be covered by new burdens funding. However, it is likely that there will be stringent criteria that will need to be met, particularly with the quality of the materials collected, in order to obtain funding to cover all the additional costs.

CONCLUSION

55. There is still uncertainty about the configuration of future collection arrangements, but the position should become clearer in the summer of 2021 when the government is due to publish the next round of consultations.
56. In the meantime, work is ongoing with Hampshire County Council and the Hampshire waste collection authorities, as part of the Project Integra Partnership. This work is considering a more detailed appraisal of different collection options, the feasibility of providing the required processing infrastructure and a review of the current partnership arrangements.
57. Although the cost modelling in the report is only high-level, it does give an indication of the extra funding and resources that will be required. It also illustrates the scale of change will be required and the implications for the Council and the residents of the Borough.

Appendices: Appendix A – Summary of Collection Model High Level Costs

Background papers: None

Reference papers: None

For further information on this report please contact Mark Bowler (Ext. 4420)

Appendix A

Summary of Collection Model High Level Costs

Material	Current Collections Baseline Cost		Twin Stream (Split back RCV)		Twin Stream (Single back RCV)		Kerbside Sort Recycling	
	Service Cost	Vehicles	Service Cost	Vehicles	Service Cost	Vehicles	Service Cost	Vehicles
Separate Food Waste	N/A		£555,000	5	£555,000	5	N/A	
Recycling	£661,000	5	£831,000	7	£1,025,000	8	£1,268,253	12
Residual Waste	£661,000	5	£661,000	5	£661,000	5	£661,000	5
Garden Waste	£395,000	3	£395,000	3	£395,000	3	£395,000	3
Glass Collection	£140,000	1	N/A		N/A		N/A	
Total Cost of Service	£1,857,000		£2,442,000		£2,636,000		£2,324,253	
Vehicles Required		14		20		21		20