

**Executive**

**24 October 2019**

Report of the Corporate Director of Economy and Place  
Portfolio of the Executive Member for Environment and Climate Change

## **Waste Collection Methodology**

### **Summary**

1. Decisions about waste collection methodology impact upon the specification of replacement waste vehicles, the replacement of which is imperative to the sustainability of the service.
2. This report sets out the current approach to waste collection methodology, the steps taken to increase the recycling rate and a proposed route to undertake a study to look at models to increase the recycling rate.

### **Recommendations**

3. To approve Option 3:  
to continue with source separated recycling as per the current model and monitor the impact of increasing the range of plastics collected.
4. To commission a review of council owned recycling bring banks to include materials not collected at the door step.
5. To commission a more fundamental review of the cost impact of changing collection methodology for all materials.
6. To commence preparation of a procurement process based on a new waste fleet with a future report to Executive to approve the Vehicle and Service specification.

Reason: This approach ensures that the council can improve the resilience of the waste services by replacing a life expired fleet whilst exploring the environmental, budget and partner implications of changing the collection methodology.

## **Background**

7. The Council's approach to waste and recycling is to encourage reduction in the amount of material that enters the waste and recycling streams, and to encourage reuse.
8. If material must enter the waste and recycling streams then the Council's approach is to minimise the waste going to landfill and maximise the amount of high quality recyclates collected.
9. In recent years the Council has taken significant steps to reduce the amount of waste going to landfill with the opening of the Allerton Park Site.
10. The site takes all the residual waste and recovers materials before incineration. It extracts plastics and metals for onward recycling and all biodegradable materials (e.g. food waste, nappies, etc.) are removed and are put into an anaerobic digester.
11. The gas created in the anaerobic digester and the incineration process are harnessed to produce electricity, which powers the equivalent of 40,000 homes.
12. Due to the nature of the materials in the anaerobic digester (nappies) it cannot be used as a fertiliser or for compost, but it retains calorific value and is therefore burnt adding to the electricity production.
13. All the green waste collected by the Council is taken to Harewood Whin and is turned into a compost that is a product that can be used in Horticulture or Agriculture.
14. The Council currently collects the vast majority of door step recycling as source separated except for those rounds with very narrow streets or with communal collections. To collect from these narrow streets separately would require three vehicles per property to keep it source separated. The recyclate that is collected as comingled or mixed from these streets is still recycled as it is separated after collection in a Materials Recovery Facility.
15. It should be noted that co-mingling is not recommended across the city see paragraphs 16 and 17 below.

16. The Council collects glass, paper and cardboard and some plastics through its door step recycling. The plastics collected have been limited to plastic bottles and not determined by plastic types.
17. Recycling can be collected in different ways. Some authorities collect all door step recycling as mixed and tend to do so in a single large container often a wheeled bin however, this then requires separation after the collection and the poor quality of material placed in the single containers can result in materials with low value which are then often shipped around the world as low value commodities.
18. The advantage of source separated recycling is that resident maintain the quality of materials by separating them into smaller containers and therefore does not require separation in a factory setting and results in a high quality product which is recycled within the UK or EU (which has the same environmental standards as the UK). The value of sale of the high quality product reduces the cost of the service to residents.
19. As a result of source separating the Council has confidence that the material collected is recycled in an economical and environmentally responsible way.

## **Plastics**

20. The Council is keen to explore ways to increase the amount of recycling. This report therefore specifically looks at increasing the amount of plastic and food waste that can be collected.
21. There are a number of different plastics used within the packaging industry in numerous combinations.
22. All plastic can be recycled. However, some plastic are very easy and cost effective to recycle whilst others are not. Plastics also cannot be mixed for recycling hence the different codes.
23. The complexity of plastic recycling is evidenced by the move across the world to 7 symbols to indicate the type of material and one of these 7 is 'other'. In essence this is the challenge of plastic recycling.
24. The Council has historically asked residents to only present plastic bottles in their recycling boxes. /Having worked with its supply chain the Council communications on recycling have changed this summer and as we can now collect any plastic with the following symbols. This

means that some of the plastics not previously accepted can be e.g. some of the soft fruit packaging.



25. A further increase in accepting a wider range of plastic would either require a separate box or, accepting that the plastic would be treated as a mixed product collected in one box. This would devalue the product and it would risk becoming a worldwide commodity moving generally to low wage economies whilst costing the Council significantly more both in collection cost and lost income from the devalued product. The full impact of this would require a detailed further study.
26. The Council and private providers currently have recycling bring bank facilities across the city. For those controlled by the Council there could be a shift to these being more focused on recycling materials that the Council does not collect kerbside.

## Food Waste

27. The sheer amount of food waste the country produces is a national challenge. This area of policy has the added complexity of being linked to food poverty, obesity and healthy diets
28. The government has consulted on a number of issues focusing around plastic and food recycling. Previously Government gave an indication that any mandating of collection methodologies would be funded but with significant political uncertainty at this time there is no clarity on the Governments position on this matter.
29. The recycling potential of Food waste in the residual stream is currently recovered at Allerton Park as all organic matter is processed through the Anaerobic Digester gas captured and then the residue is incinerated with energy recovery and is an integral part of the multi million pound 27 year waste disposal contract. If food waste were to be separately collected across York, a separate food waste collection would still go through an anaerobic digester process, but it could potentially be used as a compost material.

30. A separate food waste collection service would place extra fleet requirements on the Council. For example a food waste could be collected in a smaller sealed vehicle due to its liquid nature. A report undertaken by WRAP on Food Waste Collections (see annex A) showed that each household on a fortnightly collected generated 2.5kg per week. Based on this that would equate to 130kg per household per year, across 90946 properties would equate to c12k tonnes of food waste collected across the city. Most of which will currently be recovered by the process currently in place at Allerton Park.
31. However, it should be noted that this report is now ten years out of date and public attitudes to food waste recycling have changed in this time.
32. It is possible to collect food waste with green waste but this would require a different composting model to the one currently used by the Council and would require significant capital investment.
33. Decisions about waste collection methodology will impact upon the specification of replacement waste vehicles. The current vehicle fleet needs replacement and therefore decisions about collection methodology need to be determined in order to ensure the replacement fleet appropriately meets the changing recycling requirements.

## **Consultation**

34. The Council works closely with North Yorkshire County Council and in the development of any plans for changes to collections would consult with both North Yorkshire County Council and Amey who run Allerton Park. It would also speak with Yorwaste, the company owned by City of York Council and North Yorkshire County Council, which currently provides a number of waste services to the Council.

## **Options**

### **Option 1**

35. To continue with source separated recycling as per the current model and monitor the impact of increasing the range of plastics collected.
36. To commission a review of recycling bring banks to stop collecting the same materials as door step collection, but focus on materials not collected at the door step.

37. To await the government's response to the consultation about mandated and funded food waste collections and continue to process food waste as part of the residual waste treatment at Allerton Park.

### **Option 2**

38. To commission a more fundamental review of the cost impact of changing collection methodology for all materials before purchasing a new fleet.

### **Option 3**

39. A combination of Options 1 and 2. Commit to option 1 in terms of procuring a new vehicle fleet, but commission option 2 to inform future policy and decision making specifically in respect of food waste that could be accommodate in separate vehicles and would therefore not impact upon the fleet procurement process.

### **Analysis**

40. Option 1 allows a new vehicle fleet to be purchased thus improving the resilience and reliability of the current fleet.
41. Option 1 would ensure that residents have opportunities for recycling all products.
42. Option 2 would enable the Council to understand in detail the different options for food waste collection and a wider range of materials. However, the impact is much wider ranging in that it would delay fleet purchasing and has the potential to require change and renegotiation of current contracts with Yorwaste, North Yorkshire County Council and Amey.
43. Option 3 is a pragmatic option, in that it allows the main vehicle procurement scoping to proceed and the decision as to introduce food waste collections and how existing services could be expanded would be subject of further reports.

### **Council Plan**

44. This report helps ensure the Council achieve its emerging Council Plan currently being consulted upon by delivering a greener cleaner city.

## Implications

45. **Financial** – The supplementary budget proposals agreed by Council in July 2019 provided £65k funding in 2019/20 and £100k ongoing budget to invest in improving waste service including a review of waste collection. The cost of the proposed reviews will be funded from this investment.
46. The current recycling arrangements are that Yorwaste process the recyclates at the Harewood Whin Material Recycling Facility and sell the products to market. The current gross cost of recycling is £725k however this is offset by the recyclate sales that total c£600k. Any significant changes to the materials collected or methodology will impact these costs and revenues.
47. The fleet replacement costs will be greater than the current budget and these additional costs will need to be incorporated into future capital and revenue budget decisions. This will be the subject of future reports.
48. **Equalities** – There are no equalities impacts, any change in service as a result of the studies would require a full impact assessment.
49. **Legal** – As a unitary authority the Council is obliged by law to provide domestic waste collections to households and is responsible for its disposal this is laid out in the Environmental Protection Act 1990. Current EU and UK laws are driving local authorities to meet higher recycling and composting targets.

Any potential changes to current contracts for service will need to be dealt with in accordance with the Council's Contract Procedure Rules and in accordance with the Public Contracts Regulations 2015.

50. **Crime and Disorder** – No impact.
51. **Information Technology (IT)** – There are no IT implications.
52. **Property** – There are no property implications.
53. **Other** – There are no other implications.

## Risk Management

54. The Council could invest in collecting new streams which the government has indicated it may mandate and then fund.

55. The Council could invest in vehicles which it then wants to change in the future.
56. The Council could continue to run the existing fleet of vehicles whilst it considers new collection methodologies, but the fleet will deteriorate and impact upon the reliability of the service.

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**Report**  **Date** 11/10/2019  
**Approved**

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**Wards Affected:** List wards or tick box to indicate all

**All**

**For further information please contact the author of the report**

## Annexes

Annex A - Evaluation of the WRAP Separate Food Waste Collection Trials

## List of Abbreviations Used in this Report