

19th October 2017

Twin Stream Recycling Collections

Ward(s) All

Portfolios: Cllr C Jones – Clean and Green

1.0 Executive Summary

- 1.1 In October 2016 Walsall Council's Cabinet approved the introduction of 'Twin Stream' Recycling, subject to public consultation and a further detailed review being undertaken. This would make a saving in the region of £150,000.
- 1.2 The saving is linked to the introduction of a charge for garden waste collections as brown bins would be utilised as the extra bin required for the segregation of recyclable materials. Residents would be required to place glass, cans and plastics into the green bins, and paper and card into the brown bins.
- 1.3 The value of the materials collected from co-mingled recycling schemes has decreased. Disposing of the material we collect is now a cost to the Authority, whereas previously it was a source of income. In 2015 it was identified that good quality material collected from a twin stream collection scheme may potentially have a higher value and a budget saving of £150 000 was proposed based on costs available at the time.
- 1.4 A detailed review of the proposal has now been undertaken. The review has updated previous cost modelling taking into account updated forecasts of the potential tonnes collected and resource requirements following the introduction of alternate weekly collections. It has also included a soft market testing exercise to update potential outlets and the current market for the recycle.
- 1.5 The review has concluded that with these updated assumptions, the potential for savings is very limited, and there are risks that changing the collection service may incur additional costs through an unfavourable procurement outcome.
- 1.6 Any change in the refuse collection service will have an impact on residents. Residents would be required to have up to four bins and the change as to what material should be put in each bin could cause confusion and problems with contamination due to the wrong items being put in bins.

2.0 Reason for scrutiny

2.1 Overview and Scrutiny Committee met on 7th September 2017 and considered a report on Chargeable Garden Waste Collections. One of the recommendations made was;

- A report should be considered at the next meeting regarding twin streaming and brown bin collection proposals. The report should include details on the outcome of the consultation and an analysis of issues and potential alternative ideas that could be implemented.

2,2 This report looks at the twin stream recycling proposal. There is a separate report on garden waste charging on this agenda.

3.0 Recommendations

3.1 To note that the potential for savings from twin stream recycling is now very limited due to changes in the market and alternative savings have been identified.

3.2 To note there are significant risks around an unfavourable procurement for twin stream recycling incurring additional costs.

4.0 Report Detail

4.1 Background

4.1.1 Modelling of a twin stream recycling collection service was originally undertaken in 2015 and showed a cost differential between the options of continuing with the existing fortnightly co-mingled recycling collections and collecting recycling in two streams on a four weekly basis. This cost differential was based on the price per tonne expected for co-mingled and twin stream materials.

4.1.2 Co-mingled recycling is the collection of dry mixed recyclables including glass bottles and jars, metal drinks and food cans, card packaging paper, plastic bottles and containers in the same bin.

4.1.3 Twin Stream recycling would generate two separate material streams, one of paper and card, one of glass, metal and plastics.

4.1.4 Under the four weekly scheme paper and card would be collected in week 1 and plastic, glass and cans would be collected in week 3, meaning each recycling bin would be emptied once every four weeks. There would be no overall reduction in the capacity residents have to dispose of recyclable waste.

- 4.1.5 The scheme relies on being able to utilise brown garden waste bins to collect one of the two material streams. If brown bins could not be used new bins would have to be purchased and issued to residents. There would be a considerable cost attached to this.
- 4.1.6 At the time it was estimated changing recycling collections would make a saving in the region of £150 000 based on the price per tonne that could be achieved for collecting material via a twin stream service. However, this assumption contained a degree of uncertainty
- 4.1.7 In order to understand the potential level of savings achievable by changing from co-mingled to twin stream recycling collections a further detailed review has now been undertaken and the two options have been re-modelled based on current information available and considering the following;
- Waste tonnage forecasting
 - Resource assessment
 - Soft market testing
 - Updating the cost modelling

4.2 Waste tonnage forecasting

- 4.2.1 In October 2016 the refuse collection service was changed to collect grey residual waste bins every other week rather than weekly. As expected this has had an effect on the waste collected at the kerbside. Previous estimates for twin stream recycling were based on data from a weekly residual waste collection service, adjusted for the expected change. Alternate weekly grey bin collections have been operating for several months now and better data is available on which to base calculations.
- 4.2.2 Recent tonnage and composition data, obtained since the changes to grey bin collections, has been used to revise the estimates of how much tonnage of dry recyclate would be captured via co-mingled and twin stream collections.
- 4.2.3 The recent data appears to indicate a reduction in the residual waste collected and a reduction in the total amount of waste collected, while the increase in dry recycling tonnes due to the change in collection system may be lower than previously modelled. The cost model has been updated based on this revised projection.

4.3 Resource assessment

- 4.3.1 There are a few key differences between the previous resources modelled and what would now be operated. An update to the assessment of the resources needed to deliver each option was required to reflect the change to residual collections, the re-design of collection rounds and the introduction of a new shift pattern for refuse collectors due to commence in November 2017.

4.3.2 Currently recycling is collected first and residual waste is collected later in the day, by the same vehicle and collection crew. The assumption that the four weekly twin stream collections could be done in the same way and with the same resources as the current fortnightly co-mingled collections was tested. This was found to be true and no additional vehicles would be required.

4.3.3 The predicted volume of materials collected in the two recycling bins was checked to ensure that there would not be a significant imbalance. Based on the composition of the dry recycling the modelling suggests that the volume of plastic, glass and cans that would be collected is slightly higher than the volume of paper and card. However, the difference is not significant enough to result in more vehicles being required in one week than in the other and no additional vehicles would be needed.

4.4 Soft market testing

4.4.1 An updated understanding of the potential prices and current market for twin stream material was required. This was tested by conducting interviews with potential offtakers in a soft market testing exercise.

4.4.2 The soft market testing process found that;

- There were limited potential bidders for the plastic, glass and cans stream with a degree of keenness for the material.
- There are a number of potential buyers for mixed papers, although single-stream Material Recovery Facility (MRF) operators would not be competitive.
- Single-stream MRF operators are unlikely to offer an attractive price for either stream

4.5 Updated cost modelling

4.5.1 Updated waste forecasts, resource requirements and materials prices obtained via the soft market testing have been used to refresh the modelling of the two options and produce a revised assessment of the potential for savings. The cost modelling has also included a cost to communicate the changes to residents.

4.5.2 The updated results now show a savings estimate of only £4k. It is far from certain that the higher values for twin stream materials could be obtained and large cost savings appear unlikely. This is mainly due to the relative change in the gate fees between single stream and twin stream services.

4.5.3 A further reason for the reduction in cost savings is the revised recycling tonnage estimate. Combining the impact of a lower recycling yield than previously modelled with the change in gate fees drastically reduces any saving that may be made.

4.6 Risks and uncertainties

4.6.1 The soft market testing and cost modelling that has been undertaken contains a level of risk and uncertainty. This primarily concerns the amount of dry recycling that may be collected and what the material is worth from a twin stream service compared to a co-mingled service.

4.6.2 There is a degree of risk with regards to the data collected in the soft market test due to the limited number of respondents.

4.6.3 Due to the small number of off takers for twin stream material there is a significant risk of a non-competitive tender and the prices obtained being at the less favourable end of the soft market testing results.

4.6.4 In summary, updating the cost modelling has found that the potential for savings is very limited. There are significant risks that switching to a twin stream dry recycling service may incur additional costs through an unfavourable procurement outcome. Moreover, the council would be exposed to these risks each time the contract for dry recycle needs to be procured.

4.6.5 Additionally, when using multiple bins there is the potential contamination could increase in all material streams and have a negative impact on gate fees.

4.7 Consultation

4.7.1 Following the decision by Cabinet in October 2016, public consultation on the introduction of twin stream recycling collections took place. Feedback was gathered through the generic budget consultation process and residents could have their say via an online survey, in writing or via email. Respondents were generally against the proposal although few responses (6) were received.

5.0 Legal Considerations

5.1 As a Unitary Authority, Walsall Council has the responsibility for waste collection and waste disposal. The council is both the Waste Collection Authority (WCA) and Waste Disposal Authority (WDA) and has a number of statutory obligations. These include:

- A duty under Section 45 of the Environmental Protection Act (EPA) 1990 to collect household waste and, if requested, commercial waste within Walsall.

- Responsibility under Section 48 of the EPA 1990 to arrange and provide places for the disposal of waste collected by Walsall Council within its function as a WCA.

5.2 The Waste Framework Directive (WFD) and Waste (England and Wales) (Amendment) Regulations 2012 requires that from 1 January 2015, waste collection authorities must collect waste paper, metal, plastic and glass separately. It also imposes a duty on waste collection authorities, from that date, when making arrangements for the collection of such waste, to ensure that those arrangements are by way of separate collection.

5.3 Co-mingled or twin stream recycling collections have been considered compliant with the WFD providing it can be evidenced that separate collections are not technically, environmentally and economically practicable (TEEP) and a high quality recyclate can still be achieved.

5.4 The Waste Framework Directive states that the UK must recycle 50% of household waste by 2020,

6.0 Citizen Impact

6.1 This service affects over 90% of households in the borough and any change in the service will have an impact on residents.

6.2 Residents would be required to store up to four bins at their property. This may cause problems for some residents and in areas of terraced housing may result in more bins being left on the street between collections.

6.3 The change as to what material should be put in each bin could cause confusion in the short term. There is the potential people may continue to use the bins in the same way that they currently do.

6.4 Any inappropriate use of bins would increase contamination levels in all material streams and have a negative impact on gate fees.

7.0 Environmental Impact

7.1 Environmental Impact Assessment would be determined, if twin stream recycling was introduced.

8.0 Performance Management


8.1 The Waste Framework Directive sets a target for local authorities to recycle 50% of household waste by 2020. Walsall currently recycles circa 43% of household waste.

9.0 Equality Implications

- 9.1 If twin stream recycling and chargeable garden waste collections were implemented the existing Equality Impact Assessments would be reviewed and updated.

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