

EAST HERTS COUNCIL

ENVIRONMENT SCRUTINY COMMITTEE – 26 FEBRUARY 2013  
THE EXECUTIVE – 5 MARCH 2013

REPORT BY THE EXECUTIVE MEMBER  
FOR COMMUNITY SAFETY AND ENVIRONMENT

RECYCLING OPTIONS (REMOVING CARDBOARD FROM THE  
ORGANIC WASTE STREAM)

WARD(S) AFFECTED: ALL

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**Purpose/Summary of Report**

- To provide an update on the costs of options for removing card from the organic stream and how this presents an opportunity to increase recycling performance in the future.

<b><u>RECOMMENDATIONS FOR ENVIRONMENT SCRUTINY:</u> That:</b>	
<b>(A)</b>	<b>the options and costs for addressing the issue with cardboard collection and increasing recycling collections in the context of Council’s environmental and financial objectives, be scrutinised and comments be forwarded to the Executive.</b>
<b><u>RECOMMENDATIONS FOR THE EXECUTIVE:</u> That:</b>	
<b>(A)</b>	<b>the comments of Environment Scrutiny Committee be considered;</b>
<b>(B)</b>	<b>the options and costs for addressing the issue with cardboard collection and increasing recycling collections in the context of Council’s environmental and financial objectives be considered;</b>
<b>(C)</b>	<b>Council be recommended to adopt Option 5 (part-commingled collections) and make a provision in the Capital Programme for 2013/14 of £2,075,000 and a one off Revenue Supplementary Estimate of £416,050 for 2013/14 only to allow for necessary changes to recycling services;</b>

	and
(D)	<b>Council be recommended to approve an appropriation of £280,000 (or balance held on the waste contract reserve at 31 March 2013) in 2013/14 in order to part fund the Supplementary Estimate of £416,050 referred to in (C) above.</b>
<b><u>RECOMMENDATIONS FOR COUNCIL:</u> That:</b>	
(A)	<b>a provision in the Capital Programme for 2013/14 of £2,075,000 and a one off Revenue Supplementary Estimate of £416,050 for 2013/14 only to allow for necessary changes to recycling services, be approved; and</b>
(B)	<b>an appropriation of £280,000 (or balance held on the waste contract reserve at 31 March 2013) in 2013/14 in order to part fund the Supplementary Estimate of £416,050 referred to in (A) above, be approved.</b>

## 1.0 Background

- 1.1 A detailed report was submitted to the Executive on 4 December 2012. This explained the background to organic waste collection services in Hertfordshire and in East Herts. It advised of the current problems being experienced at 'In-Vessel' composting sites with the treatment of cardboard collected with food and garden waste and provided some possible options for addressing the situation.
- 1.2 The challenge faces all Hertfordshire District Councils and many other local authorities, nationally, that collect card mixed with organic waste.
- 1.3 In summary, the growth in card as a retail packaging material, its changing composition and tightening regulatory standards for compost has resulted in a risk of compost treatment plants failing. The issues have been extensively investigated by the Hertfordshire Waste Partnership, which has recommended to its members to prepare plans for removal of the card from the organic waste stream. All Hertfordshire district councils are working on plans to remove card. Each has different collection arrangements and there is no single right approach.

- 1.4 In East Herts this means advising residents not to place cardboard in their brown wheeled bins.
- 1.5 While this is a serious challenge, it also presents an opportunity to consider whether services can be modified to increase the amount of material that residents recycle and further reduce the amount sent to landfill.
- 2.0 Report
- 2.1 The main options for addressing the issue were presented in the report to Executive on 4 December and these are repeated below. At that meeting officers were instructed to bring forward detailed costs for each option once these were available. It was important to wait until the Herts Waste Partnership had completed a procurement exercise to let a consortium contract for the sale of 'co-mingled' recyclable material as this impacts upon costs and options for the Council. This contract is due to be awarded on 5<sup>th</sup> March 2013.
- 2.2 The options presented below now include the full cost implications of change.

### **Option 1 - 'Do Nothing'**

- 2.3 The Council could choose to 'do nothing'. However, there is a real possibility that IVC plants will not be able to continue processing brown bin organic waste mixed with card. If there were an unplanned requirement to immediately remove card from brown bins this would take some months to achieve. It would take time to communicate the change to residents and card would continue to be placed in the brown bin until all residents understood and complied with the request. This might mean sending all brown bin material to landfill until the level of card fell to an acceptable level. Clearly this would be highly undesirable and generate additional disposal costs for the tax payer of around £0.5m per annum. It would also wipe out the payments this Council receives from the County Council for diverting waste from landfill under the 'Alternative Financial Model' (AFM), a sum in excess of £300,000 per annum. Perhaps more important would be the reputational damage to the Council and loss of residents confidence in recycling schemes.

### **Option 2 - Cardboard collected in the Black Bin**

- 2.4 The Council could introduce a planned programme of change asking residents to place their card in the black bin. For some residents this will not be a problem as their bin is not currently full. For others, particularly households that produce a great deal of card this could cause bin capacity problems. The Council will not collect overflowing bins for health and safety reasons and residents with excess materials would need to take them to the nearest Household Waste Recycling Centre.
- 2.5 There would be a small increase in costs to the County Council from the extra cardboard waste sent to landfill of perhaps £50,000 per annum with a similar loss of income to this Council under the AFM. There might be a need for additional expenditure on media and promotion, depending on how quickly residents received and understood the message. This option effectively represents a reduction in recycling service provision and there would be a small reduction in the Council's recycling rate. Some residents may also be disappointed that material previously sent for 'recycling' is going to landfill.
- 2.6 There would be no impact on collection contract costs for both the above options.

### **Option 3 - Cardboard Bring Banks**

- 2.7 Alongside asking residents not to place cardboard in the brown bin, the Council could convert its existing network of paper bring banks to allow the inclusion of cardboard. This would result in a net cost around £15,000 per annum. However, for convenience reasons some residents would not wish to use these sites and of the 1,100 to 1,500 tonnes of card collected in the brown bin, it is estimated that only 200 – 400 tonnes would find its way to banks. The remainder would end up in the black bin and be sent to landfill. County Council costs and AFM income implications would be about a quarter of those mentioned in Option 2.

### **Option 4 - Collecting card with dry recycling – Kerbside Sort**

- 2.8 One option is to change the Council's dry recycling (paper, cans, glass, plastics) collection services to allow card to be included with these materials. While this might seem an obvious solution there are factors that fundamentally impact upon the operational arrangements and costs of adding card. These are as follows:
- Material prices. The effect that mixing material has on the sale price and therefore income. The Council is currently receiving approximately £1,050,300 per annum from 'recycling credits'

and the sale of materials and this makes a significant contribution to service costs.

- Vehicle configuration and collection capacity. How materials are collected, in which container, their volume, weight and how they are loaded to the vehicle affects the number and type of vehicle needed and the number of staff to operate them.

### *Material Prices*

- 2.9 The sale of recyclable material is made under consortium contracts managed through the Herts Waste Partnership. Around 4,200 tonnes of paper is collected each year contributing approximately 63% of the Council's income from recyclables. Mixing in cardboard with paper would result in a significant reduction in the price paid by the reprocessing contractor (around £49 per tonne less) and therefore a loss of income of c.£150,000 per annum.
- 2.10 Mixing card with other recyclables (cans, plastic and glass) also reduces the value but by a lesser amount depending upon the mix. The Partnership has not yet awarded a new contract for 'commingled' materials however, prices received indicate a loss of around £42,000 could be expected over current arrangements – assuming the level of recycling collected stayed the same.
- 2.11 This means that it is better to keep paper separate rather than mix it with other materials to obtain the best prices and level of income.

### *Vehicle Configuration and Capacity*

- 2.12 The Council's contractor is Veolia Environmental Services Ltd, which owns and provides collection vehicles. The recycling 'Kerbsiders' have three compartments (separated by internal doors). Crews separate materials on collection between paper, glass and cans/plastics. The latter are sorted by the re-processing contractor into different metal and plastic types. This kind of collection system is known as '*kerbside sorting*'.
- 2.13 The Council's vehicles are operating close to their capacity and adding cardboard would result in a need for additional contractor resources at a cost of £140,000 per annum.
- 2.14 A key limitation of collecting cardboard with existing kerbsider vehicles is that these are not designed to take large cardboard boxes, even when flattened and if cardboard were added

residents would need to break it up to fit in the existing recycling collection boxes. Attempting to load large sheets of card would result in blockages in the vehicle and material blowing away on windy days.

- 2.15 If the 'kerbside sort' option were chosen, card and paper banks could be provided as described in section 2.7 above. This would provide an outlet for larger cardboard boxes in addition to the Household Waste Recycling Centres operated by the County Council.
- 2.16 Allowing for adjustments to income for material sales and prices, the cost of collecting card with dry recyclables, using existing vehicles is between £180,000 and £270,000 per annum, depending upon which material the card was mixed with. Taking the lower cost option, mixing card with glass, cans and plastics, the financial implications are shown in table 1 below. A one off cost of £73,000 would be required in the first year as provision for media and publicity to inform residents of the changes and employing temporary recycling advisors. Costs for 2013/14 assume the new service commences in November 2013.

Table 1: Collection of card with dry recycling (Kerbside Sort)

	2013/14	2014/15	2015/16
<b>Capital</b>			
<u>One-off capital costs</u>			
Additional recycling boxes	40,000	-	-
Total Impact on EHDC	<u>40,000</u>	<u>-</u>	<u>-</u>
<b>Revenue Impact</b>			
Additional operating costs	58,300	140,000	140,000
One off start up costs	73,000		
Ongoing annual cost of providing paper & card banks	6,250	15,000	15,000
Revenue cost from loss of investment interest	650	1,600	1,600
Income			
Additional income from recycling credits	(19,450)	(46,700)	(46,700)
Loss of income from mixing material	17,900	42,900	42,900
	<u>136,650</u>	<u>152,800</u>	<u>152,800</u>
<b>Funded by</b>			
Budgeted Service capacity in MTFP *	(200,000)	(100,000)	(100,000)
Use of reserve created in 2012/13**	(280,000)	-	-

-343,350

52,800

52,800

\* Savings of £100k are identified in 14/15 MTFP

\*\* See para 2.36 for details

## **Option 5 - Collecting card with dry recycling – Commingled**

- 2.17 This option represents a significant change to the way recyclable materials are presented by residents and collected by the Council. In preparing this option officers have sought to recognise the Council's objectives of providing high quality recycling services to residents which represent good value for money while improving recycling performance, reducing waste sent to landfill and generating greater environmental benefits.
- 2.18 The service has worked in partnership with its contractor to develop proposals which represent the most cost effective way of achieving these objectives, should the Council wish to do so. A range of alternatives have been considered but this approach represents the lowest cost option of providing a recycling service that continues to recycle all residents cardboard and collect it at the kerbside. To ensure due diligence external advice has been sought where required.
- 2.19 Under this option dry recyclable materials would be collected together in a wheeled bin. This type of collection system is known as '*Commingled collection*'. Rather than residents sorting their recycling into different boxes that the crews then separate on the vehicle, all material is placed together in a wheeled bin and presented for collection. The material is later sorted by the re-processor at a '*Materials Recovery Facility*' (MRF).
- 2.20 Council's throughout the UK operate this system of collection. Some are '*fully commingled*' i.e. all recyclables are collected together or '*part commingled*' i.e. one or more of the materials (usually paper or glass) is kept separate.
- 2.21 Although material prices are lower for mixed materials, this type of collection system is more efficient as wheeled bins can be loaded to the vehicle more quickly than recycling boxes. Fewer vehicles and crews are needed. However, vehicles are more expensive to purchase and run. Whether it is a lower cost overall depends upon the relative material prices for mixed or separated recyclables.

- 2.22 East Herts Council has looked at commingled collection systems in the past, including when the current waste contract was let in 2010. However at that time kerbside sort systems offered better value for money due to limited availability of MRFs and high '*gate fees*'. Most Hertfordshire council's are now considering moving to commingled collection arrangements and this presented an opportunity for a County wide consortium MRF contract which would deliver better prices.
- 2.23 Lower material prices can be offset if more recyclables are collected. Evidence from local authorities that have introduced this type of collection system is that there would be a significant increase in the amount of waste that households recycle. This is because it is easier for residents to place their recycling into a single bin than sort it into boxes and extra materials, such as cardboard, tetrapack cartons and aluminium foil can be added.
- 2.24 East Herts residents are currently recycling and composting around 48% of their waste. It is estimated that fully commingling would increase this to around 58% and part co-mingling to around 52%. The top performing authorities are achieving around 65%, but this involves collecting food waste weekly, which would involve a significant additional cost with no additional income.
- 2.25 Under a part commingled system, as described above, the Council might reasonably expect to attract a further 2,500 tonnes of recycling per annum. These may attract additional income from sale of recyclates and East Herts Council would receive a 'recycling credit' from the County Council (for diversion from landfill) of around £40 per tonne.
- 2.26 For East Herts a part commingled collection system would involve most residents continuing to have 4 containers for their waste (three wheeled bins and a paper box rather than two wheeled bins and two boxes). Many will prefer the simplicity of this type of collection system and the extra recycling capacity this gives. However, some residents may not like a third wheeled bin in their garden.
- 2.27 Moving to this type of collection system would result in a significant one off capital investment to supply residents with new 240 litre wheeled bins and replace the existing 10 'kerbsider' vehicles with 8 rear loading 'split bodied' collection vehicles with bin lifts. Both figures include two spare vehicles to cover maintenance and breakdowns.



- 2.28 If the Council chose to fund the replacement of these vehicles there would be a cost of c.£1.1m for the new vehicles and £593,000 to pay off the leases on the existing fleet.
- 2.29 Procuring new recycling bins would cost just under £1m. The County Council has set up a fund of approximately £2m to support district councils with the capital cost of removing cardboard. East Herts Council is bidding for £680,000 towards this cost. If successful there would be a residual capital cost of around £295,000.
- 2.30 However, the efficiency gains from the Council funding the new vehicles would result in contract annual savings of £25,800 per annum for the remaining 4.5 years of the contract.
- 2.31 Based on the performance of similar authorities, the extra recycling generated by a co-mingled collection system is likely to result in additional recycling credits for diversion from landfill of around £146,000 per annum.
- 2.32 The costs of Options 5 are shown in the table below. This assumes the new service commences in November 2013.

*Table 2: Collection of card with dry recycling (Commingled) with growth in recycling\**

	2013/14	2014/15	2015/16
<b>Capital</b>			
<u>One-off capital costs</u>			
Replacement Vehicles	1,100,000	-	-
Wheeled Bins (gross)	975,000	-	-
Gross capital cost to be added to capital prog	2,075,000	-	-
Funding from County (70% of bin cost)	(680,000)	-	-
Total Impact on EHDC	1,395,000	-	-
<b>Revenue Impact</b>			
One off payment loss through sale of vehicles	593,000		
One off start up costs	73,000		
Ongoing annual operating savings	(10,750)	(25,800)	(25,800)
Revenue cost from loss of investment interest**	13,000	31,200	31,200
Income			

Additional income from recycling credits	(60,900)	(146,200)	(146,200)
Loss of income from mixing material	8,700	20,900	20,900
	<u>616,050</u>	<u>(119,900)</u>	<u>(119,900)</u>

**Funded by**

Budgeted Service capacity in MTFP***	(200,000)	(100,000)	(100,000)
Use of reserve created in 2012/13	(280,000)	-	-
	<u>136,050</u>	<u>-219,900</u>	<u>-219,900</u>

\*Assumes a growth in recycling capture from 175kg to 225kg per household, per annum.

\*\* Assumes bid to HCC is successful and the full sum is received

\*\*\* Savings of £100k are identified in 14/15 MTFP

- 2.33 Members will note that the saving in annual operating costs from these changes is £25,800. This net sum results from savings in contract charges to the Council as the contractor will no longer provide these vehicles. There are also and reduced labour costs. These total savings of £175,400 per annum and additional costs of running the new fleet of £149,600. Although there will be fewer vehicles than at present the per vehicle running costs (fuel and maintenance) are higher for compaction vehicles than the kerbsider vehicles used currently.
- 2.34 Consideration has been given to whether the Council or contractor should procure the new vehicles and specialist financial and legal advice sought. As the vehicles would be a capital asset, they must be procured and owned by the Council in line with EU procurement legislation and accounting practice. Public sector consortium framework contracts will be utilised, if possible, to ensure vehicles are purchased at the lowest possible cost. Even if it were possible for Veolia Environmental Services to provide the vehicles, costs would be higher as its costs of obtaining finance are greater than a local authority with its own capital resource. The costs to the Council in terms of loss of interest have been included in the calculation.
- 2.35 The contractor has been asked whether the existing vehicles might be re-deployed to another of its local authority contracts. Unfortunately, many local authorities in the UK (including a number in Hertfordshire) are now moving to co-mingled collections. This includes neighbouring North Herts Council, which also contracts with Veolia. At the current time there is no

alternative use for these vehicles within its fleet and therefore these would need to be sold on the open market. Income received from the sale of the existing fleet will be fully verified.

- 2.36 Within the latest version of the Medium Term Financial Plan the sum of £200,000 contingency has been retained in the waste contract budget in 2013/14. An indicative £100,000 reduction to that contingency has been assumed in 2014/15. An appropriation to an earmarked waste contract reserve in respect of underspends in waste and recycling budgets in 2012/13 of £280,000 will also be available to support the one off additional costs. This has resulting from efficiency savings and the costs of moving to the new waste collection contract being lower than expected.
- 2.37 If Option 4 were to be implemented there would be a one off additional revenue cost of £136,350. This could be fully funded by the contingency sum mentioned in 2.36. From 2014/15 the annual impact upon Council Tax would be an additional annual cost of £52,800 (£152,800 from this service change and an efficiency saving of £100,000).
- 2.38 Should Option 5 be implemented there would be a one off additional revenue cost in 2013/14 of £616,050 but this would be partly offset by the sum mentioned in paragraph 2.36, (i.e. £200,000 contingency for 2013/14). This results in the need for a one off Supplementary Estimate of £416,050 in 2013/14. Should the Council choose to allocate the underspend of £280,000 from 2012/13 for this purpose, the net effect on Council Tax in 2013/14 would be a one off additional cost of £136,050 (the revenue cost of transition). From 2014/15 onwards there would be a net positive impact (saving) on Council Tax of £219,900 per annum (£119,900 from this service change and £100,000 efficiency savings). This assumes that the bid to the County Council for capital support is successful and received in full. If no County funding were received the impact upon base budgets would be reduced to a saving of £201,300.
- 2.39 The figures shown in the table 2 above relate to the costs and savings to East Herts Council alone. If this level of recycling were achieved there would also be a savings to Hertfordshire County Council of c.£150,000 per annum in landfill and processing costs after allowing for the payment of increased recycling credits. While this does not accrue directly to East Herts Council, it none the less represents a saving to the Tax Payer. It may also have a positive impact upon the income this council receives through the

*Alternative Financial Model*, but this is difficult to predict as it depends upon the performance of all 10 district councils in Hertfordshire and has therefore been excluded from these calculations.

- 2.40 In summary, options that continue to provide a kerbside recycling service that include card will cost more. Option 4 provides a partial kerbside collection service, at a lower overall cost but limits the size of cardboard items that can be presented. This could be supported by the introduction of card bring banks. Option 5 provides a better recycling service than at present. Recycling capacity would increase for residents. All cardboard could be collected (including plastic coated and dyed) and additional materials could be recycled. The Council could expect an increase in recycling performance. However, it represents a significant additional up front investment. In considering whether to make these changes Members are asked to consider the value of the investment in financial terms alongside the savings to Council Tax payers through reductions in landfill costs and the recycling service as well as the environmental benefits.

### 3.0 Implications/Consultations

- 3.1 Information on any corporate issues and consultation associated with this report can be found within **Essential Reference Paper 'A'**.

#### Background Papers

None

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