

**HERTFORDSHIRE COUNTY COUNCIL**

**COMMUNITY SAFETY & WASTE MANAGEMENT  
CABINET PANEL**

**TUESDAY, 7 FEBRUARY 2017 AT 10.00AM**

**ORGANIC WASTE UPDATE**

Agenda Item  
No.

**7**

*Report of the Chief Executive & Director of Environment*

Author: James Holt, Waste Manager - Contract Development  
[Tel: 01992 556318]

Executive Member: Richard Thake, Community Safety & Waste Management

**1. Purpose and summary**

- 1.1. To provide the Panel with an update on organic waste arrangements provided by Hertfordshire County Council as the Waste Disposal Authority (WDA) on behalf of the Hertfordshire Waste Partnership (HWP).
- 1.2. In response to Member queries at the last meeting of this Panel, this report also seeks to highlight the impact on performance and contractual arrangements for waste treatment from service developments made and proposed by Waste Collection Authorities (WCAs), including implications on Guaranteed Minimum Tonnage (GMT) commitments.

**2. Recommendation**

- 2.1 The Panel is invited to note the report.

**3. Background**

- 3.1. Countywide organic waste arrangements were agreed through the Joint Municipal Waste Management Strategy (JMWMS) for Hertfordshire and the associated HWP Action Plan in order to drive improvements in countywide recycling performance and assist in meeting the aims and objectives of the HWP.
- 3.2. The HWP Action Plan 2007 required further long term organic waste arrangements to be put in place. GMTs were necessary in order to attract investment in new composting infrastructure in Hertfordshire due to lack of processing facilities at the time.
- 3.3. Arrangements are provided by the County Council in accordance with Sections 51 (1) and 55 of the Environmental Protection Act (EPA) 1990. The Authority pays the gate fee for the reprocessing of organic waste instead of paying the

Waste Collection Authorities (WCAs) recycling credits, under Section 52 (1) of the EPA.

- 3.4. The County Council directs the WCAs to a number of treatment and/or transfer facilities and accordingly makes payments, under Section 52 (10) of the EPA, known in Hertfordshire as the 'transport subsidy'.
- 3.5. In order to facilitate organic waste changes by WCAs, HWP Members approved the HWP Organic Waste Framework in April 2016. The framework was developed to enable changes to existing organic waste collection services to be implemented (including charging residents for garden waste collection) while minimising any detrimental impact on existing contractual arrangements. Key principles of this framework are:
  - Any changes to arrangements for the collection of organic waste should avoid, as far as possible, an increase in the amount of organic waste going to disposal.
  - Boroughs and Districts will consider the practicality of implementing food waste collection services prior to the implementation of charges for the collection of garden waste. The configuration of such services is for each of the Boroughs or Districts to decide.

#### **4. Current disposal arrangements**

- 4.1. The contracts procured on behalf of the HWP are detailed in Appendix A along with commentary on projections for meeting 2016/17 GMTs. In summary, the County Council provides the following contracts:

**In Vessel Composting (IVC) facilities – for mixed green waste and food waste**

- Agrivert, South Mimms, Hertfordshire
- Cumberlow Green Farm, Rushden, Hertfordshire
- Envar, Cambridgeshire

**Windrow facilities – for green waste only**

- Cattlegate Farm, Enfield
- West London Composting, Harefield

**Anaerobic Digestion (AD) facilities – for food waste only**

- Agrivert, Chertsey, Surrey
- Agrivert, Coursers Farm, St Albans (operational in January 2017 taking over processing of Hertfordshire's food waste from the Chertsey facility).

- 4.2. Working with the WCAs has enabled organic waste to be redirected to composting facilities to ensure GMTs are met, despite three WCAs changing to separate food and green garden waste collections, thereby reducing the amount of mixed green and food (IVC) material available. For example approximately half of St Albans' green garden waste is being directed through

Dacorum's Cupid Green depot for onward delivery to Envar in Cambridgeshire to ensure the 15,000 tonne GMT for this contract is met.

- 4.3. Agrivert's new AD facility near St Albans is completed and started processing Hertfordshire's food waste from 16 January 2017. This is a strategically important facility ensuring that there is sufficient capacity across the county to meet at least short and medium term needs. In the first instance, this facility will process food waste collected by Dacorum, St Albans and Three Rivers followed by Broxbourne from March 2017.
- 4.4. The facility will export electricity to the national grid and provide nutrient rich fertiliser which will be spread on local farmers' fields.
- 4.5. Arrangements are in place to ensure that GMTs are met in 2016/17 and 2017/18. The end of the Envar contract in March 2018 makes tonnage available that can be delivered into the other contracts in future years. However, if more WCA's move to separate collections of food and green garden waste this will significantly reduce the amount of material available for the IVC contracts and result in some of the separately collected food and green garden waste being processed at the higher IVC rate. However, this additional cost can be mitigated if WCAs provide a separate food waste service as the material forms part of the GMT obligation under the Agrivert contract.
- 4.6. The Cumberlow Green Farm contract is a potential area of risk as this contract is solely met through material collected by East Herts and North Herts. The ability to meet the GMT for this contract would be put at risk if either WCA chooses to change to the separate collection of food and green garden waste and / or charging for green garden waste prior to 2025 when the contract ends.

## **5. Service changes**

- 5.1. Recently there has been a trend both nationally and locally of WCAs changing their organic waste collection services. This includes charging for green garden waste collections and implementing separate food waste collections.
- 5.2. Separation of food waste from the existing mixed garden and food waste service is essential in order to enable WCAs to compliantly charge for the collection element of a household garden waste service as set out in the Controlled Waste (England and Wales) Regulations 2012. From an environmental, disposal cost and performance perspective this is best done by implementing separate food waste collections, such as recently introduced in Dacorum, St Albans and Three Rivers, and about to be introduced in Broxbourne. However, it is known that at least one Hertfordshire WCA is considering directing residents to put their food waste back into the residual waste bin.

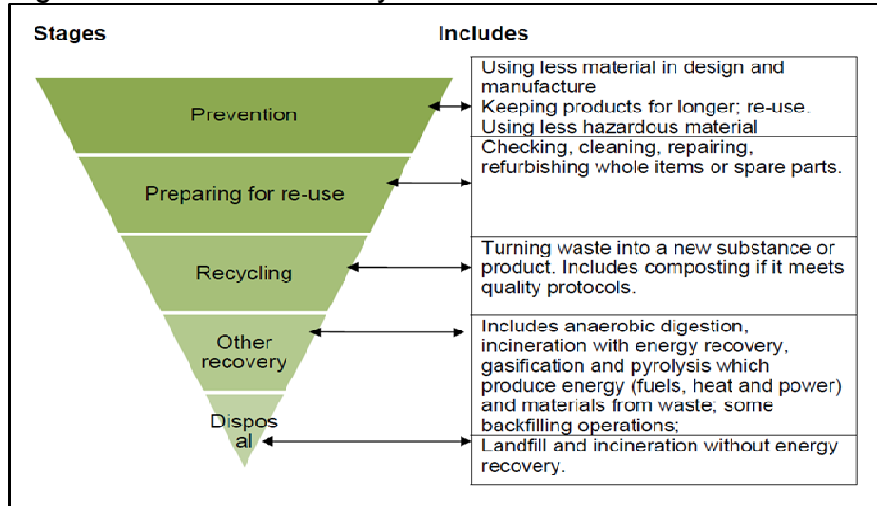
## **Impact of charging for green garden waste**

- 5.3. From a disposal point of view green garden waste charging generally reduces the amount of waste requiring treatment and therefore reduces the cost of disposal. For charging to take place the green garden waste is required to be free of food waste and can therefore be treated at a lower cost per tonne further reducing disposal costs. Furthermore it should act as an incentive for residents to compost at home which is the most environmentally friendly method to dispose of this waste.
- 5.4. However, charging also has the potential to adversely impact costs:
- Changes in organic waste arrangements, for example charging for garden waste, could result in a reduction in tonnage of organic waste being captured making it difficult or even impossible to satisfy contractual GMT requirements.
  - Any reduction in yield will adversely affect the recycling rate. In 2015/16, the overall household waste recycling performance was 50.4%, approximately half of which came from organic waste collections. Should new local government recycling targets be introduced, the reduction in organic waste services may hinder the achievement of any imposed recycling targets.
  - The implementation of charges could lead to significant diversion of green garden waste into the Household Waste Recycling Centres (HWRCs) and / or residual waste bins to the financial detriment of the WDA and / or the contracted operator.

## **Moving food waste into the residual waste stream**

- 5.5. Redirection of food waste from the organic waste stream and back into the residual waste stream could be considered as environmentally irresponsible. Although the majority of residual waste in Hertfordshire is now disposed of by Energy from Waste facilities, a proportion of the total waste managed is still sent to landfill (17.5% in 2015/16). Landfilling of food waste is known to have a detrimental effect on the environment with the decomposition of food waste causing odour and production of methane.
- 5.6. The first core objective of the Hertfordshire JMWMS 2007 is to manage materials in accordance to the national waste hierarchy (see figure 1 below). The movement of food waste back into the residual waste stream is counter to this objective.

Figure 1 – Waste hierarchy



5.7. Furthermore, disposing of food in the residual waste is significantly more expensive than AD or IVC, therefore increasing costs to the tax payer for disposal of this element of the waste stream.

### Recycling performance

5.8. As noted in 5.4 above, green garden waste charging is likely to have a negative impact on recycling performance, with organic waste accounting for approximately half of the 2015/16 recycling rate. Not providing food waste collection services will also negatively impact on recycling rates.

5.9. It is particularly difficult to identify the actual impact of green garden waste charging on recycling rates as performance varies significantly depending on a number of factors:

- Resident participation (and therefore the amount of material collected) is subject to the demographics of the area i.e. more affluent areas or households with larger gardens are more likely to pay the charge resulting in a limited impact on tonnages and therefore performance;
- If charging is implemented as part of a wider service change (for example with improvements to dry recycling collections or food waste collections) the overall positive service change is likely to stimulate take up;
- Growing conditions - for example additional tonnage collected due to favourable growing conditions may mask any reduction as a result of charging.


5.10. All ten of England's top performing authorities in 2015/16 provide a food waste collection service; half providing a separate food waste collection and half collecting green garden and food waste in mixed form. Eight of the ten collect food waste weekly. However, three of these highest performing WCAs (including the top performing authority – South Oxfordshire District Council) do

charge for green garden waste collections, suggesting that, in these areas at least, charging has had minimal impact on performance.

5.11. There is evidence of four other WCAs who introduced green garden waste charging in recent years experiencing reductions in performance, ranging from reductions of 5.4% to 2.3% as shown in table 1 below:

Table 1 – Recycling rate comparison


|                          | Charging implemented | Recycling rate |         |         |         | Possible impact of charging |
|--------------------------|----------------------|----------------|---------|---------|---------|-----------------------------|
|                          |                      | 2012/13        | 2013/14 | 2014/15 | 2015/16 |                             |
| Gateshead MBC            | Apr-15               | 36.8%          | 36.5%   | 35.9%   | 33.2%   | -2.7%                       |
| Halton Borough Council   | Jun-15               | 37.4%          | 39.8%   | 46.8%   | 41.4%   | -5.4%                       |
| Ryedale District Council | Jun-14               | 52.0%          | 52.7%   | 48.1%   | 45.8%   | -4.6%                       |
| Sutton LB                | Jul-15               | 36.5%          | 37.1%   | 37.6%   | 34.7%   | -2.9%                       |

 Denotes year green waste charging was implemented.

5.12. The impact of charging on tonnages is also highlighted in table 2 below. However, it should be noted that year on year seasonal variations will also have an impact. For example, growing conditions were particularly favourable in 2014/15 and therefore the drop in 2015/16 is partly attributable to less favourable growing conditions. DEFRA's report on 2015/16 waste figures published in December 2016 states that a fall in organic waste for composting is thought to have contributed to a drop in the UK's recycling rate, with some suggestion that a higher temperature and level of rainfall in 2014 having contributed to a greater tonnage of green garden waste being available for composting than in 2015.<sup>1</sup> The levels of reduction are, however, significant enough to be a likely combination of factors including charging and growing conditions.

Table 2 – green waste tonnage comparison

|                          | Charging implemented | Green Waste Tonnage |         |         |         | Possible impact of charging |
|--------------------------|----------------------|---------------------|---------|---------|---------|-----------------------------|
|                          |                      | 2012/13             | 2013/14 | 2014/15 | 2015/16 |                             |
| Gateshead MBC            | Apr-15               | 9550                | 9569    | 10226   | 8134    | -2092                       |
| Halton Borough Council   | Jun-15               | 6992                | 7326    | 7894    | 6542    | -1352                       |
| Ryedale District Council | Jun-14               | 7804                | 7996    | 5914    | 5185    | -2082                       |
| Sutton LB                | Jul-15               | 6934                | 7117    | 7461    | 6601    | -860                        |

 Denotes year green waste charging was implemented.

5.13. As noted above, performance will also be impacted by service changes. For example, in 2015/16, Three Rivers District Council's performance dropped by 3.8% primarily as a result of moving from weekly to fortnightly green garden waste collections and perhaps less favourable growing conditions. The impact of TRDC charging scheme (implemented in July 2016) will not be fully known until the 2016/17 figures are published.

<sup>1</sup> Source: DEFRA Statistics on waste managed by local authorities in England in 2015/16 – 15th December 2016

## 6. Financial implications

6.1. Whilst there are no financial implications arising from this information report, it is important to note the difference in treatment costs dependent on how the material is collected and treated.

6.2. Waste treatment costs vary significantly as highlighted table 3 below:

Table 3 – waste treatment costs

| Waste type                     | Treatment cost – average per tonne (excluding haulage) <sup>2</sup> |
|--------------------------------|---|
| Residual waste – EfW post 2000 | £95   |
| Residual waste - landfill      | £102  |
| IVC – mixed food and green     | £47   |
| AD – food waste only           | £40   |
| Windrow - green waste only     | £24   |

6.3. Therefore, diverting food waste out of the residual waste stream by collecting and treating food waste and green garden waste separately significantly reduces disposal costs, provided that existing contractual GMTs are not adversely impacted.

## 7. Summary

7.1. In summary, organic waste treatment contracts are in place to process all of Hertfordshire's material up to 2025, after which, further procurements will be required. Arrangements have been made in recent years to accommodate service changes made by WCAs ensuring that GMTs are met, however, there may come a point at which changes will significantly impact on the ability to meet contractual arrangements. Therefore, the County Council will continue to work with the HWP to ensure that all partners are aware of the impact that their proposed service changes will have on waste treatment and disposal contracts, the HWP and the taxpayer.

7.2. Whilst service changes such as green garden waste charging are welcomed, in terms of reducing waste treatment costs, this has to be balanced against the ability to meet contractual arrangements (and the associated impact on the council tax payer) and on performance, which research suggests will highly likely be negatively impacted through implementing such a scheme.

7.3. Performance reductions can be offset by introducing separate food waste collections which will also have an environmental and financial benefit from not only reducing the amount of waste sent for treatment, but turning the waste into an energy and fertiliser resource.

---

<sup>2</sup> Source: WRAP 2015/16 gate fee survey (published September 2016)

## **8. Equality Impact Assessment**

There are no equality impacts associated with this report.

### **Background Documents**

Organic Waste Disposal Contracts, embedded at Appendix A.



**Appendix A** – summary of organic waste disposal contracts

| <b>Contract</b>   | <b>End date</b>                             | <b>Guaranteed Minimum Tonnage (GMT)</b> | <b>Used by</b>  | <b>2016/17 Update – January 2017</b>   |
|---|---|---|---|--|
| Envar, St Ives – Mixed food and green (IVC) and green only                    | March 2018                                  | 15,000                                  | Watford (through sub-contracting arrangement with West London Composting) / St Albans / Dacorum | On track to meet GMT for 2016/17 – circa 6,200 tonnes from WBC, 6,300 tonnes from SADC and 3,000 tonnes from DBC.  |
| Agrivert, South Mimms - Mixed food and green (IVC) and green only             | March 2024                                  | 35,000                                  | Broxbourne / Hertsmere / St Albans / Stevenage / Wel Hat  | Projected to deliver 40,000 tonnes of IVC material into this facility. This combined with 11,000 tonnes of food waste into Chertsey / Coursers Farm will ensure the GMT is exceeded by circa 16,000 tonnes.  |
| Agrivert, Chertsey / Coursers Farm – food waste only (AD)                     | March 2024 (through the Agrivert contract ) | N/A – included in above 35,000          | Dacorum / Three Rivers / St Albans (from July 16) / Broxbourne (from March 2017)                |  |
| Cumberlow Green Farm, nr. Baldock – Mixed food and green (IVC) and green only | March 2025                                  | 20,000                                  | East Herts / North Herts  | Annual projection 30,200 tonnes.   |
| West London Composting, Harefield – food waste bulking                        | March 2018                                  | N/A                                     | Three Rivers  | Projected that 3,200 tonnes of food waste will be bulked and transferred to Chertsey / Coursers Farm through this facility. Discussions are ongoing regarding the future need of this facility and if Three Rivers can direct deliver to Coursers Farm now that construction is completed. |
| Cattlegate Farm, Enfield – green waste only (windrow)                         | April 2018                                  | N/A                                     | Dacorum   | Annual projection 7,000 tonnes.  |
| West London Composting – green waste only (windrow)                           | April 2018                                  | N/A                                     | Three Rivers  | Annual projection 7,800 tonnes.  |