Final Report

Scrutiny Review – Household Food Waste Collection

October 2013
1. **Introduction**

1.1 The Council’s constitution provides that the Scrutiny Committee can agree a programme of not more than three scrutiny reviews a year, such reviews are to be a time limited, in-depth investigation into specific service areas or policy. The review panels report back to the Scrutiny Committee with their findings.

1.2 Cabinet has highlighted several areas of work they wish to explore; one of these is collection of food waste. In June, Scrutiny Committee agreed that a scrutiny review of the collection of food waste should be undertaken as one of their three reviews.

1.3 A task and finish panel was therefore established with the intention of providing Cabinet with a better understanding of the benefits, costs and issues involved with providing a food waste collection service.

1.4 The panel membership includes:
   - Cllr Roger Knight (Chair of the panel)
   - Cllr Andy Roberts
   - Cllr Neil Laurenson
   - Cllr George Squires

2. **Scope of the Review**

2.1 The focus of the review was on delivering a better understanding of providing a food waste collection, in particular;
   - costs (capital and revenue)
   - operational issues
   - timescales for development and implementation
   - implications for the disposal authority
   - benefits analysis
   - drivers and appetite for change
   - political, environmental and social context
   - best practice

2.2 The review aimed to explore the benefits, costs and issues involved with providing a food waste collection service only and did not include a review of extending this to recyclables such as batteries, cans etc.

3. **Background**

3.1 In the UK 15 million tonnes of food is wasted annually, with nearly half discarded within UK households. In total, UK households create over 7Mt of food waste annually,
3.2 WRAP definitions for food waste (including drinks) are: Avoidable food waste is food which prior to its disposal was edible and food that can be eaten depending on personal preference (e.g. bread crusts) or by food preparation preference (e.g. potato skins). Unavoidable is waste that under normal conditions is not intended for human consumption (e.g. teabags, bones, eggshells). 17% of all food purchased are wasted (Source: Environmental Audit Committee, House of Commons, 2011).

3.3 Whilst consumers generally value food, many are unaware of food levels discarded, although sizeable reductions of household waste have been achieved in recent years.

3.4 The estimated environmental impact for every tonne of avoidable food waste produces an equivalent of 4.2 tonnes of CO2 nationally this is comparable to the emissions of one in five cars on the UK roads (Source: Global Food Security, 2013).

4. Worcester City Council

4.1 Worcester City Council is a Waste Collection Authority comprising of some 43,323 households. The City Council is the Waste Collection Authority and has responsibility for collection of household waste in a manner of its choosing. Worcestershire County Council is the Waste Disposal Authority. The City Council currently collects residual waste (black wheeled bins) and comingled recyclates (green wheeled bins) on alternate weeks. A small but significant number of households have communal sacks or bins due to local circumstances.

4.2 The range of recyclates that the Council collects in the comingled bin is dictated by the materials that are accepted by the County Council’s material recycling facility (MRF) at Norton. The Council is legally required to collect five different recyclates. Food waste is currently collected in the residual bin and goes to landfill.

4.3 The City Council is a partner authority in the Herefordshire and Worcestershire Joint Municipal Waste Strategy. This strategy promotes waste minimisation ("love food, hate waste") and home composting. The Strategy does not promote separate food waste collection, although Wychavon District Council currently operates a food waste collection scheme. It is expected that this service will be withdrawn during 2014 following public consultation on the Council’s budgetary priorities.

4.4 Worcester City Corporate Plan 2011 – 2015; states under its Cleaner and Greener priority that a key achievement will be to increase recycling rates and reduce the amount of waste that goes to landfill.
4.5 The Council’s household waste collection services are high performing in terms of both the amount of dry recycling and residual waste collected.

Worcester City Council waste collection figures:
- In 2012/13, 449 kg of residual household waste per household was collected
- 36% of household waste was recycled and composted
- In 2011/12, 447 kg of residual household waste per household was collected
- 36% of household waste was recycled and composted
- In 2011/12, 36.25% of household waste was sent for reuse, recycling and composting. National average; 43.2%
- In 2011/12, 470.51 kg of household waste was sent for reuse, recycling and composting. National average 447.74 kg

5. **Policy Context and trends**

5.1 EU Governments have committed to ensuring that 50% of all household and similar waste is recycled by 2020. The UK is making progress against this goal with the proportion of household waste sent for recycling grown dramatically from 11% in 2001 to 43% in 2012 (Source: Guardian, July 2013)

5.2 Central Government is also keen to highlight both the economic and environmental issues around waste. There is about 177 million tonnes of waste generated every year in England alone. This is a poor use of resources and costs businesses and households’ money. It also causes environmental damage - for example, waste sent to landfill produces methane, a powerful greenhouse gas.

5.3 Central Government are encouraging a move towards a ‘zero waste economy’. This doesn’t mean that no waste exists – rather it’s a society where resources are fully valued, financially and environmentally. It means that everyone reduces, reuses and recycles all they can, and throw things away only as a last resort.

5.4 The Government support efficient energy recovery from residual waste, which they believe can:
- benefit the environment
- reduce carbon emissions
- provide economic opportunities

5.5 Efficient energy recovery means getting the most out of energy from waste, not putting the most waste into energy recovery. This might require a combination of energy from waste technologies. Incineration is one of these methods and others include pyrolysis, gasification and plasma arc. The government are
committed to increasing the proportion of energy we obtain from renewable sources to at least 15% by 2020 and think energy from waste can contribute to meeting those targets.

5.6 However the government also states that where food waste cannot be prevented, anaerobic digestion (AD) is the best environmental option currently available. AD:
- diverts organic waste from landfill
- generates renewable energy
- creates a digestate that can replace artificial fertilizers

5.7 The government are also committed to increasing the use of anaerobic digestion and to increase energy from waste produced by AD. They have set out plans for this in the Anaerobic Digestion Strategy and Action Plan (June 2011), which they developed in collaboration with more than 50 organisations.

5.8 Within the Strategy, Government confirm that they are:
- setting up a £10 million loan fund to support new AD capacity (£3 million of which is for farmers developing small scale AD on their farms)
- creating an innovation fund to bring down costs of AD
- sponsoring projects to develop markets for digestate (a by-product of AD)
(Source: Defra- Reducing and managing Waste Policy 2013)

5.9 Waste and recycling policies have a central role to play in fighting climate change and building a more sustainable economy. Half of food waste generated comes from households and so is in the control of local authorities. Local Authorities therefore have a leading role to play in delivering the Government’s commitment to realise a “huge increase” in energy from waste through anaerobic digestion, whilst getting the greatest environmental benefit from their waste at the same time. (Source: Global Food Security 2013)

6. **Methodology and Research**

6.1 Due to the scale of the issues and potential resource required, it was agreed that a phased approach was taken to conduct the review – requiring the review to be undertaken in two stages. The first stage would therefore involve gathering research and a broad examination into food waste, with a report submitted to Scrutiny Committee which presented the findings and asked for a decision as to whether the review should continue. The second stage, if agreed, would involve further information gathering and possible consultation with the public.

6.2 The first phase has largely consisted of desk based research. The group have reviewed evidence and key documents such as the Worcestershire Waste Strategy, case studies from other local authorities undertaking food waste collection and general information about food waste collection; including the
methods used and advantages and disadvantages of a collection service. The evidence list of all research that has been used to inform this report is included at Appendix 1.

6.3 The task and finish group have also undertaken a limited call for evidence with key stakeholders such as the County Council, Wychavon District Council and the Council’s Cleaner & Greener Service Manager. Through the call for evidence the group was able to hear from those with specialist knowledge and experience in this area to inform their understanding of food waste collection services.

6.4 The desk based research highlighted a number of authorities which have undertaken a food waste collection service. One authority that was cited as particularly successful was South Oxfordshire and Vale of White Horse District Council – a rural area in the South East of England. The group therefore conducted a site visit to this authority to learn more about their collection service, the contract and savings they have made as a result. The group met with officers, councillors, contract managers and a representative from Biffa (who carry out the service on behalf of the council).

6.5 The group also reviewed information from WRAP who is a leading organisation in the field of recycling and waste. The organisation have conducted a number of case studies which the group reviewed and also provided some indicative costings for a hypothetical Worcester City food waste collection service.

6.6 The information gathered from the research, call for evidence and site visit has been used to inform the content of this report.

7. Key Findings
Worcestershire County Council Discussion

7.1 As the Disposal Authority for Worcester City Council and a key stakeholder, it was essential to meet with the County Council to establish what their views and position were on this issue. Councillor Anthony Blagg – Cabinet Member for Environment and Richard Woodward – the Head of Waste Management Services at Worcestershire County Council were invited to a meeting with the panel.

7.2 At the meeting Councillor Blagg and Richard Woodward confirmed the County Council’s current position, in summary;

• The County Council view recycling as the most important element in the waste hierarchy and will be actively working to increase recycling through methods such as home composting and the ‘love food hate waste’ campaign. They are also in the process of appointing a waste prevention officer, part of whose role will be to promote recycling.

• Consider that consumption patterns and people buying more is a significant contributor to the increases in household waste.
• Believe that no one authority can tackle the waste issue on their own and are working with partners to address this.

• County consider that the preferred technical solution for the disposal of waste in Worcestershire will be energy from waste, Hartlebury incinerator – this is subject to a full council vote sometime in the next few months.

• The review of the JM Waste strategy looked at all options for disposal and treatment options against value for money assessments.

• No evidence currently to suggest that Anaerobic Digestion (AD) plants are financially viable and therefore county have discounted this method as an option.

• The county would not be able to subsidise a food waste collection.

• It was also acknowledged, that legislation could play an important role in reducing food waste e.g. through BOGOF offers and packaging restrictions.

8. **Wychavon District Council Discussion**

8.1 As an authority which has experience in running a food waste collection service, Wychavon District Council was also consulted. Councillor Ron Davis – Executive Board Member for Contracted Services, Environment and Health and Phil Merrick – Head of Community Services were invited to discuss their experiences with the panel.

8.2 The Council has to save around £4m per annum over the next four years and recently conducted a “Balancing the budget” consultation exercise involving responses from 1,722 residents and 53 businesses. The results showed that 88% of residents and 93% of businesses who responded would choose to stop the food waste collection service. This was by far the most popular service to cut.

8.3 The Cabinet took the decision on 3 September 2013 to stop the food waste collection service as of 10 January 2014.

8.4 However it was reported that the scheme would be replaced by a targeted campaign with the aim of promoting food waste minimisation and greater home composting activities. The council are also looking to explore opportunities for joint waste, recycling and service with other local authorities.

8.5 A summary of the discussion is included below;
• The original scheme was developed in conjunction with WRAP who provided support.
There was specific rationale for implementing the food waste collection service. The food waste collection service was designed to coincide with the implementation of wheelie bins. The impetus for the scheme was partly to help alleviate fears of rotting food waste and its potential negative effect i.e. growth in pests.

The food waste collection scheme was operated on an alternate week collection service with the waste being sent one week to the IVC at Dymock and the second week to landfill. Acknowledged that this was not ideal.

The scheme was an opt-in service and promoted as part of the wheelie bin service welcome pack, Wychavon Magazine and Worcester News.

Acknowledged that there has been steady decrease in tonnage and habits have improved since scheme implemented.

Currently not cost effective to sustain such low levels of participation.

Withdrawing this service will provide an annual saving of around £550,000

The stopping of the food waste service could result in some redundancies of employees. However precise numbers are not currently known as there will also be some opportunity to redeploy staff elsewhere within the contract including the expanding garden waste service.

An implication of stopping of the service will mean that the current council ‘promise’ to achieve a 50% recycling rate by March 2015 will be more difficult to achieve.

The implementation of food waste collection service has not led to a decrease in compost bins. People who use compost bins tend to be people who have a use for the final product i.e. gardeners.

The drop off of participation has been particularly high with the Wychavon scheme with 39% of households recorded as presenting food bins in 2009 falling to 19.4% earlier this year.

9. Site Visit: South Oxfordshire and Vale of White Horse District Council

9.1 South Oxfordshire District Council was identified through desk based research as an authority with the best recycling rate in the country and positioned in the top quartile for cost per head for the service. Therefore a site visit was organised to learn more about their collection service, the contract and savings they have made as a result. It is worth noting that this area is one of the most
rural districts in England, and has 65% of people living outside the main urban settlements.

9.2 There are often specific circumstances for which household food waste collection services are implemented. The bullets below provide the context for this council’s choice to implement a food waste collection service:

- Audit Commission recommended that waste and recycling services needed to be improved, and could be more efficient/successful.
- The Council’s existing service was based on bags, with no wheelie bins. A basic recycling service was offered but with no provision for glass to be collected at the kerbside.
- The County Council is the disposal authority.
- VWH and SO Councils were starting to share services and so looked at waste and recycling as a joint project.
- Both VWH and SO had previously contracted out their waste and recycling services. SO’s contract was due to end in 2009, VWH’s in 2010 and so there was an opportunity to partner at this point in time.

9.3 The tendering process awarded Biffa as the approved contractor for the food waste collection service. The contract details and specifics of the collection service are cited below:

- Co-mingled paper, glass, tins and plastic recycling, collected fortnightly from 240 litre wheelie bins
- Food waste, collected weekly from 23 litre bins with a smaller 5 litre kitchen caddy
- Residual waste, collected fortnightly, from 180 litre wheelie bins
- Optional garden waste collection (chargeable at £34/year).
- The collection vehicles, which were introduced as part of the new contract, can collect either residual waste or recycling (8 tonnes) and food waste (2 tonnes). The food waste is a separate section at the front of the vehicle. This means that the overall volume of the vehicle is the same, simply with segregation of the waste collected
- Biffa’s contract includes the provision of bins, vehicles, staff and infrastructure – so no capital costs were incurred by the councils. The value of the contract is split equally over the seven years of the contract.
£500,000 revenue savings annually obtained through the new contract as opposed to the previous ones. (NB. It is not clear whether these were savings per district or split between the districts involved). Savings were obtained through a range of changes including reduction in staff on each round etc. (from five man crews to driver and two) and introducing wheelie bins in place of bags for the vast majority of households. Joining with another authority for the contract also accounted for some of the savings.

The collected food waste is sent to one of two privately owned anaerobic digesters in the county.

The electricity generated from the AD plant, powers around 4500 homes, the money from the National Grid is received by the owner of the digester.

Residual waste currently goes to landfill. However, an Energy from Waste incinerator is being built which will receive all residual waste. This EfW plant is being built by Viridor in contract with Oxfordshire County Council.

The aim is to reach 75% recycling rate, they are currently at around 68%. They are continuing to encourage people to reduce their food waste. The Love Food, Hate Waste campaign is run at a County level, along with other initiatives.

Food waste tonnage collected has dropped from starting tonnage rates (now at c.100 tonnes a week). A consultation carried out to establish why this has happened, found a direct link between people not knowing where the food waste was going and not using the service. They recognised the importance of good communications and are currently running with a participation rate of 90%.

Diverting food waste from landfill reduces the County Council’s Landfill Tax liability (currently £90/tonne). The ‘gate price’ of the anaerobic digester is £45/tonne which is borne by the County Council as the disposal authority.

Oxfordshire County Council currently pays the collection authorities ‘landfill diversion credits’ of £21 for each tonne of food waste collected. Other waste diverted from landfill also receives landfill diversion credits at rates set according to the gate prices of the alternative disposal mechanism, e.g. composting, recycling etc.

The landfill diversion credits received per district for the food waste diverted are c. £100,000 per year.
10. **Worcester City Council - Food Waste collection**

10.1 Setting up a separate collection for food waste is logistically feasible, as evident from other local authorities around the country which have set up such schemes. However, each authority has its own individual set of circumstances and rationale for undertaking a food waste collection service. In the next section the issues around Worcester City setting up a food waste collection service are explored.

10.2 **Options**

There are several variations and options on how the waste could be collected and handled before delivery to the Waste Disposal Authority’s nominated disposal point, including;

- Choice of bin size, and whether to provide smaller “kitchen caddies”
- Using dedicated collection vehicles or “split bodies” that also collect either residual waste or recyclates
- Provision of bin liners
- Use of a transfer station to bulk up loads before transport to the disposal point

10.3 Selecting the most appropriate of these options for Worcester would involve a detailed piece of work, requiring dedicated resource to draw up a service specification and delivery plan. The current staff resource would need to be augmented in order to deliver this.

10.4 Preparing for implementation would be particularly challenging as the service team will be focussed on delivering service transformation to meet the budgetary challenges that the Council faces over at least the next three years. Introducing a food waste collection service would therefore carry a significant risk of diverting resource from other priorities. This could be mitigated through engaging additional temporary staff resource at cost.

10.5 There are several service models currently operating that would mean designing a scheme for Worcester would be a fairly straightforward, albeit detailed.

10.6 Once collected, the food waste would be delivered to the Waste Disposal Authority nominated disposal point.

10.7 The current position of the County Council is that separated food waste disposal is not within their plans for the short, medium or long term. The favoured
disposal points for waste from Worcester are Norton (recyclates) and Hartlebury (residual waste, pending construction of energy from waste plant).

10.8 It is highly unlikely that the County Council will construct a local IVC (in vessel composting) or AD (anaerobic digestion) plant to deal with food waste from Worcester. Therefore an alternative, existing disposal point would need to be found.

10.9 Currently the most likely option is at Rose Hill Farm near Dymock, on the North West Gloucestershire border. The additional time and distance would need to be built into the work scheduling and fuel budgets. A waste transfer station within the City could be an option to reduce these costs, although at this stage the potential feasibility, costs and benefits have not been examined.

10.10 A fleet replacement programme is currently being implemented to renew what is an aging fleet of refuse collection vehicles. If a “split body” service model is deemed to be most appropriate then, depending on the timing of any decision to implement food waste collection, there is the potential that new vehicles would need to be replaced before the end of their expected life (approximately 7-9 years).

10.11 Implementing a new service that potentially affects every household in the City would require a comprehensive communication and marketing campaign to maximise take up and minimise disruption. It would be challenging to introduce a new service whilst also implementing the changes that will be required to balance the Council’s budget over the next 3 years.

11. Costs of implementing a household food waste collection service

11.1 In order to take a view on the financial implications of a potential food waste collection service, the panel asked Service Manager David Sutton to produce some indicative costs.

11.2 The cost of introducing a food waste service is dependent on the detail of the selected service model, primary vehicles, route scheduling and location of disposal point. The following costs are based on the most common service model, which is also recommended by WRAP, namely using dedicated food waste vehicles. It is assumed that Rose Hill farm will be the disposal point, and that each vehicle will tip off once daily.

11.3 Evidence provided by Wychavon District Council (based on current service) and work done by Malvern Hills District Council, along with information provided by WRAP, is all broadly aligned to the approximate cost estimated as follows;
### Start up costs

#### Capital Assets

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<th>Item</th>
<th>Cost</th>
<th>Unit Cost</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicles</td>
<td>(£70,000 x 8)</td>
<td>£70,000</td>
<td>8</td>
</tr>
<tr>
<td>Food caddies</td>
<td>(£0.95 x 40000)</td>
<td>£0.95</td>
<td>40000</td>
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<tr>
<td>Collection bins</td>
<td>(£2.95 x 40000)</td>
<td>£2.95</td>
<td>40000</td>
</tr>
<tr>
<td>Starch bin liners</td>
<td>(0.39 x 40000)</td>
<td>0.39</td>
<td>40000</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>£766,600</strong></td>
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#### Other

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<tr>
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<th>Cost</th>
<th>Unit Cost</th>
</tr>
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<tbody>
<tr>
<td>Delivery of Caddies and bins</td>
<td>(£3.00 per property)</td>
<td>£3.00</td>
</tr>
<tr>
<td>Project planning and management</td>
<td></td>
<td>£50,000</td>
</tr>
<tr>
<td>Marketing/Launch costs:</td>
<td></td>
<td>£50,000</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>£220,000</strong></td>
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**Total start up cost:** **£973,000**

### On-going recurring costs

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<th>Item</th>
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<td>Staff</td>
<td>(driver plus 1, 7 crews)</td>
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<td>Vehicle maintenance</td>
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<td>£42,000</td>
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<tr>
<td>Fuel</td>
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</tr>
<tr>
<td>Transport Costs</td>
<td></td>
<td>£30,000</td>
</tr>
<tr>
<td>Bin replacement (at 3%)</td>
<td></td>
<td>£5,000</td>
</tr>
<tr>
<td>Cost of borrowing</td>
<td>(assume capital purchase)</td>
<td>£110,000</td>
</tr>
<tr>
<td><strong>Total on-going Costs per annum:</strong></td>
<td><strong>£544,000</strong></td>
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### 12. Disposal Costs

12.1 The County Council are responsible for the “gate fee” - the cost of disposal per tonne. Based on current and projected gate fees, and estimated tonnages, it is likely that the saving made by landfill diversion, net of the composting gate fee, will be of the order of £200k p.a.

12.2 Assuming that the tonnage of food waste would not have a detrimental impact on the energy from waste plant (both in terms of the contractual obligations and operational requirements), it is reasonable to expect but highly unlikely that the County Council would be willing to pass on a proportion of this saving. This would also be subject to negotiation.

### 13. Alternative disposal options

13.1 The figures above assume that the disposal options will be Envirecover (residual waste) and Rose Hill Farm (food waste). Provision of an alternative disposal option for food waste would require further investigation, but it is reasonable to assume that a small local plant to serve Worcester City would not benefit from economies of scale and would therefore reduce the gate fee saving. Location would dictate the transport costs. There would also be a significant capital cost in setting up a transfer station and a dedicated Worcester City disposal facility.
13.2 As highlighted above there are several variables to consider when proposing and costing up a potential food waste collection, including:

- Vehicles
- Receptacles – type/ size of caddies/ bags
- Transfer stations
- Frequency of service
- Disposal
- Communications
- Participation

13.3 Currently there is not conclusive evidence to suggest that savings can be made from setting up a food waste collection service. However there is anecdotal evidence to suggest local authorities and several Councils in Europe have made savings from setting up such a service and there are arguments to support such a service generating income these would be explored further as part of a second stage, if recommended.

13.4 Information from the Anaerobic Digestion & Biogas Association (ADBA) notes that they believe there are a number of examples of successful collections schemes for food waste, which combined with treatment facilities offer opportunities for local authorities. One example cited is Somerset Waste Partnership which has developed an AD facility to treat the source of segregated food waste collected across the county. The £10 million plan is located on an existing landfill site near Bridgwater and will be able to process up to 30,000 tonnes of food waste per year. It will produce a megawatt of electricity and is expected to save £1m over five years in disposal costs.

13.5 Another example is that of Lower Reule Farm, Staffordshire which grows soft fruit. Food waste is pre-treated at a site near Wolverhampton and then transported to the farm. 55% of all household waste in the borough is now recycled, compared to 28% before the scheme started. Leeds City Council have also trialled the use of biomethane refuse collection vehicles, with running costs £2500 less than the diesel equivalent.

13.6 Evidence from ABDA also notes the Icaro study which found that households who had a weekly food waste collection awarded the service 7.9/10. This compares favourably to the public’s overall attitude to their waste collection service, which averaged 7.4/10. The context and specifics of food waste collection service are key determinants in how successful food waste collection schemes are and therefore links to increases in recycling rates, reduction in costs and satisfaction rates are inconclusive and often specific to individual schemes.

13.7 There could well be a saving on the disposal fee, however the estimated collection costs overall would cost considerably more than any savings made. It
should also be noted that any savings generated would only be realised by Worcester City Council if the disposal authority agreed to pass them on.

13.8 It should be noted that a number of the authorities where AD has been used have done so with the use of incentives from Central Government. These incentives were time limited and do not now exist to support any such scheme. However, the Local Government Association (LGA) is currently lobbying Government for re-instatement of incentivised schemes. There are also concerns about the disparity in costs between an incineration option and an AD disposal option in terms of gate fees. At this time the gate fees for the energy from waste plant in Hartlebury are unknown. The fees can be forecasted and are controllable unlike landfill which is set to rise exponentially in years to come.

14. Disposal options

14.1 There are several options for disposal to consider, including:

- Ludlow Biodigester – Currently a lack of capacity

- Rosehill Farm, Dymock - 35 thousand tonne site with 25 thousand tonne in-vessel composting facility – potentially has spare capacity in January once Wychavon’s contract ends

- Springhill Farm, Fladbury – tomatoes only at this time

- Develop a Worcester City facility AD/IVC – significant capital investment required and timeframes involved

- Explore using existing facilities – plants used by private sector (Sainsbury’s use Biffa plant in Cannock, Staffordshire)

- EnviroCover Plant - Collect food waste but continue to dispose of it at Hartlebury incinerator

- Landfill – Collect food waste but continue to dispose of it in landfill with the hope that the tonnage would decrease.

- Composting/ Community disposal – explore where and how communities could dispose of majority of collected food waste

- Alternative household disposal units – composting, macerators, garden lawn disposal unit

14.2 Worcester County Council is the disposal authority and as highlighted previously Worcester City has signed up to and actively supports the JMWS. In order to set up a separate collection service, the current plans for disposal of Worcester
City’s food waste would need to be renegotiated with the County Council. The implications of this are significant for both parties.

14.3 The County have said that;

‘In consultation with partners and residents, through the preparation of our Joint Municipal Waste Management Strategy, we concluded that it (AD) was not the best solution for the Counties of Worcestershire and Herefordshire’

14.4 When asked if one of the collecting authorities decided to collect source separated food waste and send it for treatment by AD would they be county council be supportive? The County Council responded;

‘Firstly we would like to understand why the collection authorities had moved away from the Joint Municipal Waste Management Strategy (JMWMS) position of prevention for this waste stream. Then, subject to the proposal supporting the principles, policies and targets of the Joint Municipal Waste Management Strategy, in particular in the current economic climate ‘Principle Nine’:

Principle Nine states ‘The Partnership will work to deliver the Joint Municipal Waste management Strategy in the most effective, efficient and economic way. We aim to view waste collection and disposal costs holistically to ensure they provide best value and a cost benefit to the partnership and our customers.’

‘...It would depend on the proposed solution, why it had to be specifically treated by Anaerobic Digestion and what impact it had on the County Council in their role as the Waste Disposal Authority’.

15. Other Issues

15.1 The topic of food waste is a very complex one. This section captures some of the issues that would need to be considered before implementing a food waste collection service.

15.2 Hartlebury Incinerator Scheme - When contemplating the options for disposal, the importance of the proposed Hartlebury incinerator scheme and the County Council’s position as disposal authority should be taken in to consideration. The County Council will be deciding in the next couple of months whether to go ahead with the plans to build the Hartlebury incinerator. The County’s current position is to support the energy from waste initiative as part of their holistic approach to reducing landfill.

15.3 Alternative models - WRAP’s evidence has shown that source-segregation reduces the amount of food waste arising in the first place, which is eight times better even than AD from a carbon perspective and reduces the cost of collection and treatment, ultimately helping council tax payers.
15.4 Defra’s Review of Waste Policy (June 2011) stated unequivocally that “of the main options for the treatment of food waste, anaerobic digestion offers the greatest environmental benefit”. It removes organic waste from landfill, reduces methane emissions and, when treated through AD, can generate around 7% of the UK’s total domestic gas demand. (source: ADBA 2012)

15.5 By Products - Energy from Waste and Anaerobic Digestion/In Vessel Composting can produce reusable products in the form of either energy or compost. The levels to which local authorities directly benefit from these reusable products are not consistent or conclusive.

15.6 Current Economic Climate - There are external factors which affect the amount of food waste produced. It is important to consider the current financial climate; Worcester City are now looking to save over £3M over four years, there are significant set up and on going costs associated with a food collection service – this would have to be considered carefully in light of the councils financial challenge. There has also been a reduction in central government funding and incentives for such services.

15.7 The current economic climate is also providing all households with an incentive for avoiding food waste and making purchases go further. Wychavon District Council agreed that the recession was having an influence on level of food waste produced; causing people to be more careful about what they bought.

15.8 Consumer Behaviour - Research suggests three primary factors guide consumer choices; price, convenience and quality, with modern consumers spending proportionally less income on food and less time on food preparation than previous generations (GFS report 2013).

15.9 Products most prone to household waste are short shelf-life chilled products (perishables) most frequently associated with over-purchasing and poor household food skills (e.g. cooking and storage). Work to explore reducing waste in post-production through reducing pack sizes, considering the impact of in-store promotions e.g. BOGOF, clarifying date labelling and targeting particular households at risk of producing larger quantities of waste (i.e. single person households, lower economic status and families with children) is on going with British food and drink associations. (GFS report 2013).

15.10 Participation Levels - Members of the group have raised concerns around participation levels of food waste collection schemes. It has been noted by WRAP that participation rates drop significantly once the scheme is up and running for a while.

15.11 Wychavon found that the drop off of participation has been particularly high with 39% of households recorded as presenting food bins in 2009 falling to
19.4% earlier this year (2013). The Vale of Whitehorse and South Oxfordshire also found that tonnages had dropped from starting rates. Both these issues were attributed to issues about residents not feeling informed about where the waste went to.

15.12 There is little evidence to prove conclusively whether collecting food waste separately increases or decreases overall recycling rates. It has also been reported that generally residents become aware of the amounts of waste thrown out and change their buying and/or preparation habits. Therefore behavioural change has the potential to reduce total tonnage waste long term.

15.13 Participation rates have direct links to awareness campaigns and it has become apparent throughout the evidence gathering that in order to roll out and maintain an effective food waste collection service a significant budget has be allocated to enable a comprehensive communications, marketing and promotional campaign.

15.14 Alternative arrangements for the provision of food waste collection to consider;
   • Chargeable food waste service - Food waste, unlike garden waste, is legally identified as municipal waste and therefore we cannot charge householders for a food waste service.
   • Allow food waste to be included in the current garden waste bin – as above. Plus food waste disposal has to be managed at much higher temperatures than food waste within an enclosed building. This means that disposal costs are substantially higher for this option.
   • Establishing communal food waste collection points – there would be significant environmental management required. However in light of the Council’s financial position, local communities developing community composting projects could be an opportunity to be explored.

16. Recommendations

1. The Task and Finish group recommends that Scrutiny Committee consider the report.

2. The Task and Finish group recommends that Scrutiny Committee take the decision as to whether;
   I. The Task and Finish group stops work and closes the review
   Or
   II. The Scrutiny Committee recommends to Cabinet that the review proceeds to the second stage and appropriate funds are identified.
The second stage would be officer led and could involve gathering more detailed evidence, public consultation, and an implementation and feasibility operational plan. The issues of public expectations, costs and mechanisms of public consultation would all need to be taken into account when drafting a plan. The second stage would be a considerable piece of work with significant resource implications.

APPENDIX 1 – Food Waste Collection Review Evidence list

- Improving Recycling – Tower Hamlets Council (May 2007)
- Anaerobic Digestion: Reducing landfill waste – LGA (May 2012)
- Local authorities across Europe must join forces to tackle waste disposal – The Guardian (July 2013)
- Funding the move to anaerobic digestion – LGA (May 2012)
- Carbon Trust to launch new waste standard – Public Sector Executive (July 2013)
- Case Study; Gloucester City Council, Supporting the Food Waste Collection Scheme rollout – Enventure
- Case Study; London Borough of Southwark, Communications campaign to support food waste recycling trial – Recycle for London
- Food waste recycling indicative costs – WRAP (August 2013)
- Future of Wychavon Food Waste Service and Contract Arrangements – Wychavon DC (September 2013)
- Wychavon Food Waste Collection Participation Survey results (Jan/February 2013)
- Summary of Notes from site visit to Vale of White Horse & South Oxfordshire District Council (August 2013)
- Value for money waste service comparisons – Wychavon DC (2013)
- Article entitled ‘Food Waste’
- A report of the environmental scrutiny committee; food waste collections – Cardiff County Council (October 2007)
- Love food hate waste case study: Worcestershire County Council and the University of Worcester – WRAP
- Website print out of details of Oxford City Council’s food waste recycling scheme
- Estimates for household food and drink waste in the UK – WRAP (Nov 2011)
- Friends of Earth briefing on Food waste collections – Friends of the Earth (September 2007)
- Written evidence submitted by WRAP to House of Commons (May 2012)
- Task & Finish Panel Report on Food Waste Processing, Cherwell District Council (March 2007)
- ADBA - http://www.adbiogas.co.uk/
- Icaro Study - http://icaro-consulting.co.uk/category/latestresearch/

Further reading

Dealing with Food Waste – Eunomia (March 2007)  

Evaluation of the WRAP separate food waste collection trials  

Food waste – best collected separately and weekly (April 2010)  
http://www.maygurney.co.uk/news/678.html

Ipswich Food Waste Report (November 2012)  

Wealth from Waste Review – LGA (June 2013)  
http://www.local.gov.uk/web/guest/publications/-/journal_content/56/10180/4020992/PUBLICATION

Organic Collections: the food waste agenda  

Peterborough Council – food waste information

Reward for food waste recycling in Up Hatherley and Warden Hill – Gloucestershire County Council (May 2013)  

Other information

Verbal responses from Worcestershire County Council and Wychavon District Council at meeting on 4th September 2013

Email response from Richard Molyneux, ABDA