

**TO: JOINT WASTE DISPOSAL BOARD  
25 JUNE 2008**

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**JOINT WASTE DISPOSAL BOARD - PROJECT UPDATE  
(Report by the Project Director)**

**1. INTRODUCTION**

- 1.1 This report has been written in response to a request from the Board (at the March 2008 meeting) for a report on the options for food waste collections available to the three councils.

**2. RECOMMENDATIONS**

- 2.1 **That the contents of this report be noted.**
- 2.2 **That Members receive a further briefing and update at the first meeting of the Joint Waste Disposal Board in 2009.**

**3. SUPPORTING INFORMATION**

**Background**

- 3.1 Appended to this report is the executive summary of a study conducted by the Waste and Resources Action Plan (WRAP) entitled "The food we waste". The report contains many statistics on food waste, not least the discovery that on average we appear to be wasting 1/3<sup>rd</sup> of the food we buy.
- 3.2 Our own waste composition analysis (conducted in 2007) in the re3 council area supports the WRAP findings. It suggests that bin or bag waste, destined for disposal from the re3 area, may contain on average, up to 3.3kgs (or 32%) of food waste.
- 3.3 The Central Berkshire Waste PFI contract does not currently include a processing facility for food waste although it was considered during the procurement process.
- 3.4 Members may remember that both of the bids at the Invitation to Negotiate (ITN) stage included an In-Vessel Composting facility. The cost of IVC at that point was £37m. WRG, the successful bidder, removed food waste processing from their proposals prior to the Best and Final Offer (BaFO) stage because they concluded it would not represent best value to the councils.
- 3.5 The procurement process was heavily scrutinised, involving as it did Treasury, DEFRA, and advisors for both the councils and the bidders. With specific reference to the processing of food waste, however, the bidders were never able to show how it could be processed economically within the criteria set for our PFI contract.
- 3.6 In essence, it was concluded that it would be inadvisable to pay extra for a technology, throughout the entire life of the contract, which might not, on performance grounds, be required until the later stages of the contract - if at all.

- 3.7 It is however possible, within the contract, that in the future food waste from the re3 councils could be processed at a third-party (merchant) facility or, if so desired, at a facility constructed for the councils themselves.
- 3.8 Previously, local authorities have been most concerned with reducing and recycling the packaging used to deliver food products into the home. The WRAP findings suggest we have at least as big a problem on our hands with the contents of the packaging.

### **Options**

- 3.9 In addressing the issue of food waste, the dilemma for local authorities is in where to focus effort. Should they lean towards the more proactive approach and work to reduce the amount of food waste being presented for collection by residents? Or, should they direct the majority of available resources one step further down the chain and procure the treatment of food waste?
- 3.10 The first option is arguably the most sustainable but the harder to achieve successfully. It would require a sustained and effective communications campaign on a scale rarely (if ever) attempted by local authorities. The challenge would be to present a case strong enough to consistently withstand the marketing prowess of retailers. Clearly we'd need to work with retailers whilst acknowledging the reality of the influences which can lead to 4.1 million tonnes of 'avoidable' food waste<sup>1</sup> being purchased per annum. In tandem with efforts to reduce the generation of food waste at source, the councils would also want to ensure that some processing of food waste could be done at home – something which RBC is beginning via the subsidised promotion of 'Green Cone' food digesters.
- 3.11 The second option has the benefit of being easily measurable but would, by necessity, be more costly. There would be an element of planning risk associated with procuring new technology to be built within the re3 council area – and it may be necessary to find new land on which to build. The other option is to wait for a third party facility to be constructed in the region and, with WRG, procure processing capacity.
- 3.12 What sort of technology is available to us? There are two main treatments for processing food waste. At present, neither is available to the re3 councils.
- 3.13 In-Vessel Composting (IVC) is basically composting carried out within an enclosed unit which allows a far higher degree of process control than normal windrow composting. The composting process is carried out in the presence of oxygen, via forced aeration, and can take as little as 6-8 weeks. IVC is suited to processing food waste and green waste which may have been co-collected.
- 3.14 Anaerobic digestion (AD) is the biological treatment of organic waste, using microbes, in the absence of oxygen. It results in the creation of a biogas which can be used to generate heat and energy (and is eligible for Renewable Obligation Certificates (ROC's)), a fibre which can be used as a soil conditioner, and a liquor which has potential as a liquid fertiliser. AD is an ideal process for food wastes. It is less suited to the processing of green waste but is also used for the treatment of livestock manures and sewage.

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<sup>1</sup> 'The food we waste' WRAP (2008)

- 3.15 There are a number of other technologies that could process food waste as part of residual waste (i.e. with no need to separately collect). Mechanical Biological Treatment and Autoclaving use different means to recover recyclables but are primarily focused on producing a refuse derived fuel (RDF) which can be used to generate energy. In the UK, the market for this form of fuel is almost non-existent and extremely uncertain.
- 3.16 Collecting food waste might prove to be challenging. BFBC and RBC already make use of wheeled bins for green waste collections and so it's possible, with due consideration given to suitability, capacity and frequency issues, that it could be co-collected with food waste.
- 3.17 The re3 councils will want to be mindful of the number of receptacles given to residents whilst still ensuring that adequate source separation can be achieved.
- 3.18 Co-collection of food and green wastes would also greatly increase the volume of material to be processed and thus, potentially, the cost.

### **Financial**

- 3.19 The cost of a new IVC or AD facility for the re3 councils might be £30-50m, spread over 20-25 years. That price might still keep the councils within the original 'do nothing' comparator of £656m. A new facility, would not however qualify for the PFI support available to the councils for the existing elements of the contract.
- 3.20 It's possible that the cost of procuring access to processing at a third party facility would ultimately end up close to the same cost as developing our own facility.
- 3.21 The cost of landfill has risen above that which was modelled during procurement as a result of the £5 increase (from £3 to £8 pa) in the landfill tax escalator during 2007.
- 3.22 A potentially groundbreaking, if complex, option may be for councils that are developing processing capacity to design in capacity that exceeds their existing and estimated need. In partnership with the private sector, those councils could then market the 'spare' capacity to regional neighbours. It is one way in which the originally procuring councils, and their partners, might offset some of the development and ongoing costs.

### **BACKGROUND PAPERS**

None.

### **CONTACTS FOR FURTHER INFORMATION**

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