

APPENDIX E

WAVERLEY BOROUGH COUNCIL

EXECUTIVE – 3 NOVEMBER 2008

Title:

HOUSEHOLD FOOD WASTE COLLECTION

[Portfolio Holder: Councillor John Sandy]

[Wards Affected: All]

Summary and purpose:

The purpose of this report is to present proposals and cost models for the introduction of a dedicated kerbside collection service for household food-waste in Waverley.

How this report relates to corporate priorities:

This report addresses a key element of the Council's premier Corporate Priority: Environment, specifically the plan to contribute to tackling climate change by "working with partners to increase the recycling rate to 45% by April 2010 and to 55% by 2015. The diversion of food-waste from landfill will reduce the need for landfill and reduce the harmful gases and leachate associated with its slow degradation. Better management of food waste will improve the environment and enhance the waste collection service provided to our householders. Turning food-waste into compost by biological treatment in a commercial composter or digester means food-waste can be used as a resource.

Equality and diversity implications:

A food-waste collection service will be provided equally across the diversity spectrum. Bespoke arrangements will need to be developed to serve community living sites and houses in multiple occupation. Assisted collection arrangements will be made for the disabled and infirm as provided for in the core refuse/recycling service.

Resource/Value for money implications:

The service will require significant resources and significantly increased contractor costs. Its value for money must be considered carefully in the light of other spending priorities.

Legal implications:

The Council has the power to collect food-waste separately but has no statutory duty to do so. There are no other legal implications.

Background

1. The case for the introduction of a dedicated kerbside collection service for segregated household food-waste was set out in the report to the Executive Meeting of 20 May 2008. The main drivers for removing food-waste from the residual waste-stream, for separate treatment and disposal, can be summarised as follows:-
 - (i) The EU Waste Directives have imposed statutory targets for the reduction in Bio-degradable Municipal Waste (BMW) sent to landfill to 75% of the 1995 levels by 2010, 50% by 2013 and 35% by 2020. Failure to meet these targets will attract a penalty of £150 for every tonne of BMW above those limits, that is sent to landfill.
 - (ii) The Landfill Tax, levied by the Government on the Waste Disposal Authorities, which is currently £32 per tonne of waste landfilled, will increase to £40 per tonne (2009/2010) and £48 per tonne (2010/2011). Further escalation of that tax is promised in the future.
 - (iii) Waverley has signed a Memorandum of Understanding with the Joint Municipal Waste Management Partnership of the eleven Surrey Districts and Surrey County Council, which has set a joint target of achieving combined recycling and composting targets across Surrey of 40% by 2010/2011 and 45% by 2013/2014.
 - (iv) Waverley's Corporate Plan targets for combined recycling and composting are an ambitious 45% by 2010/2011 and 55% by 2013/2014. However, it is believed that, in setting these targets, Members may have been influenced by targets set by a neighbouring District which include a 12% figure for the estimated amount of garden waste composted by householders in their gardens. Waverley does not inflate its composting figures in this way as such notional figures cannot be included in statutory Performance Indicators reported to DEFRA and are not helpful in benchmarking its performance against others nationally or County-wide.
 - (v) Waverley's combined recycling and composting rate is levelling off at between 40% and 41%. The Corporate Plan targets cannot be met without either recycling additional components of the residual waste-stream or a significant increase in the weight of garden waste collected and composted. The latter could be achieved by a heavily subsidised garden waste service but this would result in waste that would normally be composted in the garden being brought into the waste-stream. The policy is adopted by some Authorities to inflate their recycling performance.
 - (vi) The landfilling of food-waste and other bio-degradable wastes results in the production of gases and leachate that are harmful to the environment.

- (vii) Complaints from householders about the management of Alternate Weekly Collection (AWC) system largely relate to issues around the handling of food-waste.
- (viii) Waste compositional analyses carried out in Waverley show that food-waste comprises approximately 36% of the residual ('black bin') waste stream, the largest single constituent. This comprises approximately 18% fruit and vegetable waste and 18% cooked/prepared food.

Executive resolution

2. The report of 20 May 2008 explained that, whilst some Authorities can consider the co-collection of weekly food-waste, together with other kerbside recyclables, in hybrid vehicles constructed for that purpose, Waverley does not have that option. Those Authorities are in the process of re-tendering their contracts or have the flexibility of a Direct Services Organisation and are therefore able to specify the provision of such new vehicles. Waverley is three years into a seven-year contract which is predicated on the existing vehicles being financed over that period. Provision of new, hybrid vehicles, at this point in the contract would require re-negotiation of the contract with corresponding substantial increases in costs.

Other factors, including operational efficiency, fuel efficiency and disposal arrangements, favour the provision of the service by use of a dedicated small food-waste only vehicle.

The Executive accordingly resolved to:

"Strongly support the objective to divert food-waste from landfill and accordingly instruct officers to investigate a fully costed proposal for a limited dedicated fortnightly kerbside food-waste collection using the maximum productivity of a dedicated vehicle and crew

This report is produced in response to that resolution.

Food-waste collection trials

3. The report of 20 May 2008 was informed by trial food-waste collections carried out in three Surrey Districts. Further information on food-waste collection has now become available with the publication, in September 2008, by the Government's Waste and Resources Action Programme (WRAP), of its final report on "Evaluation of the WRAP Separate Food-Waste Collection Trials". This report to the Executive is further informed by WRAP's publication.
4. Between January 2007 and March 2008, WRAP provided technical and funding support to 19 Local Authorities to carry out trials of collecting food-waste separately to residual waste for separate treatment. This included the three Surrey trials referred to above.

The WRAP trials all had the following characteristics:

- (i) food-waste was collected weekly;
- (ii) food-waste was collected in a separate kerbside container;
- (iii) small dedicated collection vehicles were used;
- (iv) kerbside containers and kitchen caddies were provided to householders;
- (v) liners were provided for the kitchen caddies and/or kerbside containers (with the exception of one small part of the Guildford trial area).

Three of the trial areas collected food-waste from multi-occupancy premises. The trial areas included a mix of those with weekly residual waste collection and those with AWC.

Relevant findings of the national trials

- 5. (i) the amount of food waste put out for recycling by each household (the 'presentation rate', in kilogrammes) and the number of households served by the trials that used the service (the 'participation rate' %) was similar in both the Surrey trials and the nationwide trials.
- (ii) the weekly presentation rate of food-waste in those Districts where Alternate Weekly Collection was in operation for the remaining residual waste was higher than in those areas where a weekly residual waste service operated, by an average of 25%;
- (iii) there was a dropping-off of participation over time which was more marked in weekly residual waste collection areas;
- (iv) the "ACORN" (socio-economic) grouping of householders was quite significant in food-waste presentation. Trials in more affluent areas achieved higher yields;
- (v) flats and multi-occupancy households had a much lower rate of participation/ presentation, typically producing a yield of 0.5 kg per household per week compared with 2.0 kg per household per week for individual homes;
- (vi) size of household has a significant impact. WRAP estimates that one-person households produce an average 3.2 kg food-waste per week, seven-person households up to 11.5 kg per household per week;
- (vii) the lowest presentation rates were experienced where caddy/bin liners were not provided by the Local Authority. (see para. 11).

Collection Frequency

6. There is no known precedent for a fortnightly separate food-waste collection in the UK. One of the key drivers for introducing dedicated food-waste collection is to address the "maggots, flies and smells" anxieties associated with Alternate Weekly Collections, in summer conditions. The storage of concentrated food-waste over a two-week period can only exacerbate food-waste management issues. Food-waste collected for treatment by in-vessel composting or anaerobic digestion must be presented un-wrapped or wrapped only in bio-degradable liners or other bio-degradable material. A fortnightly food-waste collection would also present operational difficulties in providing same-day collection and would be confusing for householders. A fortnightly service cannot, therefore, be recommended. However, the estimates produced herein identify the contractor costs of providing one dedicated vehicle and crew based on the anticipated presentation and participation rates of a weekly collection. If the Executive wishes to consider the option of a fortnightly collection, the number of households that could be serviced by that one vehicle and crew would be a little less than double, as the additional yield from two weeks' food waste from each participating household would exceed the capacity of the vehicle. Additional trips to the disposal point would therefore be required part way through each round.

Anticipated yield and pass rate

7. (a) Participation

The Surrey trials produced an average participation rate initially of 75% of the households offered the service. This reduced to 68% at the end of the trial five months later. The WRAP trials produced similar figures for individual households but reported participation rates of less than 28% from flats and houses in multiple occupation.

(b) Presentation

The Surrey trials produced an average presentation rate of 1.5 kg of food-waste per household served per week or 2.1 kg per participating household per week.

(c) Number of Households Served Daily ('Pass Rate')

Based on the experience of the trials and experience of existing collection rates, the contractor has estimated that approximately 1,350 households can be passed (served) in each day shift in an urban or semi-urban environment, with an expected 70% - 75% participation. In the most rural rounds, the number of households served per day would reduce to approximately 700.

Suggested Waverley operational model

8. The operational Borough-wide collection model, constructed in consultation and co-operation with contractor Veolia Environmental Services, and with the knowledge of its experience of the delivery of food-waste collections elsewhere, envisages:
- a pass rate of 1,350 households per day on six "urban/semi-urban" rounds using driver plus two loaders;
 - a pass rate of 700 households per day on three "rural" rounds using driver plus one loader;
 - a participation rate of 70% for individual households and 30% for flats/HMOs;
 - a presentation rate of 2 kg of waste-food per participating household.
9. The annual yield of food-waste, based on this model, would be approximately 3,525 tons. Intensive and effective publicity, education and encouragement might lift participation rates, particularly from flats and households in multiple occupation, where special arrangements may be needed in consultation with premises' managers. We anticipate that the yield could then reach 4,000 tons per annum.

Total household waste arisings in Waverley in the last twelve months is 39,843 tons. The projected food-waste recovery therefore represents an additional 9% - 10% on the recycling figures.

Food-waste containers

10. Separation of household food-waste requires a kitchen waste caddy (typically 5 litre capacity) in which the waste can be contained in the kitchen before periodic transfer to a food-waste container (typically 23 - 25 litre capacity) which can be presented at the kerbside for emptying into the food-waste truck.
11. Food-waste will be treated either by composting in an in-vessel (closed) composter or by digestion in an anaerobic digester. Therefore food-waste must be presented un-wrapped or wrapped in bio-degradable bags (bio-bags) or other bio-degradable material. Supermarket carrier bags or standard kitchen bin liners that are non-compostable cannot be used for presenting food-waste for biological treatment. In the majority of the trials, the Local Authority provided the "bio-bag" caddy liners free of charge. The WRAP trials revealed that most residents use two to three liners per week, although in some cases this was four to five. Provision of liners potentially involves significant costs. (typically £1.50 per roll of 50 bags). The Council could consider providing sufficient to start the service and expect residents to purchase their own subsequently.

Waste Disposal Authority support

12. The Executive of the Waste Disposal Authority, Surrey County Council, has resolved to:-

"Agree that the Waste Disposal Authority works with all Waste Collection Authorities in Surrey to assess the most cost efficient method of developing County-wide segregated food-waste collections by 2012. Support for a County-wide scheme would be limited to a level which ensured that there were no additional costs compared with the alternative cost of landfill".

Clarification of the meaning of that resolution has been sought from SCC. SCC officers confirm that:

- SCC would arrange and fund the transport and processing of the food-waste;
- there would be no "gate" (processing) fee payable by Waverley (materials recycling facilities and other reprocessors typically charge £40 to £50 per tonne 'gate' fee for the cost of the processing of recyclates);
- there would be no Recycling Credit payment to Waverley in respect of the food-waste tonnages. Recycling Credit is the sum that SCC pays Waverley for each tonne of other material that Waverley separates for recycling and is Surrey's 'avoided' cost i.e. the cost it would have incurred in landfilling that material, which is the sum of its operational costs plus the Landfill Tax, currently totalling £46 per tonne.
- SCC calculates that the cost of transporting and processing food-waste would be less than the cost of transporting and landfilling it. That difference in cost could potentially be available to support Waverley's food-waste collection. It is estimated that sum could equate to a figure of up to £20 per tonne.
- there is no capital start-up funding available from SCC.

Performance Reward Grant

13. A potential source of funding for the capital start-up costs of the scheme is Waverley's share of the Performance Reward Grant (PRG) payment arising from the Surrey-wide Glass Recycling LPSA Project. At its meeting of the 20 May 2008, the Executive agreed that 50% of the Waverley share of the funding should be pooled with similar contributions from the other Surrey Districts, to provide funding for partnership projects in the Surrey Joint Municipal Waste Management Partnership. The PRG level has not yet been confirmed but, if the County-wide glass recycling targets are met in full, Waverley could expect to receive a total of £174,000, leaving £87,000 for its own projects. This grant is not expected to be received until early in the 2009/2010 financial year.

Household Mix; Urban/Rural

14. For the purpose of structuring the refuse and recycling collection rounds, the Borough is divided into 'urban/semi-urban' rounds, which can be serviced by larger vehicles, and 'rural' rounds, where smaller vehicles are needed. There is a total of approximately 40 000 households in the 'urban/semi-urban' category, centred on town and village settlements and main roads, and 10 500 in the 'rural' category. The number of households that can be serviced in each day's round varies from 700 in the very rural areas to 1200 in the most densely developed areas.
15. It is proposed that the food-waste service should be focused on those households where home-composting is impracticable due to small, communal or no, garden. It is suggested that the initial service should be focused on the more densely developed town/village centres and that the 'Round 1' service should comprise one day's collection in each of the 4 population centres of Waverley with the remaining collection day focused on flats and communal developments.

Cost Model

16. Borough-Wide Service

50,700 households:

Capital Costs

Containers (Caddy and Kerbside)	£235,000
Bio-bag liners (roll of 50 per household)	£ 76,050
Publicity/newsletters/education	£ 30,000
Total	£341,050
Contribution (Performance Reward Grant)	£ 87,000

Net Capital Cost **£254,050**

Revenue Costs (per annum)

Contractor costs	£829,000
Staff (Food Waste Advisor)	£ 30,000
On-going publicity	£ 20,000
Total	£879,000

Income:

SCC contribution (tentative) £20.00 per tonne x 3,500	£ 70,000
Recycling credit	<u>nil</u>

Net Annual Cost **£809,000**

17. Urban-focused Rounds

One round - 6,750 households per week

Capital Costs

Containers (caddy and kerbside)	£31,390
Bio-bags (1 x 50 roll per household)	£10,125
Publicity	<u>£ 6,750</u>
Total	£48,265

This can be funded in full from the LAA Performance Reward Grant for one Round only in Year 1 only.

Revenue Costs

Contractor costs	£112,500
Staff (Half Post) (Temporary 1 year for the roll-out only)	£ 15,000
Publicity	<u>£ 5,000</u>
Total	£132,500

Income:

SCC payment (tentative)	<u>£ 9,265</u>
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Net Annual Cost £122,235

Financial Implications

18. It would be possible to accommodate the net capital cost by appropriate prioritisation of Waverley's Capital Programme within the projected capital resources.
19. However, the net ongoing revenue cost of a Borough-Wide scheme is equivalent to an additional Council Tax increase of approximately 10%. Current indications are that the level of reductions required within the General Fund budget for 2009 - 2010 and beyond are already likely to be extremely challenging. It is therefore difficult to see how the Council could agree to the level of funding necessary for this scheme.
20. Although the phased introduction option would initially require the lower net annual cost in the region of £122,000, this still is equivalent to an additional Council Tax increase of 1.5%. Furthermore, the advisability of embarking on this option, when the logical ultimate outcome of a Borough-Wide scheme is not viable financially, is extremely questionable.

Conclusion

21. The introduction of a dedicated weekly kerbside household food-waste collection service would meet a number of key objectives. It would:

- (i) help meet Waverley's Corporate Plan Targets for a combined recycling and composting rate of 45% by 2010/2011 and 55% by 2013/2014;
 - (ii) support Surrey County Council's target of having a County-wide segregated food-waste collection and treatment service in place by 2012, in order to meet landfill reduction targets and avoid EU penalties for failing to do so;
 - (iii) help in meeting the EU Waste Directive statutory targets for the reduction in bio-degradable municipal waste sent to landfill which is set for 2013 and 2020, and accordingly reduce damage to the environment from landfill gases and leachate;
 - (iv) support the Surrey Joint Municipal Waste Management Partnership in seeking cross-County convergence in waste collection practices to benefit joint working and possibly joint procurement savings; and
 - (v) provide a solution to the complaints from householders about food-waste management issues ("maggots, flies and smells") associated with Alternate Weekly Collection (AWC).
22. However, there is a very significant cost to the introduction of such a service. The savings in the service cost that accrued as a result of competitive re-tendering and the introduction of AWC (that peer authorities in Surrey are using for this purpose) have been assimilated into the General Fund. Any growth in the service must therefore be funded through Council Tax increases or reduction in services elsewhere. The Borough-wide food-waste collection cost represents around 10% on the Waverley element of the Council Tax.
23. The introduction of the service in phases, Round by Round, might be an option and Phase 1, commencing in 2009/2010 might be fundable. However, once the service has commenced, it will be difficult to withdraw it. Funding into the future for Phase 1, and subsequent phases, will therefore need to be assured before we proceed.
24. An option for the future could be the provision of the service to the urban/semi-urban Rounds, including flats, and to continue to promote home food composting for the more rural households. This would reduce the capital and revenue costs and could be modelled, in consultation with the contractor, to produce a range of costed options. However, the costs would remain significant.
25. It is in the interest of SCC to divert food-waste from the residual waste stream as, if it fails to meet the EU targets for reducing bio-degradable waste sent to landfill, it will face financial penalties in the future. It is also in Surrey's interest to capture as much food-waste as possible from the County to make an in-County biological treatment plant economically viable.

Recommendation

It is recommended that the Executive:

1. affirms Waverley's strong aspiration for such a service and thanks the officers for the excellent report demonstrating how a dedicated weekly kerbside food waste collection service could be introduced in Waverley, and the associated financial implications;
2. agrees that the implications of Waverley introducing such a scheme be determined during the forthcoming budget discussions, recognising that it may not be possible to start immediately in the current economic circumstances that affect Waverley; and
3. instructs officers to seek increased financial support from Surrey County Council.

Background Papers (SDE)

There are no background papers (as defined by Section 100D(5) of the Local Government Act 1972) relating to this report.

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