



Report for:	Strategic Planning and Environment Overview and Scrutiny Committee
Date of meeting:	20 November 2018
Part:	1
If Part II, reason:	

Title of report:	Food Waste Trial Analysis Report
Contact:	Councillor Janice Marshall, Portfolio Holder for Environmental Services and Sustainability Craig Thorpe, Group Manager, Environmental Services
Purpose of report:	1. To advise Members on the outcomes of the Flats Food Waste Trial.
Recommendations	1. That Members note the results of the trial and comments are passed to the Portfolio Holder for her consideration.
Corporate objectives:	To provide a clean, safe and green environment
Implications:	<u>Financial</u> Shown in report
'Value for money' implications	<u>Value for money</u> N/A
Risk implications	None as a result this report
Equalities Implications	N/A
Community Impact Assessment	
Health and safety Implications	None as a result of this report

Consultees:	Officers within Environmental Services Task and Finish Group
Background papers:	A presentation to be given on the evening
Historical background <i>(please give a brief background to this report to enable it to be considered in the right context).</i>	This report has been provided to give an overview of the findings following the conclusion of a three-month food waste trial, which was carried out to flats.

Trial Background

- 1.0** Food waste recycling is currently not available to flats in Dacorum.
- 1.1** In November 2014, Dacorum introduced a new ‘Recycle for Dacorum’ service to householders. This saw the introduction of separate, weekly food waste recycling, the issue of blue-lidded bin for all mixed recycling (previously source separated), and the green bin switch to garden waste only (food waste removed).
- 1.2** This new service was not provided to flats at this time due to the unprecedented complexity of their differences in locations and bin areas.
- 1.3** However, since the new service roll out, we have had regular complaints from flat-dwellers who said that they would welcome the opportunity to recycle their food waste. Over the past few years, general public awareness around environmental issues has escalated and the need for people to be recycling more to reduce their carbon footprint has become more prominent than ever before. This has fuelled flat-dweller’s frustrations and brought the issue of waste and recycling to the forefront.
- 1.4** Food waste recycling has been extremely popular with Householders. In 2017-18 over 4870 tonnes of food waste was collected and diverted from landfill.
- 1.5** A Task and Finish group was established early in 2017 to discuss options around improving recycling in flats. Costs and options were presented in July 2017 and the decision was made to offer a three-month food waste recycling trial to flats to see how the residents engage with the service and to Move forward with rolling out mixed recycling to the 3000 flats that do not currently have any recycling facilities available to them.
- 1.6** In September 2017, more detailed costs and information was presented to Scrutiny and the trial was fully approved to move forward in the next financial year.
- 1.7** The main objectives of the trial were to:

- 1.7.1 Identify how well flat-dwellers would engage with a food waste service
- 1.7.2 Identify whether the contamination levels would be excessively high
- 1.7.3 Test how a food waste collection service for flats would run in terms of what equipment and communication would be most suitable.

Implementation:

Planning:

- 2.0 1540 flats across Berkhamsted and Grovehill were offered food waste recycling for 3 months and asked to complete a feedback survey at the end of the trial.
- 2.1 The main locations chosen were Berkhamsted and Grovehill as they provided a useful range of property building types and recycling engagement levels. In order to use a high-rise building, Pelham Court in Leverstock Green was also used (maps in appendices)
- 2.2 There are 10,500 flats in Dacorum so the sample used represented approximately 15%. There are 52,900 houses in Dacorum.
- 2.3 The three-month trial ran throughout Quarter 2, 2018-19. Residents received their bins during the first week of July, with their first collection being on Friday 13 July and their last collection being on Friday 28 September.
- 2.4 The trial represented one collection day per week during the three-month trial period

Communication:

- 3.0 All the communication and artwork that was used in the trial was designed internally in order to keep costs to a minimum.
- 3.1 The two main points we needed to consider in communications were to successfully encourage the participants to engage with the food waste service, and to ensure that they put the correct materials into their bins. Guidance showed that contamination levels are notoriously higher in flats than households and therefore this needed to be reflected in the communications that were used throughout the trial.
- 3.2 Research showed that people are often more likely to do something if it is of benefit to the environment, if it will save them money or if it is proved to be more convenient to them and so these were used as the main incentive hooks.
- 3.3 During the roll out of the trial the following communication and equipment was delivered:
 - 3.3.1 Introductory letter – this explained that they had been chosen to be part of the food waste trial and what this meant for them

3.3.2 A5 Recycling Guide – this explained the importance of recycling food waste, what they need to do, where they could ask queries and get more information, what can be recycled and what materials are not accepted.

3.3.3 5L Kitchen caddy and roll of 30 caddy liners

3.3.4 A6 Caddy sticker – this was to be stuck onto the lids of the caddies and summarised what targeted materials

3.3.5 A4 Poster – this was displayed on flats noticeboard / bin areas and reminded people that they had been selected to take part in the trial

3.3.6 Website – each participant was provided with the unique URL to the webpage, which was set up purely for food waste trial participants. This provided more in-depth information about the trial and a comprehensive FAQ.

3.3.7 Heat-stamped wheeled-bin lids – these read ‘food waste only’. We did this to help reduce contamination and to ensure this message was never peeled off.

3.3.8 A5 Food Waste Stickers – these were applied to the grey body of the bin as a final reminder of what materials could be accepted. We did not have enough stickers for all bins but each block had at least one sticker.

3.4 When the trial was ending, the following communications were sent out to residents:

3.4.1 Exit letter – this was sent out to each flat two weeks beforehand to thank them for taking part in the trial, ask them to complete the feedback survey and to let them know the date that their communal brown bins would be taken away.

3.4.2 Feedback Survey – we set up a survey on the unique food waste trial webpage and encouraged people to complete it using the incentive of winning a prize-draw (£100 in vouchers). We included a version of the survey on the back of the exit letter so that we were inclusive of anyone who was unable to access a computer or the internet.

3.4.3 Bin stickers – all communal wheeled-bins had a sticker put on the lid the week beforehand to let people know what date the bin would be taken away, thank them for taking part in the trial and remind them of the survey link

3.4.4 A4 Poster – this was displayed on flats noticeboard / bin areas to remind people that the bins would soon be taken away and to complete the survey online

3.4.5 Website – the website was updated to reflect the date when the bins would be taken away and provide a link to the feedback survey.

3.5 During the trial launch and ending we also sent information to the Communications, Customers Services and Admin department to ensure that they were kept informed of our project and diverted any queries our way.

3.6 During the 3-month trial period we received 13 calls, 13 emails and 1 in person. No further queries were received after mid-August, suggesting that during a permanent roll out, the level of queries would quickly die down.

3.7 The final collection took place on Friday 28 September and all communal bins were collected back in on Saturday 29 September. The survey ran until Sunday 28 October.

Equipment Used

4.0 It took 3 days to deliver all of the equipment to the trial properties.

4.1 Kitchen caddy: We provided the same 5L kitchen caddy householders use.

4.2 Caddy liners: Research has proven that it is best practise to supply caddy liners to improve engagement when first introducing a food waste collection service. We provided a roll of 30 liners on the estimation that they would use around two liners per week.

4.3 Communal wheeled-bins: It would be inappropriate for flat-dwellers to be provided with the 23L kerbside caddies, which we use for householders due to space limitations – therefore communal wheeled-bins were used.

4.3.1 Bin capacity: In order to supply the correct amount of wheeled bins per property, we worked on the basis that householders are provided with 23L in their kerbside caddies. As flats typically have less people living in the property, we decided to provide 18L per property.

4.4 A 7.5 tonne non-compaction vehicle was predominantly used for collection of food waste during the trial period resourced with one driver and one loader.

Results

Tonnage

5.0 The average amount collected per property in the trial was 0.51kg each week.

5.1 During the same period, householders across the borough collected an average of 1.9kg each week. Although a lower tonnage than householders was predicted, it is expected that tonnage would be higher if a permanent service were provided on the basis that it would become more of a habit

5.2 Extrapolating the tonnage figures to a full year, it can be estimated that a permanent collection service rolled out to all 10,500 flats would bring in an additional 300 tonnes of food waste a year – approximately 6% of the current food waste tonnage.

Participation

6.0 Each week the crews filled out participation sheets when they emptied the communal bins at each block of flats. These sheets would record approximately how full each bin was on a scale of 0 – 1.

6.1 The average overall participation rate was 91.5%. Results being:

6.1.1 Berkhamsted had an average 95% participation rate. Their highest rate was 100%; their lowest rate was 90%.

6.1.2 Grovehill and Pelham Court had an average 88% participation rate. Their highest rate was 96.3% and their lowest rate was 81.5%

6.1.3 These figures strongly suggest that a permanent service would be successful if rolled out in these areas.

6.2 “100% engagement” is the number of blocks in an area that put food waste out in their communal bins every single week.

6.2.1 In Berkhamsted 75% of the blocks had 100% engagement.

6.2.2 In Grovehill 40% of the blocks had 100% engagement.

6.3 Using the participation sheets we were able to see how many bins on average were being used at each block. We discovered that 70% of sites used all of the bins provided to them. 20% had one surplus bin. 10% had two surplus bins.

6.3.1 Analysing the data further, we now know that it would be best practise to provide each property with 10L capacity rather than 18L.

6.4 Contamination levels were also logged by the crews when bins were emptied.

6.4.1 31% of blocks in Berkhamsted experienced contamination. 75% of these blocks only experienced contamination once. The average severity of contamination on a scale of 0-5 was 0.18/5.

6.4.2 59% of blocks in Grovehill experienced contamination. 39% of these blocks only experienced contamination once. The average severity of contamination on a scale of 0-5 was 0.45/5.

6.4.3 To prevent contamination issues with a permanent roll out, we would recommend changing to a wheeled bin that has a locked lid, with an aperture lid built in which only allows bags the size of a caddy liner to enter.

6.4.3.1 These aperture lid wheeled bins are only available in a 240L, not as 140L. This would have the added benefit of being faster for crews to empty, whilst also saving space in communal bin areas – which is an issue for residents.

Survey feedback (the following results are only based on feedback received from residents who completed the on line survey)

- 7.0** 12.5% of trial participants completed the feedback survey.
- 7.1** 92% of respondents recycled their food waste during the trial.
- 7.1.1** 83% of those who recycled, felt that separating out their food waste made them more aware of how much food they are throwing away.
- 7.1.2** The highest rated reason for not taking part in the trial was the belief that they would not create enough food waste. This would be addressed in the communications plan for a future roll out.
- 7.2** 98% of people found the literature informative enough.
- 7.3** 98% of people who recycled used the liners and caddy provided.
- 7.3.1** 86% used 1-2 liners each week, proving our estimations correct.
- 7.4** 34% of respondents encountered problems during the trial.
- 7.4.1** 53% thought the liners provided were too weak. In the event of a permanent roll out we would switch to a different liner supplier.
- 7.4.2** 15% were concerned about the smell of bins
- 7.4.3** 12% encountered flies and/or maggots in their bins.
- 7.4.4** Unfortunately the food waste trial ran during the severe summer heat wave, which exacerbated the issues around both smells and flies. However, ironically, those who *did* recycle their food waste, listed smells and convenience as one of their incentives. Separating out food waste means that this can be emptied more quickly and conveniently than a general waste bin, which would still have caused smells and flies in the hot weather.
- 7.5** 92% of respondents would recycle their food waste permanently.
- 7.5.1** 97% of those who recycled in the trial would use the permanent service (not 100% due to liner issue)
- 7.5.2** 33% of those who did not recycle their food waste in the trial would use the permanent service.
- 7.6** 92% people told us their incentive for wanting to recycle their food waste was because it is 'better for the environment'.
- 7.6.1** 28% listed it as their sole reason. 64% listed it as a joint reason.
- 7.6.2** 52% answered 'more convenient'.
- 7.6.3** 45% answered 'better use of tax-payers money'.

7.7 When asked if there was any final feedback at the end of the survey, 62% of respondent's final unprompted comments were that the food waste recycling service should be made permanent.

7.7.1 16% actively stated that they would be disappointed if the service were not made permanent and 13% stated that they want to recycle more for the environment. This demonstrates the strength of feeling amongst residents for those who want to be able to recycle their food waste.

Costs

8.0 The cost of the trial was approximately £16,600 in total.

8.0.1 The predicted cost of the trial was £17,500 and so we were under budget overall.

Description	Total Cost (excl. VAT)
5L Kitchen caddies	£1,617.00
140L lids + heat stamp	£1,692.50
Compostable caddy liners	£990.00
Caddy stickers	£493.00
Food Waste Trial Guides - A5	£132.00
Hire of Fuso Cantor 7.5T food waste refuse truck	£7,200.00
Posters	£30.00
Letters and delivery - round 1	£100.00
Food Waste Trial Ending Stickers	£45.00
Posters	£30.00
Letters and delivery - round 2	£652.12
Survey prize	£100.00
Crew & van delivery	£1,720.00
Extended hire of Fuso Cantor 7.5T food waste refuse truck	£1,800.00
Total estimated spend:	£16,601.62

8.1 The expected cost of a permanent round collecting food waste would be in the region of:

Ongoing Revenue Costs 2020/21 onwards.

1 Food round (1Driver and & 1Loader)

£56,000

Fuel and maintenance £10,000

TOTAL £66,000

One off Implementation Costs (2019/20)

Project Team - Development Officer/Recycling Advisor £55,000
 A4 letter printed and posted Volume 10,500 £4,180
 A5 leaflet Volume 11,000 £450
 Caddy stickers Volume 11,000 £770
 Wheeled bin stickers Volume 1000 £500
 Posters Volume 500 £100

TOTAL £61,000

Initial Capital Costs

Vehicle £75,000
 Wheeled bins: 550 x 240L lid-in-lids £24,800
 5L Caddies: 11,000 £10,780

Total capital cost: £110,580

Capital Investment 7 year Programme

Description	19/20 £	20/21 £	21/22 £	22/23 £	23/24 £	24/25 £	25/26 £	Total
Vehicle	75,000						85,000	160,000
Bins	24,800	5,000	5,000	5,000	5,000	5,000	5,000	54,800
Caddies	10,780	2,000	2,000	2,000	2,000	2,000	2,000	22,780
Annual Total	110,580	7,000	7,000	7,000	7,000	7,000	92,000	237,580

9.0 In March 2019, the Flats Recycling Improvement project will come to an end meaning that all flats in the Borough have a facility to recycle their dry recycling materials. If this trial were to be successful, this would mean that every household in Dacorum would then be able to recycle both food and dry mixed recycling from their homes which would be consistent with the rest of the boroughs residents.