Committee: Sustainable Communities Overview and Scrutiny

Date: 11 November 2015

Wards: Lavender Fields / All

Subject: Wheelie Bin Pilot Waste and Street Cleansing Service

Lead officer: Chris Lee, Director of Environment and Regeneration

Lead member: Councillor Judy Saunders, Cabinet Member for Environmental Cleanliness and Parking

Contact officer: Cormac Stokes, Head of Street Scene and Waste

Recommendations:

A) To note the findings from the wheelie bin trial within the Lavender Fields ward.

B) To assess whether it offers opportunities to improve street cleanliness and ensure value for money for council tax payers

C) To identify any areas of further work for Cabinet consideration.

1 BACKGROUND AND EXECUTIVE SUMMARY

1.1. The wheelie bin trial for the collection of household waste and recycling started in April 2015 from 1035 properties located within the Lavender fields ward.

1.2. The trial was designed to assess the impact of issuing a 180ltr wheelie bin for general waste and a 240ltr wheelie bin for the co-mingled recycling waste stream.

1.3. Lavender Fields ward was chosen for the trial, primarily as this area consists of a range of different types of dwellings including terraced housing, flats and maisonettes. The area also reflects the need to consider levels of heavy footfall, outside of town centres and shopping areas which impacts on the level of street litter. Independent cleansing inspections and annual resident survey results also indicate that there is a need for interventions to improve standards and perceptions of cleanliness in this area. There are also opportunities to incentivise increased levels of recycling as current participation rates are relatively low.

1.4. The trial, which ran for 6 months, has now been completed and the findings evaluated. Prior to any cabinet report and supporting recommendations it was agreed that the findings would be considered by the Sustainable Communities Overview and Scrutiny Panel.

1.5. In the interim period, until any final recommendations are agreed and implemented the households within the trial area have been allowed to retain the wheelie bins. These households have been reintegrated into the existing scheduled rounds.

2 METHODOLOGY

2.1. Each household in the pilot area received two wheelie bins, one for recycling and one for residual waste.

2.2. The introduction of a single 240ltr wheelie bin increased the capacity to recycle whilst maintaining the same footprint of required space.

2.3. To limit residual waste a 180 Litre wheeled bin for general waste was provided. This equated to approximately 2.5 standard sized dust bins.

2.4. Designated collection rounds were introduced 3 months prior to the trial commencing in order to capture accurate tonnage data. These dedicated rounds remained throughout the trial providing clear and accurate waste volumes for comparison.

2.5. The level of street litter was independently measured as part of a scheduled series of 8 inspections in advance of the trial and repeated again throughout the trial.

2.6. In order to assess the views of the residents M·E·L Research were commissioned to carry out a face to face consultation with residents to gain feedback on the trial. The fieldwork was carried out just before the trial ended at the end of September 2015. Overall 350 face to face surveys were completed and an additional 201postal surveys returned . This equates to an overall response rate of 53% from the 1,035 households taking part in the trial. Full details can be found in appendix A.

3 SUMMARY OF FINDINGS

3.1. There are a number of expected advantages associated with the use of wheelie bins but the rationale of the pilot was to test these expected benefits and to assess whether there are any disbenefits. The expected benefits the pilot sought to test include:

- Cleaner streets through less wind-blown litter and reduced risk of animal attack and spillage from sacks
- Positive environmental impact through increased recycling as a result of increased container capacity
- Improved appearance: neater curtilage with single recycling bin rather than multiple boxes
- Weather resistant and improved quality of recyclate
- Improved working conditions for collection operatives

3.2. There are a number of factors that require consideration when using wheelie bins for waste collections that were also tested.

3.2.1 Wheelie bins can be difficult to manoeuvre for some elderly and frail residents. The Service currently provides assisted collections for residents who need assistance in presenting their waste. Over the trial period only one additional assisted collection was required as a result of moving to wheelie bins.

3.2.2 There is potential for the level of contamination within a wheelie bin to increase when compared to the current open box container. However, quality control checks with our materials reprocessor, Viridor, suggested negligible levels of contamination.

3.3. Generally, it is expected that wheelie bins will have a longer life span than the recycling boxes currently used and distributed to resdients. It is difficult to judge how long they would last as they are sometimes affected by damage rather than general wear and tear. Some wheelie bins are still being used that were distributed in some parts of the country over 15 years ago. Over the past three years the council has delivered on average over 7,300 additional or replacement boxes at an annual cost of approximately £20,000. General practice suggests that a replacement programme of 5% for a service using wheelie bins should be considered.

.

3.4. **Total Waste volumes** – prior to the introduction of wheelie bins the average daily tonnage (all waste streams) from the trial area was 14.40 tonnes. This increased to an average of 16.58 tonnes following the implementation of the new wheelie bin service. 70% of this increase can be attributed to an increase in recycling.

3.5. Residual waste increased by 0.7tonnes per week over the trial period. It is important to note that over the 6 month monitoring period the service saw a borough wide increase of 2% in the level of residual household waste. This increase has directly impacted on the level of residual waste collected per day and contributes to the average 0.7 tonnes of waste collected within the trial area. 2% equates to approx. 0.2 tonnes.

3.6. Table 1 below compares the average daily waste volumes pre and post-trial and measured in tonnes. Table 2 shows the comparison in ratios between the different waste streams and measured as a percentage for the base line data.

Table 1 Average weekly tonnage of waste collected

	Refuse	% increase	Recycling	% increase	Food	% decrease	Total	% variance
PRE Trial	9.95		3.21		1.24		14.4	
Post-Trial	10.64		4.74		1.2		16.58	
Variance	0.7	7%	1.53	48%	-0.04	-3%	2.18	15%

Table 2 Percentage of waste arisings

	Refuse	Recycling	Food	Total
PRE Trial	69.08%	22.30%	8.61%	100%
Post-Trial	64.18%	28.58%	7.24%	100%
Variance	-4.90%	6.28%	-1.37%	

3.7. The level of recycling, measured by weight has increased by 6% supporting a reduction in general waste of 4.9%

3.8. Over the 6 month period the level of residual waste across the borough has increased by 2%. In the trial area it increased by 7% From this it could be surmised that in the pilot area some waste that previously ended up on the streets was instead captured in the residual waste collection.

3.9. The level of food waste has remained constant in terms of volume (tonnage) but it is acknowledge that as a result of the overall increase in waste arisings this represents a reduction as a percentage. This contradicts findings in some other boroughs with wheeled bins, where food waste usage has increased, although this may be attributable to these boroughs offering a weekly food waste collection combined with alternate weekly residual and recycling collections.

3.10. **Street Cleansing –** The quality of the streets in terms of cleanliness (litter and detritus) has been greatly improved by c17% in absolute terms but a relative improvement of over 60%. An average of 11% of the area fell below the acceptable standard during the trial period, compared to an average of 29% below the acceptable level prior to the trial being implemented**.** (see Table 3 below) As part of the consultation process 81% of the residents indicated that they felt the streets were cleaner.

3.11. Research carried out by the Tidy Britain Group on behalf of the council in 2010 indicated that as much as 50% of all street waste arisings in residential roads can be attributed to the black sack and box collection schemes operated within Merton

3.12. This level of improvement can be directly attributed to the effective containerisation of waste, It is considered that the wheelie bins contained residual and recycling waste successfully preventing it from littering the streets as much as before.

3.13. All 23 roads within the trial area were inspected on 8 separate occasions over the 6 month trial period.

Table 3 Percentage of areas deemed unsatisfactory in terms of cleanliness.

	Pre-pilot	**During pilot**
Inspection 1	21.59%	8.11%
Inspection 2	28.57%	5.88%
Inspection 3	27.91%	10.00%
Inspection 4	25.00%	14.86%
Inspection 5	17.11%	12.20%
Inspection 6	32.93%	20.24%
Inspection 7	43.59%	10.26%
Inspection 8	37.88%	14.10%
Average	29.32%	11.96%

4 FACTORS FOR CONSIDERATION

4.1. Given a successful track record of joint working the four South London Waste Partnership boroughs (Merton, Sutton, Kingston and Croydon) are currently undertaking a procurement exercise for a joint waste collection, street cleaning and parks' services. The principle of a shared procurement was agreed by Cabinet on Monday 10th November 2014. It is anticipated, based on current competitive dialogue that a joint procurement could generate savings of at least 15% on the costs of collection through economies of scale and measures to improve recycling.

4.2. The procurement is on schedule to be concluded in the summer 2016 with contract award in December 2016.

4.3. Black bin bags are regularly left on the street, in tree pits and around litter bins attracting further fly tips. This is often attributed to the lack of waste storage and has a negative impact on the image of the public realm. The forecast growth in the number of households over the next 15 years will place a greater emphasis on the way we manage our waste growth and ensure the right collection methodology is in place.

4.4. The current level of recycling has plateaued over the last 4 years at c38%. We will need to greatly improve on this level of performance if Merton is to be considered a high performing council and contributes towards the National target of 50% by 2020.

4.5. In some respects it is difficult to compare the findings of the pilot with other boroughs as Merton has a specific collection service that is not replicated in all boroughs. The 3 Neighbouring boroughs and members of the South London Waste Partnership provide a range of collection methods as set out below. Since introducing wheelie bins and alternate weekly collections both Kingston and Croydon have significantly increased their recycling rates. Sutton provides wheelie bins but collects recycling on a fortnightly basis with residual waste collected weekly. Sutton is achieving similar levels of recycling to Merton but without any separate food waste collection.

LB CROYDON	ALTERNATE WEEKLY REFUSE AND RECYCLING COLLECTIONS , WEEKLY FOOD WASTE	WHEELIE BIN	40% RECYCLING RATE
RB KINGSTON	ALTERNATE WEEKLY REFUSE AND RECYCLING COLLECTIONS, WEEKLY FOOD WASTE	WHEELIE BIN	47% RECYCLING RATE
LB SUTTON	WEEKLY REFUSE, RECYCLINGEVERY OTHER WEEK COLLECTION, NO	WHEELIE BIN	38% RECYCLING RATE

Page 9

	FOOD WASTE SERVICE		

4.6. Merton currently provides an unlimited black sack weekly collection. It is acknowledged that there is a clear correlation between the available capacity provided for general waste and the level of recycling performance.

4.7. A recently report published by WRAP (Analysis of Recycling Performance and Waste Arisings in the UK 2012/13, July 2015) found that effective weekly residual waste containment capacity (limiting the size of the container or frequency of collection) and the presence of a food waste collection service has a significant impact on overall recycling rates.

4.8. Merton retains a weekly collection service for all three waste streams. This contrasts with some other boroughs where alternate weekly collections of residual waste are now provided by 76% of local authorities in the UK, as shown in the table below:

Country	Weekly	More Than Weekly	Alternate weekly
England	50%	4%	71%
Wales	18%	0%	100%
Scotland	56%	13%	88%
Northern Ireland	0%	0%	100%
UK	**45%**	**4%**	**76%**

NB. The reason for the figures adding up to more than 100% is because many local authorities operate multiple collection schemes in their areas. The weekly figures above often refer to the food waste stream, with recycling and residual more likely to be alternate weekly.

4.9. The 2013 National WYG 'Review of Kerbside Recycling Collection Schemes in the UK in 2011/12' report found that:

- 24 of the top 30 authorities collect recycling fortnightly and 26 collect refuse fortnightly, and;
- Of the bottom 30 authorities, 26 collect recycling fortnightly but only 7 collect refuse fortnightly.

4.10. The top 5 performing authorities all have the following schemes in common:

- Fortnightly residual waste collections;
- Restricted residual waste containment, and;
- Weekly food waste collections (three Councils operate separate collections and two co-collect food waste with garden waste).

4.11. The top five performing boroughs in London with respect to recycling in 2014/15 are set out below. Of these, the top four provide an alternate weekly collection and three provide wheelie bins.

Bexley 55%

Bromley 48%

Harrow 47%

RB Kingston 45%

Richmond 41%

5 CONSULTATION

5.1. MEL conducted the face to face consultation in Sept 2015. In summary the consultation results show that the majority of the respondents were happy with the wheelie bin collection and found the bins easier to use than the boxes and sacks. Respondents over the age of 55 raised a small number of issues with respect to replacement of containers and missed bins. These are similar to issues being addressed with the current collection method and are being dealt with through regular communications with collection crews.

5.2. Respondents were more satisfied with the size of the recycling wheelie bin when compared to the size of the general rubbish wheelie bin although both bins scored 80% or above. When comparing satisfaction by demographics, a small number of older respondents and smaller households expressed concern that the recycling bins are too big, whilst younger respondents and larger households were most likely to state the recycling bins are too small.

5.3. When assessing the impact the wheelie bins have had on waste disposal behaviours, around two thirds felt they recycle more since the introduction of the trial. When comparing this by age and household size, the 25-34 age group and larger household sizes were most likely to have positively changed their recycling behaviours. Just under half of respondents felt that they are also sending less to landfill.

5.4. Table 4 below shows a high level summary of the consultation. A detailed report can be seen in Appendix A (MEL Residents Feedback Consultation).

Table 4

Survey	Net Satisfaction
Are you happy with the council's wheelie bin collection service,	89%
Have you found using the wheelie bins easier to use than the sacks and boxes,	95%
Is your street cleaner than before the wheelie bin trial started,	81%
Are you happy with the size of the wheelie bins for recycling	89%
Are you happy with the size of the wheelie bins for general rubbish	80%
The council kept me well informed about the wheelie bin trial	91%
The council wheelie bin leaflet was easy to understand and clearly	94%

Page 7

informed me of what can go in each bin	

6 FINANCIAL, RESOURCE AND PROPERTY IMPLICATIONS

6.1. The pilot scheme required a capital outlay of £35,000 for the procurement of bins and a further £67,000 from revenue to provide dedicated collection vehicles and associated crews. The use of dedicated collection crews for the trial ensured the integrity of the data collected.

6.2. The trial came in £13,000 below the approved budget as a result in a reduction in the unit price of the wheelie bins of £15 per unit compared to a budget cost of £20.

	Approved Budget	Actual Cost	Description	Funding Source
Revenue Cost	£67,000	£67,000	Additional Labour and vehicle hire	DCLG bid for Mega recycling
Capital cost (bins)	£48,000	£35,000	Procurement of 2,300 bins	Funded from underspend within Environment and Regeneration Capital programme
Net Total	£115,000	£102,000		Fully Funded

6.3. It is difficult to be precise about the costs of implementing a borough-wide scheme as this would rely on detailed modelling of waste streams, route optimisation work and a detailed understanding of waste diversion from landfill to cheaper forms of treatment and recycling. Furthermore there are likely to be opportunities to deliver more efficient street cleaning services as a result that have not been factored in at this stage. The detail set out below is purely indicative and focuses on the assumptions of a service that retains a weekly collection of all waste streams.

6.4. The implementation of a borough wide wheeled bin service would require the purchasing of an estimated 136,000 bins at a capital cost of c£2.1m, based on the continued weekly collection of all three waste streams. This figure is based on all street properties, a proportion of which may not be suitable for wheelie bins. Adding this scheme to the Capital Programme would require Council Approval. This scheme would be unfunded and the revenue cost associated with the scheme would be dependent on the useful life of the bins.

6.5. In addition to the capital cost of bins the service would be required to procure an estimated additional 7 compaction vehicles (based on the weekly collection of all three waste streams - residual, recycling, food) at an estimated cost of £155k per unit. .The total capital cost of vehicle would be £1.1m.

6.6. It is important to note that the capital cost of the vehicles excludes any revenue costs from Fleet services which would be required to cover the scheduled maintenance and servicing.

6.7. Impact on Collection Rounds based on a borough wide roll out – Revenue per annum

Assumptions	*Current*	*if rolled out borough wide*	*Diff*
Vehicle	*19*	*26*	*7*
Loader	*48*	*49*	*1*
Driver	*19*	*26*	*7*
Cost	*Unit*	*per unit*	*Total*
Vehicle	*7*	*£9,400*	*£65,800*
Loader	*1*	*£21,000*	*£21,000*
Driver	*7*	*£22,500*	*£157,500*
Total			***£244,300***

(Please not service cost of vehicle is annual SLA with Fleet services and excludes cost of capital)

Summary of theoretical Borough wide Service if rolled out

Revenue Cost	£244,300	Net balance of increased labour cost and additional vehicle maintenance per annum

Capital Cost	£2.1m	Purchase of 136,000 wheelie bins
	£1.085m	Purchase of 7 compaction vehicles
Total	**£3.185m**	

(The above cost excludes any annual replacement programme).

6.8. Given the current financial pressures a number of local authorities have implemented new collection methods and policies in order to reduce operating / disposal cost by realigning collection frequencies (operational savings) and limiting residual waste disposal capacity (waste disposal savings and potentially improved revenues for increasing recycling yield).

Authority	Summary	Hyperlink to report
Ealing Council -	(2016) - Move towards alternate weekly collection and implement wheelie	Recycling, rubbish and waste - Ealing Council

	bins	
Swansea Council	(2015) - Introduction of a limit on household waste	http://www.letsrecycle.com/news/latest-news/swanseas-black-bag-limit-sees-residual-waste-fall/
Hampshire County Council:	(2015) – Fortnightly waste collections offer higher recycling yields	Fortnightly collections offer 'higher yield' for recycling - letsrecycle.com
City of Edinburgh Council	(2015) – Wheelie bins for household waste:	http://www.edinburghnews.scotsman.com/news/edinburgh-recycling-rates-soar-85-per-cent-1-3650917
London Borough of Hounslow	(2014) – Trial of 140-litre wheeled bins for residual waste with a 'no excess' policy	New bins a wheelie big success
London Borough of Lambeth:	(2014) – Wheelie bins for household waste	Success of smaller wheelie bins and food waste service | Lambeth news

7 LEGAL AND STATUTORY IMPLICATIONS

7.1. Section 45 of the Environmental Protection Act 1990 imposes a duty upon each waste Collection Authority (WCA) to arrange for the collection of household waste in its area. No charge can be made for performing that service. Section 46 allows the WCA by notice on the occupier to require occupiers to place household waste for collection in receptacles of a kind and number specified in the notice. The kind and number of these receptacles are to be 'reasonable' but may require separate receptacles for those parts of the household waste which are to be recycled from those parts which are not. The WCA can also determine whether the receptacles are to be provided free of charge by the WCA or to be provided by the WCA upon a single or periodical payment from the occupier, or are provided by the occupier. Once proper notice has been given to the occupier and the notice period of 21 days has expired without appeal the placing of household waste outside these receptacles without reasonable excuse constitutes an offence.

8 HUMAN RIGHTS, EQUALITIES AND COMMUNITY COHESION IMPLICATIONS

8.1. The service continues to provide an' assisted collection' and following the implementation of the wheelie bin and the promotion of the assisted collection service one additional assisted collection was requested within the trial area.

9 CRIME AND DISORDER IMPLICATIONS

9.1. None identified

10 RISK MANAGEMENT AND HEALTH AND SAFETY IMPLICATIONS

10.1. The introduction of wheeled bins significantly reduces the level of manual handling required by the operatives, with less lifting involved. With the waste being contained there is less risk of glass and sharps related injuries. As a result there would be an anticipated improvement in levels of sickness across recycling collection services. The service currently runs with a sickness level of 16 days per staff member and has targets to reduce this down to 10 days per person. In achieving this the service has put forward savings in agency cost of c£100k.

11 APPENDICES – THE FOLLOWING DOCUMENTS ARE TO BE PUBLISHED WITH THIS REPORT AND FORM PART OF THE REPORT

- MEL Resident Consultation – Appendix A
- Data analysis - Appendix B

12 BACKGROUND PAPERS

Held by Cormac Stokes, Head of Street Scene and Waste

This page is intentionally left blank