

Appendix B1 - Briefing paper on potential bin sizes: November 2017

Link between bin capacity and recycling

A study by WRAP in 2012/13 identified the key determinates to higher recycling rates. They included:

- The affluence of the area (more affluent = higher recycling)
- The urban/rural nature of the authority (more rural = higher recycling)
- Whether the authority provided a food waste service (food waste = higher recycling overall)
- The capacity (in litres) of the general waste collection (lower capacity of general waste = higher recycling)

http://www.wrap.org.uk/sites/files/wrap/priv_download/Analysis_of_recycling_performance_and_waste_arisings%20in%20the%20UK%202012%2013.pdf

With regard to capacity, they found: “Each additional litre of **effective weekly residual containment capacity** was associated with a reduction in mean recycling rate of 0.05 ± 0.02 percentage points. This indicates that *authorities with higher effective weekly residual containment capacity were associated with lower recycling rates*. Comparing 240 litres effective weekly residual containment capacity (typical for a weekly residual collection) with a reference value of 120 litres a week (typically seen with a fortnightly residual collection), is therefore predicted to reduce recycling rate by 6.3 ± 2.9 percentage points. This predictor has the *highest level of certainty* within the dataset.”

Whilst WRAP have established a link between capacity and recycling rate, they do not conclude the optimum size of wheeled bin.

The London collection regime

An analysis of collection arrangements across London illustrates the range and complexity of the collection regimes in operation. There is no obvious preference in the size of bin; it ranges from 240 litre to 140litre. Bearing in mind collection frequencies, this range increases from 240l capacity a week in some boroughs with weekly collections to 70litre/week in some who operate alternate weekly collection with a 140l bin.

Comparing recycling rates with the collection regime is also inconclusive; looking at one year's data, there is no obvious link between bin size and recycling rate. Given the many factors influencing recycling rates, this is not surprising. To establish a link would require much more detailed analysis looking at the change in recycling rate over time compared to changes in the collection regime and a deep analysis of the demographic nature of each borough.

Veolia's bid:

The Veolia bid commits them to provide a 240l refuse bin and 240l paper and card bin (although Sutton retained a 140l bin for refuse, and Kingston their 180l bin).

Veolia calculated that on average, households required 187litres of storage for fortnightly collections of refuse, and 36litres for paper/ card. This data is not specific to Merton; they appear to be based on Veolia generated averages. The table below is extracted from their method statement:

Waste Stream	Property	Collection Frequency	Average Kg/hh presented each collection	Storage Required in L per collection	Container volume (l) per collection per property	Average Kg/hh presented in 4 weeks	Storage Required in L per 4 weeks	Container volume (l) per 4 weeks
Residual Waste	Kerbside	Fortnightly	15.49	187	240*	30.98	373	480
Paper /Card		Fortnightly	4.06	36	240/140	8.12	73	480/280
DMR		Fortnightly	4.11	34	110	8.22	68	220
Food Waste		Weekly	1.21	4	23	4.85	17	92
Garden Waste		Fortnightly	11.00	133	240	22.00	265	480

They acknowledge the need for larger bins in some circumstances and state their standard policies:

- Household of six or more people
- Certain medical conditions
- Families with two or more children in nappies

Sizes:

Sizes differ slightly from one manufacturer to another. For comparison, Spiderbins provide the following dimensions:

Volume - Litres	120	140	180	240	360
Height - mm	960	1070	1080	1080	1095
Width - mm	485	490	480	580	620
Depth - mm	550	550	725	730	850

Bin prices:

Average prices on the ESPO bin framework are as follows. It has not yet been agreed with Veolia what, if any, Merton's saving by opting for a smaller bin.

140l: £14.38

180l: £17.37

240l: £18.42

Logistics:

When introducing wheeled bins, all households will receive the same size bin. This is in order to maximise the efficiencies of delivering the bins and reducing the likelihood of mistakes which may occur if households state individual preferences.

In time, households could be offered the opportunity to swap their bins for a smaller or larger size. Providing a range of sizes increases complexity in the ordering, storing and delivery system, which will inevitably increase costs. In their method statement, Veolia have committed to offer a smaller refuse bin for those who request it, as well as larger bins under certain circumstances.

Policies:

Certain policies are recommended to allow some households to use a larger bin. This is to account for larger households and certain circumstances relating to health and age. This flexibility helps to avoid discrimination.

Sutton operate the following policies, it is recommended that we adopt the same for consistency across the Partnership:

- Households with 5 or more permanent residents can obtain a larger bin.
- Households consisting of a resident with specific medical needs can obtain a larger bin e.g. incontinence pads

Sutton do not have a policy relating to children in nappies; given these households will produce more waste, it is recommended we do include one as follows:

- Households with one or more children under the age of 4 and in nappies can obtain a larger bin

(A 'larger bin' would be one size larger than the standard bin. i.e. 240l vs 180l or 180l vs 140l.)

It is recommended that these options can be requested on-line and are 'self-certified' i.e. no proof is required, however, the Council reserves the right to contact or visit the household to ascertain the reason for the request should there be cause for enquiry.

Whether we 'recall' the bins after a period of time can be determined later depending on how many households have requested the larger bin and the cost-benefit analysis of undertaking this work. We should at least record who has received a larger bin so we have a record of this.

London Local Authorities - Waste collection services

Accurate as possible based on information available

Ref No.	Local Authority - London	Residual			Dry Recycling				Recycling % (2015/16)
		AWC	Container	Volume (l)	Weekly	AWC	Container	Volume (l)	
24	Newham		Wheelie bin	240		Yes	Wheelie bin	240/360	14.7
32	Westminster		blk sack	N/A	Yes		box/sack	N/A	17.3
23	Lewisham		Wheelie bin		Yes		Wheelie bin		18
2	Barking and Dagenham		Wheeled bin	140	Yes	Yes	Wheeled bin	240	18.9
31	Wandsworth		blk sack	N/A	Yes		sack	N/A	21.1
13	Hammersmith and Fulham		blk sack	N/A	Yes			N/A	22.0
7	Camden		Wheeled bin		Yes		Boxes/bins/bags		24.8
12	Hackney		blk sack	N/A	Yes		green sacks	N/A	24.8
29	Tower Hamlets		Sack/communa	N/A	Yes		Wheelie bin/sack		26.7
25	Redbridge		Wheelie bin				2 x boxes		27.7
22	Lambeth		Wheelie bin	140/240	Yes		sacks		28.7
19	Islington	Yes	blk sack	N/A	Yes		reuseable sacks, boxes, wheeled bins	35-180	29.4
16	Havering		blk sack	N/A	Yes		sacks	N/A	31.8
18	Hounslow		blk sack & whe	140/180	Yes	Yes			33.8
30	Waltham Forest		Wheelie bin	140	Yes		Wheelie bin		34.6
28	Sutton	Yes	Wheeled bin	140/240		Yes	Wheeled bin	140/240	34.7
11	Greenwich		blk sack & whe	140/240	Yes		Wheeled bin or sacks	140/240	34.8
27	Southwark	Yes	Wheeled bin	240	Yes	Yes	Wheeled bin/boxes	240	35.0
10	Enfield		blk sack & whe	140	?		Boxes & wheeled bins	240	35.9
14	Haringey	Yes	Wheeled bin	180/240	Yes		Wheeled bin	180/240	36.2
3	Barnet		Wheeled bin	240	Yes		Wheeled bin	240	36.8
8	Croydon	Yes	Wheeled bin	180/240	Yes		Boxes	55	37.8
5	Brent	Yes	Wheeled bin	140/240	Yes		Wheeled bin	240	38.4
15	Harrow		Wheeled bin	180/240		Yes	wheeled bin	180-240	
9	Ealing		blk sack & whe	180/240	Yes		Boxes		43.0
17	Hillingdon		blk sack	N/A	Yes		sacks	N/A	44.1
6	Bromley	Yes	blk sack	N/A		Yes	Boxes	55	45.9
4	Bexley		blk sack & whe	60/240	Yes		Boxes		52.00
1	Merton		blk sack	75	Yes		boxes	55	
20	Kensington and Chelsea		multi	N/A	twice weekly		sacks	N/A	
21	Kingston	Yes	Wheeled bin	180/240	Yes		Boxes, reusable sacks	-	45.8
26	Richmond		blk sack	N/A	Yes		2 x boxes		

Top performing authorities for recycling														
Rank	Local Authority	Recycling, Reuse and Composting Rates	Residual				Dry Recycling				Other waste streams		paid for	
			Weekly	AWC	Container type	Size	Weekly	AWC	Co-ming	Contain	Size	Food waste		Garden
1	South Oxfordshire District Council	66.6%		Yes	Wheeled	180		Yes	Yes	Wheeled	240	Yes	Yes	Yes
2	East Riding of Yorkshire Council	66.1%		Yes	Wheeled	140/180		Yes	Yes	Wheeled	240	Yes	Yes	No (GW combined with FW)
3	Rochford District Council	66.0%		Yes	Wheeled	180		Yes	Yes	Wheeled	240	Yes	Yes	No (GW combined with FW)
4	Vale of White Horse District Council	64.8%		Yes	Wheeled	180		Yes	Yes	Wheeled	240	Yes	Yes	Yes
5	Surrey Heath Borough Council	62.1%		Yes	Wheeled	180		Yes	Yes	Wheeled	240	Yes	Yes	Yes

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