

## Technical information

### Experience based costs

The SOWG and MRWA have estimated costs for food waste collection based on the current and recent experience gained by Councils locally in collecting food waste. The experience suggests that some 21,000 tonnes of food waste may be collected by LCR councils (excluding St Helens who have their own system already in place) from 544,000 standard properties. There are an additional 73,000 properties where different arrangements will need to be made and for these properties further analysis will be required to identify the operational arrangements and the full costs.

A number of assumptions and extrapolations have been made based on experience, including:

- Recent participation rates in Sefton averaged 43%, whilst the Halton trial stands at c50%. St Helens have secured participation at c55%, whilst the Knowsley rate was c20% (though this can be attributed to the service being provided on an 'opt-in' basis alongside a weekly collection of residual waste).
- Yield (or tonnage) collected by each Council varies with St Helens collecting c60 tonnes per week and c3,000 per year. Halton, whilst only serving just under 3,000 properties, collected c250 tonnes per annum whilst Sefton collected an average of 3,200 tonnes per annum though this withered to c1,300 tonnes in 2018.
- Having regard to the data above, when replicated across the LCR it is anticipated that, based on experience across those Councils that have implemented food waste collections, c21,000 tonnes of food waste will be collected per annum, or c403 tonnes per week, for standard households – with an additional 2,800 tonnes or 54 tonnes a week if that number is extended to HMO / High rise etc.
- Elsewhere experience from past MRWA waste composition analysis suggests that the amount of food waste in the residual bins is between 50, 000 and 60,000 tonnes. Successful food waste collections have yielded approximately 1/3 of the amount available – which is close to the the local experience calculated figure.

A number of costs, including depot and garaging costs and the costs of management and central support will rely on developing plans for potential service delivery and are yet to be determined.

	Capital cost	ANNUAL Revenue cost
<b>Caddies &amp; bins</b>		
Internal	£740,000	£148,000
External	£1,632,000	£326,000
Liners		£821,000
<b>Vehicles</b>		
Standard x 45 x £48k	£2,160,000	£432,000
Fuel (estimate 25% of capital cost)		£108,000
Maintenance, insurance etc (estimate 50% of capital cost)		£216,000
<b>Staffing</b>		
92 x £28k per week		£2,576,000
<b>Promotions</b>		
<i>Halton experience – extrapolated* (one off)</i>		*£1,498,000
Halton experience in year promotions		£110,000
<b>Other costs</b> (not modelled at this stage)		
Depot capital & revenue	Xxx	xxx
Annual depot costs		XXX
PPE		XXX
H&S		XXX
Training		XXX
<b>Management costs</b>		<b>XXX</b>
<b>CEC</b>		<b>XXX</b>
<b>Totals</b>	<b>£4,532,000</b>	<b>£4,737,000</b>
<b>Total year 1 cost</b>		<b>£6,235,000</b>

In addition to these costs there are likely to be additional costs in respect of vehicles, crews and kerbside communal bins for the 73,000 high rise/ HMO etc properties, an initial estimate of these cost is shown at the end of this appendix.

## WRAP Based Costs

The Waste Resources Action Programme (WRAP) has carried out research into waste collections including food waste collection. Their view of the amount of food waste that may be collected across the LCR is higher than the 'experience' based estimates and would be associated with higher collection costs. Cost estimates based on the WRAP collection estimates are included here for completion, but the preceding paper has been modelled largely on the basis of current and recent experience.

This approach to estimating the amount is to consider data provided by WRAP which models on the basis of the extent of Council Tax band D properties in each Council area. This identifies a significantly higher amount of food waste that may be collected – suggesting equivalent numbers of 40,196 for standard collections – extended to 45,604 tonnes if HMO etc properties are collected at the same rates. The WRAP based calculations give a very different answer and the potential cost envelope for Members to consider would be of an even greater significance.

	<b>Capital cost</b>	<b>ANNUAL Revenue cost</b>
<b>Caddies &amp; bins</b>		
Internal	£740,000	£148,000
External	£1,632,000	£326,000
Liners		£821,000
<b>Vehicles</b>		
Standard x 85 x £48k (WRAP)	£4,080,000	£816,000
Fuel (estimate 25% of capital cost)		£204,000
Maintenance, insurance etc (estimate 50% Of capital cost)		£408,000
<b>Staffing</b>		
175 x £28k per week (WRAP)		£4,900,000
<b>Promotions</b>		
WRAP £1.50 per property - launch		£925,000
WRAP in year promotions		£69,000
<b>Other costs</b> (not modelled at this stage)		
Depot capital & revenue	Xxx	xxx

Annual depot costs		XXX
PPE		XXX
H&S		XXX
Training		XXX
<b>Management costs</b>		<b>XXX</b>
<b>CEC</b>		<b>XXX</b>
<b>Totals</b>	<b>£6,452,000</b>	<b>£7,692,000</b>
<b>Total year 1 cost</b>		<b>£8,617,000</b>

In addition to these costs there are likely to be additional costs in respect of vehicles, crews and kerbside communal bins for the 73,000 high rise/ HMO etc properties, an initial estimate of these numbers is shown at the end of this appendix.

### HMO / High-rise / low-rise properties

For the 73,000 of these properties there are likely to be additional costs. While the internal kitchen caddy costs are included in the tables above there is currently no estimate of the additional external bins required (likely to be 120-240 litre wheeled bins), and only outline estimates for the numbers of vehicles / crews required to collect food waste from these properties. Alternative collection methods would (for example split vehicles on residual rounds) would see different estimated costs.

An estimate of those vehicles may be made based solely on extrapolated potential food waste tonnages and ignoring distances and rounds – suggesting that at least 12 RCV type vehicles would be required to carry the amount of food waste generated. This also ignores the potential for alterations that may be made to existing RCVs so that they may collect food waste from HMO/High rise etc separated from residual or recycled waste. It also does not take account of the cost of additional food waste bins for these properties , whether 240 or 120 litre capacity bins.

	<b>Capital cost</b>	<b>ANNUAL Revenue cost</b>
<b>Caddies &amp; bins</b> (not estimated at this stage)		
External communal collection bins	xxxx	xxxx
<b>Vehicles</b>		
RCVs x 12 x £150k	£1,800,000	£360,000
Fuel (estimate 25% of capital cost)		£90,000
Maintenance, insurance etc (estimate 50% of capital cost)		£180,000
<b>Staffing</b>		
40 x £28k per week		£1,120,000

These are estimated cost based on experience and/or WRAP based calculations – they provide a guide but only the final costs will only become clear when a full procurement is undertaken.