



# Containers for Waste

A report from Overview & Scrutiny







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Reports that have been submitted to Council can be downloaded from  
[www.birmingham.gov.uk/scrutiny](http://www.birmingham.gov.uk/scrutiny).

## Majority Report

### 1 Introduction

- 1.1 Overview and Scrutiny is not doing its job if it does not address the controversial issues facing the Council and the city as a whole. One of these issues currently is the debate around waste collection methods.
- 1.2 There has already been much discussion across the city about the efficiency and effectiveness of different means of collecting discarded and waste materials. We therefore agreed, on a cross-party basis, that there would be value in providing more background information to facilitate discussion around options for the future.
- 1.3 Our intention was never to come forward with a set of prescriptive recommendations but rather to research comparative information with a view to reaching broad conclusions on which subsequent decisions might be taken. This we saw as particularly important in the context of the City Council's flagship policy of devolution and localisation which is looking towards increasing the number of decisions reflecting local circumstances being taken at a more local level.
- 1.4 We formed an all-party Member group from Members of the Sustainability and Climate Change Task and Finish and by 16 June 2016 we had introduced



therefore are not about undoing or altering what is currently being done, but how we build on this, to achieve the next step up in achieving higher recycling rates.

## 2 Plastic Sacks and Wheeled Bins

2.1 The full comparison of the different aspects of containers is within the attached report. This compares containers in terms of:

- Operational and financial factors (section 3);
- Environment factors (section 4);
- Waste Volumes and recycling rate (section 5); and
- Public views (section 6).

Our discussion therefore focuses on the heart of the debate: to what extent wheeled bins offer potential for improvement over existing sack collections.

### Cost

2.2 The most striking part of the report is the estimated cost models comparing capital and revenue costs for plastic sack and wheeled bin rounds. We accept that these are indicative and based on a number of assumptions which must be tested further, including the actual size of a wheeled bin round and the cost of a wheeled bin.

2.3 However, the costings provided in the attached report suggest that the ongoing revenue costs of operating a wheeled bin system are less than that of plastic sacks reflects anecdotal evidence from other local authorities.<sup>1</sup> The fact that a smaller crew is needed on a wheeled bin round means there are potential savings, which generally outweigh the need for more rounds using wheeled bins.

2.4 Financially, the key concern is the capital cost of getting the wheeled bins and the vehicles<sup>2</sup> needed to collect them. There are a number of ways in which this capital might be provided. It would be a significant cost to the Council to fund these out of the existing mainstream budget. There are a number of alternatives which could be explored, although these could increase the overall cost if they involve borrowing that incurs interest.

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<sup>1</sup> This is supported by, largely anecdotal, evidence from other local authorities that use wheeled bins for domestic refuse collection. However as these were introduced 10 years ago or more it is not possible to support their assertions with figures.

<sup>2</sup> Additional vehicles would be needed as more rounds would be needed. Also vehicles with the appropriate lifting equipment would be needed – although these could be replaced as part of the natural cycle of renewing the fleet. We would also ask that when new vehicles are purchased, consideration is given to vehicles which use more environmentally friendly fuel sources – LPG or electric.



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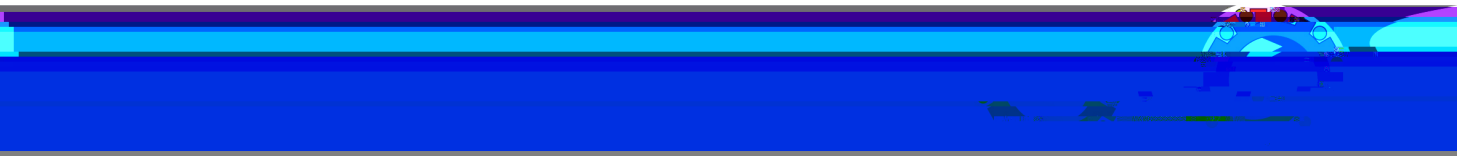
- 2.5 However, these are not the only options. Two ways in which capital could be sourced would be for full or part funding via:
- A successful bid via the Council's Capital Programme; or
  - A successful business case approval for funding from the Constituencies Service Improvement Fund (£1.25m).
- 2.6 If this can be done and costs of capital avoided, the broad level calculations show that the reduced revenue costs could cover the initial capital expenditure over six years.

## Recycling Rates

- 2.7 However, a saving in revenue costs would not, on its own, be sufficient to necessitate the introduction of wheeled bins to the residents of Birmingham. So what other reasons are there to consider our current position?

2.8





2.11 We have real concerns about the first option. Evidence from other local authorities<sup>3</sup> indicates that introducing 240-litre wheeled bins on a weekly collection of domestic waste would increase the overall volume of waste collected. There are different options to consider minimising this, for





	Recommendation	Responsibility	Timescale
R01	<p>Constituency Committees should consider:</p> <ul style="list-style-type: none"><li>• Whether they wish to put forward a proposal for a pilot of wheeled bin collection of recycle within that Constituency; and</li><li>• (If so) to identify suitable areas.</li></ul> <p>Any area proposed should have the explicit consent of the relevant Ward Councillors.</p> <p>(Two or more Constituencies can choose to work together on this)</p>		

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	Recommendation	Responsibility	Timescale
<b>R02</b>	<p>Once a suitable area has been identified and agreed the Cabinet Member for Transportation and Street Services should refer the above proposals to Fleet and Waste Management officers for more detailed assessment, in terms of:</p> <ul style="list-style-type: none"> <li>• Consideration of a workable and cost-effective round size;</li> <li>• Detailed costing;</li> <li>• Consideration of how and where the recyclate would be processed;</li> <li>• The combination and quality of material to be collected and how that impacts on disposal.</li> </ul>	Cabinet Member for Transportation and Street Services	30 September 2008

## Existing Containers

- 3.7 As we stated at the start of this report, the intention is not to introduce wholesale change immediately but rather to allow the current arrangements – and therefore recycling – to become embedded. However, there are some short term measures that would improve the use of boxes.
- 3.8 The boxes currently in use for paper and multi-material recyclate are not stackable – i.e. do not slot together for easy storage. If boxes are to be replaced in the future, consideration should be given to this.
- 3.9 Keeping the material enclosed is also important and we therefore ask the Cabinet Member to explore the option of providing lids for the boxes, as other authorities do.

## Conclusions

- 5. As boxes will continue to play a role in recycling in the city, consideration should be given to how to improve these. We suggest that having boxes which are easily stackable and have lids would be more attractive to residents.**

	Recommendation	Responsibility	Completion Date
<b>R03</b>	The Cabinet Member for Transportation and Street Services should explore the option of providing lids for boxes used for the collection of recyclate, and to consider purchasing stackable boxes as replacements for the current stock.	Cabinet Member for Transportation and Street Services	30 June 2008



## Education and Publicity

- 3.10 Another very important part of this report focuses on publicity for recycling campaigns and how residents are being helped to recycle and to understand what is expected of them. We welcome the recent moves outlined in section 7 of that report. The importance of this cannot be over-emphasised. Increases in recycling rates will not be achieved purely by operational factors – although these are significant.
- 3.11 What is needed is a change in culture, whereby throwing recyclable material away is frowned upon and where every household participates in recycling schemes. This will require both explanatory and publicity material, as well as information events and in some cases, individual assistance to householders.
- 3.12 This is particularly important, as although this report has focused on doorstep recycle collection from houses, work is continuing on developing recycling facilities for flats and other difficult-to-reach households, which often require tailored solutions. We are keen that this work is stepped up so that all residents in Birmingham have access to this service.
- 3.13 Communication with residents and publicity of recycling services has not been sufficient in recent years. We welcome the money from WRAP and the activities that it will fund. However, we note that the funding for the Communications Officer is for one year only, and would like to be reassured that this work will be extended well beyond April 2008.

## Conclusions

6. How the Council develops its role in changing attitudes to waste in the City should be

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## Progress on Implementation

3.14 Finally, we ask that progress against implementing these recommendations is tracked by the Transportation and Street Services Overview and Scrutiny Committee within the normal process for following up Overview and Scrutiny recommendations.

	Recommendation	Responsibility	Completion Date
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# Minority Report

## 4 Introduction

- 4.1 The introduction of the Majority Report refers to the importance of Scrutiny tackling the controversial issues facing the Council and we agree with this wholeheartedly. We formed part of Member group agreeing that this particular issue – that of how waste and recycle is collected in the city – should be thoroughly investigated and discussed.
- 4.2 However, we have serious concerns about the conclusions drawn from the evidence put forward in this case. So concerned are we about the possible consequences of the recommendations put forward in the majority report that we have therefore decided to present this Minority Report. In it, we set out where we agree and where we disagree, and put forward alternative recommendations.
- 4.3 In summary, our view is that any future changes in recycle collection should be focused on value for money and increasing recycling rates. The nub of our disagreement is that we do not feel the evidence presented demonstrates that by introducing collection by wheeled bins those aims would be achieved. The capital costs would be considerable and it is questionable as to whether either revenue savings or increased recycling rates would result. We therefore suggest alternative recommendations which we believe would better meet these objectives.

## 5 *Existing Containers and Education and Publicity*

- 5.1 Firstly, it is important to say that we do agree with some areas of the Majority Report. It is right to say that the current roll-out of doorstep collection “must have time to bed down and for participation to increase” (paragraph 1.7).
- 5.2 We also agree that boxes will continue to play a major role in the collection of recycle in the city, and exploring ways to make these more attractive would be beneficial to recycling rates. Therefore, we support Recommendation 3 that:
- The current use of containers could be improved by considering the use of lids for boxes and stackable boxes.
- 5.3 However, we would ask that in addition to lids on boxes, the Cabinet Member for Transportation and Street Services is requested to explore the option of providing nets, which would provide an alternative cover for the boxes.
- 5.4 The importance of continuing to communicate with our residents and to help them recycle in ways convenient to them is also recognised. We therefore support Recommendation 4 that:
- Further work on examining the communication strategy to support the increase of recycling in the city and its continued implementation.

## 6 Plastic Sacks and Wheeled Bins


6.1 Our main area of disagreement is in answer to the question posed in paragraph 2.1 of the Majority Report: to what extent do wheeled bins offer potential for improvement over existing sack collections?

### Cost

6.2 One area where we disagree with the conclusions drawn in the Majority Report is in relation to the costs. The figures published in the Background Report reflect the current cost models, and indicate potential revenue savings if the city were to move to wheeled bins.

6.3 We feel that the current situation is too fluid to be the basis for future cost modelling. As the Majority Report emphasises, the proposed pilots are to take place in a couple of years from now – after the current roll-out has had time to bed down. During that



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- 6.7 Whilst it then goes on to say that “we still feel that wheeled bins could offer enough potential benefits to form a part of how waste is collected in the city”, we feel that this case is not proven.
- 6.8 By recommending the introduction of wheeled bins, even just on a pilot basis, we are in danger of simply replacing one container with another rather than actively seeking to increase recycling. It would be more productive, we feel, to extend the number of households covered by doorstep recycling collections and to consider collecting additional materials at the kerbside.

## 7 Our Conclusions and Recommendations

### Proposed Pilots

- 7.1 Whilst we welcome the fact that the majority report does not direct the Cabinet Member to introduce wheeled bins and that this decision is left to the Constituencies, we have grave

many bags of green waste as they need to. If these same householders are restricted to a wheeled bin, this may result in a reduction of waste put out for recycling as waste which will not go in the bin may be put out with the residual waste.

- 7.7 Of course, it is always open for Constituencies to propose ideas in their area – providing the money can be identified. We are concerned that it is proposed that Constituencies conduct such pilots using centralised resources rather than those that are already delegated to Constituencies.

## Alternative Proposals

- 7.8 As stated at the beginning of this report, it is important to continue to work to maximise recycling rates and there is still much work to be done to achieve this in Birmingham. We believe that the key to this is the availability of kerbside collections to all residents in Birmingham and the range of materials that can be recycled at the kerbside.
- 7.9 Our proposal is that resources should be focused on extending the number of households which receive kerbside collections, and expanding the range of materials collected.
- 7.10 By April 2008, it is expected that around 360,000 households will be on doorstep collection rounds for paper, multi-material and green recyclate. Our view is that it is imperative that this extended is to all households in the city as soon as is practicable. This would not only result in higher recycling rates but would also ensure that all residents have access to the same level of service across the city, no matter what type of housing they live in.
- 7.11 We are aware of a current pilot to collect multi-material recyclate from properties served by an “alley cat” collection round, i.e. those locations where it is necessary to use a smaller vehicle for the weekly collection of household waste. The pilot includes multi-material recycling and green waste collections, in partnership with CSV, at over 3,000 houses in the South-west of the city.
- 7.12 This scheme is proving successful and, we believe, should be mainstreamed as soon as possible, as well as extended to those areas currently not served by the doorstep recycling collection.
- 7.13 Another move to increase recycling would be to look at the range of materials collected from the kerbside. Currently paper, cardboard, cans, plastic, glass and green/ garden waste are collected. However, the Background Report shows some other local authorities collecting a wider range of materials from the kerbside, including clothing and textiles, household batteries, spectacles and aerosol cans.
- 7.14 We suggest that examining the collection of materials such as wood or clothing would make a more significant contribution to increasing recycling rates. This of course must be examined – and therefore a pilot should be introduced to test this. This pilot should utilise existing rounds for

## Conclusions

7. We do not believe that the evidence presented justifies recommending pilots to Constituency Committees as neither the efficiency savings nor increased recycling rates can be guaranteed.
8. We are also concerned that having pilots across different Constituencies would lead to a piecemeal approach which would incur greater inefficiencies and increase pollution and congestion levels as vehicles would have to travel further.
9. There is more likelihood of achieving increasing recycling rates by increasing the number of households on doorstep collection rounds and by extending the range of materials collected at the kerbside.

	Recommendation	Responsibility	Timescale
R01	The Cabinet Member should consider increasing the number of households receiving a doorstep collection of recyclables service and expand the range of materials collected, should any future resources be identified for waste collection.	Cabinet Member for Transportation and Street Services	30 June 2008
R02	The Cabinet Member is asked to consider conducting a pilot of collecting other recyclable materials (such as wood or clothing) from the doorstep using existing rounds.	Cabinet Member for Transportation and Street Services	30 June 2008
R03	The Cabinet Member is asked to consider both extending the current pilot of doorstep collection of recycle to all areas served by "alley cats", and to mainstreaming this service.	Cabinet Member for Transportation and Street Services	30 June 2008
R04	The Cabinet Member for Transportation and Street Services should explore the option of providing a retention covering for boxes used for the collection of recycle, and to consider purchasing stackable boxes as replacements for the current stock.	Cabinet Member for Transportation and Street Services	30 June 2008
R05	The Transportation and Street Services O&S Committee should commence a piece of work examining the communication strategy to support the increase of recycling in the city and its continued implementation.	Chair – Transportation and Street Services O&S Committee	31 July 2008



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	<b>Recommendation</b>	<b>Responsibility</b>	<b>Timescale</b>
<b>R06</b>	Progress towards achievement of these recommendations should be reported to the Transportation and Street Services Overview and Scrutiny Committee on 30 September 2008. Subsequent progress reports will be scheduled by the Committee thereafter, until all recommendations are implemented.	Cabinet Member for Transportation and Street Services	30 September 2008



## Our Methodology

8.6 We adopted four main lines of inquiry:

- i. To understand the full picture of how waste is managed in Birmingham;
- ii. To compare this with how other local authorities manage waste;
- iii. To examine this from the perspective of private waste management companies;
- iv. To examine best practice and other views.

8.7 In seeking comparisons with other local authorities, we were mindful to do this on the basis of a number of factors. Our primary aim was to select comparators from urban areas similar to Birmingham, in terms of key factors which affect operation of waste collection, including:

- Types and proportions of housing;
- Character of the urban environment;
- Population density.

8.8 It was agreed that the Core Cities would be one obvious set of comparator authorities, and in addition that Greater Manchester would also provide good comparisons, in that the nine authorities in the Greater Manchester Waste Disposal Authority collectively represent an urban area not dissimilar to Birmingham.<sup>9</sup> A simple comparison between Birmingham and other authorities by various waste materials collected is shown in **Appendix 1**.


8.9 The perspective of private waste management companies was gathered as part of the research with other local authorities – a number of whom outsource waste collection – and by contact with Veolia (Birmingham's strategic waste partner).

8.10 Best practice was also discussed with representatives of WRAP (Waste Recycling Action Programme) which provides an advisory service for local authorities.

## How We Have Compared Containers

8.11 Our analysis is based across a number of factors and is intended to provide a rounded perspective on the relative merits of the main container types. We have considered these across four areas:

- i. Operational and financial factors;
- ii.
- ii.

- 
- 8.12 Under each of these areas, we have analysed the relative merits of the containers by:
- Specific issues for each kind of container;
  - A summary of the main mitigating measures and some of the policy considerations that local authorities have made to tackle the issues raised;
  - Providing further comments as appropriate in each area.
- 8.13 Throughout our analysis, we have focused upon the main options used by authorities for large volume collection: disposable plastic sacks and wheeled bins. This is not intended to detract from the role that other containers can play as part of the overall mix of collection methods. Most authorities employ a mix of container types as the most effective way to ensure broad coverage and higher participation.
- 8.14 We have also focused domestic door-step collections from houses and have therefore not looked at schemes for flats or other communal options, which require individual solutions to be worked out according to the particular circumstances.

## 9 Context

### National Context

- 9.1 The approach of local authorities with regard to waste collection and disposal and recycling is informed by both legislative requirements and strategies set out by central government. Two significant examples are the Household Waste Recycling Act 2003 which places a duty on local authorities to provide kerbside collection for at least two recyclates by 2010 and the National Waste Strategy.
- 9.2 The National Waste Strategy for England was published in May 2007. It builds on the Waste Strategy 2000, and the progress made since then, but aims for greater ambition by tackling the key challenges for the future. This includes addressing the impact of waste on climate change and examining waste as a shared responsibility between producers and consumers as well as local authorities and the waste management industry.
- 9.3 The key objectives of this Strategy are to:
- Break the link between economic growth and waste growth;
  - Exceed the Landfill Directive diversion targets for biodegradable municipal waste;
  - Encourage the use of waste as a resource with a focus on re-use, recycling and recovery of energy from waste;
  - Invest in infrastructure that will divert waste from landfill; and
  - Provide stronger incentive to reduce waste.



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- 9.4 The approach is based on the waste hierarchy (waste minimisation, re-use, recycle/compost, energy recovery, disposal) and making sure that action is directed at the top of this hierarchy. It also stresses the importance of lifecycle thinking – that is, taking into account the impact and content of materials from extraction, through production to disposal or recovery.
- 9.5 Local authorities have a role to play in the Waste Strategy in five key areas:
1. **Prices** – consultation is underway on removing the ban on local authorities introducing household financial incentives for waste reduction and recycling. This would mean that local government would be free to introduce schemes where householders who recycle their waste receive payments funded by householders who do not recycle. All schemes would have to be revenue-neutral.
  2. **Regulation** – by strengthening action on fly-tipping and illegally dumping abroad through prevention, more effective risk4(pp1)-6.9(y-t)-4.7(1.6(ad00 TTf5.475( )Tj/TT4 1 Tf2.his)-7.7( 3







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which they have in Sheffield. It is their belief that incinerating mixed glass and plastic makes more sense environmentally than collecting from door-steps separately and re-processing.<sup>10</sup> The same is not true for paper, which they collect 4-weekly in 140-litre wheeled bins. Sheffield's recycling rates were above Birmingham's in 2005/06.<sup>11</sup>

- 9.16 Birmingham has an Energy from Waste plant at Tyseley, and whilst the same view as Sheffield is not taken, it must be acknowledged that having the plant shapes the debate about recycling in Birmingham. This is not because, as is often claimed, the existence of an incinerator inhibits recycling,<sup>12</sup>

- Green waste – i.e. grass and plant cuttings;
- Kitchen waste – currently not collected separately in Birmingham, though other local authorities have started to do this.

10.4 How these are collected is an important issue as collection methods can impact on:

- Participation rates – if schemes are too complicated (e.g. too many different containers collected on different days) or prescriptive (e.g. Birmingham's success in collecting paper is in part due to the fact that Kappa will take all kinds of paper and cardboard, rather than insisting on office quality only as some schemes do) people are less inclined to use them;
- Quality of recyclate – some materials are more valuable when separated out, for example glass is more valuable if processed by colour rather than all mixed together. There is also an issue of cross-contamination, for example collecting glass and paper together risks damaging the paper processing plants so is rarely done; kitchen waste contaminates everything and is very difficult to sort so should always be collected separately (though it can be collected with green waste if that waste is processed in a closed system, due to the Animal By-Products legislation).<sup>13</sup>

10.5 There are a range of options for:

- How the waste/ recyclate is to be collected – in a single stream (i.e. one collection container per material to be recycled and one for residual waste) or co-mingled (whereby recyclate is collected mixed together and sorted elsewhere);
- How the waste/ recyclate is to be sorted – at the kerbside, at transfer stations or at a MRF?

10.6 A second, critical, operational factor is health and safety. Waste collection is a dangerous business: a HSE Report from 2001/02 stated that the overall accident rate for the waste industry is around 2,500 per 100,000 workers – four times the national rate. The incidents predominantly occur to refuse/recycling collection workers who manually handle and sort waste.<sup>14</sup>

10.7 The HSE report did not specify whether any one particular method of collection is inherently more dangerous than another. However, other local authorities we visited reported pressure from the Health and Safety Executive to move to wheeled bins when considering new methods of collecting waste and recyclate. This is principally a concern relating to the intensity of manual handling tasks. Boxes and sacks require more bending, lifting and twisting, whereas wheeled bins are lifted by machinery on the vehicle. There are of course dangers with wheeled bins too however: wrist injuries caused by pulling heavy bins, or the possibility of objects falling from the bin as it is lifted.

<sup>13</sup> The issue of cross-contamination of waste was highlighted in a Sunday Times article (June 03, 2007) which reported that some recyclate was being landfilled due to poor sorting or contamination.

<sup>14</sup> 'Mapping health and safety standards in the UK waste industry', Bomel Limited for HSE, 2001-02,



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10.8 Officers in Birmingham report that they have received no such pressu



Container	Issue	Mitigating Measures / Policy Considerations
<b>Wheeled Bins</b>	<ul style="list-style-type: none"> <li>• Suitable for co-mingled or single waste stream collections</li> <li>• Cannot separate contents at the kerbside</li> <li>• Some specific manual handling risks, including wrist injuries, objects falling</li> </ul>	<ul style="list-style-type: none"> <li>• If collecting recyclate, separate at transfer station or MRF</li> <li>• Adherence to safe systems of work can mitigate risks</li> </ul>

## Capital Costs

10.9 Capital costs are largely tied up in the containers and vehicles needed for the collection rounds. Factors affecting these are:

- Ownership of vehicles and the degree to which this is flexible – i.e. can vehicles be changed or altered if necessary to accommodate new collection methods;
- Cost of container – ranging from around £2 for a box to £13-20 for a wheeled bin;
- Replacement rates for containers – currently at 10% for boxes, other local authorities allow 5% for wheeled bins.

10.10 The majority of vehicles currently owned and run by the City Council are of course designed to collect waste in black sacks, although some do have lifting equipment for larger bins and others would be capable of conversion for use with wheeled bins. The key is to have a mixed fleet capable of meeting all needs – and this includes the need to collect bulky waste (currently the same vehicles are used for bulky collection as for sack collection – this would not be possible if all vehicles were converted for use with wheeled bins).

10.11 There are various ways in which capital money for containers could be identified:

- i. A successful bid in the Council's Capital Programme;
- ii. Use of capital receipts from the sale of assets such as property or land;
- iii. A Private Finance Initiative (PFI), either for the capital asset itself or the capital asset and management of the asset or service;
- iv. Prudential Borrowing, where the Council is able to afford the revenue consequences of that borrowing;
- v. Leasing the containers at an affordable rate;
- vi. Obtaining a successful bid for external resources, such as Government funding.

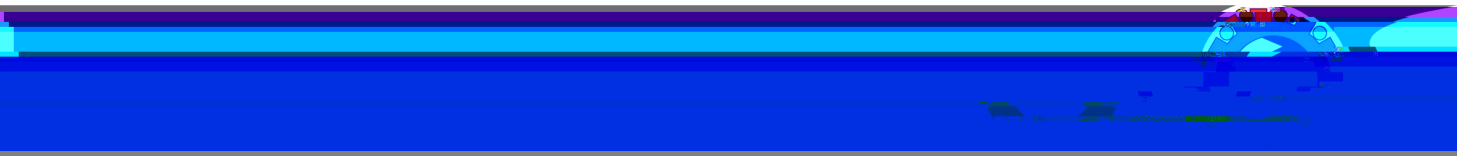
10.12 Some of these methods are more appropriate for the portfolio whilst others are more theoretical. In the event that the Council were to decide

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stations or Materials Recycling Facility (MRF), and the eventual disposal of waste. However, these are required regardless of collection methods.

Table 2: Summary of Issues Relating to Capital Costs

Container	Issue	Mitigating Measures / Policy Considerations
<b>Boxes</b>	<ul style="list-style-type: none"><li>• Current rate of replacement: 10%</li><li>• Require low loading-height vehicles to reduce lifts from manual handling</li></ul>	<ul style="list-style-type: none"><li>• Households can request extra boxes and replacement boxes</li></ul>



However, wheeled bin rounds require smaller crews and so savings are made that way. If sorting of recyclate is done at the kerbside, this slows collection and so reduces efficiency (though without this, sorting must be done elsewhere – so the costs are simply tran

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- 10.18 In terms of comparing different containers, again the wide range of different factors means it is not possible to state definitively which would be a cheaper or more efficient method of collecting waste or recycle. However, we have produced estimated costs for introducing and operating wheeled bins as a comparison, shown in **Appendix 3**. These estimates are for
- i. Residual waste, collected in a 240-litre wheeled bin;
  - ii. Green waste, collected in a 240-litre wheeled bin; and
  - iii. Multi-materials, collected in a 140-litre wheeled bin.
- 10.19 The estimate is based on a number of assumptions, as set out in Appendix 3. Two critical assumptions in cost terms concern round size and the unit cost of a wheeled bin.
- 10.20 With regard to round size, a round size of 7,500 properties per week appears achievable based upon:
- Comparable authorities – looking at the other Core Cities indicates that 7,500 households in a round is at the higher end of the scale but within what is being achieved elsewhere (see Table 4);
  - Estimates provided previously by Fleet and Waste Management in 2004.<sup>15</sup>

Table 4: Core City Round Sizes (where information available)

<b>Leeds</b>	6,400 (6 day week)
<b>Liverpool</b>	6,000 - 7,500 (5 day week)
<b>Manchester</b>	7,500 – 10,000 (5 day week) 65.02 393.8 0.48004 21 refBT/TT2 1





unit cost would be lower. In the case of 140-litre bins, the estimate is based on the £11.69 per bin paid by Liverpool, which reflects of the smaller quantities in which they are purchased.

10.23

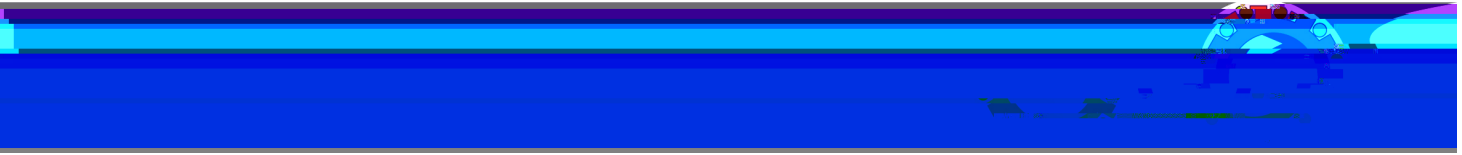
## Street Environment

11.4 The state of the street environment and street cleanliness is another factor in waste collection. Part of the issue relating to impact on the street environment is about the containment of waste:

- With plastic sacks, the risk of animals getting into rubbish and scattering it across streets or gardens, or rats making a home in piles of waste is increased;
- Boxes without lids risk allowing recyclate to blow out;
- Bins left out look untidy and are a potential obstruction.

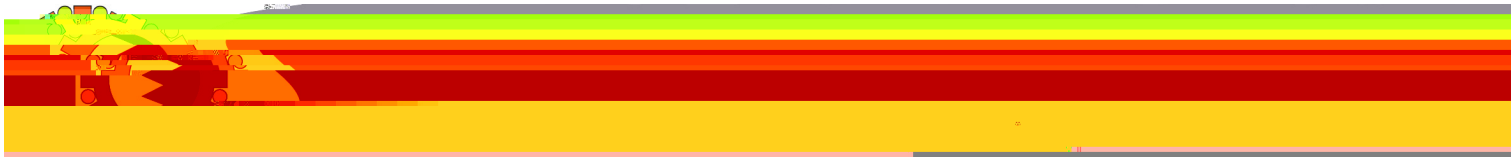
11.5 Related to this is the argument that wheeled bins – as enclosed containers – would reduce the incidence of rats. In truth, evidence is impossible to come by mainly as the actual number of rats is not known. The only hard data available is “requests for assistance” (RFAs) received by local authorities. However, a direct comparison of RFAs before and after the introduction of wheeled bins is complicated by the fact that:

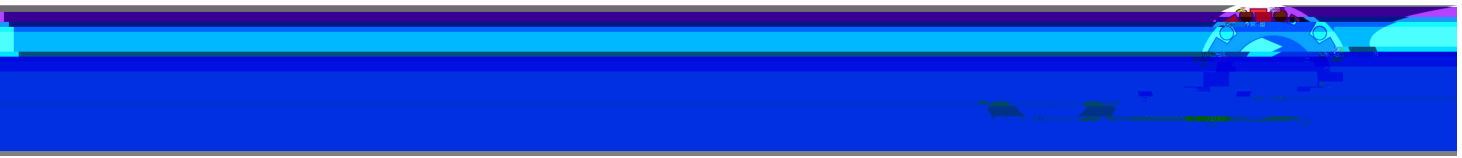
- Most authorities introduced wheeled bins for residual waste over 10 years ago, so data is not available;
-



- Advancement of waste;
- Householders do not retrieve their container after refuse collection.

11.9 Mitigating measures for the latter two problems centre upon communication with householders, for





Container

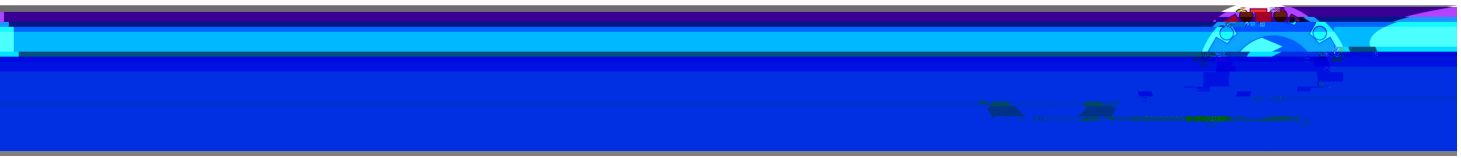
Issue

Mitigating Measures / Policy  
Considerations



# Containers for Waste

12.11



13.4 Respondents were also asked to rate their satisfaction with specific aspects of the household waste collection service:

- The bag provided for general household waste: 69% were satisfied though a quarter (25%) of respondents expressed dissatisfaction;
-



# Containers for Waste

- 13.9 It is noticeable that, in each case, respondents prefer the system already in use for that waste stream. The type of housing respondents lived in also had little impact though generally those in detached and semi-detached housing were more in favour of wheeled bins than those in terraced housing.
- 13.10 The survey also indicated that:







# Containers for Waste

- 15.5 It is of course for the City Council/Cabinet Member to set the priorities – what the key principles are to govern waste management – and these will determine what container, or mix of containers, will work best in Birmingham. This consideration of containers should be alongside the consideration of other factors, such as:
- Enhanced recycling – whether through more frequent collections, or larger containers to increase volumes;
  - Greater use of enforcement powers;
  - Charging for residual waste collection;
  - Alternate weekly collection;
  - Providing smaller containers (e.g. 140-litre wheeled bins) with a lid down and no side waste policy.
- 15.6 If the Council is to realise the potential of its position, it is too early to definitively rule anything in or out. Keeping an open mind on the options is essential if we are to meet the higher recycling targets set in the Waste Strategy.



## Appendix 1: Core Cities and Greater Manchester Authorities

The following tables provide a comparison between the authorities on the basis of:

- Population and housing statistics;
  - Political composition;
  - Recycling performance and targets;
  - Collection methodologies – Tables A3 and A4.
- } Tables A1 and A2



# Containers for Waste

Table A1: Core Cities

	Birmingham	Bristol	Leeds	Liverpool	Manchester	Newcastle	Nottingham	Sheffield
Population*	1,001,200	398,300	723,100	447,500	441,200	276,400	278,700	520,700
Pop. density p/km²	3706	3,482	1,299	3,947	3,652	2,294	3,619	1,392
Non working*	16.00%	16.10%	17.50%	16.80%	13.70%	17.30%	14.90%	18.60%
BME residents**	29.7%	8.2%	8.2%	5.7%	19.0%	6.7%	15.1%	8.8%
FT students **	3.03%	3.78%	3.60%	3.41%	4.44%	3.81%	4.00%	3.26%
Number of households**	390,792	162,090	301,614	187,865	167,451	111,243	116,112	217,622
- detached	10.99%	6.38%	14.74%	6.90%	4.26%	7.54%	15.35%	14.07%
- semi-detached	34.91%	29.00%	38.84%	28.47%	32.23%	34.75%	32.34%	37.33%
- terraced	31.26%	36.59%	27.94%	45.85%	36.01%	27.43%	31.20%	29.92%
- purpose built flats/tenements	17.86%	14.63%	14.14%	12.32%	20.39%	24.06%	15.40%	15.35%
- other flats	4.94%	13.28%	4.20%	6.41%	7.02%	6.19%	5.65%	3.28%

Table A2: Greater Manchester

	Bolton	Bury	Manchester	Oldham	Rochdale	Salford	Stockport	Tameside	Trafford
Population*	265,400	183,500	441,200	219,200	206,400	216,400	281,600	214,100	213,200
Pop. density p/km <sup>2</sup>	1,871 p/km <sup>2</sup>	1,823	3,652	1,535	1,305	2,224	2,246	2,063	1,978
Non working*	17.50%	17.80%	13.70%	17.10%	16.80%	18.10%	19.90%	17.80%	18.70%
BME residents**	10.9%	6.1%	19.0%	13.7%	11.4%	3.4%	4.3%	5.4%	8.4%
FT students **	2.46%	2.13%	4.44%	2.14%	2.15%	2.99%	2.38%	1.97%	2.46%
Number of households**	108,085	74,335	167,451	87,824	83,452	94,238	120,456	89,981	89,313
- detached	15.98%	18.21%	4.26%	11.53%	14.93%	8.62%	21.38%	11.12%	15.37%
- semi-detached	35.30%	38.89%	32.23%	33.6%	33.27%	37.00%	42.25%	38.61%	44.83%
- terraced	37.11%	31.01%	36.01%	41.92%	38.56%	32.52%	22.20%	37.13	22.30%

# Containers for Waste

Table A3: Core Cities – Recycling Collections

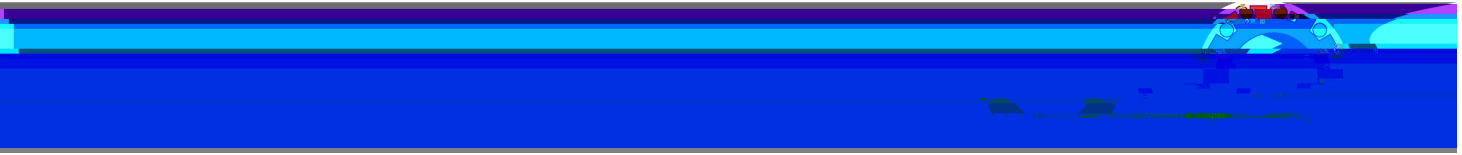
	Residual	Paper	Card	Glass bottles/ jars	Tins / Cans	Plastic	Green	Other
<b>Birmingham</b>	Weekly Plastic Sacks	Fortnightly Bag/Box		Fortnightly Box			Fortnightly/ 4-Wkly Plastic Sack	
<b>Bristol</b>	Fortnightly Wheeled Bin	Weekly Box	Weekly No Container	Weekly Box			Weekly Wheeled Bin	Kitchen (Weekly, 25L WB) Clothes, Blankets & Material; Shoes; Alum. Foil & Containers; Household Batteries, Incl Rechargeable; Spectacles; Aerosol Cans
<b>Leeds</b>	Weekly Wheeled Bin/Bin Bags	Fortnightly Bin Or Bag		-	Fortnightly Bin Or Bag		Pilot – 5 Areas	

Table A4: Greater Manchester – Recycling Collections

	Residual	Paper	Card	Glass bottles/ jars	Tins / Cans	Plastic	Green	Other
<b>Bolton</b>	Weekly Wheeled Bin	Weekly Bag		Fortnightly Box			Fortnightly Wheeled Bin	
<b>Bury</b>	Weekly Wheeled Bin	Fortnightly Bag	-	Fortnightly Bin			Fortnightly Bin	
<b>Oldham</b>	Weekly Wheeled Bin	Fortnightly Bag	-	Fortnightly Box			Fortnightly Wheelie Bin	Foil
<b>Rochdale</b>	Weekly (25% AWC) Wheeled Bin	Fortnightly Bag		Fortnightly Box			Fortnightly Wheelie Bin	
<b>Salford</b>	Weekly Wheeled Bin	Weekly Sack	Weekly Box				Fortnightly Wheelie Bin	Plastic Carrier Bags, Foil, Textiles
<b>Stockport</b>	Weekly Plastic Sack	Fortnightly Hessian Sack		Fortnightly Box			Fortnightly Wheelie Bin	
<b>Tameside</b>	Weekly Wheeled Bin	8 Weekly Wheeled Bin	-	4 Weekly Wheeled Bin			Fortnightly Wheelie Bin	







## Appendix 3: Estimated Cost Models



# Containers for Waste

11. Management and supervisory costs have been assumed to be the same for simplicity, although in practice it could in some cases be possible to reduce this on the basis that wheeled bins would require fewer staff (three less staff for every four rounds).
12. Capital purchases are not reflected in Year Two and subsequent costs. Replacement bins are included as an ongoing revenue cost. Capital costs are calculated at a baseline rate and do not include inflation.

## Residual Domestic Waste Collections

	Per Crew		Per 30,000 Households	
	Sacks	Wheeled Bin	Sacks	Wheeled Bin

### Revenue:

Crew size	5	3	15	12
Households covered	10,000	7,500	30,000	30,000
Frequency	Weekly	Weekly	Weekly	Weekly
No. of crews	1	1	3	4
Labour (£k)	£243	£145.8	£729	£583.2

Adj. re (583.2) Ven/TT2 1 Tf9 0 0 9

# Containers for Waste

## Green Waste Collection

	Per Crew				Per 30,000 Households			
	Sacks	Sacks	Wheeled Bin	Wheeled Bin	Sacks	Sacks	Wheeled Bin	Wheeled Bin

### Revenue:

Crew size	4	4	3	3	12	12	12	12
Households covered	20,000	40,000	15,000	30,000	60,000	120,000	60,000	120,000
Frequency	2 Weekly	4 Weekly	2 Weekly	4 Weekly	2 Weekly	4 Weekly	2 Weekly	4 Weekly
No. of crews	1	1	1	1	3	3	4	4
Labour (£k)	£195	£195	£146.25	£146.25	£585	£585	£585	£585
Adj. re peak demand (£k)	£20		£15		£60	0	£60	0
Vehicle (£k)	£45	£45	£45	£45	£135	£135	£180	£180
Adj. re peak demand (£k)	£5		£5		£15	0	£20	0
Management / Supervision (£k)	£4	£4	£4	£4	£12	£12	£16	£16
Sacks (£k)	£106	106			£318	£318		
Bin replacement @ 5% (£k)			£11.25	£22.5			£45	£90
Leaflets/publicity (£k)	£3	£6	£2.25	£2.25	£9	£18	£9	£9

