1. **Summary/ Reason for urgency (if applicable)**

1.1 In 2003/4 Harrow recycled approx. 13% of its waste. If funding is obtained from the LRF to extend the current garden waste collection (Brown Bin) scheme to all suitable households in the borough we are likely to increase the rate to 23-24%. This would not be sufficient to meet Harrow’s (LPSA enhanced) statutory recycling target of 25.2% (to be achieved by 2005/6). Achieving this target is one of the important indicators in the council’s Comprehensive Performance Assessment.

1.2 Adding kitchen waste to the materials collected by the organic waste scheme will increase the amount of waste being collected and would probably mean that the enhanced target is achieved.

1.3 Conducting a trial of alternative collection patterns for the Brown Bin would allow the council to assess the public reaction, determine the relative effectiveness of the patterns and allow potential problems to be examined and solutions devised prior to a final decision being taken.

1.4 The potential financial implications of the Government’s Landfill Allowance Trading Scheme (LATS) on the council’s waste disposal budget are significant. The scheme will gradually restrict the amount of biodegradable waste that can be landfilled – in order to meet the requirements of the EU’s Landfill Directive. Without a change in our current methods of waste collection and disposal (which rely heavily on landfill), the cost of landfiling organic waste will be very significant. Current estimates are that the increase could be in the order of £1.5m to £2m annually from 2005/6 until 2020. Investment in organic waste collection schemes is an essential element in reducing our reliance on landfill for the disposal of organic waste.
2. **Recommendations** (for decision by Cabinet)

2.1 To confirm that the Brown Bin scheme should be expanded to include the collection of kitchen waste (and card/cardboard) in addition to garden waste once processing capacity has been secured.

2.2 That the Area Director (Urban Living) be authorised to: - enter into a temporary contract with Grundon, for the duration of the pilot, to accept collected organic waste for reprocessing, with the costs of the reprocessing being met by WLWA; and, to procure through a competitive procurement process a permanent facility for operation from April 2005 (subject to confirmation by the council whether to continue with the collection of kitchen waste following the pilot).

2.3 To conduct a pilot, covering 10,000 households, changing the frequency of collection of the bins to: Brown Bin weekly, Residual Bin fortnightly. A control area, covering 10,000 households would also be run in parallel based on the existing collection pattern. i.e. Brown Bin fortnightly, Residual Bin weekly.

2.4 To report back in April 2005 on the results of the pilot.

**REASON:** To enable the council to make progress in meeting its statutory recycling targets.

3. **Consultation with Ward Councillors**

3.1 Copies of the draft report have been circulated to the three main parties and briefing meetings held with the Conservative and Liberal Democrat groups.

4. **Policy Context (including Relevant Previous Decisions)**

4.1 The council’s Recycling Plan, published in 1999, identified that the separate collection of organic waste (both garden waste and kitchen waste for composting) would be introduced in order to meet the Government’s recycling targets.

4.2 This policy was confirmed in September 2002, when cabinet approved a bid to the London Recycling Fund for the separate collection of organic waste (kitchen and garden waste).

4.3 Collection of kitchen waste was subsequently deferred because of the Animal By-products Order, which prohibited the composting of kitchen waste and its subsequent use as compost. This prohibition has now been amended to allow composting under controlled conditions.

5. **Relevance to Corporate Priorities**

5.1 This report addresses the Council’s stated priority of “enhancing the environment in Harrow by keeping the Borough clean and attractive, by promoting higher environmental standards and by bringing about more sustainable transport activity”. Its main impact on the Comprehensive Performance Assessment will be an increase in the percentage of waste recycled.

5.2 This would enable Harrow to continue to make progress towards meeting its (LPSA enhanced) statutory recycling target of 25.2% (to be achieved by 2005/6).

6. **Background Information and options considered**

6.1 Details of the proposal are set out in Appendix A. The following sections sets out the principal reasons for the Recommendations.
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Why</th>
<th>Consequences of Decision</th>
<th>Consequences of deferring decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>To confirm that the Brown Bin scheme should be expanded to include the collection of kitchen waste (and card/cardboard) in addition to garden waste once processing capacity has been secured.</td>
<td>To increase the amount of waste collected for recycling and to meet the (LPSA-enhanced) Statutory BVPI target of 25.2% in 2005/6.</td>
<td>The collection of kitchen waste (and card/cardboard) in addition to garden waste will mean that the council will probably meet and exceed the BVPI target. The council will receive the performance reward grant of £425k under the LPSA. Achieving the target will also benefit the council’s CPA rating.</td>
<td>A scheme based solely on the collection of garden waste is unlikely to meet the BVPI target. This would mean that the council will not receive the performance reward grant of £425k (LPSA). There would also be an adverse effect on the council’s CPA rating. In the longer term the financial implications of the Landfill Allowance Trading Scheme (LATS), which starts in April 2005, on the council’s waste disposal budget would be significant. Without a change in our current methods of waste collection and disposal (which rely heavily on landfill), the cost of landfilling organic waste will be very significant. Current estimates are that the increase could be in the order of £1.5m to £2m annually from 2006/7 until 2020. Investment in organic waste collection schemes is an essential element in reducing our reliance on landfill for the disposal of organic waste.</td>
</tr>
<tr>
<td>Recommendation</td>
<td>Why</td>
<td>Consequences of Decision</td>
<td>Consequences of deferring decision</td>
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</table>
| That the Area Director (Urban Living) be authorised to: enter into a temporary contract with Grundon, for the duration of the pilot, to accept collected organic waste for reprocessing, with the costs of the reprocessing being met by WLWA; and, to procure through a competitive procurement process a permanent facility for operation from April 2005 (subject to confirmation by the council whether to continue with the collection of kitchen waste following the pilot). | The composting of kitchen waste requires a more controlled environment to ensure that the risk of spreading animal diseases (e.g. foot and mouth) to other animals is minimised. Compliant facilities are rare.  
The Grundon site, in Hillingdon, is both compliant and has easy access. This type of facility is exceptionally rare and to have one so close to the council is very advantageous. This proposal, to enter into a temporary contract, will allow the pilot to proceed and ensure that a permanent facility is procured in accordance with European regulations and the council’s Contract Procedures.  
The WLWA will reimburse the gate fee to the council in full. Overall WLWA’s expenditure is expected to decrease as the gate fee will be lower than the cost of disposing waste to landfill. Over the long-term, these savings will be significant and will be reflected in the levy from WLWA. | The council needs a processing facility to be available before it can start to collect kitchen waste for the pilot. The Grundon site represents the only realistic site available for the pilot.  
The council would need to waive its contract procedures.  
During the pilot the council will be able to procure a facility to continue with the process after April 2005, subject to a successful trial. The additional time will allow European regulations and the council’s Contract Procedures to be complied with. | The council is unlikely to find an alternative site in the area, which would be willing to take the waste from the pilot and this would mean that the council could not proceed.  
This will result in the council being unable to collect kitchen waste (or cardboard) and it would not achieve its BVPI target.  
The financial (and other) implications highlighted above would apply. |
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Why</th>
<th>Consequences of Decision</th>
<th>Consequences of deferring decision</th>
</tr>
</thead>
</table>
| To conduct a pilot, covering 10,000 households, changing the frequency of collection of the bins to: Brown Bin weekly, Residual Bin fortnightly | Kitchen waste has the potential to cause odour and insect problems if it is not properly contained. Using the existing collection pattern (i.e. Brown Bin fortnightly, Residual Bin weekly) could produce problems, particularly over period of very warm weather. The existing collection pattern should be used on one organic waste round (10,000 households) as a control area for comparison with a revised collection pattern:-  

- It will provide a weekly service for the bio-degradable waste (i.e. the potentially smelly waste) and encourage maximum diversion into the Brown Bin  
- It will encourage waste minimisation in the Residual Waste bin  
- It will encourage diversion of recyclable waste into the Green Box scheme. (Evidence In terms of a typical household, the Brown Bin would collect half of the waste, the Green Box would collect a quarter and the remaining quarter would be left for the Residual Waste bin. Weekly collections of the Brown Bin would therefore be a better fit to the quantities of waste being generated. However a change to the frequency of collection of the residual bin may prove to be unpopular with residents. Undertaking the pilot, and the control area, would allow the council to assess the public's reaction to both the collection of organic waste and the two alternative collection patterns. The trial would allow the effectiveness of each scheme to be determined in relation to increasing the amount of waste recycled. I.e. do weekly collections of the Brown Bin encourage the diversion of organic waste and result in increased use of the Green Box. The long-term financial implications of not proceeding with a scheme to collect kitchen waste are set out above. |
<p>| The absence of a trial would expose the council to the accusation that it is seeking to impose a particular scheme without any consideration of the consequences. Without an assessment of the effectiveness of the different schemes the council would be making un-informed decisions. The long-term financial consequences, resulting from LATS, would also be clearer following a pilot and it would allow |</p>
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Why</th>
<th>Consequences of Decision</th>
<th>Consequences of deferring decision</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>from other councils indicates that, where this type of scheme is introduced, the use of the Green Box significantly increases.) The trial would enable the effectiveness of the scheme and the views of the public to be determined before a final decision was made on the inclusion of kitchen waste and the collection frequencies was made.</td>
<td>the council to take these into account when making its decision. The pilot would also allow any potential problems with disposable nappies etc. to be examined and solutions devised prior to a final decision being made.</td>
<td></td>
</tr>
<tr>
<td>To report back in April 2005 on the results of the pilot.</td>
<td>A report back will allow the council to make sound decisions based on the results of the pilot.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Consultation

7.1 Residents
The introduction of the Brown Bin scheme in its present form (i.e. Garden waste collected fortnightly) has been very popular and readily accepted by the public.

The addition of kitchen waste and the proposed pilots will enable any potential problems (outlined above) to be identified and solutions tested, before a final decision is made. A key element of the evaluation will be the views of the public, involved in the trial, as expressed in a MORI poll.

7.2 Detailed discussions have taken place with both the West London Waste Authority and the other constituent authorities. These discussions have been in relation to the development of a joint waste management strategy for the WLWA area and the measures needed to allow WLWA and its constituent authorities to meet their Statutory Targets.

7.3 Fraikin have been consulted over the implications for the vehicle fleet.

7.4 Consultation has also taken place with HA21.

7.5 Trade Unions
A copy of this draft has been circulated to UNISON for comment.

8. Finance Observations
8.1 The costs of introducing the proposed changes can be contained within the approved budget for the service. Were it decided at a later date to adopt any of the measures identified in this report to alleviate the potential problems identified with fortnightly residual waste collections then there may be additional costs for which there is currently no budget provision. This would form part of the evaluation of the pilot and would be included in the report back in April 2005.

9. Legal Observations
9.1 EU procurement regulations do not apply in respect of the temporary contract as the value of the contract is below the EU thresholds. There will need to be a waiver under the Contract Procedure Rules to let the contract.

9.2 The question of the applicability of the EU procurement regulations to the contract following the temporary one is being investigated. The council's normal Contract Procedure Rules will apply to this procurement.

10. Conclusions
10.1 Without the addition of kitchen waste (and cardboard) to the Brown Bin scheme the council will probably not achieve its recycling target for 2005/6.

10.2 The addition of kitchen waste to the Brown Bin would mean that the council would probably achieve the enhanced LPSA target for recycling and hence receive the maximum performance reward grant for this area of £425k.

10.3 The introduction of a pilot scheme would allow the council to identify any potential problems and establish the public’s reaction to the scheme before a final decision is made.

11. Background Papers

11.1 None

12. Author Andrew Baker Waste Management Policy Officer Ext. 2779
E-mail: andrew.baker@harrow.gov.uk
A.1 **Targets**

The Government’s national Waste Strategy has set the following targets:

<table>
<thead>
<tr>
<th>Target Date</th>
<th>Recycling/composting</th>
<th>Recovery(including Recycling)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>25%</td>
<td>40%</td>
</tr>
<tr>
<td>2010</td>
<td>30%</td>
<td>45%</td>
</tr>
<tr>
<td>2015</td>
<td>33%</td>
<td>66%</td>
</tr>
</tbody>
</table>

The Government has set all local authorities Statutory Best Value Performance Targets for recycling (Harrow’s targets are 16% in 2003/4 and 24% by 2005/6).

The council’s recycling rate in 2003/4 was 13%. The introduction of the second organic waste collection round in March 2004 means that the council has the installed capacity to recycle 16% by the end of the target year.

A.2 **LPSA**

An increase in the percentage of household waste recycled is one of the areas that have been agreed as part of the LPSA target. The enhanced target for 2005/6 is 25.2%.

The extension of the organic waste collection scheme would have the effect of increasing the likelihood of the LPSA target for recycling being met. There is therefore a much greater probability that the maximum performance reward grant of £425k for 100% achievement of the recycling target will actually be earned.

A.3 **London Recycling Fund**

The LRF is a jointly administered programme of all London’s waste authorities to spend an original allocation of £24.7m in 2002/3 and 2003/4 with the aim of bringing about a step change in London’s recycling rates.

Allocation of funding is based on a bidding process. Harrow has already been successful in three bids to the LRF
- £190k for the Civic Amenity Site;
- £481k for the separate collection of organic waste (Round 1); and,
- £310k for the separate collection of organic waste (Round 2).

A further bid to the LRF has been submitted for the extension of the organic waste collection scheme across the remainder of the Borough (approx. 50,000 additional households). I.e. this applies to “traditional” housing not purpose built flats. Giving a total coverage of approx. 72,000 households.

It is considered that if this scheme is confined to garden waste only, the council will not achieve its enhanced recycling target of 25.2% in 2005/6.

A.4 **Landfill Directive**

The E.U.’s Landfill Directive requires the amount of biodegradable waste in municipal waste to be progressively reduced. Britain is one of a number of countries with derogation allowing it additional time to comply with the Directive. The relevant targets are:

<table>
<thead>
<tr>
<th>Target</th>
<th>Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>75% of 1995 levels</td>
<td>2010</td>
</tr>
<tr>
<td>50% of 1995 levels</td>
<td>2013</td>
</tr>
<tr>
<td>35% of 1995 levels</td>
<td>2020</td>
</tr>
</tbody>
</table>

These are very severe targets and require a significant change in the UK’s current waste disposal methods. This is reflected in the National Waste Strategy. The Government has enacted the Waste and Emissions Trading (WET) Act, which rations the landfill capacity for biodegradable waste by a system of tradable allowances - the Landfill Allowance Trading Scheme (LATS). This scheme will start in April 2005 and will have a significant impact on local authorities’ waste disposal budgets.
The scheme will gradually restrict the amount of biodegradable waste that can be landfilled. Without a change in our current methods of waste collection and disposal (which rely heavily on landfill), the cost of landfiling organic waste will be very significant. Current estimates are that the increase could be in the order of £1.5m to £2m annually from 2006/7 until 2020. Investment in organic waste collection schemes is an essential tool in reducing our reliance on landfill for the disposal of organic waste.

A.5 Inclusion of Kitchen Waste (and Card/Cardboard)
The composting of kitchen waste requires a more controlled environment than the windrow method that is commonly used for the composting of green garden waste. DEFRA has published regulations governing this process, which require (in addition to approval by planning authorities) that these facilities also need approval from the Environment Agency and the State Veterinary Service. This is to ensure that there is no possibility of spreading animal diseases (e.g. foot and mouth) back to farm animals or the wild animal population.

At present, the Brown Bin scheme is only collecting garden waste. The collection of kitchen waste has been deferred until composting facilities, which comply with the new regulations, become available.

The London Borough of Hillingdon has been in negotiation with a local waste management company, based in Harefield, to enter into a contract for the composting of organic waste. This facility will comply with the above regulations and will be able to receive kitchen wastes. It is anticipated that the facility will be able to receive waste probably from the autumn of 2004. Early discussions with the company indicate that they will also be willing to accept card and cardboard for composting. This is in line with the Council’s original proposals for the Brown Bin. The company has agreed a seven year contract with LB Hillingdon (with up to three year extension) and are looking for a similar contract term with Harrow.

Contracts for the disposal/processing of waste are normally let by WLWA. In this case WLWA has indicated that councils who wish to use this facility should enter into a direct contract with the company. The WLWA will reimburse the gate fee to the councils in full. In the current market this type of facility is exceptionally rare and to have one so close to the council is very advantageous. Approval is therefore sought to negotiate and sign a contract with this company. The Government has published advice via WRAP (Waste & Resources Action Programme) that this type of contract is not subject to EU Procurement rules as these procedures do not apply to the supply of collected materials to re-processors.

This will require the Council’s contract procedures to be waived due to the specialist nature of the contract.

Once the contract has been signed, the council will be in a position to include kitchen waste and card/cardboard in its Brown Bin scheme. It is anticipated that the tonnage collected by the scheme will increase by between 50 and 100% once this is in place.

A.6 Pilot to determine Collection Frequencies
At present, in Brown Bin areas, residents receive a weekly refuse collection service and an alternating collection of the Green Box and the Brown Bin. It is recommended that, once kitchen waste is transferred to the Brown Bin, the council trial two patterns of collection:-

1. The existing collection pattern should be trialled on one organic waste round (10,000 households) as a control area.
2. In another Brown Bin round (10,000 households) the frequencies would be changed to a weekly Brown Bin collection with alternating collections of the Green
Box and the normal green wheeled bin (the Residual Waste bin). This is proposed for the following reasons:-

- It will provide a weekly service for the bio-degradable waste (i.e. the potentially smelly waste) and encourage maximum diversion into the Brown Bin
- It will encourage waste minimisation in the Residual Waste bin
- It will encourage diversion of recyclable waste into the Green Box scheme.
  (Evidence from other councils indicates that, where this type of scheme is introduced, the use of the Green Box significantly increases.)
- In terms of a typical household, the Brown Bin would collect half of the waste, the Green Box would collect a quarter and the remaining quarter would be left for the Residual Waste bin. Revised collection pattern 2 would therefore be a better fit to the quantities of waste being generated.

The proposed trial would enable the effectiveness of the scheme and the views of the public to be determined before a final decision was made on the inclusion of kitchen waste and the collection frequencies was made.

Appendix D sets out a possible timetable for the pilot, its evaluation and implementation (if approved).

A.7 Information and Enforcement

Introducing this change will be a major challenge. We will build on our experience of introducing the Brown Bin (and other initiatives) to advise residents of the change. Significant changes to the Brown Bin publicity for the introduction of the second round have been made, as a result of the comments received during round one. This process would be applied to the changeover.

For the changeover to be successful we would need to assure people that we were continuing to collect the major part of their waste (putrescible waste) weekly via the Brown Bin. Potentially 50% of people’s waste would be collected in the Brown Bin, 25% in the Green Box and 25% in the Residual Waste bin. The Green Box and the Residual Waste bin would be collected on alternate weeks, thereby complementing each other and encouraging recycling.

The introduction of the Brown Bin scheme introduces the enforcement measures for where waste is put into the wrong bin. Essentially people, who make a mistake get the Brown Bin or Residual Waste bin emptied on two occasions before being informed that they will need to resolve the problem themselves. The changeover would not affect this policy.

The use of the Green Box would still be voluntary under these proposals. Members will be aware of developments in Barnet on making the use of their recycling scheme compulsory. At this stage it is not intended to follow their lead but to monitor their results.

In our bid to the London Recycling Fund we have applied for two additional recycling officers, giving a dedicated team of four, to assist in the implementation of the Brown Bin scheme. This is in addition to the waste management team and the area management team.

The collection crews will also be an essential source of information for the public and we will need to ensure that they receive the necessary training to allow them to respond to people and to ensure that they can resolve/defuse any potential conflicts. One of the biggest sources of conflict on the existing rounds is the council’s policy not to collect excess waste. The introduction of the Brown Bin helps to address this issue as it provides 50% greater storage capacity. The restriction on the residual waste capacity may cause some problems but will provide an incentive to those not using the Green Box
to recycle. People who use the Green Box and the Brown Bin should not have any problem with this restriction.

Currently people can apply for an additional Brown Bin at a cost of £25 (compared to £75 for a green wheeled bin). It is recommended that the charge for the green wheeled bin is reduced to £25 in Brown Bin areas. Residents would also have the option of swapping a green wheeled bin for a Brown Bin free of charge.

An important element of the pilot and the proposed phased implementation is that it will be a gradual change. This will allow us to learn and adapt our approach where necessary.

A.8 Disposable nappies
The major potential problem (in changing to fortnightly collection for the Residual Waste bin) is disposable nappies. These make up approx. 4% of the general waste stream but are obviously a larger proportion of the waste of those households that use them. If the proposal to move to fortnightly collections (for residual waste) were approved disposable nappies would be collected once a fortnight. It is not clear from other councils whether this would be a significant problem. There are two potential (mutually exclusive) problems, shown below. The council would need to monitor the situation to determine which of the two scenarios was most relevant during the pilot.

<table>
<thead>
<tr>
<th>Potential Problem</th>
<th>Detail</th>
<th>Potential solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smells</td>
<td>Storing nappies for two weeks could present a problem particularly in the summer. However disposable nappies tend to be well wrapped and the absorbent gel in them probably helps to control any potential smell problem. This would probably only be a serious problem over the summer months.</td>
<td>If smell did prove to be a significant and widespread problem it could be addressed by providing a temporary weekly service for households using nappies. A pilot would enable the likely cost of providing a separate weekly service for disposable nappies across the whole borough to be established. Once collected separately there would be an opportunity to investigate alternative disposal routes, which could contribute to the recycling targets.</td>
</tr>
<tr>
<td>Storage Capacity</td>
<td>There may be circumstances where the two-weekly service for Residual Waste presented a storage problem for disposable nappies. This would be a problem across the whole year</td>
<td>This could be addressed by providing a temporary additional bin. A pilot would enable the likely cost of providing temporary additional bins across the whole borough to be established</td>
</tr>
</tbody>
</table>
Collection costs would be contained within existing budgets during the pilot.

The alternative to disposable nappies is reusable nappies, which offer significant advantages in terms of waste minimisation. This proposal would present the council with the opportunity to promote the use of reusable nappies within the community.

A.9 Animal Waste
Waste from vegetarian animals (straw bedding and droppings) can be disposed of in the Brown Bin.

Dog (and cat) faeces present a more difficult problem. Over a number of years the council has encouraged responsible dog owners to clean up after their animals and deposit the waste in bins. The most obvious example of this is the dog-waste bins in some parks and open spaces. Some owners use their wheeled bins for the disposal of this waste and this could possibly present a problem similar to the disposal of nappies, but this is likely to be of a much smaller scale. Enquiries have been made with other authorities, which operate a fortnightly collection, to see if this is a problem. The limited feedback that has been obtained is that it is a relatively small problem, which is only really a nuisance in hot weather and which owners adapt to.

A number of disposal routes are available for dog faeces: - the wheeled bin, dog-waste bins, street litterbins and disposal in gardens or down the toilet.

As with disposable nappies, the pilot would allow this issue to be clarified.

A.10 Bin cleanliness
An essential element of collecting organic waste is that waste is not wrapped in plastic bags. This can produce problems with some garden wastes (particularly grass cuttings) which lose a significant amount of moisture once cut. Inside an enclosed space, such as a wheeled bin, this can result in moisture accumulating in the bottom of the bin and potential problems with cleanliness. Collection pattern 2 would help to minimise this problem. The addition of card and cardboard would allow the excess moisture to be absorbed. Some kitchen wastes would add to the problem and residents would be advised to wrap these in newspaper to minimise this. However it has to be recognised that a brown bin cannot be kept as clean as a normal bin.

Some councils issue biodegradable bags to residents to help overcome this but not all of these degrade in the composting process as quickly as needed. Provision of bags would add to the cost of the scheme, unless they were sold to those people who wanted to use them. This is the position adopted in Bexley (See Appendix B).

It is possible for a person, who is fit and healthy, to clean the bin themselves. There are also a number of companies that provide a bin cleaning service to the public. Left to itself, if the introduction of Brown Bins increased the demand for bin cleaning, a larger market would develop.

The council could provide a service itself and recover the cost via a small charge. If a charge were introduced the council could decide whether it wanted to provide a free service to people who either could not clean the bin themselves or were unable to afford the cost. Provision of a general free service may not be desirable, as it would undermine existing bin-cleaning companies and lead to increased demand.

As above, a pilot scheme would allow this aspect to be clarified.
A.11 **Collection Vehicles**

The existing contract for the provision of council vehicles has a break clause that requires the replacement of half of the existing refuse collection fleet in 2004/5. If the council decides to implement the change in collection patterns, the replacements will be specified as Rotopress vehicles rather than conventional refuse vehicles. A pilot scheme would delay the replacement but this is not expected to be a significant problem.

The additional contract hire costs associated with the planned replacement will be approx. £60k per year regardless of which vehicles are specified. This cost is currently not included in the MTBS.

A.12 **Efficiencies and Inefficiencies**

Introducing changes to the standard (one size fits all) refuse collection service introduces some inefficiency into the overall system. To date these inefficiencies have largely been contained within the operation of the Brown Bin scheme. There are two main reasons for this: the seasonal variation in garden waste; and, differing levels of participation (e.g. people who compost at home have less need for a garden waste collection service). In a smaller way there has been a reduction in efficiency in the residual collection service, as these rounds have not been adjusted to reflect the reduction in waste being collected.

The inclusion of kitchen waste will allow the Brown Bin scheme to operate more efficiently as there will be a less marked seasonal variation in weights, but there will be a further loss of efficiency in the residual waste rounds. As the scheme expands these inefficiencies will need to be addressed by adjustments to the residual rounds. This could result in some overall savings.

Overall the proposal to switch the frequency of collection is not anticipated to have a marked effect on efficiency apart from flats - where the Brown Bin service has not been installed. The best scenario would be to introduce the Brown Bin at these locations but this may not be possible in all cases. Arrangements would need to be made to continue the weekly service at these locations. This could result in some additional costs.

The overall effect of the above changes cannot be accurately predicted at this stage but is not anticipated to be significant.

A.13 **Flats**

One of the advantages Harrow has, as an Outer London Borough, is the high proportion of traditional housing (about 80% of the housing stock), which in general have better response rates to recycling schemes than flats. Both the Green Box and the Brown Bin schemes play to these strengths so that we can obtain a significant change in our performance. The issue of flats needs to be addressed but should be viewed, at present, as being a lower priority particularly with respect to the Brown Bin. We are currently introducing a trial scheme, using Green Boxes, in housing flats, which if successful, could be rolled-out to all flats over the next few years.

The introduction of the Brown Bin scheme into flats would need to be carefully implemented because of the potential problems from contamination. A separate pilot should be considered once the Brown Bin scheme (and the addition of kitchen waste) has been fully rolled out in the rest of the borough.
Case Histories

London Borough of Bexley
The London Borough of Bexley, which is a Beacon Authority for waste management, has conducted a trial for the collection of organic (kitchen and garden) waste using different size bins and collection frequencies. All these collections are carried out in addition to the normal refuse collection service, which in Bexley is a sack collection system. Results are as follows:

<table>
<thead>
<tr>
<th>Bin Size</th>
<th>Collection frequency (for organic bin)</th>
<th>Ave. Weight per collection per hhld. Kg</th>
<th>Ave. Weight per annum per hhld. Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 litre</td>
<td>Weekly</td>
<td>4.44</td>
<td>231</td>
</tr>
<tr>
<td>50 litre</td>
<td>Fortnightly</td>
<td>5.80</td>
<td>151</td>
</tr>
<tr>
<td>140 litre</td>
<td>Weekly</td>
<td>7.64</td>
<td>397</td>
</tr>
<tr>
<td>140 litre</td>
<td>Fortnightly</td>
<td>8.07</td>
<td>210</td>
</tr>
<tr>
<td>180 litre</td>
<td>Weekly</td>
<td>6.96</td>
<td>362</td>
</tr>
<tr>
<td>180 litre</td>
<td>Fortnightly</td>
<td>13.22</td>
<td>343</td>
</tr>
<tr>
<td>240 litre</td>
<td>Fortnightly</td>
<td>12.30</td>
<td>320</td>
</tr>
</tbody>
</table>

Bexley has carried out a survey of residents’ opinions with the following results (on a response rate of 60%)

What do you think of the scheme overall?
74% Very good; 19% Good; 6% Reasonable; Poor 0.7%; Very poor 0.7%

Does the bin smell?
21% Often; 47% Rarely; 32% Never

Experience in the Bexley indicates that the alternate week collections results in significant contamination problems and is the least popular option. They have decided to introduce a collection scheme, for kitchen and garden waste, on the basis of a weekly collection for both the organic bin and residual waste (via a sack system). During the trials Bexley advised residents “to reduce any odours that may occur in your kitchen waste you can wrap them in one or two sheets of newspaper”. Bexley’s Waste Manager reports that “This appears to have worked (for the weekly collections), but we had a lot of problems on fortnightly with food waste residue sticking to the side of the bins and then maggots living in it. This was overcome by providing the fortnightly people with degradable plastic mini bags for their kitchen waste. When we made the decision to go borough wide it was cheaper to collect weekly than provided everyone three mini bags per week.” Bexley are considering selling paper bags for food waste at their CA site and possibly libraries but this is an optional extra for those residents who want to use them.

St Edmondsbury (Beacon Council)
Two bins - Green (residual waste), Brown (garden waste)
Alternate week collections at start of scheme – since amended to weekly collections of residual and fortnightly collections for organic.
The council use standard 240 litre wheeled bins and has not experienced any problem with flies. More expensive bins, which aerate the contents, have also been trialled but are no longer used, as they appear to offer no advantage over the standard bin.
**Wealden District Council (Beacon Council)**
Two bins - Green (residual waste), Brown (garden waste)
Alternate week collections

**Daventry District Council (highest level of recycling in the country)**
Two bins - Grey (residual waste), Brown organic (kitchen and garden waste)
Alternate week collections
Weekly collections of dry recyclables using a box scheme (since 1995).
Prior to the introduction of the organic waste scheme, the box scheme was recycling 9%.
The scheme for the collection of organic waste has been operational across the whole district since 1999. Total diversion rate is now approx. 50% (33% organic waste plus 17% dry recyclables).

Customer survey carried out after the introduction found: -
  98% supported recycling
  94% supported the organic waste recycling scheme
  61% found the new scheme manageable.

**Eastleigh Borough Council**
Alternate week collections of refuse and garden waste

**Chester City Council**
Brown bin collection of garden waste

**Wakefield Council**
Brown bin collection of garden waste

**Chesterfield Borough Council**
Brown bin collection of garden waste and cardboard

**Cambridge City Council**
Brown bin collection of garden waste and kitchen waste

**LB Sutton** trialled an alternate week system for the collection of recyclable and residual waste a few years ago. This was based on the use of wheeled bins. The scheme was highly unpopular and eventually was changed to weekly collections of residual waste and fortnightly collections of recyclables. At that stage Sutton was not attempting the separate collection of organic waste but the public was not willing to accept fortnightly collections of “smelly” waste.
<table>
<thead>
<tr>
<th>Brent</th>
<th>Ealing</th>
<th>Harrow</th>
<th>Hillingdon</th>
<th>Hounslow</th>
<th>Richmond</th>
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</thead>
</table>
OWL PROJECT
Collects Kitchen waste
Weekly collection
Outdoor bin/indoor kitchen caddy
Free collections
4000 households
3 tonnes a week
<table>
<thead>
<tr>
<th>Date</th>
<th>Round 1</th>
<th>Round 2</th>
<th>Round 3</th>
<th>Round 4</th>
<th>Round 5</th>
<th>Round 6</th>
<th>% Recycling*</th>
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</thead>
<tbody>
<tr>
<td>June 2003</td>
<td>Start Brown Bin</td>
<td></td>
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<td>Start Brown Bin</td>
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<tr>
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<td></td>
<td>Start Brown Bin</td>
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<tr>
<td>October 2004</td>
<td>PILOT Add kitchen waste and pilot revised frequencies</td>
<td>CONTROL Add kitchen waste using existing frequencies</td>
<td></td>
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<td>20</td>
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<tr>
<td>November 2004 to February 2005</td>
<td>Run Pilot</td>
<td>Run Control</td>
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<tr>
<td>March 2005</td>
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<td>Assess Control</td>
<td></td>
<td></td>
<td>Start Brown Bin</td>
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<td>April 2005</td>
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<td>Council decision</td>
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<td>Add Kitchen Waste?</td>
<td></td>
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<td>July 2005</td>
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<td>Add Kitchen Waste?</td>
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<td>28</td>
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<td>August 2005</td>
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<tr>
<td>September 2005</td>
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<td>Add Kitchen Waste?</td>
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<td></td>
<td>29</td>
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<td>October 2005</td>
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<td></td>
<td></td>
<td>Add Kitchen Waste?</td>
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<td>30</td>
</tr>
</tbody>
</table>

* Equivalent full-year rate assuming kitchen waste increases collected weight by 50%