



Appendix Two:  
Knowsley Metropolitan  
Borough Council  
District Council Action  
Plan

**KNOWSLEY  
WASTE  
ACTION PLAN  
2006**

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## **1. KNOWSLEY COUNCIL**

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### **1.1 Introduction**

Knowsley Council covers an area of 34 square miles of which two thirds are green belt or open space. The authority has a population of 153,000 within 63,051 properties.

The borough includes urban areas including Kirkby, Huyton, Stockbridge Village, Prescott, Whiston and Halewood.

### **1.2 Strategic Aims**

The strategic aims of the Council in relation to waste management are as follows:

- To divert as much biodegradable waste from landfill as possible, focussing on the diversion of paper, textiles and garden waste in the short term
- To promote waste minimisation
- To increase participation in recycling and composting schemes

### **1.3 Integration with the Merseyside Partnership and JMWMS**

The Council has ratified the JMWMS and associated documents and the associated objectives and pooled targets.

To assist integration and joint working across the County, the Council have identified a number of areas for clarification, discussion and potential co-operation within the partnership.

a. The five districts should develop and apply joint procurement programmes. This is a key issue and a potential means to provide better value for money and improved contract terms.

b. Cross boundary working should be considered and developed, where appropriate, to potentially provide genuinely joined up working.

c. Longer term, future targets need to be defined as soon as possible (recycling & composting) to enable appropriate planning and action plan development.

d. Clarification is needed on how the JMWMS waste minimisation targets will be achieved (zero waste growth)

## 1.4 Approval

Knowsley MDC's cabinet considered a report entitled "Waste Management Preferred Options " on 19<sup>th</sup> April 2006 and resolved that the work being undertaken by the Merseyside WDA in supporting the development of individual district action plans and the procurement of an integrated sub-regional waste strategy, be acknowledged and endorsed. The cabinet's preferred options are incorporated into this action plan.

## 1.5 Current and Future Performance

The Council's most recent waste BVPI performance data, for 2004/05, and estimates for future years are shown in Table 1.1

Table 1.1  
BVPI Performance Data<sup>1</sup>

BVPI	Description	2004/05 Actual	2005/06 Targets	2006/07 Targets	2007/08 Targets
82a	% of household waste Recycled	6.49%	11%	12%	13%
82b	% of household waste Composted	3.90%	4%	5%	6%
82 (combined)	% of household waste Recycled and Composted	10.93%	15%	17%	19%
84a	Number of kilograms of household waste collected per person	408.4kg	405kg	413kg	413kg
86	Cost of waste collection per household	£38.01	£43.28	£46.48	£47.87
91	% of population served by a kerbside collection of Recyclables	97%	95%	97%	97%

## 1.6 Current Waste Management Services

The Council's core waste collection services, as considered in this study, are as follows:

- Household residual waste collection service
- Kerbside dry recyclable collections
- Kerbside compostable collections

<sup>1</sup> Knowsley Council Data

- Bring Sites

### **1.6.1 Household Residual Waste Collections**

The Council has 97% coverage of households with 240 litre wheeled bins for the storage of residual waste. Approximately 3% of households are provided with a sack collection. Collections are made from the curtilage of the property on a weekly basis. The Council have a long standing policy that no side waste will be collected, but this is not enforced in practice.

An in-house team provide the collection service using the following resources:

- 9 refuse collection rounds using RCVs
- One driver and two operatives per round

The delivery points for the collected residual waste are at either Gilmoor or Huyton transfer stations.

### **1.6.2 Kerbside Dry Recyclable Collections**

Households are provided with a 55 litre box for dry recyclables plus a sack for textiles. The service was expanded to 61,000 households from October 2004 onwards.

An in-house team provide the collection service using the following resources:

- 4 collection rounds using stillage vehicle
- One driver and two operatives per vehicle

The materials collected from this service are:

- Paper – newspapers, magazines, yellow pages, junk mail and other
- Cans – aluminium and steel cans
- Glass – bottles and jars
- Textiles – clothes and shoes

The delivery point for the recyclables is the Council's bulking facility, where the materials are separated into skips before onward transportation to reprocessors.

### **1.6.3 Kerbside Compostable Collections**

In 2003, the green waste collection service was introduced to 30,000 households, using a sack collection every fortnight, between April and October. As the 55 litre dry recyclable box collections were expanded to 97% of the households, residents

switched to using their 120 litre wheeled bins (previously used for paper) for garden waste. Sacks are no longer used.

An in-house team provides the collection service on a fortnightly basis, using the following resources:

- 3 green waste collection rounds using RCVs
- One driver and two operatives per vehicle

The delivery point for the green waste is Mossborough Hall Farm.

#### **1.6.4 Bring Sites**

Details of the Council's bring sites are provided in Table 1.2.

**Table 1.2  
Bring Sites<sup>2</sup>**

<b>Material</b>	<b>No of Sites</b>	<b>Collection Organisation</b>	<b>Contract Expiry Date</b>
Glass	18	GRUK	2007
Cans	13	KMBC	N/A
Paper	46	CRL	N/A
Shoes	7	European Shoe Recycling Co	N/A
Textiles	7	Salvation Army	N/A
Mixed Glass	6	KMBC	N/A

### **1.7 Future Plans – Summary**

#### **1.7.1 Introduction**

The development of the Council's future collection services have been informed by an Options Appraisal Meeting held on 13<sup>th</sup> January with key members and officers.

The preferred options identified at the meeting were as follows:

- Residual Waste – Alternate week collections
- Dry Recyclables – Weekly box collections
- Compostables – Co-mingled, weekly kitchen and garden waste collections

#### **1.7.2 Residual Collections**

The Council's preferred option is to continue with weekly collections subject to further review and financial sustainability.

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<sup>2</sup> Wirral Council data

The waste flow model associated with this work assumes that this service will be introduced as a trial to 15,000 households in September 2007, in conjunction with the weekly dry recyclable and weekly co-mingled kitchen and garden waste collections outlined below.

The waste flow model also assumes that the balance of suitable households within the borough will also be provided with the alternate week service from April 2008.

### **1.7.3 Kerbside recycling**

A trial collection of plastic bottles from 15,000 households commenced in February 2006 in conjunction with the current box collection service. The waste flow model associated with this work assumes that this service may be expanded Borough wide by November 2006.

The waste flow model also assumes that the current fortnightly box, dry recyclable collection service will be developed into a weekly service. Consideration is being given to delivery of commingled recycle to a transfer station or MRF

#### **Compostable Collections**

The collection of compostable materials will be developed in future years. The waste flow model assumes that the co-mingled (i.e. mixed) collection of kitchen and garden wastes will also be introduced in stages, mirroring the phased introduction of alternate week residual collections and weekly dry recyclable collections.

It is assumed that householders will also be provided with 'kitchen caddy' containers and biodegradable liners for the storage and transfer of kitchen materials to the wheeled bin currently used for garden waste.

### **1.7.4 Bring Sites**

The Council are willing to consider the provision of new bring sites, whenever appropriate. A review of potential new sites is currently underway in partnership with the contractor, Abitibi.



## **2. ACTION PLAN**

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### **2.1 Introduction**

This section outlines the assumed developments in waste management services in Knowsley for each year of the JMWMS from 2006/07 until 2020/21.

The following key elements are considered for each year:

- Service levels (e.g. types of service, number of households served);
- JMWMS MSW recycling targets;
- Estimated performance levels (MSW recycling and composting rates);
- Procurement issues (e.g. procurement processes, potential co-operation with neighbouring authorities);
- Indicative Costs.

### **2.2 Service Levels and Performance**

Table 2.1 on the pages below identifies the following key service issues and assumptions for each year:

- JMWMS MSW recycling targets and assumed interim targets, showing progression towards key target years;
- Estimated performance levels (MSW recycling and composting rates);
- Key service level details for kerbside dry recyclable, garden and kitchen waste collections (e.g. major changes to services, number of households served). Assumptions are based on the data in the waste flow diagrams and the levels of diversion required to achieve the JMWMS targets;
- Other relevant issues, for example the commencement of new contracts, changes to residual collections; including the introduction of alternate week collections or the introduction of new residual waste containers

Table 2.1 Action Plan Summary Table

Year	2006/07	2007/08	2008/09	2009/10	2010/11
<b>JMWMS MWS Recycling Target</b>	24.2%	26.4%	28.6%	30.8%	33%
<b>Estimated MSW Recycling Performance</b>	13%	16%	26%	31%	33%
<b>Kerbside Dry Recyclable Collections</b>	Phased introduction of plastic recycling service Borough wide.  Participation rate (35%) for all materials	Participation rate (40%) for all materials	Participation rate (60%) for all materials	Participation rate (70%) for all materials	Participation rate (72%) for all materials
<b>Kerbside Garden Waste Collections</b>	Participation rate (35%)	Participation rate (40%)	Participation rate (60%)	Participation rate (70%)	Participation rate (72%)
<b>Kerbside Kitchen Waste Collections</b>	-	Pilot service introduced to 15, 000 households (co-mingled with garden waste).  Participation rate (30%)	Co-mingled kitchen and garden waste collection service expanded Borough wide.  Participation rate (40%)	Participation rate (50%)	Participation rate (60%)
<b>Bring Sites</b>	-	-	-	-	-
<b>Other (including changes to residual collections and procurement issues)</b>	-	Alternate weekly collections introduced to 15,000 trial properties.	Alternate weekly collections expanded Borough wide.	-	-
<b>JMWMS MWS Recycling Target</b>	24.2%	26.4%	28.6%	30.8%	33%

**Table 2.1 Action Plan Summary Table (contd)**

<b>Year</b>	<b>2011/12</b>	<b>2012/13</b>	<b>2013/14</b>	<b>2014/15</b>	<b>2015/16</b>
<b>JMWMS Target</b>	34%	35%	36%	37%	38%
<b>Estimated MSW Recycling Performance</b>	35%	35.5%	36%	37%	38%
<b>Kerbside Dry Recyclable Collections</b>	Participation rate (72%) for all materials	Participation rate (73%) for all materials	Participation rate (74%) for all materials	Participation rate (75%) for all materials	Participation rate (76%) for all materials
<b>Kerbside Garden Waste Collections</b>	Participation rate (72%)	Participation rate (73%)	Participation rate (74%)	Participation rate (75%)	Participation rate (76%)
<b>Kerbside Kitchen Waste Collections</b>	Participation rate (60%)	Participation rate (61%)	Participation rate (62%)	Participation rate (63%)	Participation rate (64%)
<b>Bring Sites</b>	-	-	-	-	-
<b>Other (including changes to residual collections and procurement issues)</b>	-	-	-	-	-

**Table 2.1 Action Plan Summary Table (contd)**

<b>Year</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>
<b>JMWMS Target</b>	39.2%	40.4%	41.6%	42.8%	44%
<b>Estimated MSW Recycling Performance</b>	40%	41%	42%	43%	44%
<b>Kerbside Dry Recyclable Collections</b>	Participation rate (77%) for all materials	Participation rate (78%) for all materials	Participation rate (79%) for all materials	Participation rate (80%) for all materials	Participation rate (80%) for all materials
<b>Kerbside Garden Waste Collections</b>	Participation rate (77%)	Participation rate (78%)	Participation rate (79%)	Participation rate (80%)	Participation rate (85%)
<b>Kerbside Kitchen Waste Collections</b>	Participation rate (65%)	Participation rate (65%)	Participation rate (70%)	Participation rate (75%)	Participation rate (77%)
<b>Bring Sites</b>	-	-	-	-	-
<b>Other (including changes to residual collections and procurement issues)</b>	-	-	-	-	-

Table 2.1 Action Plan Summary Table (contd)

Year	2016/17	2017/18	2018/19	2019/20	2020/21
<b>JMWMS Target</b>	39.2%	40.4%	41.6%	42.8%	44%
<b>Estimated MSW Recycling Performance</b>	40%	41%	42%	43%	44%
<b>Kerbside Dry Recyclable Collections</b>	Participation rate (77%) for all materials	Participation rate (78%) for all materials	Participation rate (79%) for all materials	Participation rate (80%) for all materials	Participation rate (80%) for all materials
<b>Kerbside Garden Waste Collections</b>	Participation rate (77%)	Participation rate (78%)	Participation rate (79%)	Participation rate (80%)	Participation rate (85%)
<b>Kerbside Kitchen Waste Collections</b>	Participation rate (65%)	Participation rate (65%)	Participation rate (70%)	Participation rate (75%)	Participation rate (77%)
<b>Bring Sites</b>	-	-	-	-	-
<b>Other (including changes to residual collections and procurement issues)</b>	-	-	-	-	-

## **2.3 Key Procurement Issues**

Key procurement issues identified for Knowsley are as follows:

- Procurement process for new containers (potentially kerbside kitchen waste caddies and biodegradable liners). Potential deployment in trial to 15,000 households for co-mingled kitchen and garden waste collections in 2007/08 and potential subsequent expansion Borough wide in 2008/09.
- Revised vehicle procurement/maintenance timetables in accordance with revised service delivery plans. New vehicles may be required as weekly kerbside dry recyclable and co-mingled kitchen/garden waste collections are introduced in 2007/08.

Potential joint procurement opportunities with neighbouring Merseyside authorities may be appropriate in a number of areas.

Table 2.2 summarises potential areas for joint procurement for each Merseyside authority, showing the years when new service contracts, vehicles and containers are expected to be introduced.

## **2.4 Indicative Costs**

Estimates of costs for the Council for the period 2006/07-2010/11 are considered and outlined in the sections below. The indicative costs are provided to enable potential changes in costs to be considered over the five year period.

Costs are outlined in the following areas:

- Residual collection costs
- Dry recyclable collection costs
- Compostable collection costs
- Treatment costs (garden and kitchen wastes)
- Disposal cost
- LATS costs

Table 2.3 provides estimated collection treatment and disposal costs for the Council for the period 2006/07-2010/11.

Table 2.2 Joint Procurement Potential

Authority	Potential Introduction of New Collection Contract/Contractor	Potential Introduction of Significant Numbers of New Collection Vehicles (in-house or private contractor provision)	Potential Introduction of Significant Numbers of New Containers (in-house or private contractor provision)
<b>Knowsley</b>	-	<b>2007/08-2008/09.</b> Potential new RCVs for co-mingled kitchen and garden collection. Potential new kerbside sort vehicles.	<b>2007/08-2008/09.</b> Kitchen waste containers (caddies, liners).
<b>Liverpool</b>	October/November <b>2008.</b> Potential combined Refuse and Recycling Contract.	<b>2008/09-2010/11.</b> Potential new kerbside sort vehicles to accommodate plastics and kitchen waste.  (Note vehicle requirements will be subject to a future service procurement process)	<b>2009/10.</b> Kitchen waste containers (caddies, liners and kerbside collection containers).  (Note container requirements will be subject to a future service procurement process)
<b>Sefton</b>	December <b>2010.</b> Recycling Contract.	<b>2006/07-2007/8.</b> Potential new RCVs (with bin lift equipment) for alternate week residual and garden waste collections. Potential alteration to kerbside sort vehicles to accommodate kitchen waste and potentially plastics.	<b>2006/07</b> and <b>2007/08.</b> Wheeled bins and kitchen waste containers (caddies, liners and kerbside collection containers).
<b>St. Helens</b>	<b>2007</b> Kerbside Recycling Contract (potential two year extension)	<b>2008/09.</b> Potential new kerbside sort vehicles to accommodate plastics and kitchen waste.	<b>2007/08-2008/09.</b> Kitchen waste containers (caddies, liners and kerbside collection containers).
<b>Wirral</b>	<b>2006.</b> New combined Refuse and Recycling Contract. Subject to current procurement process.	<b>2006/07-2007/08.</b> Potential new RCVs (with bin lift equipment) for residual, recyclable, kitchen and garden waste collections.  (Note vehicle requirements subject to the current service procurement process)	<b>2006/07-2007/08.</b> Wheeled bins for separate garden waste, co-mingled kitchen and garden and co-mingled dry recyclables collections.  (Note container requirements subject to the current service procurement process)

**Table 2.3 Indicative Collection, Treatment and Disposal Costs (2006/07-2010/11)**

<b>Year</b>	<b>2006/07</b>	<b>2007/08</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>
<b>Residual Collection Cost</b>	1,801,752	1,801,752	1,801,752	1,801,752	1,801,752
<b>Dry Recyclable Collection Cost</b>	747,551	1,023,501	1,799,993	1,846,549	1,894,502
<b>Compostable Collection Cost (Kitchen and Garden Waste)</b>	643,894	866,356	1,387,057	1,407,032	1,436,877
<b>Collection Cost Sub Total</b>	<i>3,193,197</i>	<i>3,691,609</i>	<i>4,979,802</i>	<i>5,055,333</i>	<i>5,133,131</i>
<b>Treatment Costs (In vessel and windrow composting)</b>	74,320	93,829	262,764	262,764	262,764
<b>Waste Disposal Cost</b> (Including Landfill Tax. The cost of disposal from the WCA Contract 1.)	£3,384,105 (66355 tonnes @ £51 per tonne)	£3,629,175 (65985 tonnes @ £55 per tonne)	£3,758,580 (59660 tonnes @ £63 per tonne)	£3,839,502 (57306 tonnes @ £67 per tonne)	£4,046,574 (56994 tonnes @ £71 per tonne)
<b>Total Collection, Treatment (composting) and Disposal Costs</b>	<i>6,651,622</i>	<i>7,414,613</i>	<i>9,001,146</i>	<i>9,157,599</i>	<i>9,422,469</i>



### **2.4.1 Collection Cost Assumptions**

Indicative costs are provided to enable potential changes in costs to be considered over a five year period.

These costs may not reflect assumptions made in the Council's waste related budgets and use, for example, estimated rates of pay, productivity, vehicle purchase/operating costs and container costs. For budget setting purposes, it is recommended that the Council calculates its costs to accurately reflect its own circumstances.

Costs will also be subject to procurement processes and should, therefore, not be regarded as 'actual' costs.

The indicative collection costs provided in table 2.3 have been interpreted from separate cost model data compiled by Rotate. A full list of assumptions in the cost model will be provided by Rotate as part of their report. It is recommended that the figures quoted in the table are cross referenced with Rotate's final presented costings for clarification and amendment as appropriate.

Some of the key assumptions used to compile the collection costs are as follows:

- Vehicles are depreciated over a five year period
- Wheeled bins are assumed to cost £15 and are depreciated over a ten year period
- Container purchase costs include a 6% financing cost
- Labour costs include allowances for holidays, sickness, pension and bonuses

### **2.4.2 Composting Treatment Cost Assumptions**

The indicative treatment costs provided in table 2.3 have been interpreted from the separate cost model compiled by Rotate.

Details of estimated tonnages used in the calculation of treatment costs for kitchen and garden wastes have also been provided separately within spreadsheet files.

Gate fees are likely to vary over the period of the Action Plan and budgets will need to reflect changes accordingly.

Assumed composting gate fees in this report are as follows:

- In vessel composting (kitchen and co-mingled garden waste): £54 per tonne
- Windrow composting (garden waste): £20 per tonne

### **2.4.3 Disposal Cost Assumptions**

Details of estimated tonnages used in the calculation of disposal costs for residual wastes have also been provided separately within spreadsheet files, and are based on waste flow model data provided to support this project. Rotate data has not been used in the calculation of disposal costs.

Disposal levy charges per tonne of MSW delivered for disposal for the five year period are as follows:

- 2006/07: £51 per tonne
- 2007/08: £55 per tonne
- 2008/09: £63 per tonne
- 2009/10: £67 per tonne
- 2010/11: £71 per tonne

### **2.4.4 Potential LATS Costs**

In addition to the collection, treatment and disposal costs considered above, Merseyside's Councils will be subject to potential LATS costs. These costs relate to the amount of landfill 'allowances' allocated to the sub-region and the amount of biodegradable municipal waste sent to landfill.

The following potential LATS costs, over the five year period, relate to the Merseyside sub-region as a whole and are not apportioned to individual collection authorities.

It is likely that these costs will be passed on to individual collection authorities, with charges relating to the amount of biodegradable waste sent for disposal by each Council. Consequently, the successful application of recycling and composting collection systems for biodegradable materials (including paper and compostable materials) will assist the avoidance of additional LATS costs to the Council.

LATS cost estimates for the Merseyside sub-region (2006/07-2010/11) are as follows:

- 2006/07: £108,800
- 2007/08: £834,480
- 2008/09: £1,256,720
- 2009/10: £17,729,160
- 2010/11: £21,899,160

The costs include actual costs for the period 2006/07–2008/09, provided by MWDA and estimates of potential costs for 2009/10-2010/11, provided by MWDA's advisors.

MWDA has estimated that its purchase of landfill allowances in 2005/06 should cover the cost arising between 2006/07 to 2008/09 and therefore there will be no cost falling on districts through the levy in those years because the charges were paid in 2005/06. For accounting purposes, however, the above figures have been allocated to the years 2006/07 to 2008/09 as appropriate.

From 2009/10, the recently agreed levy distribution methodology will attribute LATS costs to WCAs in the tonnage based element of the levy whereas costs attributed to HWRCs would form part of the population based element of the levy. The total estimated cost is:-

<b>Year</b>	<b>2006/07</b>	<b>2007/08</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>
<b>Total Collection, Treatment (composting) and Disposal Costs</b>	6,651,622	7,414,613	9,001,146	9,157,599	9,422,469
Potential LATS costs	11,968	88,622	117,156	1,541,328	1,838,347
Total	6,663,590	7,503,235	9,118,302	10,698,927	11,208,816