

North London Joint Waste Strategy

Annual Monitoring Report

2011/12



December 2012

Contents	Page
1 Introduction	4
2 North London demographics	6
3 Waste composition	10
4 Municipal waste arising	11
5 Waste prevention	14
6 Waste reuse	18
7 Home composting	22
8 Community composting	23
9 Reuse and recycling centres	25
10 Kerbside waste collection services	29
11 Other recycling options	33
12 Recycling and composting summary	35
13 Disposal to landfill and energy recovery	38
14 Abandoned vehicles	40
15 Batteries and accumulators	42
16 Bulky waste	44
17 Non-household waste	46
18 Construction and demolition waste	48
19 Liquid wastes	50
20 Hazardous wastes	51
21 Ozone-depleting substances	56
22 Polychlorinated biphenyls	57
23 Waste disposal service implications	58

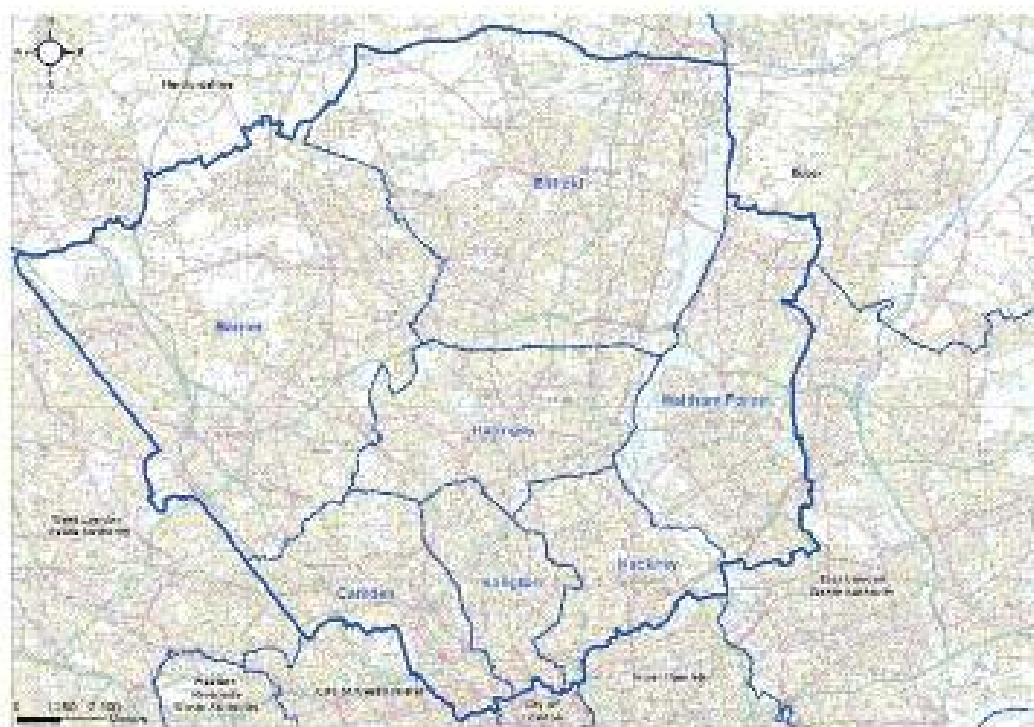
24	Transport implications	60
25	A key role for the community sector	62
26	Commercial and industrial partners	65
27	Working with national agencies	67
28	Market development and regeneration	68
29	Strategic environmental assessment (SEA) monitoring	69
30	Conclusion	80
31	Further information	81

1 Introduction

The north London area covers almost 30,000 hectares and municipal waste arising in this area is collected by seven Waste Collection Authorities;

- London Borough of Barnet
- London Borough of Camden
- London Borough of Enfield
- London Borough of Hackney
- London Borough of Haringey
- London Borough of Islington
- London Borough of Waltham Forest

Figure 1: Map of the North London boroughs.



In 2009 the eight north London Authorities adopted the North London Joint Waste Strategy (NLJWS), a combined waste strategy for the area between the years 2004 to 2020 that was consistent with both the National and the Mayor of London's waste strategies in place at the time. The NLJWS sets a framework for the management of municipal waste, i.e. the waste collected by the north London boroughs, including both household and non-household waste, in north London and seeks

- A recycling-led solution with the aim of achieving a combined household recycling and composting rate of 50% by 2020. (For simplification, this is usually referred to as a 'recycling rate' of 50% elsewhere in Authority information).

- A reduction of biodegradable municipal waste going to landfill, so that the current proportion of material that goes to landfill is reduced from 36% in 2006/07 to 15% by 2020¹.

This annual monitoring report is the fourth to be published showing the performance of the eight Partners towards achieving the objectives and targets set in the NLJWS.

The figures presented in the report tables only show data for the base year of 2006/07 and then data for the last three full financial years; previous reports do the same. The graphs in this document show data for all years since the base year.

This annual monitoring report should be read in association with the previously published North London Joint Waste Strategy (February 2009) as it is not intended to duplicate text already published within that document. The NLJWS is available to view or download from the Authority's website

[North London Joint Waste Strategy](#)

The majority of the data reported here is from WasteDataFlow, the web based system for reporting by UK Local Authorities to government. The system has been operational since 2004 but the data set is not complete for all the Partners until 2006. Hence a reporting baseline year of 2006/07 has been chosen for these Annual Monitoring Reports. Additional data is derived from the Authority's records and downloaded from the Environment Agency's website.

[Environment Agency](#)

It should be noted that at the time of publication some of the data reported has not been finalised and there may be small changes in the future.

The shaded boxes below contain the 'implementation actions' published in the NLJWS that the Partners have agreed to report annually. Each implementation action is followed by some analysis and commentary. Implementation actions which are not reported upon in this document generally do not lend themselves to annual monitoring and review, e.g. implementation 1.B. which states that the North London partner authorities have agreed to a series of Aims and Objectives. The layout of the following text is the same as found in the NLJWS so that progress can be seen more easily.

¹ The London Plan, the Mayor's spatial strategy for the capital, (July 2011) now aims for London to "work towards zero biodegradable or recyclable waste to landfill by 2031" – Policy A (c). The London Plan is available on the GLA website <http://www.london.gov.uk/priorities/planning/londonplan>

2 North London demographics

The data presented in this section is supplied by the Office of National Statistics (ONS) mid-year estimates and is reproduced in WasteDataflow². These numbers remain important in managing the waste arising in north London and planning services for the future.

The total population of the north London area is now estimated to be 1,743,900 this is a significant increase from the estimated 1,500,000 in 1991. These people live in an estimated 764,540 dwellings with on average 2.3 people living in each dwelling.

The increases in population and the number of households in London suggest that the amount of waste generated is likely to continue to grow over the period of this Strategy.

2.A To ensure that the Strategy matches future changes in demography, the North London partner authorities have agreed to continue to share demographic information where it is required for strategy development and implementation.

There is great variance in the size and nature of the north London boroughs. The largest is over four times greater in area than the smallest but has less than twice the population.

Table 1: The size of the north London area

Borough	Area in hectares
Barnet	8,664
Camden	2,183
Enfield	8,200
Hackney	1,906
Haringey	2,956
Islington	1,484
Waltham Forest	3,878
North London	29,271

North London has substantial areas of transient population and a relatively young population. The London Boroughs of Camden and Islington in particular, contain relatively large proportions of people aged between 20 and 30 who are considered to be more transient than other age groups.

² Demographic information in WasteDataFlow has been refreshed retrospectively, so some figures differ from those previously reported. The figures here are those most recently published in WasteDataFlow.

Table 2: Population of the north London area

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Barnet	333,017		329,700	333,050	348,200
Camden	221,451		231,100	231,725	235,400
Enfield	285,518		285,100	286,625	294,900
Hackney	209,407		209,700	211,275	219,200
Haringey	225,415		224,700	224,900	225,000
Islington	185,263		187,800	188,800	194,100
Waltham Forest	219,240		222,300	222,800	227,100
North London	1,679,311		1,691,200	1,699,175	1,743,900

High transience creates a considerable challenge in terms of ensuring that interaction between the Authorities and the householder through education or enforcement is consistent and effective.

Population density varies across the Authority area and in four boroughs population density is significantly above the average for north London which is currently 60 people per hectare. This high density of population means that many people either have small gardens or no garden at all meaning that the amounts of garden waste that could potentially be collected from these areas will be lower than in more rural areas outside of London where both the proportion of gardens per household and number of gardens in total is relatively higher. This means that recycling performance which is a combination of both 'dry waste' recycling and composting must be met by maximising dry recycling in order to achieve target performance.

Table 3: Population density (people per hectare) in north London

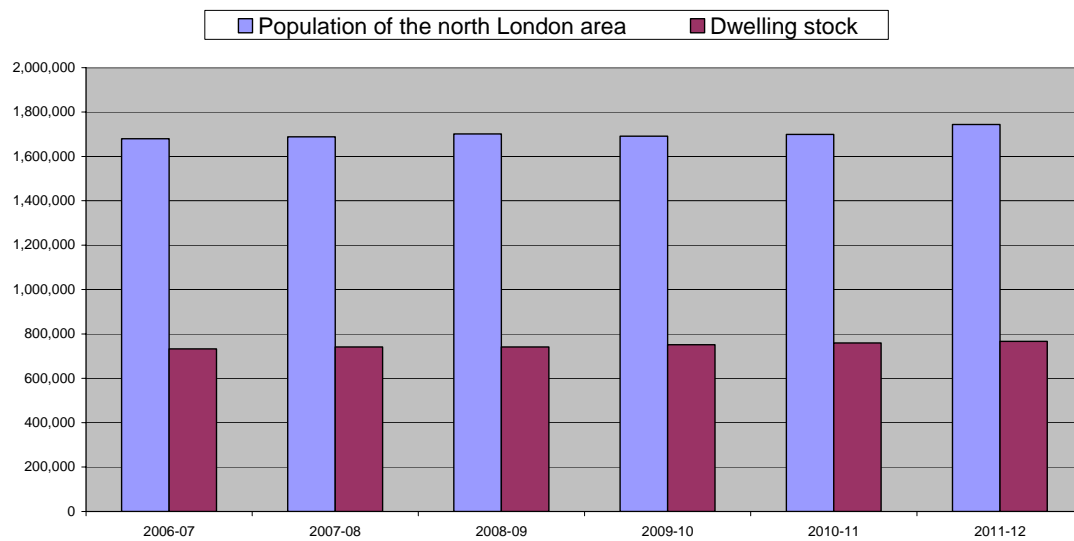
	2006/07 (Baseline)		2009/10	2010/11	2011/12
Barnet	37		38	38	40
Camden	102		105	106	108
Enfield	34		35	35	36
Hackney	109		110	111	115
Haringey	74		75	75	76
Islington	121		125	126	131
Waltham Forest	57		57	57	59
North London	57		59	58	60

Dwelling stock is the recorded number of self contained units of accommodation. If a number of people live separately in a house this would be counted as a single dwelling. The dwelling stock figure is used in calculations that refer to the number of households elsewhere in this report.

Table 4: Dwelling stock in north London

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Barnet	134,583		137,169	137,886	138,850
Camden	97,904		101,338	102,159	103,070
Enfield	118,551		120,274	120,641	121,328
Hackney	95,512		98,376	100,404	101,610
Haringey	99,247		101,258	101,997	102,943
Islington	91,090		95,688	97,825	99,803
Waltham Forest	95,753		97,517	97,061	98,710
North London	732,640		751,670	758,973	766,313

Figure 2: Population and dwelling stock in the north London area



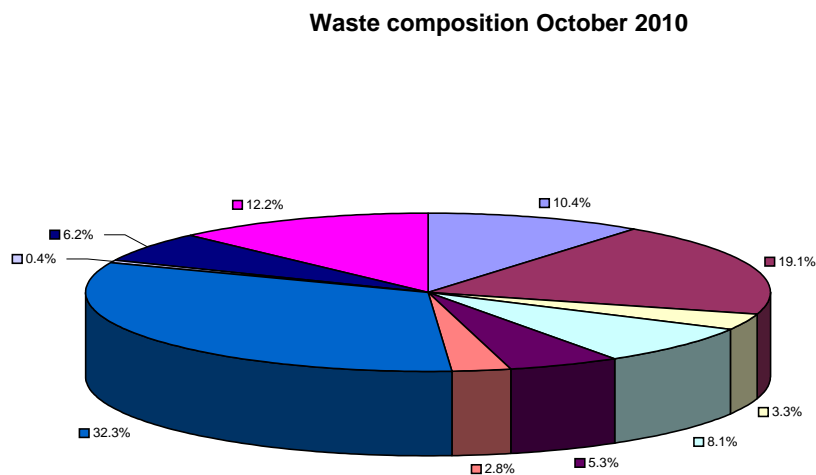
The NLJWS predicted a growth in the dwelling stock of the North London area from approximately 708,000 in 2003/04 to approximately 811,000 in 2020/21. The growth shown here is in line with this prediction.

3 Waste composition

The composition of the municipal waste stream is important in determining the amounts of each material that could be recycled or composted.

The most recent 2010 date waste composition survey for north London is available on the Authority's website, nlwa.gov.uk/waste-resources, for more detailed information.

Figure 3: Waste composition October 2010



Key

- Glass (10.4%)
- Paper (19.1%)
- Metal (3.3%)
- Dense plastic (8.1%)
- Film plastic (5.3%)
- Textiles (2.8%)
- Organics (32.3%)
- WEEE (0.4%)
- Other combustibles (6.2%)
- Miscellaneous (12.2%)

4 Municipal waste arising

2B This Strategy employs the Prime Minister's Strategy Unit recommended growth rate for municipal waste when planning for the new waste management facilities that will be needed in North London.

Municipal waste is the total of all wastes collected by the seven waste collection authorities in the north London area. It includes all waste collected by them for recycling, composting, recovery and disposal from households and businesses (non-household) in the area.³

The amount of municipal waste collected in the north London area is shown in Table 3 below. The figures are taken from WasteDataFlow which continues to use definitions which were previously employed for measuring 'National Indicators' (a series of indicators against which local authorities' performance on a range of issues was measured), so that the basis of the information provided in table 6 below is consistent with previous years.

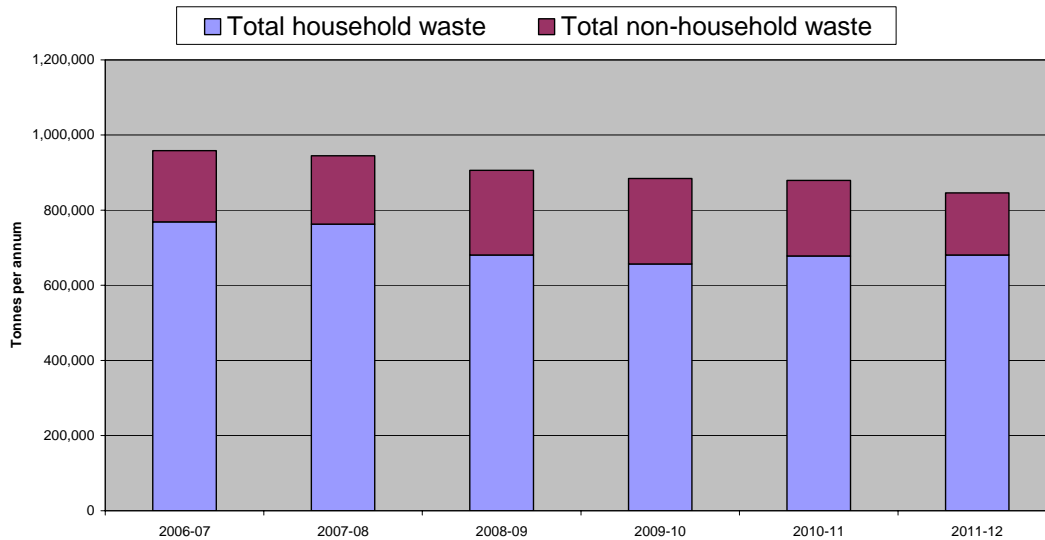
Table 6: Amounts of municipal waste collected in north London.

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Tonnes of municipal waste collected (As measured in line with the former 'National Indicator' 193)	958,600		883,931	878,817	845,765
Tonnes of household waste collected (As measured in line with the former 'National Indicator' 192)	768,770		656,915	678,270	680,330
Tonnes of non-household waste collected	189,830		227,015	200,547	165,435

Figure 4 below shows the total amount of municipal waste collected and the breakdown of the total into the household and non-household components.

³ The Department for Environment Food and the Regions has now revised the definition of municipal waste to be consistent with the European Union Landfill Directive and has introduced a new definition of Local Authority Collected Waste to be used in the future to refer to what is described as municipal waste in this report. This change in terminology will be introduced in the 2012/13 Annual Monitoring Report at which time the new waste definitions will apply to the waste streams being reported.

Figure 4: Total municipal waste collected in north London



At the outset the NLJWS employed the Prime Minister's Strategy Unit recommended growth rate for municipal waste of 3% until 2010 and 2.5% thereafter. Additional lower growth rates were included in the NLJWS as sensitivity analyses as it was recognised that growth may be lower than predicted.

However, as can be seen in Figure 4 and Table 6 above the actual amount of waste collected has been in decline since 2006/07 despite an increase in the population of north London and the dwelling stock over the same period. The decline in the size of the waste stream was not expected when the strategy was published.

For this reason a revised projection was made of the amount of municipal waste that may be generated in the area over the forthcoming years. It was predicted then that growth in the waste stream would be lower than previously expected and that by 2020 the waste stream would have grown by 4% from the amount in 2010/11.

Separate projections have more recently been produced as part of the Authority's procurement modelling work. These projections reduce the rate of growth still further. The projections are based upon national data about the amount of waste likely to be produced by individual households and take account of past trends and expected increases in the numbers of households and people living in the area during the period (which is projected to lead to an increase in the amount of waste that is produced). The revised projections are available in the Procurement section of the Authority's website nlwa.gov.uk/procurement/key-documents.⁴

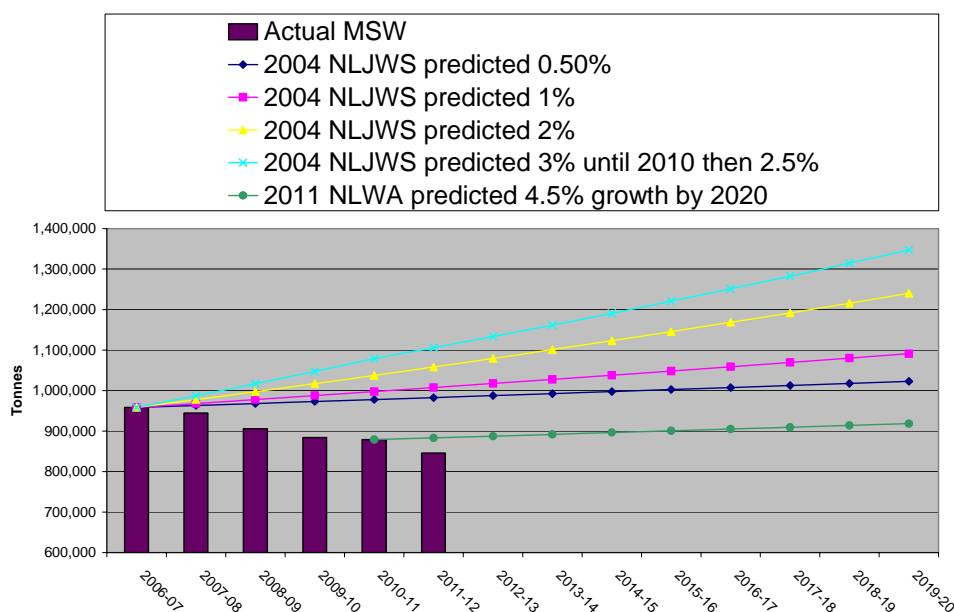
⁴ The Procurement projections address only the wastes that the Authority expects to manage. Some constituent borough councils have chosen not to include some recyclable and/or

Between 2006 and 2009 there was a decline in the amount of waste produced by and collected from householders but since 2010 the amount of household waste produced has slightly increased again. However, there has been a larger drop in non-household waste reflecting a decline in business activity in the area. This has resulted overall, in the total amount of municipal waste being produced in the area falling.

It is reasonable to assume that the depressing effect of the current economic situation on waste tonnages might be expected to ease during the life of the projections potentially leading to recent reductions in tonnages being reversed. However, as a counter to this, investment being made in waste prevention is expected to be a factor pressing in the opposite direction.

The Partners are now forecasting waste growth only in relation to increasing numbers of households and not as a result of increases in the amount of waste being generated per household.

Figure 5: Actual and predicted growth in municipal waste arising



The partners have agreed that the future waste growth assumptions should be reduced to 0.5% to 2015 and remaining at 0.5% thereafter. These reductions reflected a lower than anticipated new housing build programme as well as general economic conditions and the impact of waste minimisation initiatives.

The partners will continue to assess waste tonnages by comparing 'actual' tonnage information as it becomes available with the projections.

organic wastes in the Authority's proposed contract; such tonnages are however included in the overall NLJWS projections.

5 Waste prevention

4. A1 The partners are gravely concerned about the year-on-year growth in waste and would urge greater action from Government to minimise waste and will lobby Government to achieve this.

Waste prevention encompasses a range of policy options and plays a key role in sustainable waste management and is seen as a beneficial waste management option. The Government Review of Waste Policy in England 2011 states that waste prevention “has to be the overriding priority”.

During the early years of the North London Joint Waste Strategy (NLJWS), greater attention was given to increasing recycling rates and maintaining landfill diversion rates locally. More recently however, much additional resources have been put into waste prevention in 2011/12.

An overview of this work is given below and further information can be found in the North London Waste Prevention Plan. The most recent version can be found here [NLWA strategies](#)

During 2011/12 the partners continued the process of implementing the initiatives outlined in the North London Waste Prevention Plan 2010/12, which set out a range of initiatives aimed at the top of the waste hierarchy. The second year of the plan included a range of cross-regional programmes and activities and it was developed in partnership with the constituent borough councils.

The second year of the plan included participation in the European Week for Waste Reduction in November 2011. Approximately 500 residents were directly engaged at specially organised events. A further 6,300 families were indirectly impacted via a number of performances held at 21 different schools across north London. Pupils then kept diaries of their waste, which one month later showed that food waste reaching the residual waste stream from households targeted by this project was reduced by 31%.



Since 2009 the partner authorities have supported the national “Love Food Hate Waste” campaign organised by WRAP by delivering a range of activities including running events in the north London area to engage with residents and businesses to reduce the amount of food waste that is produced.

Further information on the national “Love Food Hate Waste” campaign can be found at [Love Food Hate Waste](#)

The 'Love Food Hate Waste' message was also promoted at local summer outdoor events and festivals. All of the events were well attended with footfall figures ranging from 4,000 to in excess of 15,000. A total of 800 residents at seven events were directly engaged in conversations about food waste reduction via the interactive 'Love Food Hate Waste' display. The Authority was recognised as one of the 20 best practice examples in Europe.

Fourteen 'Give and Take Days' were delivered between September and November which were attended by 1,700 north London residents and supported by 22 volunteers and resulted in direct diversion of more than 6.5 tonnes from disposal.

To reduce the amount of unwanted mail received in north London, a 'No Junk Mail' pack was produced which promoted opt-out services such as the Mailing Preference Service and the Royal Mail Opt-out scheme. The pack was requested directly by 1,200 residents with more packs downloaded through the Waste and Resources section of the Authority website.

Textile re-use and the use of textile banks in north London was promoted through seven adverts in Council publications between November and December 2011. To encourage participation, north London residents were asked to make a pledge to donate unwanted textiles to their local Reuse and Recycling Centre in return for a reusable cotton shopping bag.

4. A2 The north London partner authorities will actively support business networks encouraging demonstrably effective waste prevention and minimisation amongst local businesses.

4. A3 The north London partner authorities will seek external funding or regional support to develop a packaging waste prevention campaign with local manufacturing companies.

The partner authorities have not specifically supported business networks in the last four years, but have continued to engage with businesses in a number of ways:

- The partner authorities published the sixth edition of its free waste prevention guide for businesses - "[Reduce Waste Save Money](#)" in September 2012. This is available as a free download from the NLWA website.
- The Authority also re-produced a series of posters for retailers, restaurants and offices encouraging waste prevention.

The partners continue to support business initiatives to prevent and minimise waste and continue to seek external funding.

4.B1 The partner authorities will seek external funding to run waste prevention public awareness campaigns across north London throughout the period of this strategy.

All waste prevention activity in 2011/12 was funded directly by the partner authorities. In 2011/12 an officer-level joint communications working group was formed for the Authority to submit a joint funding proposal on behalf of the eight partner authorities to WRAP/Recycle for London to support a food waste campaign. The principal objective of the campaign would have been to encourage greater participation in borough food waste collection services, with a campaign launch in the autumn. The later parts of the campaign would have focused on promoting garden waste composting, the Love Food Hate Waste reduction message in summer 2012 and recycling from barbeques and picnics in the summer. However, WRAP/Recycle for London concluded that it would not approve the funding proposal because it did not believe it would see a significant tonnage uplift solely from a communications campaign, unless the constituent councils also changed their services to be in line with the optimum food waste collection profile i.e. collect food waste weekly; request residents to separate food waste; restrict residual waste; and provide liners to participating residents.

Details of the financial support the partners received are shown in Section 27 (Working with National Agencies) below.



A 'Love Food Hate Waste' event

6 Waste Reuse

4.C1 The partner authorities will continue to actively support the development of best practice in waste reuse and will encourage the development of community sector and other partnerships to deliver effective reuse services.

4C2 The partner authorities will continue to support bids for external funding of reuse services and will seek to develop a means of rewarding effective reuse services directly through a “reuse credit” to reflect the avoided or deferred cost of disposal

On a two-year cycle the partner authorities jointly identify the most important waste streams for waste prevention work, and the ones which they can most effectively address. The current Waste Prevention Plan (2011/12 – 2012/13) has furniture reuse as one of the key priority waste streams.

The work programme in 2011/12 set out four key actions and yielded the following results:

1. Development of menu of services options for providers of housing services to divert waste to reuse and recycling (contracts including void property clearances and bulky collections).
2. Delivery of a “Collaboration for Growth” event to frame negotiations and broker agreements with London Reuse Ltd and bulky reuse partners.
3. Negotiations with 5 providers of housing services to increase waste diversion were held with:
 - Ascham Housing, Waltham Forest
 - Homes for Islington
 - Circle 33
 - Islington and Shoreditch Housing Association
 - Camden Housing (ALMO)
4. Three contracts were signed between providers of housing services and London Re-use Network delivery partners in the North London area. Agreements were developed with:
 - Ascham Housing, Waltham Forest
 - Bemerton TMO, Islington
 - Homes for Islington

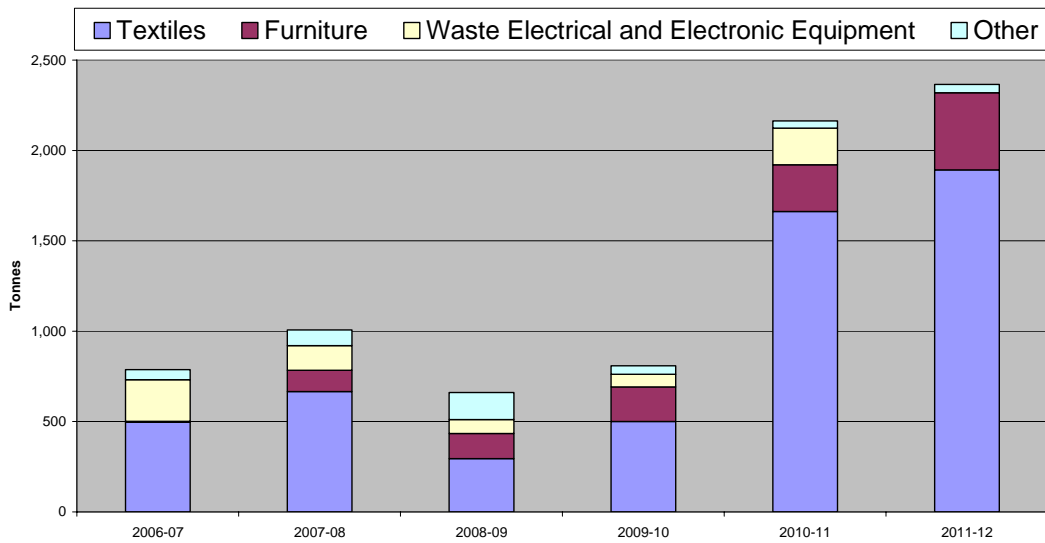
In the north London area a large variety of materials including discarded books, textiles, furniture, electronic goods including refrigerators, bicycles, paint and gas bottles (reported as “other” in Figure 6) are collected for re-use from residents at the kerbside, in street banks and at Household Waste Reuse and Recycling Centres (HWRCs). This is in addition to the reuse activity through charity shops, jumble sales, second hand shops etc., which is mostly outside the scope of this document.

Table 7: Tonnes of waste reused in north London.

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Total tonnes of waste reused	787		885	2,211	2,386
Tonnes of waste attracting reuse and recycling credit	466		2,613	2,472	2,306
Amount of reuse and recycling credit paid	£28,958		£148,848	£145,033	£139,381
Number of organisations receiving reuse and recycling credit	6		14	14	18

Most of the waste collected for reuse consists of textiles and furniture. The amount of these two materials being collected has increased substantially over the last two years although the total amount collected for reuse fell marginally during 2011/12 compared to 2010/11. Items reused outside of the local authority system such as items exchanged via internet based reuse or sales/auction websites are excluded from the figures above. It may be that the tonnage of material being reused through these other channels has relatively increased in the period, leading to a relative decrease in tonnage being reused via local authority reuse routes, but it is not possible to determine this because the authorities don't have access to this information and in some cases the channels themselves don't collect it.

Figure 6: Waste collected for reuse in north London



The partner authorities continue to support charities and other third sector organisations through the North London Waste Authority paying reuse and recycling credits for waste that is diverted from disposal by these organisations. Credits are paid to organisations for the amounts of waste that are collected for reuse and recycling. The credits are paid on a per tonne basis with the level of the payment reflecting the savings made by the North London Waste Authority from avoided disposal costs. Reuse and Recycling Credits are paid in respect of waste that is recycled by third parties as well as reused and so the amount of waste attracting a reuse and recycling credit that is reported in Table 7 includes some waste that is recycled rather than reused and is therefore not included in the total tonnes of waste reused that is reported. The number of organisations receiving support has increased over previous years and the rate paid is now also greater to reflect the increasing savings made to the public sector by the work of these organisations. However, the amount of waste collected that attracted recycling credits has decreased slightly again in 2011/12 compared to 2010/11 although the total amount of household waste now being collected has increased slightly (see Table 6). It is difficult to draw any conclusions as to why this may be the case.



Unwanted furniture collected from homes in north London is restored and then sold to other residents.

Additional support provided to the community sector is described in Section 25 “A key role for the Community Sector” below.

Further information on Waste Electrical and Electronic Equipment (WEEE) reuse and recycling and bulky waste can be found in Sections 16 - Bulky Waste and 20 – Hazardous Waste respectively.

7 Home composting

4.D1 The partner authorities will provide a concerted and on-going promotional campaign to encourage home composting throughout the period of this strategy, offering residents purpose built bins at subsidised rates and providing support to residents wishing to compost at home.

4.D2 The partner authorities will aim to ensure that 25% of all residents with gardens compost at home by 2014 to divert approximately 40,000 tonnes from the waste stream.

There are an estimated 394,000 suitable properties with gardens in the north London area. By 31 March 2012, boroughs had distributed a total of 32,052 home composting units and wormeries to residents in the area. This coverage is considerably below the aim to provide 25% of residents with home composting units. This figure does not include the number of homes that compost at home and don't have a composting unit or wormery that has been supplied by the local Authority. It is felt that the cost of a survey to assess the number of in-use non-local authority supplied bins and wormeries would be disproportionate to the benefit of doing it.

Research conducted by the Waste and Resources Action Programme (WRAP) has found that home composting bins divert on average 150 kilograms of waste per annum. This diversion breaks down to 45 kilograms diverted from disposal and 105 kilograms diverted from garden waste collection schemes, i.e. diverted from centralised composting. By multiplying the WRAP per-unit diversion figure by the number of bins delivered, the calculated waste diversion equates to 7,414 tonnes per annum. This is considerably less than the 40,000 tonnes of waste per annum that is targeted in the NLJWS. This does not include the amounts diverted using a simple compost heap or a privately purchased compost bin.

To encourage uptake and sustainable use of home composting units, the Authority ran a programme in March 2012 to directly target households in areas observed to experience low uptake and use. Five events were delivered and 394 compost bins were distributed which will divert an estimated additional 59 tonnes from disposal within a year.

8 Community composting

4.E The partner authorities will actively support appropriate community compost projects in north London, particularly where these contribute to statutory compost targets, through patronage of bids for external funding, direct support and through payment of third party recycling credits.

Table 8: Amount of support for community compost projects

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Support for community compost Projects	£12,568		£18,972	£0	£0

In the light of financial constraints the Authority agreed to cease its direct financial support for community composting in 2010. No further direct financial support has therefore been provided to community composting facilities during 2010/11 after the peak year of 2009/10.



Compost and compost bins give-away event

LondonWaste Ltd, the North London Waste Authority's wholly owned contractor, however delivered 5,276 tonnes of compost made from north Londoner's food and garden waste to allotment sites and community gardens in 2011/12 (see section 29, Objective 23).

9 Household Waste Recycling Centres

- 4.G1 The partner authorities will provide continuously improving reuse and recycling centres in excess of the minimum statutory provision throughout the period of this strategy, which shall be freely available for the deposit of household waste by all Londoners on a reciprocal basis.
- 4.G2 The partner authorities will aim to achieve 60% recycling and composting diversion rates at all north London reuse and recycling centres by 2015.

In the north London area the partners provide nine Household Waste Recycling Centres (HWRCs)⁵. All residents in the north London area have access to all of the HWRCs. The level of provision has been approximately 1 site per 100,000 people since the North London Joint Waste Strategy was implemented.

In June 2010 the North London Waste Authority adopted a policy to aim to have 95% of residents within 2 miles (measured in a straight line) of a reuse and recycling centre as it seeks greater coverage and improved services. At present 76% of residents fall within this distance.

Work was undertaken to prepare for the transfer of some HWRCs from borough control to the Authority during 2011/12, and also on the improved nature of the service under the Authority's next main waste services contract that is currently being procured.

The draft North London Waste Plan also set out a number of planning criteria against which any new HWRCs would be assessed.

⁵ Household Waste Recycling Centres were referred to as Reuse and Recycling Centres in the prevailing London Mayor's municipal waste strategy when the North London Joint Waste Strategy was written. The two terms describe the same service.

Figure 7: Household Waste Recycling Centres in North London



Depositing waste at a household waste recycling centre.

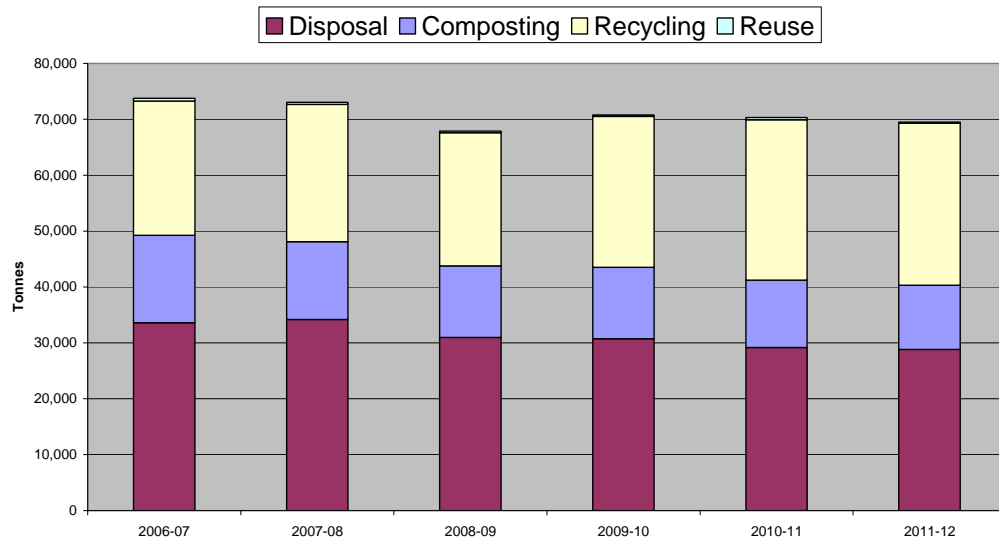
The reuse and recycling rate at these facilities has increased from 54% overall in 2006/07 to 59% in 2011/12. In the last year there was a decrease in the amount of residual waste collected at HWRCs and in the amount of material collected for reuse and composting, but a slight increase in the amount collected for recycling.

The target of diverting at least 60% of the waste delivered to HWRCs for reuse, recycling and composting has almost been reached and it is expected that it will be met by the target date of 2015.

Table 9: Recycling and composting rates at north London Household Waste Recycling Centres

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Total tonnes of waste collected at HWRCs	73,754	70,782	70,331	69,509
Re-use tonnes collected at HWRCs	472	260	388	196
Recycling tonnes collected at HWRCs	24,012	27,002	28,698	29,018
Composting tonnes collected at HWRCs	15,656	12,780	12,099	11,477
Residual tonnes collected for disposal at HWRCs	33,614	30,740	29,146	28,818
Reuse, recycling and composting rate at HWRCs	54%	56%	59%	59%
Number of Household Waste Recycling Centres	9	9	9	9
Number of Household Waste Recycling Centres per 100,000 people	1	1	1	1

Figure 8: Waste management at Household Waste Recycling Centres



10 Kerbside waste collection services

- 4.H1 The partner authorities will aim to provide door-to-door recycling services to 95% of relevant households and achieve 65% capture rates of targeted recycling materials during the period of this strategy.
- 4.H2 The partner authorities will offer door-to-door collections of biodegradable waste for all relevant households where home or community composting services are not provided in the period of this strategy.
- 4.I1 The partner authorities will work to provide all residents in multi-occupancy housing with either door-to-door collection services or a minimum of one “near entry” recycling site per 500 households as soon as possible.
- 4.I2 The partner authorities will work to achieve 65% capture rates of targeted recycling materials for recycling services serving multi-occupancy housing during the period of this strategy.

Almost all residents in the north London area now have access to kerbside or communal recycling collections of dry recyclables and almost three quarters are able to separate organic wastes for composting.

Every borough now collects at least five materials from residents every week. These “targeted materials” are paper, cardboard, glass, metal cans, plastic bottles. Most residents are also offered a separate kerbside collection of kitchen & garden waste. In some areas residents are able to recycle additional materials as well. More materials are collected for recycling at reuse and recycling centres and in street banks.

Positive service changes amongst the partners including the provision of larger containers to capture more waste in some areas meant that the total amount of dry materials and organic wastes that were collected for recycling increased during the last year.

Changes to the way that kitchen and garden waste are collected from an opt-in to an opt-out system are reflected in the total numbers of residents served that is reported in Table 10. Most residents now have a bin provided automatically whereas previously they had either a bin provided or could request a collection if a bin was not provided, depending on where they lived.

It is more difficult to provide an organic waste collection service to some properties such as those that are above shops due to the space required for the collection receptacles and so fewer properties receive this service than the collection of dry recyclable materials that can be collected in bags.



Waste collection systems used include the use of kerbside bins to segregate dry materials for recycling from organic wastes for composting and residual waste for disposal.



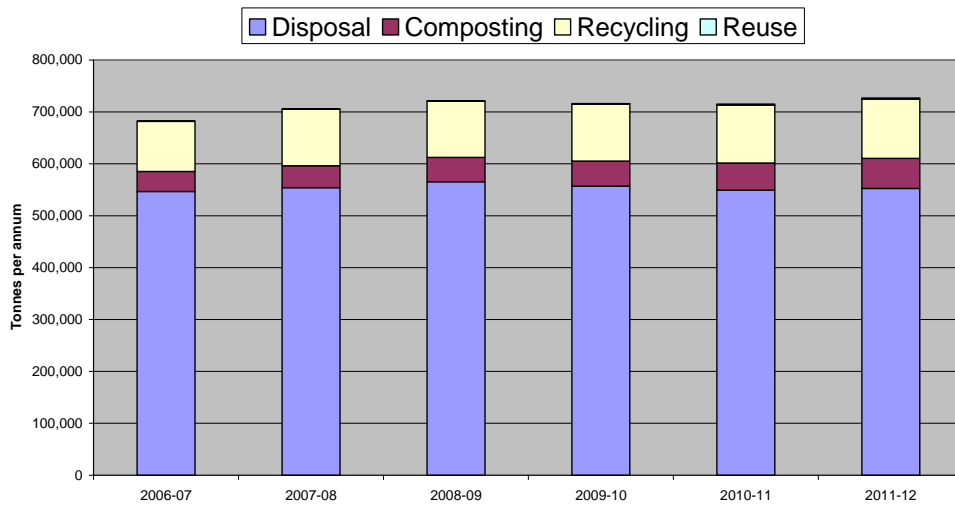
Waste is collected for composting and recycling in some areas using a “split- body” refuse collection vehicle.

Table 10: Kerbside and on-street collection of dry materials for recycling and organic wastes for composting

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Number of households receiving a door-to door, near entry or communal collection of dry recyclables	672,471	732,472	737,243	745,437
% of households receiving a door-to door, near entry or communal collection of dry recyclables	92%	98%	100%	100%
Number of households receiving a door-to-door, near entry or communal collection of biodegradable waste	446,142	523,944	522,408	535,849
% of households receiving a door-to-door, near entry or communal collection of biodegradable waste	61%	70%	70%	70%
Number of bring sites per 100,000 people	44	33	28	29
Total tonnes of household waste collected at the kerbside and in bring banks	682,510	715,947	714,955	726,650
Tonnes of household waste collected at the kerbside and in bring banks for reuse	460	562	1,525	2,033
Tonnes household waste collected at the kerbside and in bring banks for recycling	96,889	110,172	111,681	114,065
Tonnes of household waste collected at the kerbside and in bring banks for composting	38,195	48,242	52,543	58,060
Tonnes of residual household waste collected at the kerbside for disposal	546,966	556,971	549,255	552,493
Capture rate of dry recyclables collected at the kerbside and in bring banks	40%	46%	47%	48%
Capture rate of organic waste collected at the kerbside and in bring banks	15%	21%	23%	25%

The capture rate of both dry recyclables and organic wastes at the kerbside continues to increase as more residents are separating more of their waste. Progress towards the target of capturing 65% of target materials continues to be made

Figure 9: Waste collected for reuse, recycling, composting and disposal at the kerbside



11 Other recycling options

4.K1 The partner authorities will make arrangements to compost street leaves, parks and other green waste wherever practicable in the period of this Strategy.

4.K2 The partner authorities will work to increasingly recycle and compost more street litter and non-household biodegradable waste to ensure that the need to purchase Landfill Allowances is minimised

On-site composting by boroughs in parks where the waste is generated keeps a large proportion of parks waste out of the measured municipal waste stream because the parks departments do not have weighbridges in the parks so do not record the tonnage of material they turn into compost for themselves. However, because the parks leaves and other green waste which is composted within the parks is not measured within either the total tonnage of municipal waste being generated or within the amount being composted, the net effect on the municipal composting rate is broadly neutral.

The European Union Landfill Directive restricts the amount of biodegradable municipal waste that can be sent to landfill. In order to comply with the directive every local authority in England and Wales has been allocated an annual amount of biodegradable waste (in the form of tradable allowances) that can be sent to landfill. If the amount is exceeded an authority can purchase tradable allowances from other authorities that have a surplus.

Table 11: Amounts of “other” waste that was composted or recycled

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Tonnes of street leaves, parks and “other” green waste composted	799		1,074	860	783
Tonnes of street litter and “other” waste recycled	15,767		4,192	5,212	4,273
Number of Landfill Allowances purchased	0		0	0	0
Value of Landfill Allowances purchased	Nil		Nil	Nil	Nil

It has not been necessary to purchase any tradable allowances under the Landfill Allowances Trading Scheme (LATS) as the North London Waste Authority and the constituent borough councils have increased the levels of recycling and used the Edmonton energy-from-waste facility which, together with the reduction in the amount of municipal waste, ensure that sufficient waste is diverted from landfill disposal to keep within the limit. The government's Waste Review (2011) has announced the end of the Landfill Allowance Trading Scheme after the 2012/13 scheme year, i.e. meaning that the scheme will end in March 2013.

12 Recycling and composting summary

4.L1 The partner authorities undertake to individually achieve the statutory recycling and composting standards set by Government and to exceed these standards wherever practical.

4.L2 The partners will work to achieve 35% recycling and composting standards by 2010, 45% by 2015, and 50% by 2020 in line with the Government's Waste Strategy for England 2007.

Since the start of the Strategy period the rate of recycling, composting and reuse has risen from 23% to 30%.

The recycling and composting data reproduced in tables 13, 14 and 15 is calculated in line with the methodology previously used to calculate **National Indicator 192**⁶ and includes household waste collected for reuse, recycling and composting.

Table 12: Total amounts of household waste (tonnes) collected for recycling, reuse and composting by all methods.

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Barnet	42,022		47,557	48,385	49,000
Camden	21,097		20,875	24,651	24,173
Enfield	32,014		33,932	36,315	40,446
Hackney	17,580		17,997	18,976	18,621
Haringey	15,754		22,541	23,839	23,343
Islington	18,113		18,900	19,694	19,873
Waltham Forest	25,917		27,735	27,317	27,498
North London Area	174,687		189,535	199,177	204,204

⁵ Local authorities no longer have to report against a standard set of 'National Indicators', but reporting of waste tonnages and reporting against a number of additional parameters is still required via the national waste reporting system WasteDataFlow. This assists the Government to ensure that European wide targets such as for the diversion of waste from landfill are being met at a national level.



Mixed dry recyclable waste is sorted at a materials recycling facility (MRF).

Table 13: Total amounts of household waste (kilograms) collected for reuse, recycling and composting per household

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Barnet	312	347	352	353
Camden	215	206	241	235
Enfield	270	282	301	333
Hackney	184	183	189	183
Haringey	159	223	234	227
Islington	199	198	202	199
Waltham Forest	271	284	279	279
North London area	238	252	263	267

On average each household in north London separated 267 kilograms of waste for reuse, recycling or composting during the last year.

Figure 10: kilograms of waste reused, recycled or composted and sent for disposal per household

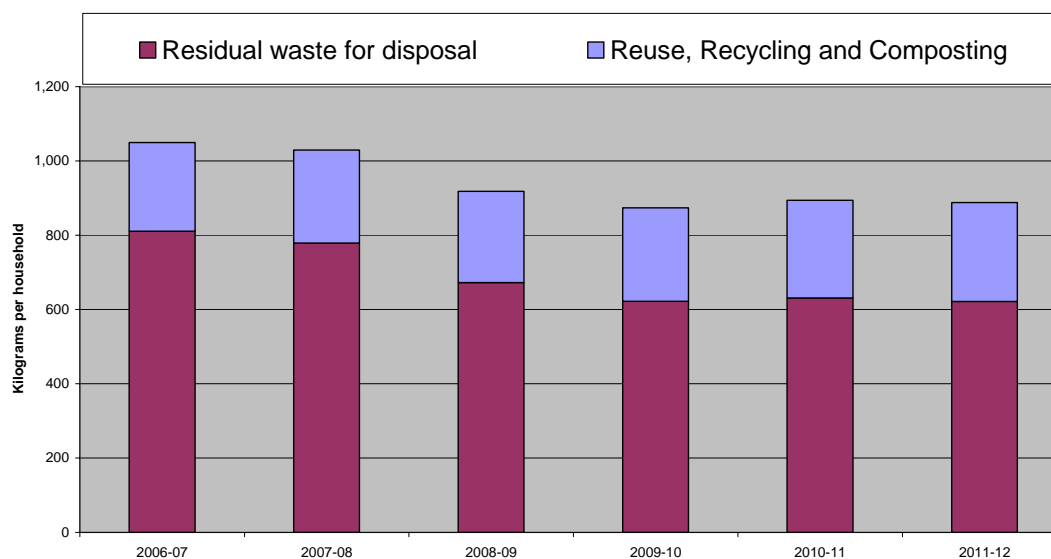


Table 14: Recycling rates in the north London area (National Indicator 192)

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Barnet	30 %		33 %	33 %	34%
Camden	28 %		30 %	32%	32%
Enfield	27 %		31 %	32%	35%
Hackney	20 %		24 %	25%	24%
Haringey	21 %		25 %	28%	26%
Islington	23 %		29 %	30%	32%
Waltham Forest	26 %		28 %	27%	27%
North London	23 %		29 %	29%	30%

13 Disposal to landfill and energy recovery

4.N The partner authorities will seek to minimise disposal to landfill throughout the period of this strategy and undertake to seek the recovery of energy from landfill gas wherever practicable.

The amounts of municipal waste sent to landfill are measured using the methodology for calculating **National Indicator 193**. The amounts sent for disposal to landfill in recent years have declined sharply. This is a reflection of both the decline in the amount of municipal waste that is collected as well as increases in recycling and composting resulting in a greater proportion of the waste that is collected being recycled and composted rather than landfilled or incinerated.

The tonnages of municipal waste going to the energy-from-waste incinerator at Edmonton have varied over the period. In 2009/10 the energy-from-waste facility used to treat a proportion of north London's waste suffered technical problems and consequently there was a one-off increase in the amount of waste sent to landfill in that year compared to previous years (the respective tonnages to landfill for 2007/08 and 2008/09 were 292,497 tonnes and 264,148 tonnes).

All municipal waste that is sent to landfill from the north London area is sent to sites that recover energy from the waste in the form of landfill gas which is then converted into electricity.

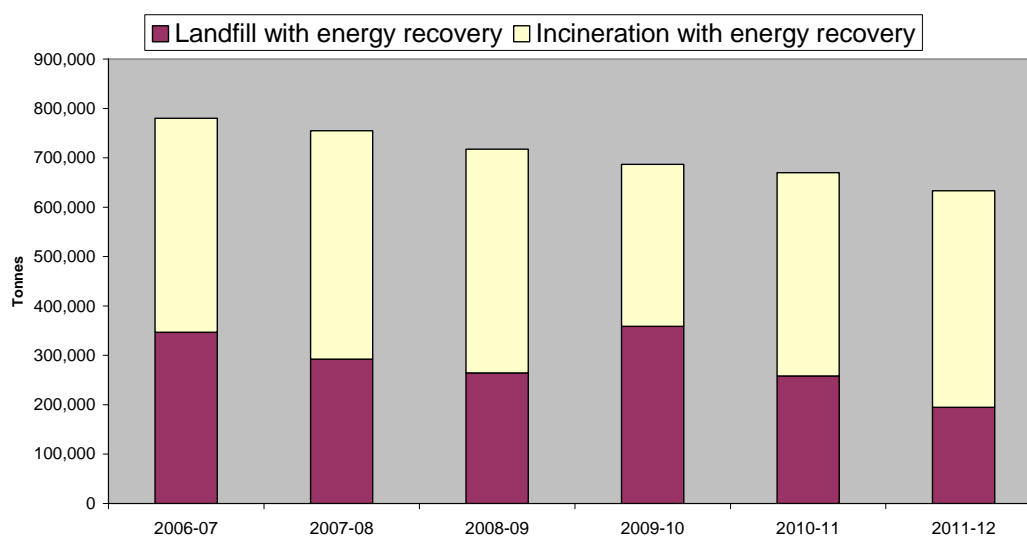
Waste that is currently used directly for energy recovery produces electricity that is sold to the National Grid. Enough electricity to supply some 72,000 homes is generated every year.⁷

⁷ This assumes the average household's annual electricity consumption as 3.4 MWh (Medium level electricity usage Profile Class 1 credit meters) and is based on an average EcoPark energy centre electricity exported generation figures of 245,000 MWh per annum (2011). Data supplied by the Office of Gas and Electricity Markets (OfGEM). The medium level electricity usage assumes meter readings every half hour for a working family of four.

Table 15: Residual municipal waste⁸management

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Tonnes of municipal waste sent to landfill	346,815	358,799	258,164	194,776
% of municipal waste sent to landfill	36%	41%	29%	23%
% of municipal waste sent to landfill with energy recovery	100%	100%	100%	100%
Tonnes of municipal waste sent for energy recovery	433,324	328,166	412,105	438,614
% of municipal waste sent for energy recovery	45%	37%	47%	52%

Figure 11: Municipal residual waste disposal



This graph shows the total amount of waste that is sent for disposal and the breakdown between the amount of waste sent for energy recovery by incineration and the amount sent to landfill with energy recovery.

⁸ It is important to note that municipal waste is all the waste collected by waste collection authorities from all sources and is not the same as household waste which is principally just the waste collected from households and cleared from streets and certain public facilities.

14 Abandoned vehicles

5.A1 The partner authorities will continue to share information and best practice on abandoned vehicles arising to ensure an integrated approach to provision of inspection, collection and disposal services across north London.

5.A3 The partner authorities will encourage the introduction of Authorised Treatment Facilities in appropriate locations in north London, will ensure that the general public are encouraged to use them appropriately, and will seek to secure sufficient facilities within the proposed North London Waste Development Plan Document.

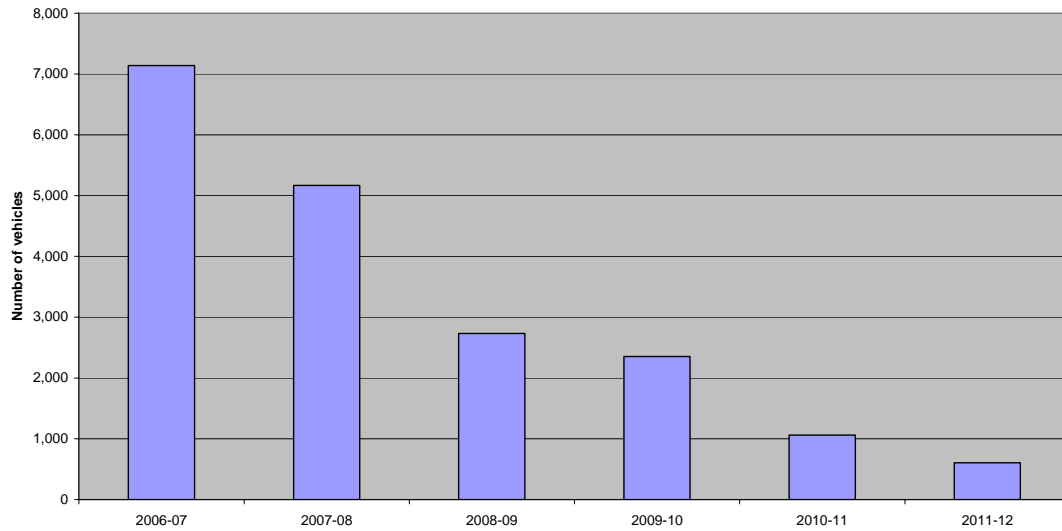
Table 16: Number of abandoned vehicles and authorised treatment facilities in north London

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Number of Authorised Treatment Facilities*	16		16	15	16
Number of abandoned vehicles	7,141		2,353	1,059	605

*Source – Environment Agency

The number of authorised treatment facilities for end-of-life vehicles in the area increased by one in 2011/12, returning to the previous level of 16 facilities. There remains sufficient capacity to treat the amount of vehicles collected.

Figure 12: Abandoned vehicles collected in the north London area.



The declining number of abandoned vehicles collected in north London is likely to be due to a combination of effective enforcement, the provision of adequate facilities for the disposal of end-of-life vehicles and the price of scrap metal which has been relatively high in the last three years, thus making it more economically advantageous for owners to sell end-of-life vehicles for scrap metal instead of abandoning them.

15 Batteries and accumulators

5.C The partner authorities will work to increase the level of recycling of household batteries in north London wherever practicable.

The amount of all types of batteries that are collected for recycling has been falling over the past three years. This is likely to be due to the increase in the use of long-life and rechargeable batteries as well as in-store take-back schemes for household, i.e. 'portable', batteries. The tonnages of portable batteries collected via in store take-back schemes are not recorded separately in the local authority waste data management system, WasteDataFlow.

The European Union Batteries Directive, which was implemented into UK Regulations in February 2010, sets clear targets for battery collection and recycling by obligated companies. There is now a requirement for retailers that supply more than 32 kilograms of portable batteries per annum to operate a free of charge take-back scheme. It is expected that these schemes will collect a greater share of the waste stream and so it is possible that the amounts of batteries collected via the partners will decline even further in the future.

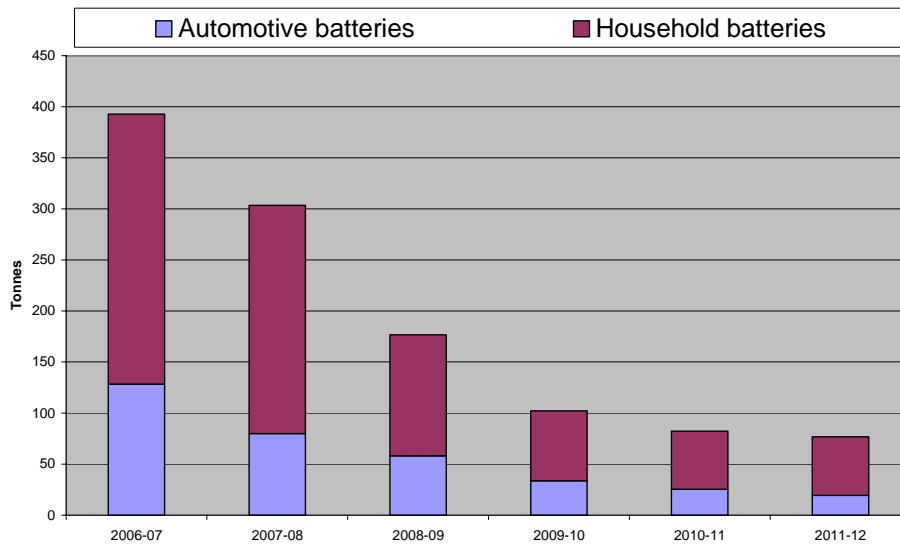


The relatively high price of lead used in automotive batteries which are also covered by separate obligations within the Batteries Directive and the UK Regulations is likely to have encouraged the collection of these by scrap metal traders thus bypassing the collection schemes implemented by local authorities.

Table 17: Household batteries collected for recycling

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Tonnes of automotive batteries recycled	128	34	25	19
Tonnes of household batteries recycled	264	69	57	57

Figure 13: Amounts of household and automotive batteries collected in north London



16 Bulky waste

5. D2 The partner authorities undertake to maximise the potential of reusing and recycling materials from the bulky waste stream with the aim of providing a more sustainable service in partnership with community sector or commercial organisations.

Table 18: Bulky waste recycling

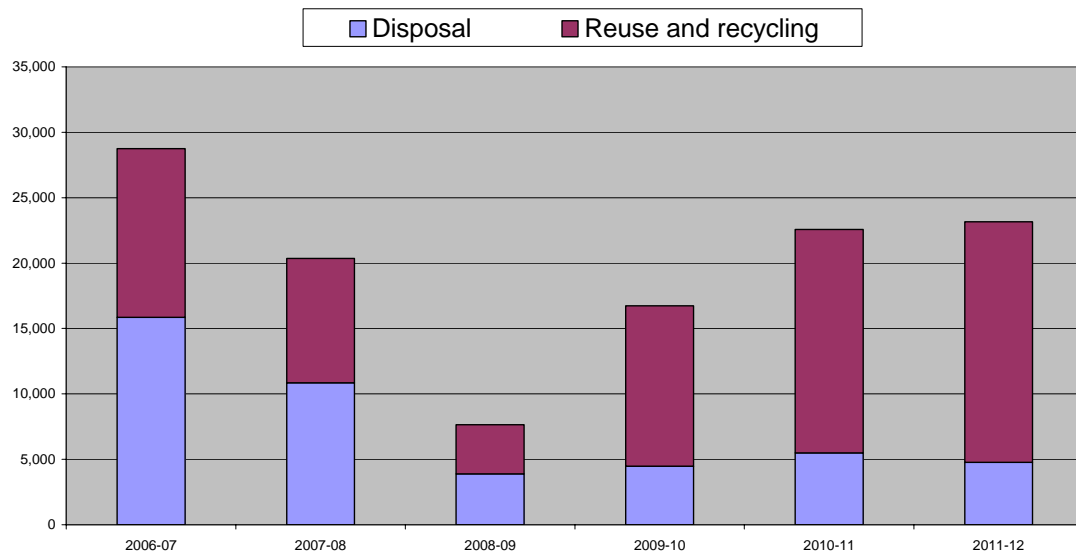
	2006/07 (Baseline)	2009/10	2010/11	2011/12
Total tonnes of bulky waste collected	28,750	16,731	22,570	23,155
Tonnes of bulky waste reused or recycled	15,855	4,465	5,494	4,760
Tonnes of bulky waste <u>not</u> reused or recycled	12,895	12,266	17,076	18,396
% of bulky waste stream reused or recycled	55 %	27 %	24%	21%

This measure includes items of bulky waste that are separated by or on behalf of the partners from the waste stream for reuse and recycling.

The reduction in recent years against the base year in Table 18 and other variations in Figure 14 below appear to be as a result of changes to data reporting practices amongst the partner authorities.

Any items that are reused or recycled privately such as through internet reuse or recycling schemes and auction sites may not come to the attention of the local authority and so cannot be reported. Increasingly, as the cost of private skip hire increases; items that cannot be reused or recycled are being collected by the borough councils.

Figure 14: Bulky waste collected in north London



17 Non-household waste

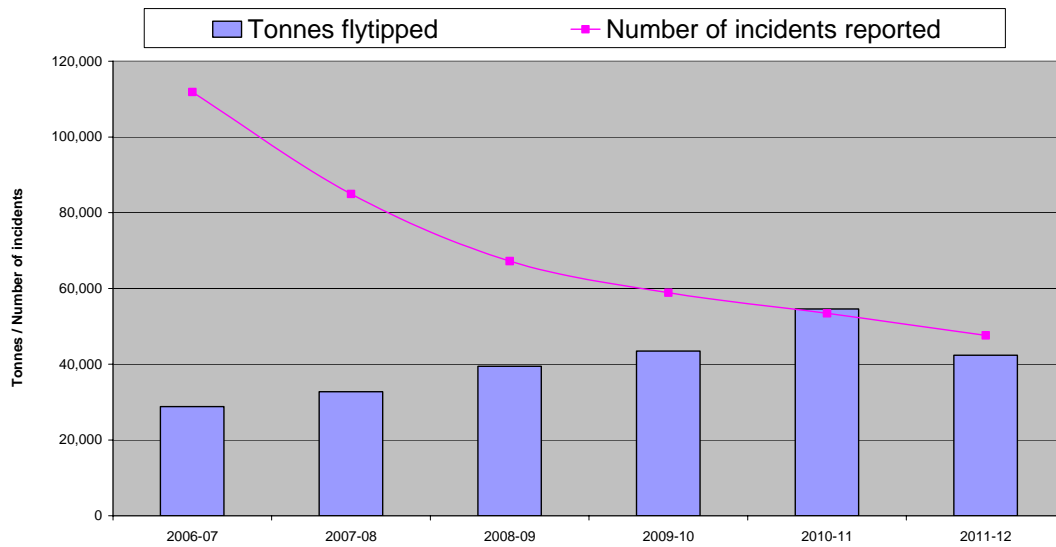
5.F2 The partner authorities will take rigorous enforcement action to minimise the amount of unpaid-for commercial and industrial waste entering the municipal waste stream.

When calculating recycling rates, the definition of 'household waste' has a narrower scope than when managing the partner authorities' finances. This section sets out the amount of fly-tipped waste that is disposed of by unlawful dumping in the area and must therefore be collected without charge entering the municipal waste stream, but which is excluded from the calculation of recycling rates. This waste stream increased every year from 2006 to 2011 but fell last year. The number of recorded incidents is also in decline as outlined in Table 19 below.

Table 19: Amounts of fly-tipped waste collected

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Tonnes of "fly-tipped" waste collected	28,822		43,502	54,580	42,390
Number of "fly-tip" incidents reported	111,827		58,895	53,434	47,587

Figure 15: Amounts of waste fly-tipped in north London



It is difficult to reliably interpret these figures as there have been a number of methodological changes in the ways in which borough councils assess and report the amounts of fly-tipped waste they clear. In 2011/12 however, there has been a fall in both measures.

Additionally a substantial amount of non-household waste (when using the broader financial definition) is collected by the partner authorities from a variety of commercial and industrial sources. This is described in Section 26 “Commercial and industrial partners” below.

18 Construction and demolition waste

5.G1 The partner authorities will continue to support the provision of sufficient construction and demolition reprocessing facilities in the north London region.

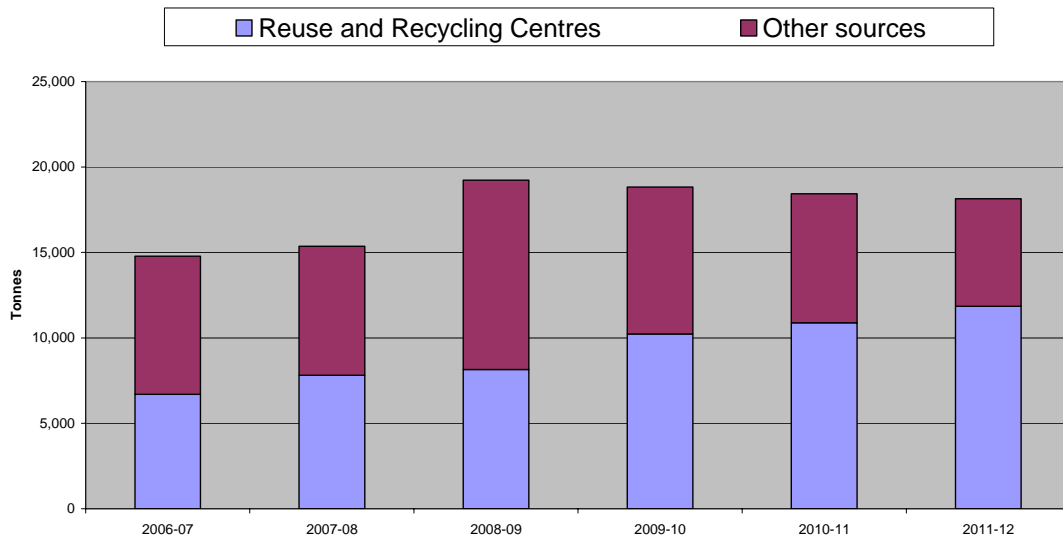
5.G2 The partner authorities undertake to separate and reuse or recycle as much municipal construction and demolition waste from the municipal waste stream as is practicable.

These figures include construction and demolition waste collected at Household Waste Recycling Centres, waste collected from borough highways and property maintenance and other miscellaneous sources.

Table 20: Construction and demolition waste recycling

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Total tonnes of construction and demolition waste recycled	14,783		18,821	18,397	18,116
Tonnes recycled at Reuse and Recycling Centres	6,699		10,228	10,878	11,850
Tonnes recycled from other sources	8,084		8,593	7,519	6,266

Figure 16: Amounts of construction and demolition waste collected



19 Liquid wastes

5.H The partner authorities will continue to provide statutory collection services for liquid household wastes during the period of this strategy, and will develop such new facilities as may be required to manage waste in accordance with new legislation.

The services have continued without the need for service expansion.

20 Hazardous wastes

- 5.J1 The partner authorities will continue to provide or procure an effective household hazardous waste service for north London residents throughout the period of this strategy.
- 5.J2 The partner authorities will support and promote the Corporation of London's current household waste collection and disposal service and make appropriate arrangements for the separate collection of fluorescent tubes.
- 5.J3 The partner authorities will continue to collect the maximum range of household hazardous waste and waste electrical and electronic equipment at their reuse and recycling centres.

A range of hazardous wastes are routinely collected in the north London area. Batteries, mineral oil, paint⁹, gas bottles and asbestos are collected at Household Waste Recycling Centres (HWRCs) and in some areas batteries are collected at the kerbside. Additionally electrical items such as refrigeration equipment, televisions and monitors and fluorescent light tubes are also classified as hazardous waste.

Other than for Waste Electrical and Electronic Equipment (WEEE), for which there are separate arrangements, all residents in north London are able to request a collection of household hazardous waste by the City of London's household hazardous waste collection and disposal service. This is a pan-London service for which individual boroughs pay to be a part of. The service includes the collection and disposal of asbestos and chemicals and in most cases this service is provided free of charge to residents.

⁹ Not all types of paint are classified as hazardous.



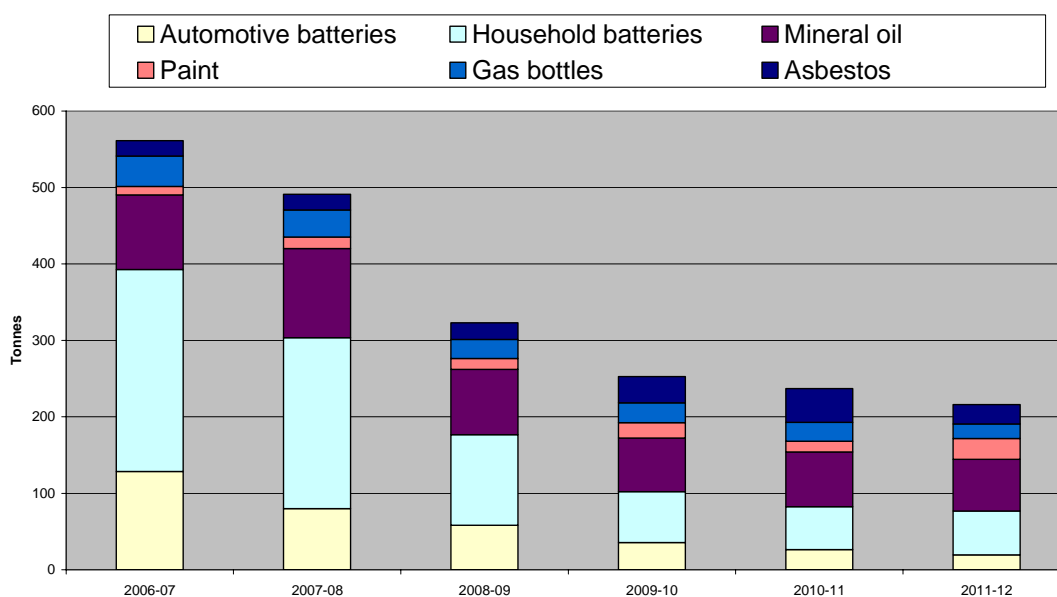
Hazardous wastes including paints for reuse are collected separately at Household Waste Recycling Centres

Table 21: Hazardous waste arising

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Asbestos	20	34	44	25
Automotive batteries	128	35	26	19
Household batteries	264	67	56	57
Mineral oil	98	70	72	68
Paint	11	20	14	27
Gas bottles	40	26	25	19
Total tonnes of hazardous waste collected¹⁰	561	253	237	216

¹⁰ Excluding fluorescent tubes, televisions, monitors and refrigeration equipment. These are reported in Table 24 below.

Figure 17: Hazardous waste collected in the north London area



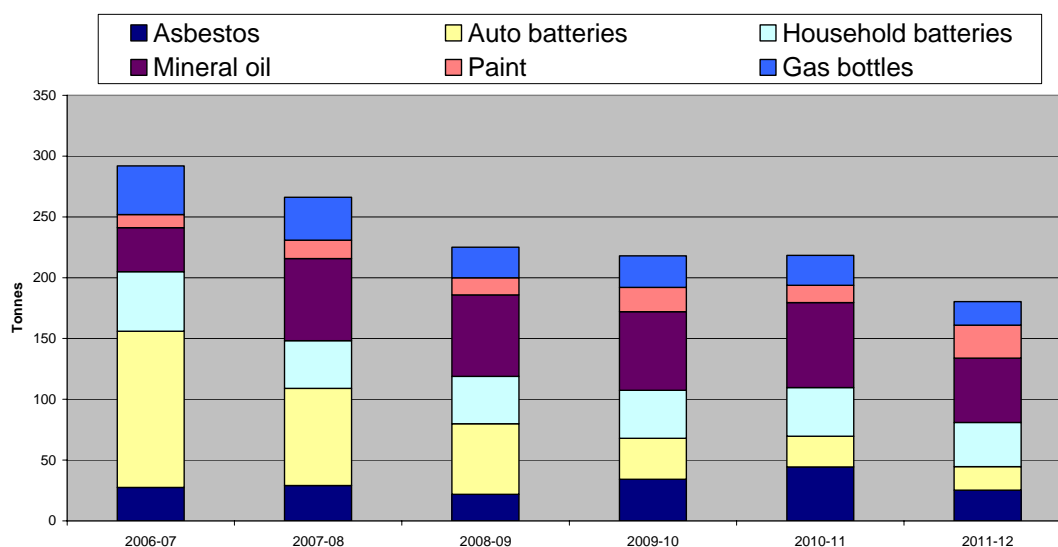
See also Section 15.

Table 22: Hazardous waste collected at Reuse and Recycling Centres in North London

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Asbestos	28	34	44	25
Automotive batteries	128	34	25	19
Household batteries	49	39	40	36
Mineral oil	36	65	70	53
Paint	11	20	14	27
Gas bottles	40	26	25	19
Total tonnes of hazardous waste collected¹¹	292	218	218	155

¹¹ Excluding fluorescent tubes, televisions, monitors and refrigeration equipment. These are reported in Table 24 below.

Figure 18: Hazardous waste collected separately at Household Waste Recycling Centres



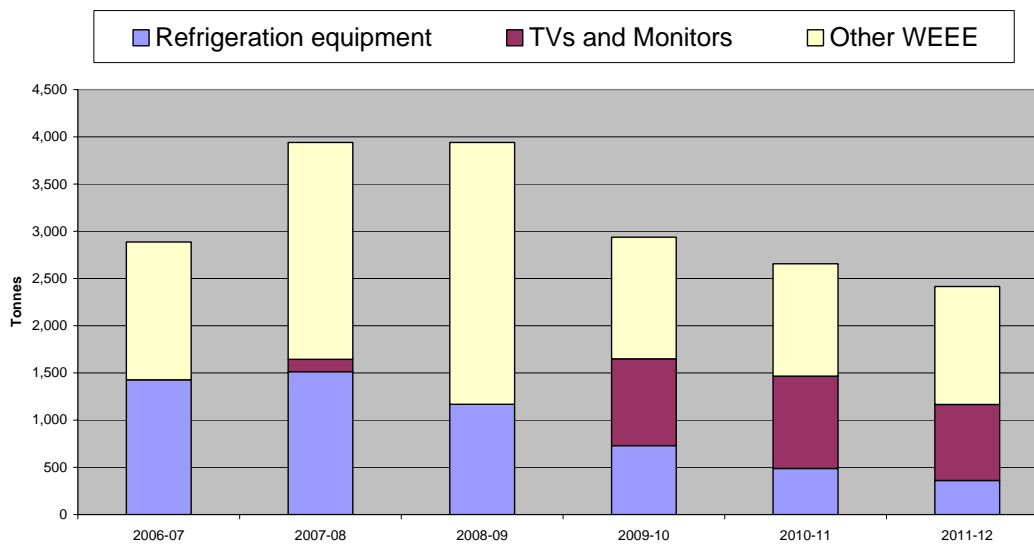
The reported amount of hazardous waste collected directly from residents in the area continues to fall. This is mostly due to the large decline in the amounts of batteries that are collected at Reuse and Recycling Centres in recent years.

Table 23: Waste Electrical and Electronic Equipment (WEEE) collected at Household Waste Recycling Centres

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Category A - Large household appliances	0	474	378	331
Category B – Cooling appliances	1,426	731	487	361
Category C - Televisions and monitors	0	918	979	804
Category D – Gas discharge lamps (Fluorescent tubes)	1	7	7	7
Category E – all other WEEE	1,460	1,289	1,191	1,250
Total tonnes of WEEE collected at Household Waste Recycling Centres	2,887	3,418	3,043	2,753

Additional WEEE is collected from residents at the kerbside and in bring banks. The tonnage is recorded in Section 10, Table 10 above.

Figure 19: Waste Electrical and Electronic Equipment collected at Household Waste Recycling Centres



In 2008/09 the amounts of televisions and monitors collected were not recorded separately and are not included here.

Waste Electrical and Electronic Equipment (WEEE) is now subject to “take back” schemes operated by retailers meaning that less of these wastes are now being collected by local authorities.



Waste Electrical and Electronic Equipment (WEEE) being collected for recycling

21 Ozone-depleting substances

5.K The partner authorities undertake to support appropriate projects promoting the reuse of fridges, and will ensure that the remaining fridges are reprocessed and ozone-depleting substances and metals recovered throughout the period of this strategy.

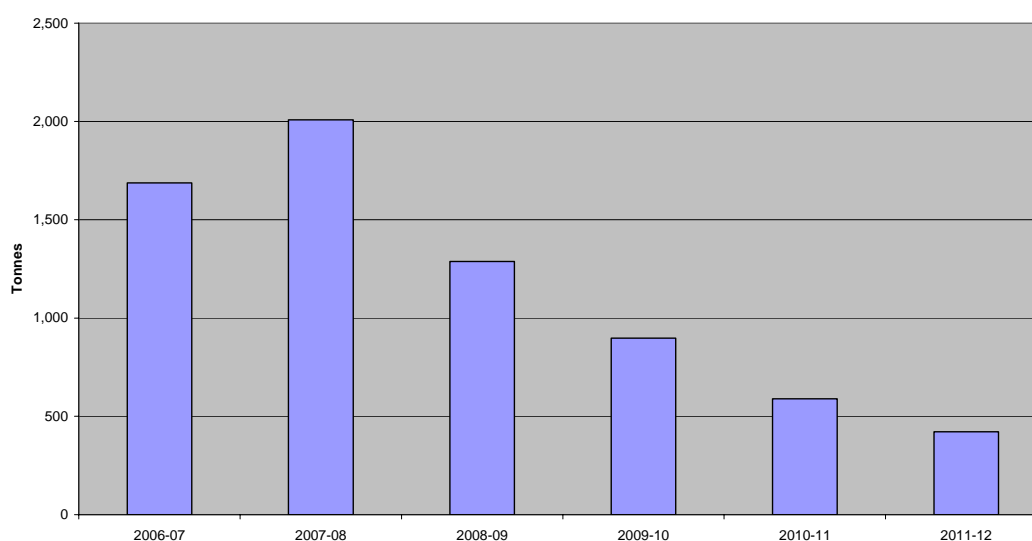
Like many other waste streams the amounts of waste refrigeration equipment collected in north London have fallen since the start of the strategy period. This is likely to be partly due to the recession meaning that fewer working units are replaced and partly due to more being collected by retailers through “take back” schemes.

Table 24: Refrigeration equipment collected for reuse and recycling

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Tonnes of refrigeration equipment reused and recycled from all sources	1,687	898	590	422

Refrigeration equipment collected at Household Waste Recycling Centres is also reported in Section 20, Table 24 above.

Figure 20: Refrigeration equipment collected in north London



22 Polychlorinated biphenyls

5.M The partner authorities confirm that equipment containing polychlorinated biphenyls will be registered with the Environment Agency where required under the Environmental Protection (Disposal of Polychlorinated Biphenyls and Other Dangerous Substances) Regulations 2000.

Table 25: Equipment containing polychlorinated biphenyl (PCB)

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Number of registrations of equipment containing PCB	0	0	0	0

Since 2000 electrical equipment containing PCB must be registered with the Environment Agency but since the commencement of the North London Joint Waste Strategy in 2006/07 no equipment has been registered by the partners. The use of PCB in electrical equipment was discontinued in the United Kingdom in 2000 and since then it has been replaced with more suitable alternatives.

23 Waste disposal service implications

7.B1 The partner authorities undertake to develop sufficient materials recycling facilities and in-vessel composting facility capacity to enable north London to meet the collective recycling and composting targets within this strategy.

7.B2 The partner authorities undertake to develop sufficient residual waste treatment facilities as are necessary to ensure that the purchase of additional Landfill Allowances is avoided wherever possible, having regard to the proposed North London Joint Development Plan Document and the best option identified within this strategy.

The capacity required is a reflection of the increasing amounts of material collected for recycling and composting. Sufficient capacity to treat all of the wastes collected has been sourced by the partners. Most of the recycling and composting capacity is within the north London area with additional capacity in East and West London, Cambridgeshire and Norfolk.

Table 26: Recycling and composting capacity required.

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Tonnes of materials recycling facility (MRF) capacity required	44,000		64,000	67,000	81,000
Tonnes of in-vessel composting capacity required	25,000		46,000	48,000	52,000
Tonnes of open windrow composting capacity required	31,000		17,000	19,000	19,000
Tonnes of energy-from-waste (EfW) capacity used	437,000		336,000	422,000	439,000
Number of Landfill Allowance Trading Permits purchased	Nil		Nil	Nil	Nil

Sufficient residual waste treatment capacity was maintained to ensure that it was not necessary to purchase Landfill Allowance Trading Scheme allowances during the reporting period.

The North London Waste Authority continues to make use of the Edmonton energy-from-waste facility to generate electricity from waste that cannot be recycled or composted. LondonWaste exported 245,000 MWh in 2011 which is enough electrical power to power some 72,000 homes throughout the year¹². The energy-from-waste incinerator exports 85% of the energy it produces with the remaining 15% powering the needs of the recycling, compost and other centres on the LondonWaste EcoPark.

The partners continuously monitor the growth in the waste stream to ensure that all separately collected wastes are suitably treated and this monitoring continues as part of the long-term procurement exercise currently being undertaken.

¹² This assumes the average household's annual electricity consumption as 3.4 MWh (Medium level electricity usage Profile Class 1 credit meters) and is based on an average EcoPark energy centre electricity exported generation figures of 245,000 MWh per annum (2011). Data supplied by the Office of Gas and Electricity Markets (OfGEM). The medium level electricity usage assumes meter readings every half hour for a working family of four.

24 Transport implications

7.C1 The partner authorities will support transfer of waste by rail wherever this can be shown to offer Best Value and is in accordance with this strategy.

7.C2 The partner authorities will support transfer of waste by water wherever this can be shown to offer Best Value and is in accordance with this strategy.

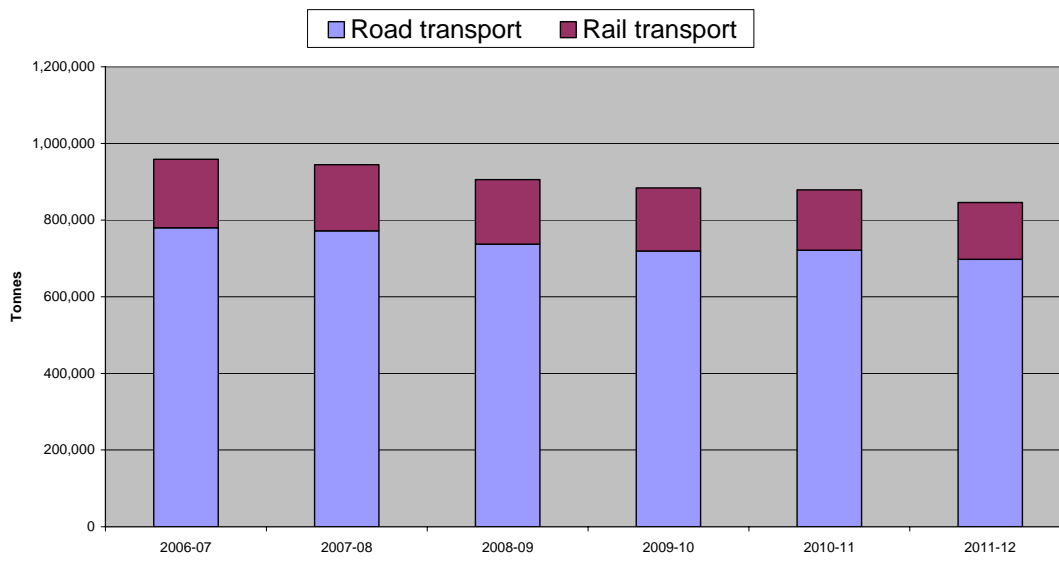
A significant amount and proportion of waste is transported to landfill by rail from the Hendon Rail Transfer Station to landfill. This is reported in Table 27 below as the tonnes of waste transported by rail.

Transporting waste by water in the north London area continues to be an area of interest to the partners. It is possible that canal or river transportation will be used in the future.

Table 27: Transportation of waste

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Total tonnes transported	958,600 (100%)		883,931 (100%)	878,817 (100%)	845,765 (100%)
Tonnes of waste transported by road	779,901 (81%)		719,373 (81%)	721,229 (82%)	697,605 (82%)
Tonnes of waste transported by rail	178,699 (19%)		164,557 (19%)	157,588 (18%)	148,160 (18%)
Tonnes of waste transported by water	0 (0%)		0 (0%)	0 (0%)	0 (0%)

Figure 21: Transport methods for waste arising in the north London area



Waste container loading bay at the rail handling facility at Hendon

25 A key role for the community sector

- 8.B1 The partner authorities welcome the support of community sector organisations in implementing this strategy and will actively encourage community sector involvement in delivery of waste services wherever this can be demonstrated to offer Best Value.
- 8.B2 The partner authorities will consider developing a Waste Community Compact in partnership with the Community Sector to build trust and encourage further involvement of this sector in implementing this Strategy.

In the north London area the community and voluntary sector continues to provide services to the partner authorities. The amount of waste collected by this sector for reuse and recycling is shown in Table 28 below. The services described here are in addition to the support described in Section 6 Waste reuse above.

This sector collects waste materials that are not normally collected by local authority kerbside recycling schemes or street banks including furniture, textiles, books and small amounts of paper, card and glass. These materials are subsequently reused or recycled.

To increase diversion of bulky items such as furniture from the waste stream the partner authorities worked with the London Community Resource Network to expand its relationships within the Housing Sector via the London Reuse Network.

Table 28: Waste collected by the community and voluntary sectors on behalf of local authorities

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Tonnes of textiles collected	491	2,599	2,462	2,476
Tonnes of furniture collected	0	77	115	308
Tonnes of books collected	0	33	79	144
Tonnes of other materials collected	48	95	55	36
Total waste collected by the Community and Voluntary Sectors on behalf of local authorities	539	2,804	2,711	2,964

Figure 22: Material collected by the Community and Voluntary Sectors for reuse and recycling

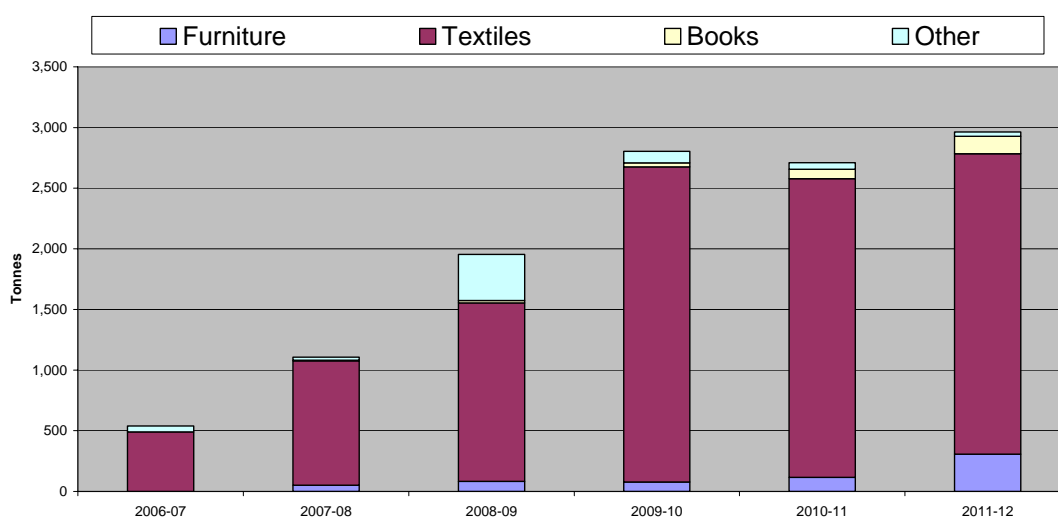


Table 29: Financial support for the community and voluntary sector

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Total £ of support (including £ contracts awarded to the Community and Voluntary Sector)	£97,016		£18,972	£5,913	£26,605

In 2011/12 there was a significant increase in financial support for the voluntary and community sector due to a number of services being contracted to non-for-profit organisations such as Waste Watch and LCRN. Services included delivery of Give and Take days, work on furniture re-use and administration of Real Nappy vouchers and the delivery of compost bin giveaway events.

26 Commercial and industrial partners

8.C1 The partner authorities will provide commercial waste services in accordance with statutory requirements or beyond and will seek external support to establish sustainable commercial recycling and composting services where this offers improved value for money to council tax payers to work towards London Plan objectives.

8.C2 The partner authorities will seek to ensure that sufficient household, commercial and industrial waste management sites are provided in north London through development of the North London Joint Waste Development Plan Document.

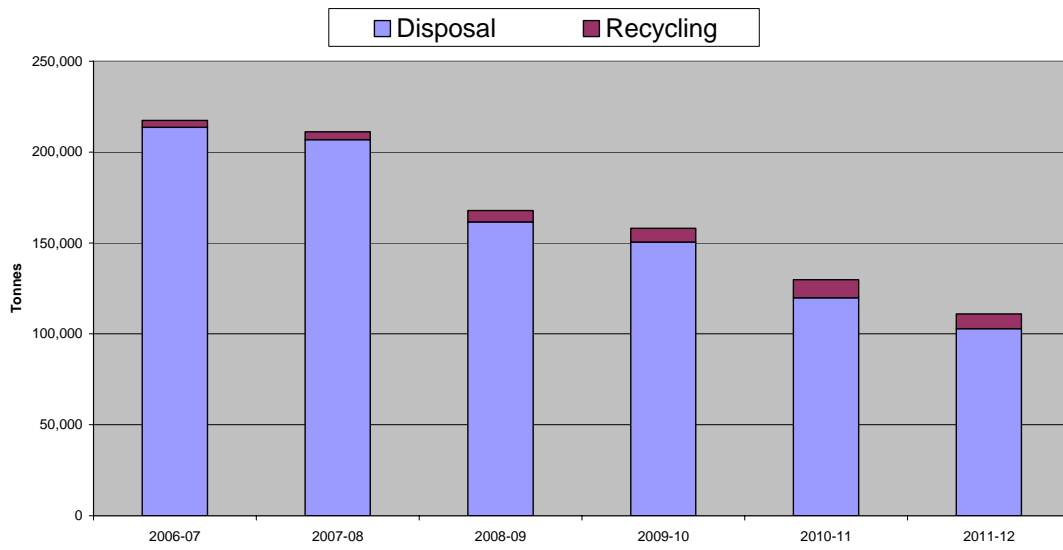
The amount of commercial waste collected is calculated on the basis of a bi-annual survey of 'trade' (non-household) customers in each of the seven north London boroughs. An average density for trade waste is calculated as a result of the survey and then this figure is used in conjunction with the total amount of collections of particular container sizes from trade waste customers to calculate a total tonnage figure collected.

Whilst the total amount of commercial waste collected by the partners has fallen with the economic downturn, the amount of commercial waste collected for recycling has increased over the strategy period.

Table 30: Commercial and industrial waste collected

	2006/07 (Baseline)	2009/10	2010/11	2011/12
Total commercial and industrial waste collected	217,425	158,108	129,789	111,036
Commercial and industrial waste reused, recycled or composted	3,774	7,585	9,924	8,171
Commercial and industrial waste sent for disposal	213,651	150,524	119,865	102,865
£ external support for commercial recycling and composting services	£0	£0	£0	£0

Figure 23: Commercial and industrial waste collected



27 Working with national agencies

8.D The partner authorities will seek to obtain support for north London projects from National funding programmes, including the Waste and Resources Action Programme (WRAP) and the Waste Implementation Programme (WIP), as these arise.

Table 31: Support obtained from national funding programmes.

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Amount of support obtained from national funding programmes	£99,895		£192,996	£65,000	£65,000

The partners continue to seek support from national funding programmes, when they are available. The figures reported here represent additional funding that is not reported elsewhere.

In 2009/10 the partner authorities received a substantial amount of funding from WRAP to support the national “Love Food Hate Waste” campaign described in section 4.B1 above. This support continued throughout 2010/11.

In January 2011, following the Authority’s re-procurement of WEEE services, DHL appointed an employee to work full time with a promotional budget to assist with the promotion of WEEE recycling. The value of this to the Authority is some £65,000.

28 Market development and regeneration

- 8.F1 The partner authorities will work closely with London Remade, the private sector and other agencies to encourage the development of new reprocessing infrastructure in north London and will seek to maximise the regeneration potential of these projects.
- 8.F2 The partner authorities are committed to green procurement and will promote sustainable purchasing policies and the “Buy Recycled” campaign throughout the period of this strategy.

All the partner authorities were signatories to the Mayor of London’s Green Procurement Code between 2007 and 2010. Hackney Council achieved the prestigious Gold Level, Islington Council achieved the silver level and Barnet Council achieved the Bronze level.

The scheme now has a more commercial focus and the partner authorities are no longer members. Clearly however, the purchasing of recycled paper and low energy appliances continues and, more importantly, environmental impacts are considered in the evaluation of tenders for large contracts.

29 Strategic Environmental Assessment (SEA) monitoring

The Strategic Environmental Assessment (SEA) of the North London Joint Waste Strategy includes some additional targets that the partners have agreed to aim for.

In order to measure progress towards these targets the parameters described beneath each objective have been approved as indicators to be included in future NLJWS progress reports.

Some objectives will not be measured until the sites of new facilities are planned so that a baseline can be established and data compared against this when these facilities are constructed.

Some objectives cannot be measured as they require data to be submitted by contractors that is not required under current contracts. This will be addressed in future contracts so that over time the collection of data becomes more complete. Some objectives are already measured and where possible this data is included in this report.

Objective 1 *To conserve and enhance natural habitats and wildlife especially priority habitats and species.*

In June 1992 the Convention on Biological Diversity was signed by 159 countries including the United Kingdom at the Earth Summit in Rio de Janeiro. It came into force 29 December 1993.

The “biodiversity convention” is a legally binding agreement that requires signatories to conserve, protect and enhance biological diversity. In 1994, the UK Biodiversity Action Plan was published and led to the creation of Local Biodiversity Action Plans. Collectively these action plans identify and seek to protect 391 priority species and 45 priority habitats.

The Biodiversity Action Reporting System is used to report the UK’s Biodiversity Strategies and Action Plans. Reports are available through the website at www.ukbars.defra.gov.uk and are regularly updated. The latest report for the North London area shows that several of the North London Boroughs have set objectives and are making progress towards them.

On a very localised level, land owned or controlled by the Authority is appropriately managed in relation to invasive plant species.

Objective 2 *To maximise the health and well-being of the population*

Measures: **Number of complaints received by contractors operating municipal waste facilities in north London.**
Life cycle assessments of human health impacts (WRATE output)

Table 32: Number of complaints recorded by contractors operating municipal waste facilities in north London

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Edmonton Energy from Waste facility	0		0	0	1
Edmonton In-vessel composting facility	0		19	11	27
Edmonton Bulky Waste Recycling Facility	0		2	0	1
Hendon Rail Transfer Station	0		0	0	0

Contractors operating municipal waste facilities in north London are not currently required to provide data relating to the number of complaints received or the nature of these complaints. However some information about the number of complaints received by LondonWaste Ltd has been obtained and is reproduced here.

Clearly some complaints are subsequently shown to be unfounded, for example, if the cause of the complaint is subsequently shown to have been something or somewhere else.

The Environment Agency’s Waste and Resources Assessment Tool for the Environment (WRATE) compares the environmental impacts of different municipal waste management systems. It is used to model the environmental costs and benefits of different waste management systems.

The partner authorities will model the WRATE impact of the current waste management arrangements during 2012/13.

Objective 3 *To conserve and enhance soil quality*

Measures: **Percentage of north London’s compost (product made from north London’s municipal waste) used within the NLWA area.**

Percentage of north London’s compost used outside the north London area.

Table 33: Compost product used in the north London area

	2006/07 (Baseline)		2009/10	2010/11	2011/12
Tonnes of compost product made from north London’s municipal waste	8,203		8,037	10,100	9,512
Tonnes of compost product used within the north London area	1,397		4,124	3,949	5,276
% of compost product produced from North London’s waste that is used within the north London area	17 %		51 %	39%	55%
% of compost product produced from north London’s waste that is used outside the north London area	83 %		49 %	61%	45%

The compost recorded as being used in the north London area has been applied to parks, gardens and allotments. The remainder of the compost was applied to agricultural land or was supplied to industry for landscaping or restoration.

See also sections 7, 8 and 12 for additional information about composting in the north London area.

Objective 4 *To improve air quality*

**Measures: Lifecycle assessment of air acidification
 (WRATE output)
 Facility emissions as reported for pollution prevention
 control permits as appropriate
 Air quality in terms of NO_x, SO_x and particulates**

The Environment Agency publishes emissions data for selected facilities on its website www.environment-agency.gov.uk. The numbers reported in this section are taken from the area of the website called “What’s in your back yard?”

The table below shows the emissions from the Edmonton Energy from Waste facility operated by LondonWaste Ltd and where the majority of waste that has not been reused, composted or recycled is sent for energy recovery. These figures are reported to the Environment Agency as a condition of the pollution prevention permit. All figures are reported as tonnes per annum.

Table 34: Emissions from the Edmonton Energy from Waste facility

	2006 (Baseline)	2008	2009	2010	2011
NO _x tonnes per annum	512	600	504	603	637
SO _x tonnes per annum	Not yet published	< 100	< 100	< 100	-
Carbon dioxide tonnes per annum	535,062	659,522	-	582,258	570,574
Dioxin grams per annum	0.01	0.02	-	-	0.06

NO_x and SO_x mean the oxides of nitrogen and sulphur respectively that contribute to air pollution and can cause acid rain. Carbon dioxide is the main greenhouse gas and is considered to be the leading cause of climate change. Dioxins are complex chemicals that are known to bioaccumulate in animals and humans and are linked to health problems at high levels of exposure.

At the time of publication the Environment Agency has only published some of the data for 2009, 2010 and 2011.

Objective 5 *To improve water quality*

- Measures Life cycle assessments of water eutrophication (WRATE output)**
Life cycle assessments of freshwater aquatic ecotoxicity (WRATE output)
Number of notifiable water quality incidents

This monitoring will need to commence at sites that are identified for waste management facilities in advance of any contracted operations to ensure that a baseline showing the emissions and air quality before construction is established. This can be used as a comparison with data after construction and during operation.

Objective 6 *To achieve the wise management and sustainable use of water resources*

- Measures Net water usage for waste facilities**

It is not possible to obtain this data from contractors under the North London Waste Authority's existing contracts but this will be incorporated as a contractual requirement into future contracts.

Objective 7 *To address the causes of climate change*

- Measures Life cycle assessment of climate change (WRATE output)**
Percentage of waste transferred by road, rail and water
Tonnes of waste transferred by road, rail and water
Amount of energy used by proposed facilities
Per capita reduction in CO2 emissions
National Indicator 186)

This monitoring will need to commence at sites that are identified for waste management facilities in advance of any contracted operations to ensure that a baseline showing the emissions and air quality before construction is established. This can be used as a comparison with data after construction and during operation.

The amount of waste transported by road, rail and water is reported under 7C1 and 7C2 above.

The partners are no longer required to collect data for carbon dioxide national indicator monitoring. However the Mayor for London has now produced a municipal waste management strategy which contains an emissions performance standard for greenhouse gasses. This is reported instead of National Indicator 186.

The Mayor's emission performance standard sets targets for the overall carbon impact of waste management activities and the amount of carbon dioxide that is produced in converting waste into energy.

The data presented in table 35 below shows the estimated amounts of carbon dioxide equivalent that were produced by the partners waste management activities in comparison to what would have been produced if all the waste had been sent to landfill. A negative figure shows that less greenhouse gas was produced than would have been the case if all of the waste had been sent to landfill without any recycling or energy recovery.

Further information on the emissions performance standard can be found here <http://www.london.gov.uk/priorities/environment/waste-resource/energy-recovery>

Table 35: Estimated amounts of carbon dioxide produced by waste management in North London

	2008/09	2009/10	2010/11	2011/12
Actual tonnes of CO ₂ equivalent produced	78,543	53,106	-204	-4,828
Target tonnes of CO ₂ produced per tonne of waste managed	0.040	0.035	0.000	-0.002
Actual tonnes of CO ₂ produced per tonne of waste managed	0.086	0.056	-0.002	-0.005

Although the Mayor's emission performance standard was introduced in 2011 it is possible to calculate performance back to 2008. In the last two years the partners have met and exceeded the targets set and so less carbon dioxide was produced by waste management activities than if the waste had been sent directly to landfill.

Objective 8 ***To adapt to the unavoidable consequences of climate change***

Measures **Percentage of developments with sustainable urban drainage systems (SUDS)**

It is not possible to obtain this data from contractors under the North London Waste Authority’s existing contracts but this will be incorporated as a contractual requirement into future contracts.

Objective 9 ***To minimise the production of waste arising from households and local Authority customers***

Measures **kg of household waste collected per head
kg of residual household waste per household**

Table 36: Household and non-household waste arising in the north London area

	2006/07 (Baseline)		2009/10	2010/11	2011/12
kilograms of household waste produced per head of population	458		388	399	390
kilograms of residual household waste collected per household (National Indicator 191)	811		616	627	618

The amounts of residual household waste per household collected in north London are recorded for National Indicator 191. Over the last five years, the amount of residual waste per household has declined significantly in overall terms. This is likely to be due to the combination of many factors including reductions in the amounts of packaging waste produced, an increase in the amounts of waste that are collected for recycling and composting, the increasing introduction of “take back” schemes for large items by high street retailers and the effects of the economic recession meaning that less items are purchased than previously.

Objective 10 *To maximise reuse, recycling and recovery rates by viewing waste as a resource.*

Measures **Percentage of household waste sent for reuse, recycling and composting (National Indicator 192)**
Percentage of municipal waste sent to landfill (National Indicator 193)
Life cycle assessment of resource depletion (WRATE output)
Number of bring sites per 100,000 people
Number of Reuse and Recycling facilities per 100,000 people
Percentage of households served by recycling and composting collections
Percentage of trade waste customers offered a recycling and/or composting collection service

These Measures are reported in Section 12 above.

It is important to note that the National Indicators reported in this section (NI 192 and 193) show different denominators. National Indicator 192 only shows the amounts of household waste that were sent for reuse, recycling and composting but National Indicator 193 shows the amount of municipal waste that was sent to landfill. The measure of municipal waste includes household waste but also includes non-household waste from shops and other businesses that are collected by local Authorities and fly-tipped wastes. Hence the two National Indicators do not relate to the same waste stream.

The percentage of waste that is separately collected for recycling and composting continues to rise as more residents have access to the services. The decrease in waste to landfill is a consequence of increased recycling activity and a fall in the total amount of household waste generated.

The number of bring sites per 100,000 population has fallen since the commencement of the strategy period. This is partly due to a fall in the provision of sites as kerbside collection services have been expanded and partly due to an increase in the population served.

The number of residents receiving a collection service for recyclable and/or compostable materials has increased annually. Nearly all residents have a kerbside or near entrance collection point for these materials.

The percentage of trade waste customers offered a recycling and/or composting collection service has not yet been calculated due to inadequate data being available to calculate it. It is hoped that this data will be published in the future.

Objective 11 ***To minimise the global social and environmental impact of the consumption of resources***

Measures **Life cycle assessment of resource depletion
(WRATE output)**

It is not possible to determine this until sites have been identified and technologies selected. It is intended that this indicator will be reported in future when appropriate.

The partner authorities will model the WRATE impact of the current waste management arrangements during 2012/13.

Objective 12 ***To enable waste to be disposed in one of the nearest appropriate facilities***

Waste collected by the north London partners is delivered to one of three sites in the north London area located in Hendon, Edmonton and Islington. Additionally there are nine reuse and recycling centres distributed across north London where residents of any borough are allowed to deposit a wide variety of waste materials for reuse, recycling, composting or disposal.

Objective 13 ***To enhance and protect the existing built environment including heritage assets and the wider historic environment***

Measures **Number of waste management facilities that are intrusively visible from historic buildings**
Number of new waste management facilities that have an unreasonably negative impact on heritage assets and the wider historic environment

The Authority is not aware that any of the waste management facilities that are used are intrusively visible from historic buildings nor that any have an unreasonably negative impact on heritage assets or the wider historic environment. This consideration will be assessed during the planning stage of new waste management facilities in the future.

Objective 14 *To ensure new buildings and associated infrastructure are designed and constructed in a sustainable way*

Measures: Number of new waste management facilities designed and built to meet minimum BREEAM standards
 Percentage of recycled content material used in any new waste facilities that are built
 Percentage of new waste infrastructure that is built on previously developed or industrially used land
 Tonnage of waste processed per hectare

It is not possible to report against these indicators until sites have been identified and waste facilities specified. It is intended that these indicators will be reported in future when appropriate.

Objective 16 *To stimulate redevelopment and urban renaissance that benefits the most deprived areas and communities*

Measures: Percentage of jobs created in areas of above average deprivation or unemployment

It is not possible to determine this figure at this time. It is intended that this will be reported in future as new facilities and services are commissioned.

Objective 17 *To encourage a strong, diverse and stable economy*

Measures: Number of direct jobs in waste services

It is not possible to determine this figure at this time. It is intended that this will be reported in future as new facilities and services are commissioned.

Objective 18 *To improve the resilience of businesses and their environmental, social and economic performance*

Measure: Percentage of organisations delivering waste services with a recognised environmental and quality standard accreditation

It is not possible to determine this figure at this time. It is intended that this will be reported in future.

Objective 19 *To maximise the accessibility and equality of services*

Measure: **Number of bring sites per 100,000 people**
 Number of reuse and recycling centres per 100,000 people
 Percentage of households served by recycling and composting collections
 Percentage of trade waste customers offered a recycling and/or composting collection service
 Percentage of residents using waste services
 Percentage of residents satisfied with waste services

The number of bring sites per 100,000 people is reported in Section 12 above.

The number of reuse and recycling centres per 100,000 people is reported in Section 9 above.

The percentage of households served by recycling and composting collections is reported in Section 10 above.

The percentage of trade waste customers offered a recycling and/or composting collection service is discussed in Section 26 above, but the data is not currently available.

The percentage of residents using waste services is 100%.

The percentage of residents satisfied with waste services was previously taken from the Place Survey 2008 conducted by the Audit Commission. On 10 August 2010 the Minister for Housing and Local Government wrote to all local Authorities Chief Executives advising them of the cancellation of the Place Survey with effect from August 2010. Local authorities will no longer be expected to report against the National Indicators measured by this survey. No further data is currently available in respect of this objective but will be reported in future if possible.

30 Conclusion

The NLJWS sets a framework for the management of municipal waste in north London and seeks

- A recycling-led solution with the aim of achieving recycling and composting rates of 50% by 2020
- A reduction of biodegradable material going to landfill, consistent with the NLWA's Landfill Allowances and so that the current proportion of material that goes to landfill is reduced from 36 % in 2006/07 to 15% by 2020.

In 2011/12 204,204 tonnes of household waste was sent for reuse, recycling and composting. This represents 30% of the household waste stream and is an increase from the 29% in the previous year.

In total, 845,765 tonnes of municipal waste was collected by the partner authorities from households and businesses in the North London area during the year. Of this waste 212,226 tonnes was sent for reuse, recycling and composting making an overall recycling and composting rate of 25% of the municipal waste stream. In the previous year this was 23% (199,177 tonnes) of the total waste collected.

The amount of waste sent to landfill was 194,776 tonnes which was 23% of the total down from 29% (258,164 tonnes) the previous year. The remaining 438,614 tonnes of residual waste (52%) was sent for energy recovery by incineration. In the previous year 412,105 tonnes of residual waste (47%) was sent for energy recovery.

The environmental performance of the partner authorities continues to improve. Less municipal waste is being collected and an increasing proportion is reused and recycled, less is sent to landfill and greenhouse gas emissions to the atmosphere that are caused by waste management are falling.

31 Further information

If you would like any further information about the North London Joint Waste Strategy please contact the North London Waste Authority:

Tel 020 8489 5730

Website: nlwa.gov.uk

e-mail: post@nlwa.gov.uk

North London Waste Authority
Unit 169, Lee Valley Technopark
Ashley Road
Tottenham
London
N17 9LN