

North London Joint Waste Strategy

February 2009



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FOREWORD

Managing North London's Waste

The seven North London boroughs and the North London Waste Authority have achieved much in recent years through co-ordinated and targeted action on waste prevention, recycling and composting. Our services have never been better.

This strategy will be the foundation of still greater improvements as we start to develop and implement the next generation of waste services that will treat waste as a resource and will minimise environmental impacts, particularly those which may contribute to climate change.

Above all we will ensure a balanced approach, with value for money on behalf of local council tax payers being essential if waste is truly to be managed in the best interests of North London.

This work, however, will need everyone to play their part – all residents, all businesses, all local groups and organisations, and all public services must work to minimise the amount of waste we produce and maximise the amount we recycle and compost.

I hope very much you will join us in this endeavour.



Councillor Clyde Loakes
Chair of the North London Waste Authority

Chapter 1 - Introduction

1.1 Why do we need a North London Joint Waste Strategy?

The amount of rubbish that we all generate is increasing.

As consumers we demand convenience. This means that many things that we buy now have more packaging. Increasing affluence has also resulted in increased waste generation. At the same time, the number of people in North London is rising, and the number of people in each household has reduced as we live different lifestyles. Both of these increase the amount of rubbish generated even more. We do not really understand all the reasons why rubbish is growing, but it continues to do so. In North London, the weight of rubbish collected has been increasing at a rate of approximately 3% each year. This means that in the next 20 years, unless we change what we do, the amount of rubbish we produce will increase by 66%.

The management of rubbish in North London needs to improve.

Currently, nearly two fifths of the rubbish - or waste - generated in North London is sent for disposal in the countryside outside London. Once it is buried - in specially constructed and managed holes in the ground called "landfill" sites - nothing much further happens to it. The rubbish takes a very long time to break down, and in doing so it can be the cause of pollution and can contribute to global warming through the release of methane and other greenhouse gases.

It is now widely agreed that action must be taken to minimise the effects human activities are having on the climate, and that the improved management of our wastes and, where possible, their use as a resource for new products or energy will assist. This is something local authorities must engage in.

Rubbish is becoming more expensive to get rid of.

The Government and the European Union have recognised that it is not sustainable to continue dumping waste in landfill. A series of taxes and legislation has been introduced to discourage the use of landfill in the future. The cost of disposing of rubbish to landfill is set to double in the next decade and the amount of landfill available will reduce sharply as people outside London increasingly object to having to deal with London's rubbish. This means that the alternatives to landfill, which recycle and recover energy from waste, are becoming much more attractive. We therefore have a big incentive to reduce the amount of rubbish we generate in order to minimise the amount we have to pay for its disposal in the future.

1.A We need to reduce the amount of rubbish we produce and to find better ways to manage rubbish that enable the recycling and recovery of energy and useful materials. This will lessen the environmental impact of our waste and make our money go further.

1.2 North London Working Together

The seven North London Boroughs and the North London Waste Authority have agreed to work together as Partners to tackle the waste challenge.

This is not new – the North London Waste Authority was established in 1986 as a partnership of the seven North London local authorities, specifically to manage the disposal of rubbish for North London.

However, the need to work closely together has never been greater. Residents and businesses and communities in North London need a coherent approach to rubbish if they are to help us achieve our goal of managing this rubbish in a more sustainable way. Collectively, we can also achieve the economies of scale necessary to make waste management as efficient as possible.

1.B In December 2001, the North London Partner Authorities agreed the following joint Aims and Objectives:

Aims

- To promote and implement sustainable municipal wastes management policies in North London
- To minimise the overall environmental impacts of wastes management
- To engage residents, community groups, local business and any other interested parties in the development and implementation of the above policies
- To provide customer-focused, best value services

Objectives

- To minimise the amount of municipal wastes arising
- To maximise recycling and composting rates
- To reduce greenhouse gases by disposing of less organic waste in landfill sites
- To co-ordinate and continuously improve municipal wastes minimisation and management policies in North London
- To manage municipal wastes in the most environmentally benign and economically efficient ways possible through the provision and co-ordination of appropriate wastes management facilities and services
- To ensure that services and information are fully accessible to all members of the community

- To maximise all opportunities for local regeneration
- To ensure an equitable distribution of costs, so that those who produce or manage the waste pay for it

1.3 Examples of North London Working Together and Good Practice

The London Borough of Barnet has been working with a community sector company at its excellent Reuse and Recycling Centre at Summers Lane, which reuses and recycles over 40 different materials and diverts approximately 50% of received waste from landfill – placing it, with other North London sites, amongst the best performing sites in the country.

The London Borough of Barnet also launched its compulsory household recycling scheme on a trial basis on 1st April 2004. Initially, the compulsory recycling scheme ran on a trial basis in four wards, however the trial was so successful that compulsory recycling was expanded across the borough, going borough wide on 1st March 2005. Between March 2005 and February 2006, compared to the previous year, there was a 28% increase in the amount of recyclable material collected. Other North London Boroughs have subsequently introduced similar schemes.

The London Borough of Camden is recognised as an excellent authority and has won awards for its high recycling rate. The Borough developed a unique paper recycling bin for use outside underground stations and in busy shopping areas. The scheme won a National Recycling Award for best Local Authority Initiative. The Borough is also offering recycling services to local businesses.

The London Borough of Enfield worked well with local businesses and the Co-operative Supermarket to develop a series of 'Wipe Out Waste' Consumer Guides that were nominated for awards by the Local Authority Recycling Association Conference, and was the first to introduce a borough-wide collection service for kitchen wastes (excluding meat) to all suitable properties.

The London Borough of Hackney has worked on an exciting pilot project with transport manufacturers, LondonWaste Limited, the Government and the British Waterways Co. to develop a unique "waste by water" transport operation on the Lee Navigation Canal. Waste was collected using a specially designed refuse collection vehicle and then transferred onto special barges for transfer to LondonWaste Limited's Edmonton Facility, thereby avoiding numerous road journeys, reducing congestion and benefiting the environment. The trial then moved into other multi-modal transport systems and has been taking place in the London Borough of Haringey more recently.

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The London Borough of Hackney led a successful £321,000 bid to the London Recycling Fund for a weekly kerbside collection scheme aimed at promoting existing recycling services on estates. The East London Community Recycling Partnership has been working with Hackney Council, ECT and 'Shoreditch Our Way' to deliver the service to estates in Shoreditch.

The London Borough of Haringey worked with vehicle manufacturers and the community sector to develop a unique electric, pedestrian controlled recycling collection vehicle and service. Services have since moved on but, as noted above, the London Borough of Haringey has been actively participating in trials of new multi-modal vehicles in a project with Transport for London.

The London Borough of Islington led a successful £2.3 million bid to the London Recycling Fund to introduce 500 new "bring" recycling sites to houses of multiple occupancy across North London. The Borough is developing best practice in consulting with residents about the best places to locate the new facilities, and within the new Hornsey Street Waste and Recycling Centre it provides a top-performing Reuse and Recycling Centre and an innovative Education Centre for use by local schools.

The London Borough of Waltham Forest led two successful bids totalling £816,000 to the London Recycling Fund to introduce garden waste composting collection services to 38,000 households across three Boroughs in North London in partnership with a community sector company. It opened a third Reuse and Recycling Centre to help its residents recycle and compost bulkier waste items and a wider range of wastes than was possible with the collection service, through a further £684,000 of funding. The Borough also led a publicity and promotion bid with £200,000 of London Recycling Fund support.

The North London Waste Authority led a successful £4 million bid to the London Recycling Fund for funding the North London Integrated Compost Project. This supported the development of a new 30,000 tonnes per annum capacity in-vessel compost facility at Edmonton in partnership with LondonWaste Limited, which is now making a crucial contribution to North London's achievement of recycling and composting standards. The funding also supported organic waste collections in Barnet, Haringey, Islington and Waltham Forest, and a home and community composting scheme run through the London Community Recycling Network.

The North London Waste Authority has worked in partnership with Arsenal Football Club and the London Borough of Islington to develop a state of the art recycling bulking facility and waste transfer station at Hornsey Street which completed operational testing, and transferred to the North London Waste Authority in July 2004. This local facility will help minimise North London's recycling and waste costs in the medium to long term.

All the North London Partner Authorities are active in The Resource Forum, an association of local community groups, waste businesses and local authorities that meet regularly to promote sustainable waste management in North London. The Forum, which has a salaried co-ordinator, was established and is supported by the North London Waste Authority and LondonWaste Limited.

1.4 Requirements for a North London Joint Waste Strategy

Section 32 of the Waste and Emissions Act 2003 introduced a requirement for the North London Partner Authorities to produce a joint waste strategy. The Act requires that the strategy includes management arrangements for all municipal waste, that the Partner Authorities consult and publicise the strategy appropriately, and that the strategy must have regard for guidance given by the Government. In addition, sub-section 32(6) requires that the strategy has regard to the Mayor's Municipal Waste Management Strategy. The new Greater London Authority (GLA) Act now makes it a requirement that this Strategy should also be 'in general conformity' with the Mayor of London's own Municipal Waste Management Strategy for the capital.

In 2002, the Partner Authorities formally announced their intention to produce a Joint Municipal Wastes Management Strategy for North London. "Municipal" in this context means principally waste from households, or waste that because of its nature or composition is similar to waste from households. This encompasses waste from schools and other local authority activities such as street cleaning, as well as other commercial and any industrial wastes that Councils collect.

At the same time, the Partner Authorities began actively co-operating to achieve the recycling and composting performance standards set by Government. This included sharing good practice, identifying the services and facilities that would be needed to achieve the targets and co-operating successfully on joint bids for funding to provide these services. During 2003, local elected Councillors with lead responsibility for environmental issues from each of the Partner Authorities began meeting to prepare this North London Joint Waste Strategy.

1.C It has been agreed that this North London Joint Waste Strategy will:

- Form the primary strategic document setting out how the Partner Authorities will manage municipal waste for the period 2004 - 2020
- Replace all existing Partner Authority Statutory Waste Recycling Plans and local waste strategies including the North London Waste Authority Waste Disposal Plan (1992)
- Conform with the Government's "Guidance on Municipal Waste Management Strategies" (2001) and the Waste and Emissions Trading Act (2003)

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- Have regard to the Government's Waste Strategy for England 2007 and be in general conformity with the Mayor of London's Municipal Waste Management Strategy (2003)

Once approved by the Mayor of London, the Partner Authorities have further agreed to:

- Adopt and then work together to implement this North London Joint Waste Strategy

Chapter 2 – Background

2.1 The North London Area

The North London region covered by this Joint Waste Strategy is that served by the North London Waste Authority, itself composed from the seven North London Boroughs of Barnet, Camden, Enfield, Hackney, Haringey, Islington and Waltham Forest – together comprising the eight Partner Authorities.

The area is bounded approximately by the M25 London Orbital Motorway to the north, the Edgware Road to the west, the M11 Motorway to the east and by Westminster and the City of London to the south. The total land area is approximately 30,000 hectares or 297 square kilometres.

The majority of land use within the area consists of residential housing, but the area retains significant open spaces in the north where much is protected as part of London's green belt. Industrial areas are concentrated in the River Lee Valley "corridor" in particular, but there are others elsewhere too.

The North London region is served by 73 train and 46 underground stations, as well as significant trunk roads, including the North Circular Road. Despite this extensive transport infrastructure, traffic congestion is an increasing factor affecting the provision and cost of waste management services in North London.

2.2 North London Demographics

The total population of the North London area is 1,675,200. These people live in approximately 730,598 households. This population has increased from an estimated 1,500,000 in 1991 and is likely to rise by a further 150,000 by 2016 as part of a London-wide trend.

The area is characterised by a diverse, mobile, urban population. And typical of London as a whole, the area has a relatively young population. A significant proportion of residents, particularly in the inner boroughs, live in flats. Population density varies across the Authority area but is generally above average (five of the seven boroughs have above London average population density). Overall, the Authority area had 74 people per hectare in 2001, compared to the London average of 46 and the UK average of 4. The population of North London is highly diverse, with many different nationalities, cultures and communities represented. In 2001, black, Asian and minority ethnic residents represented over 30% of residents of North London, and there are some 200 languages in regular use in one Borough alone. The level of population mobility and diversity places particular demands on the Partner Authorities in communicating the waste challenge message in a meaningful way.

Socio-economic factors can influence both the amount of rubbish generated and the amount of funding available to dedicate to environmental services such as recycling; there has previously been a direct correlation observed between increased affluence and increased waste generation.

Nationally, all households are categorised into one of five categories from “striving”, “aspiring”, “settling”, “rising”, “expanding” or “thriving”. The socio-economic profile of the North London area in 2001 revealed great contrasts, with higher than national average proportions of the population classified within the “striving” and “aspiring” categories (44%) and lower than national average proportions in the “settling” category (10%). This indicated another part of the specific waste challenge faced in North London; good management of rubbish is now an increasing priority whereas many other issues related to economic deprivation have previously taken precedence.

The mid 2006 estimate, published in February 2008, shows that there were 778,000 adults (16 – 59/64 years) in employment in the North London area out of total working age population of 1,138,000. Employment levels vary from 60.3% in Hackney to 72.2% in Barnet. Whilst economic growth has taken place in London in the recent past, the effect on future waste patterns in North London of future changes cannot be forecast accurately. However, the economic prosperity of residents and businesses in North London will inevitably have a significant impact on the amount of rubbish they generate during the period of this Strategy.

The age structure of the North London population indicates that just over 19% of the population are children aged under 16 (328,000 from the 2005 population statistics) and 12% aged 65 or above. The proportion of younger people in the 15 - 29 age group is expected to rise across London during the period of this Strategy. Many of these new residents will be transient, moving regularly and perhaps therefore taking less interest in their local community. The transient population presents a difficult moving target to the Partner Authorities wishing to communicate the need for more sustainable waste management.

A key factor affecting waste growth is the number of households. This is also expected to increase significantly in the period of the Strategy from an estimated 708,204 North London households in 2003/04 (730,598 in 2008) to 810,806 households by 2020/21. A significant cause of previous waste increases has been a decrease in household size, largely due to a significant rise in the number of single person households between 1971 and 1991. The primary cause of the projected increase in household numbers in the period of this Strategy is not expected to be further decreases in household size, but a genuine growth in the number of households and people.

The increases in population, number of households and the possible continuation of economic prosperity of London suggest that patterns of waste growth in North London are likely to continue in 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.

2.3 Duties of the Partner Authorities

The seven North London Boroughs are defined as Waste Collection Authorities under the Environmental Protection Act 1990, and as such have a statutory duty to provide refuse collection, street cleansing and a wide variety of other waste collection services, including recycling collections.

The North London Boroughs either employ waste management contractors, their own staff within Direct Service Organisations, or not-for-profit community organisations to deliver their collection services. Increasingly, refuse collection service contracts are being integrated with street cleansing, recycling and other collection service contracts where this can be demonstrated to offer best value.

The North London Waste Authority is a Waste Disposal Authority in the terms of the Environmental Protection Act 1990 and is therefore required to make arrangements for the final disposal of all household and commercial waste (but not industrial waste) collected by the North London Boroughs.

In 1994, the North London Waste Authority was required under section 51(1) of the Environmental Protection Act to divest its direct operation of services and chose to establish a joint venture company – LondonWaste Limited - in partnership with Sita GB Limited, under a twenty year contract to deliver all of its waste disposal services.

The North London Boroughs provide civic amenity sites - or Reuse and Recycling Centres as they are now re-named – under other legislation, but this appears likely to change. In addition, for operational simplicity, the North London Waste Authority has delegated to the North London Boroughs its duty to arrange for the disposal of the abandoned vehicles they collect.

Together, the Partner Authorities have responsibility for waste collection and disposal of almost a million tonnes of household and commercial rubbish each year, and as such collectively form one of the largest waste management areas in the United Kingdom.

2.4 Current Waste Arrangements

Waste management services are generally managed under contract to ensure a consistent level of delivery for what is a crucial front-line service for all local authorities. A summary of the current waste management contracts held by the individual Partner Authorities is contained in Appendix 1.

2.4.1 Waste Collection Services and Contracts

Refuse collection contracts include the collection of rubbish from householders, usually on a weekly basis, but in inner London authorities and for properties of multiple occupancy a twice weekly or even three-times weekly collection service is now also widespread. Residents are either provided with (or in some cases purchase) collection sacks or wheeled bins for containment of rubbish until collection, which is usually through refuse collection vehicles with compaction to maximise payloads. Refuse collection contracts are typically 5 – 7 years in duration, which is the normal operational life of a refuse collection vehicle. Integrated contracts may be for longer periods due to the greater capital investment involved.

The North London Boroughs, as Waste Collection Authorities, are required to collect commercial waste on request, but may charge a reasonable fee for doing so. Refuse collection contracts normally include arrangements for collection of such commercial waste together with household waste. Some separate commercial collection rounds are provided, particularly in inner London where a large proportion of properties are commercial premises. Some North London Boroughs have contracted out the collection arrangements for commercial waste.

Throughout North London bulky waste and fridges are collected in separate collection vehicles. Since 1st July 2007 the North London Waste Authority has organised a separate contract that ensures all waste electrical and electronic waste collected at borough reuse and recycling centres and from a number of other designated collection points is collected free of charge by a producer compliance scheme and sent for recycling. The service is funded by electrical and electronic producers through the implementation of the Waste Electrical and Electronic Equipment (WEEE) Regulations in the UK. These types of separate collections are expected to become the norm as legislation is increasingly requiring the separation of wastes.

In some parts of North London cess-pool services are provided, and in two North London Boroughs a “garchey” service operates from multi-story houses where waste is washed down pipes from individual apartments into storage tanks before being collected by tankers for disposal.

Street cleansing contracts usually include manual and mechanical street sweeping services, the emptying of litter bins and often graffiti and other street washing activities.

Separate contracts are often preferred for the collection of clinical wastes. Contracts for abandoned vehicles are often held by enforcement or parking services within Partner Authorities rather than waste services. The North London Waste Authority has delegated responsibility for the disposal of such vehicles to the North London Boroughs. All North London Boroughs have entered a joint arrangement with the Corporation of London for providing household hazardous waste collections on request.

Recycling contracts vary in North London from separate arrangements by collection type (doorstep collections, bring systems etc.) to those specific to collected material (paper, glass, cans etc.). Recycling contracts are typically separate from refuse collection contracts in North London at present but as recycling rates increase it is recognised that integration of these two services may provide better value.

Contracts or services for the operation of Reuse and Recycling Centres (also known as Civic Amenity sites or tips) are operated by the North London Boroughs. These often include the reuse and recycling activities on the sites to ensure an integrated service. Legislation governing this service appears likely to change, so it may be the North London Waste Authority that is responsible for this service in the future.

There is also a new government target to reduce the amount of household waste that is left over after reuse, recycling and composting collections by the North London Boroughs by 2020.

2.4.2 Waste Disposal Services and Contracts

The North London Waste Authority has a single, 20-year contract (which ends in December 2014) with LondonWaste Limited for the disposal of wastes collected by the North London Boroughs. The main element of the contract is for the recovery of energy from residual waste, focused around the Edmonton Energy-from-Waste facility, and three waste transfer stations.

The contract has no minimum tonnages that must be delivered for disposal, which frees the North London Partner Authorities to reduce, reuse, recycle and compost as much rubbish as they wish with no financial penalty. However, with decreasing waste tonnages just over half of the municipal waste – approximately 416,000 tonnes per year (out of an approximate total of 780,000 tonnes of municipal waste) – is currently incinerated.

The Edmonton Energy-from-Waste facility is an inclined grate, mass-burn incinerator, designed as an alternative to waste being sent to landfill. It uses residual waste as a fuel to generate electricity through the incineration process. The Facility was commissioned in 1971 by the Greater London Council and has since been progressively modernised and updated to meet current environmental standards. It has an incineration capacity of approximately 500,000 tonnes per year and produces enough energy in the process to provide power sufficient for 66,000 homes. The incineration process reduces the volume of the waste incinerated by 90% and the weight of the waste by 80%. The majority of the incinerator 'bottom' ash produced at the end of the process is recycled into aggregate substitutes by a sub-contractor, thereby reducing the extraction of aggregates elsewhere. In addition, approximately 12,000 tonnes of scrap metals are recovered from the ash following the combustion process and are recycled. The facility is located within a 43-acre 'Eco-Park' in Edmonton next to the North Circular Road and the Lee Navigation Canal. It is owned and operated by LondonWaste Limited.

Also located at the Edmonton site, the Fuel Preparation Plant is a waste transfer station that separates suitable wastes for incineration from those only suitable for landfill. The waste unsuitable for incineration is transferred by road, using vehicles powered by liquid natural gas, to landfill sites in Bedfordshire and Buckinghamshire. Bulking bays are available at the facility currently separating and transferring approximately 23,000 tonnes of recyclable wastes. The Edmonton facility receives waste from all the Partner Boroughs in varying amounts, but predominantly serves the London Boroughs of Enfield, Hackney, Haringey and Waltham Forest.

Via a Deed of Variation to the main contract, LondonWaste Limited also manages organic waste collected by the North London boroughs using an in-vessel composting facility also located at Edmonton. Officially opened in March 2006, the 30,000 tonne facility on the Eco-Park processes the separately collected biodegradable waste from the seven constituent borough councils. Separate arrangements are also in place to bulk up certain types of waste electrical and electronic equipment at LondonWaste Limited, and also to transfer any biodegradable waste to third parties which cannot be processed by the compost plant on-site. Bulking of 'commingled' (i.e. mixed, dry recyclable wastes) for onward transfer to a third party materials recovery facility also takes place on-site for those boroughs which collect recyclable waste in this manner.

A Waste and Recycling Centre is also located at Hornsey Street in Islington. This new, purpose-built Waste and Recycling Centre replaced an older waste transfer station located at Ashburton Grove in Islington in June 2004. The new Hornsey Street transfer facility has waste compactors to minimise local environmental impacts and maximise transport efficiency. The building is sited next to the East Coast Main Railway Line and includes a large recycling bulking facility that could also be converted into a small Materials Recovery Facility in future if required. This site receives the majority of the London Borough of Islington's waste plus a significant proportion from the London Boroughs of Camden and Hackney. LondonWaste Limited operates the facility, bulking the waste into articulated trailers and transferring approximately 200,000 tonnes of waste each year by road to Edmonton for energy recovery or to landfill sites in Bedfordshire and Buckinghamshire. The facility also includes a purpose-built, indoor Reuse and Recycling Centre for local residents and an environmental education 'I-Recycle' Centre within it.

The Hendon Rail Transfer Station is situated opposite Brent Cross Shopping Centre on the North Circular road in Cricklewood. This facility receives approximately 200,000 tonnes of waste each year from the London Boroughs of Barnet and Camden and small amounts of waste from the London Borough of Haringey and some from the London Borough of Brent in West London. The facility is a compactor station and waste is bulked into containers and transferred by special trains to a landfill site in Buckinghamshire. Waste Recycling Group operates the site under a tri-party arrangement with LondonWaste Limited and the North London Waste Authority.

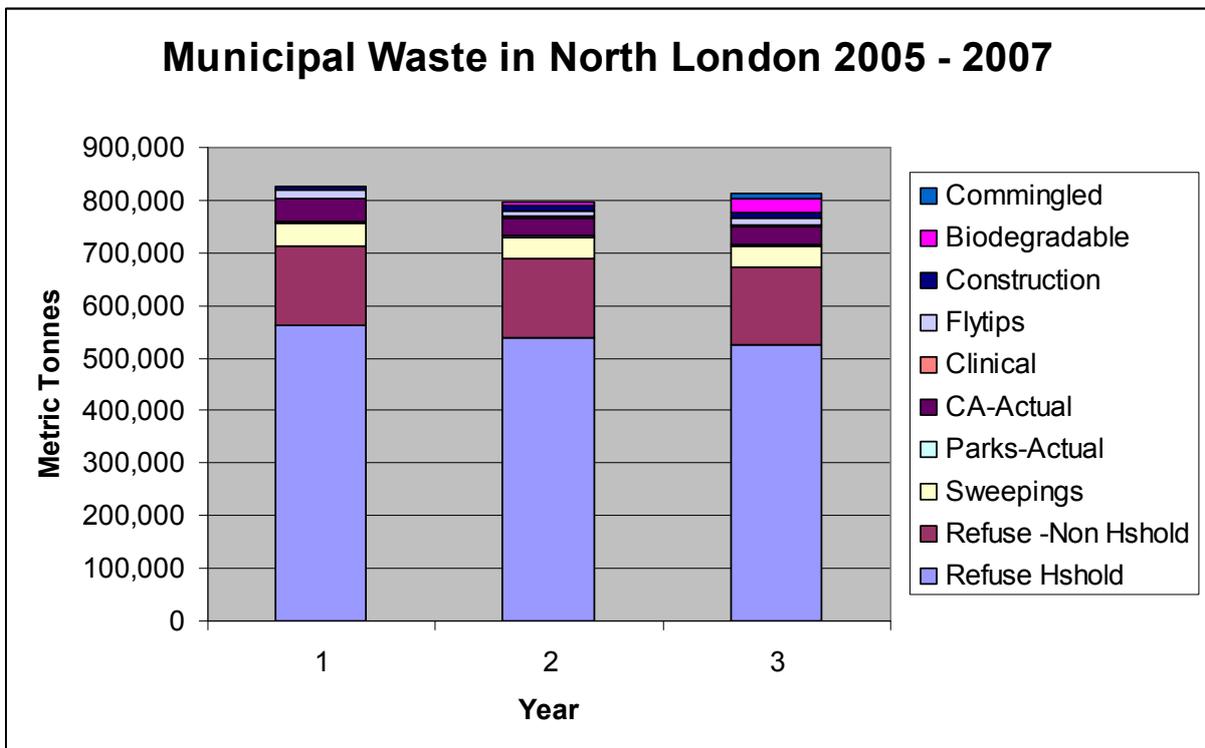
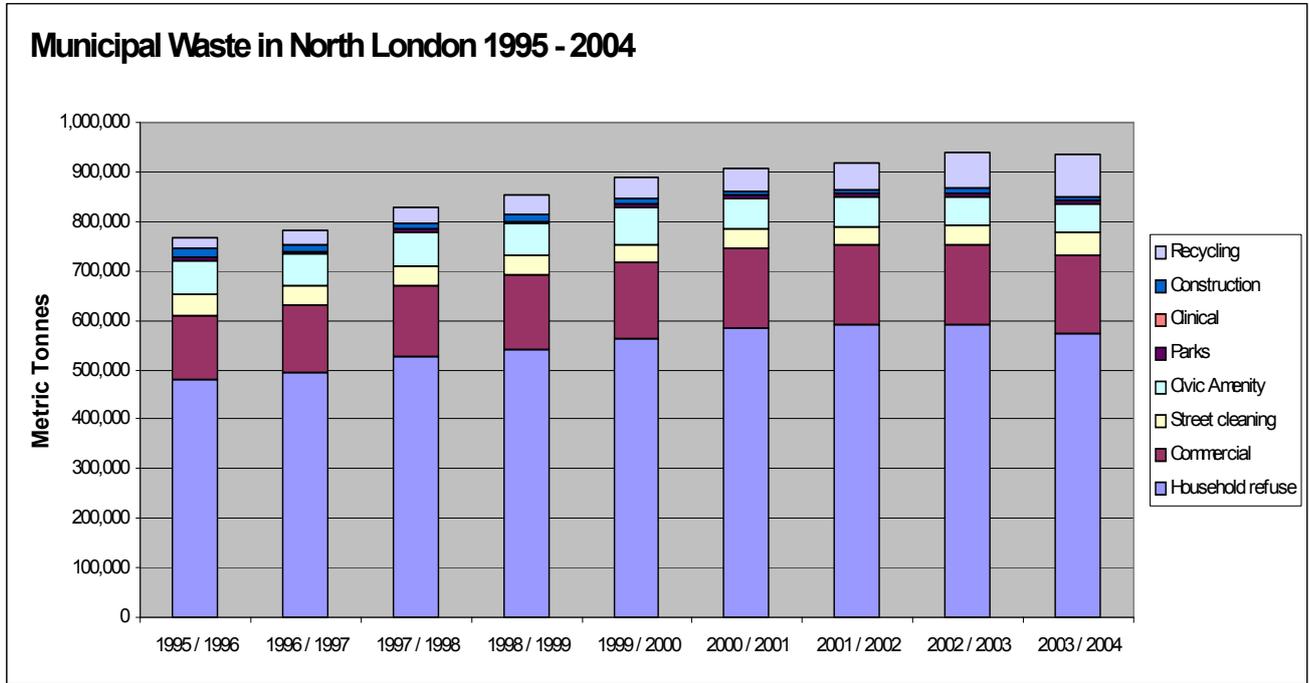
The North London Waste Authority also contracts with LondonWaste Limited for the transport of waste and recyclables collected at Partner Authority Reuse and Recycling Centres and for the bulking of a proportion of the fridges and freezers collected by the North London Boroughs, which are then collected by the North London producer compliance scheme for onward transfer for recycling. The North London Waste Authority's contract with LondonWaste Limited allows for the introduction of new recycling and composting services.

The relatively small tonnages of household clinical waste arising in the North London Waste Authority are disposed through LondonWaste Limited too. Other North London Waste Authority contracts provide services for the reuse and recycling of tyres and for the safe disposal of asbestos collected at Partner Authority Reuse and Recycling Centres.

2.5 Waste Generation Patterns

In 2006/07, 776,728 tonnes of household waste was collected in North London, equivalent to approximately 1.06 tonnes per household per year, (based on 730,598 households). The first graph below shows the total amount of municipal waste generated in North London over the period 1995/96 to 2003/04. The second graph shows 2005 to 2007 figures, excluding any recycling handled by the North London boroughs.

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The first graph indicates an initial increase and then a slowing of the growth in municipal waste being sent for disposal during the ten-year period. The total tonnage disposed increased initially, from 744,178 tonnes (1995/96) to 867,336 tonnes (2002/03), an increase of 16.5% (123,158 tonnes) that is equivalent to just under 2% growth per annum. However, since then there has been a decrease in the waste stream to 826,004 tonnes (2004/05) and further decreases to 796,847 tonnes in 2005/06, (including material presented for composting) and 776,728 tonnes in 2006/07. Over the 4-year period from 2002/03 to 2006/07 there has clearly been a decrease in tonnage for disposal. However, the longer term trend from 1995/96 to 2006/07 is equivalent to a 4.4% increase overall, and must also be considered within the context of rising recycling tonnages which are not currently handled by the North London Waste Authority and planned housing growth in the future. This Strategy therefore continues to assume a 22% increase in overall waste arising over the Strategy period, or a mean increase of approximately 2.5% per year. This is broadly in line with the national average rate of waste increase. A sensitivity analysis looks at lower growth rates more in line with the trends of the latter years.

As mentioned above, the graph also shows that refuse collection patterns may have begun to plateau due to the increasing impact of recycling services. Civic Amenity waste totals have decreased, primarily due to the imposition of stringent controls on commercial waste by some Partner Authorities and increased encouragement and help for residents to recycle. However, despite the tonnage recycled and composted having nearly tripled from 38 kg per head of population per annum in 2001/2002 to 108.52 kg per head in 2006/07, combined recycling and composting rates have only increased from 8.33% in 2001/02 to 22.82% of all household waste in 2006/07.

2.6 How waste might increase

Municipal waste had been increasing in North London by approximately 2.5% per year when the draft NLJWS was prepared. Household waste had been growing at approximately 2.5% per year, although over the last four years this has reduced to about 2% per year, and arisings in 2006/07 were similar to those in 2005/06.

In 2004 the Partner Authorities considered the Mayor of London's municipal waste projections to be unduly optimistic, given the previous patterns of waste growth in North London, the proposed increases in households and population projected by the Mayor within the draft London Plan and the need to allow a margin of error to safeguard the Partner Authorities from the punitive fines proposed under Government's proposed method for implementing the Landfill Directive.

Instead, the Partner Authorities considered the Prime Minister's Strategy Unit projections of 3% municipal waste growth until 2010/011 and 2.5% thereafter to be a more reasonable basis for planning the waste management facilities that will be required within North London when the likely impacts of waste minimisation activities are taken into account. (See Chapter 4)

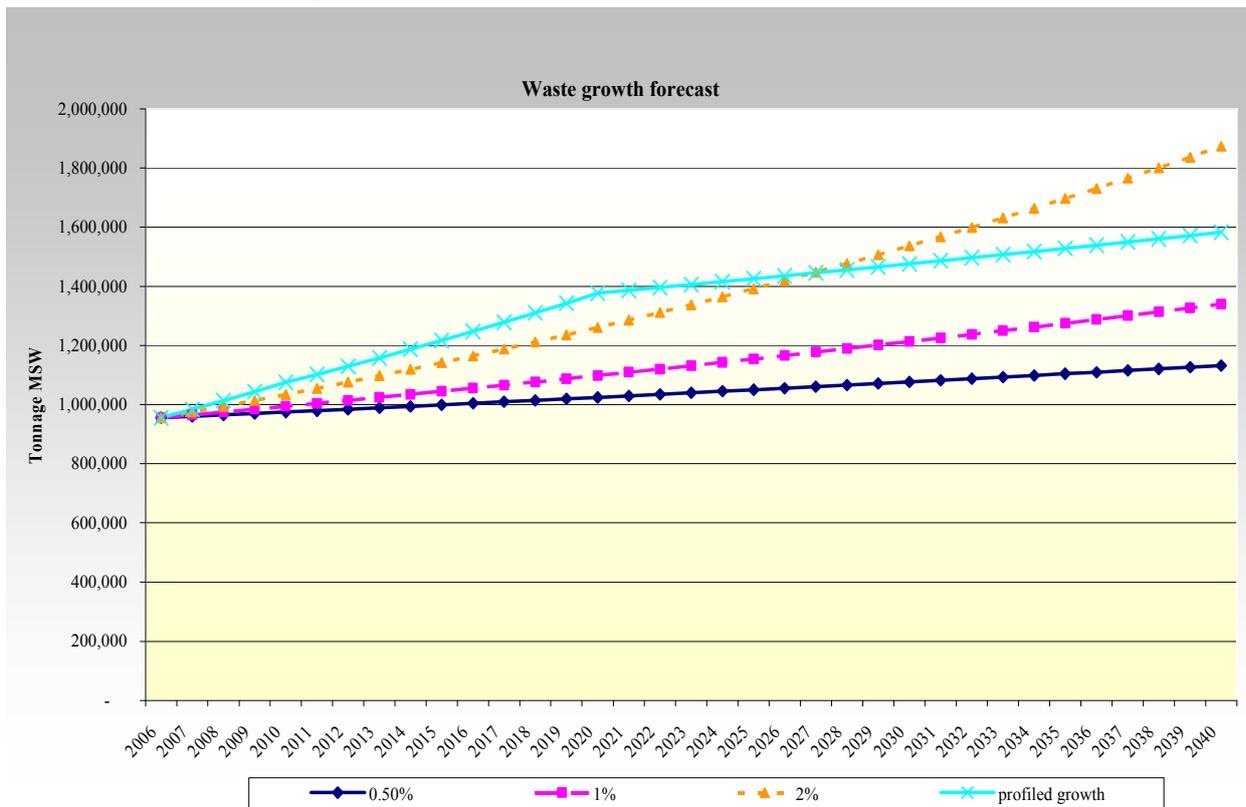
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Subsequently, as noted above, however, waste growth has slowed considerably, and the residual waste stream has actually fallen whilst extensive improvements in local recycling and composting services have occurred, which will assist with the national target to reduce the amount of residual waste.

The London Plan (Consolidated with Alterations since 2004), which is the spatial strategy for the capital, projects a 2% per annum increase for household waste and a 0% per annum increase for non-household waste compared to the combined growth rate used within the modelling for North London of 3% per annum until 2010/11 and 2.5% per annum thereafter. However, the London Plan figure had not been agreed at the time the Partners commissioned the modelling work, and so could not have been used in the Partners' modelling.

An updated sensitivity analysis has therefore been carried out and the graph below shows the effects of differing growth rates compared to that which has been modelled. If a 2% per annum increase is experienced, then by 2020 the Partners would be handling some 1.261 million tonnes of municipal waste compared to the 1.376 million which has been modelled, i.e. 0.115 million tonnes less than that which has been modelled.

North London Municipal Waste Potential Growth Rate 2006 - 2040



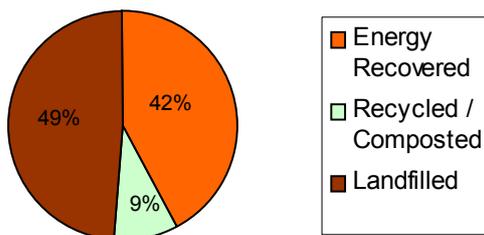
For illustrative purposes, the graph shows growth rates at 0.5%, 1%, and 2% against the 3% declining to 2.5% rates used in the modelling work. The graph also shows that from 2027 the London Plan growth rate suggests there will be more municipal waste in North London than the Partners have modelled, which may require additional waste facilities.

2.B 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, but during its implementation the most recent data available will be used.

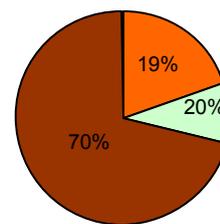
2.7 Waste Treatment Methods

The pie charts below indicate the methods of treatment for municipal waste in North London in 2003/04 and for Greater London in 2003/04.

**Municipal Waste Treatment
in North London (2003/2004)**



**Municipal Waste Treatment in
Greater London (2003/2004)**



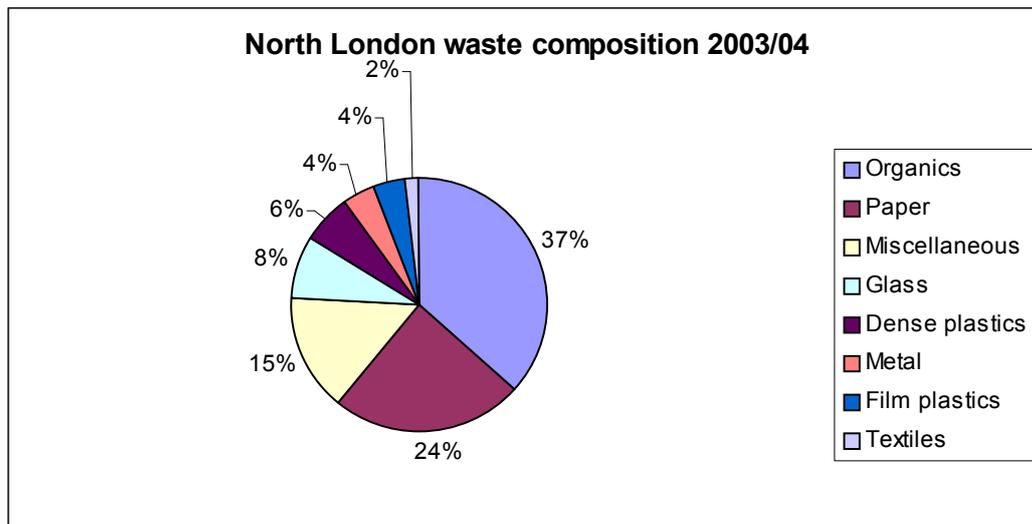
Source of Greater London Graph: The London Plan, February 2008. The figure for 'energy recovered' refers to 'conventional incineration' in the London Plan.

The pie charts indicate that although the combined recycling, composting and recovery rate is substantially above the London-wide level, the Partner Authorities were still dependent upon landfill for almost half of the waste they generated in 2003/04 (approximately two fifths now).

2.8 Waste Composition

To prepare this Strategy, the Partner Authorities commissioned AEA Technology Limited to project a probable household waste composition for North London, including waste collected at reuse and recycling centres.

The North London Waste Authority conducted a household waste weight and composition analysis on behalf of all North London Partner Authorities. This survey, conducted between October 2003 and July 2004, showed that North London's household waste is similar to that determined in recent studies in other areas.



It is important to note the high proportion, typically between 65% and 70%, of biodegradable wastes – i.e. waste that breaks down under biological action into organic molecules. This process is the cause of greenhouse gas formation and therefore the primary target of much new waste legislation. Targets are now in place for all waste disposal authorities to reduce the amount of biodegradable municipal waste that they send to landfill to 35% of 1995 levels by July 2020, or face substantial fines for those failing to do so.

The findings from the compositional analysis outlined above and on-going surveys will inform the implementation of the Strategy through better targeting of recycling and composting programmes. It is recognised that further analyses may be needed later in the period of the Strategy to assess progress in meeting targets.

2C. The North London household waste composition analysis will be used to inform the development of this Strategy, but during its implementation the most recent data available will be used.

Chapter 3 – Statutory Requirements

As the environmental impact of rubbish has increased and become better understood, a raft of legislation and guidance has been issued at European, National and Regional level indicating the ways in which waste should be managed in a more sustainable way.

3.1 European Requirements

The European Union has become the major source of environmental legislation and guidance in relation to the management of rubbish. The following summary indicates the key European Directives with the most significant impacts for this North London Joint Waste Strategy.

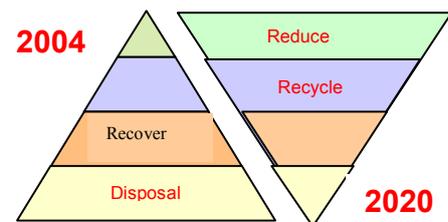


The Waste Framework Directive (2006/12/EC)

The Directive on Waste (Waste Framework Directive) 75/442/EEC was originally published in 1975.¹ Known as the Waste Framework Directive, the Directive establishes a framework for the management of waste across the European Community. It also defines certain terms, such as '**waste**', '**recovery**' and '**disposal**', to ensure that a uniform approach is taken across the EU. The directive establishes the fundamental principles for waste management in Europe, which must be reflected in National, Regional and Local Strategies such as this. The principles of the Waste Framework Directive were also reflected in the national Waste Strategy 2000 (for England and Wales) and its 2007 update, Waste Strategy for England, 2007. The key principles to which Member States are required to adhere are:

1. The Waste Hierarchy

This principle suggests that reducing waste will normally be the best environmental option for waste management and so therefore should be considered before reuse, recycling and composting, energy recovery and finally disposal to landfill. This principle has been employed in the development of this Strategy.



¹ In 2006, however, Directive 75/442/EEC was codified. Codification is a process by which legal texts that have been revised several times are codified into one new text that replaces all the previous versions. No legal or political changes are made to the text during the codification process. The new codified **Waste Framework Directive (Directive 2006/12/EC)** is now the only legally valid version of the Waste Framework Directive and will remain so until the substantive proposal for a revision is adopted.

2. Regional Self-Sufficiency

This principle requires that waste should be dealt with in the region where it arises. Currently all waste that is sent for landfill by the North London Partner Authorities is taken outside of London, and a significant proportion of the recyclable and compostable waste also goes elsewhere. Neighbouring regions have indicated that they will restrict the amount of waste accepted from London during the period of this Strategy. The Mayor of London's spatial strategy for the capital, the London Plan, sets a target of 85% of London's waste being managed in London by 2020 (the figure for municipal waste is 80%). The Mayor of London has also apportioned specific amounts of waste to be managed by each London borough. Collectively the North London Partner Authorities have been tasked with managing within the North London area 69% of the waste that is generated in North London by 2020.

3. The Proximity Principle

This principle requires that waste be treated as close to the point of generation as possible, to minimise the environmental effects of transporting waste. (The interpretation of this principle has now changed slightly within England.)

4. The Polluter Pays Principle

This principle requires that the cost of disposing of waste must be borne by the party generating that waste.

In addition, the Waste Framework Directive requires Member States to:

- ensure that waste is recovered or disposed of without endangering human health and without using processes which could harm the environment
- prohibit the uncontrolled disposal of waste, ensure that waste management activities are permitted (unless specifically exempt)
- establish an integrated and adequate network of disposal installations
- prepare waste management plans
- ensure that the cost of disposal is borne by the waste holder in accordance with the polluter pays principle
- ensure that waste carriers are registered

On 27 May 2003 the European Commission also adopted a Communication "Towards a Thematic Strategy on the Prevention and Recycling of Waste," setting out a wide range of suggestions and ideas for the possible future development of policy on waste in the EC: Towards a Thematic Strategy on the Prevention and Recycling of Waste

The Communication was the first step in the development of a strategy to cover both waste prevention and recycling in Member States.

The Landfill Directive (1999/31/EC)

The Landfill Directive requires improvements to landfill management, bans specified hazardous, corrosive and clinical materials from being landfilled together with other waste, requires the pre-treatment of all waste before landfill and sets progressively tighter limits to restrict the amount of biodegradable waste that can be sent to landfill.

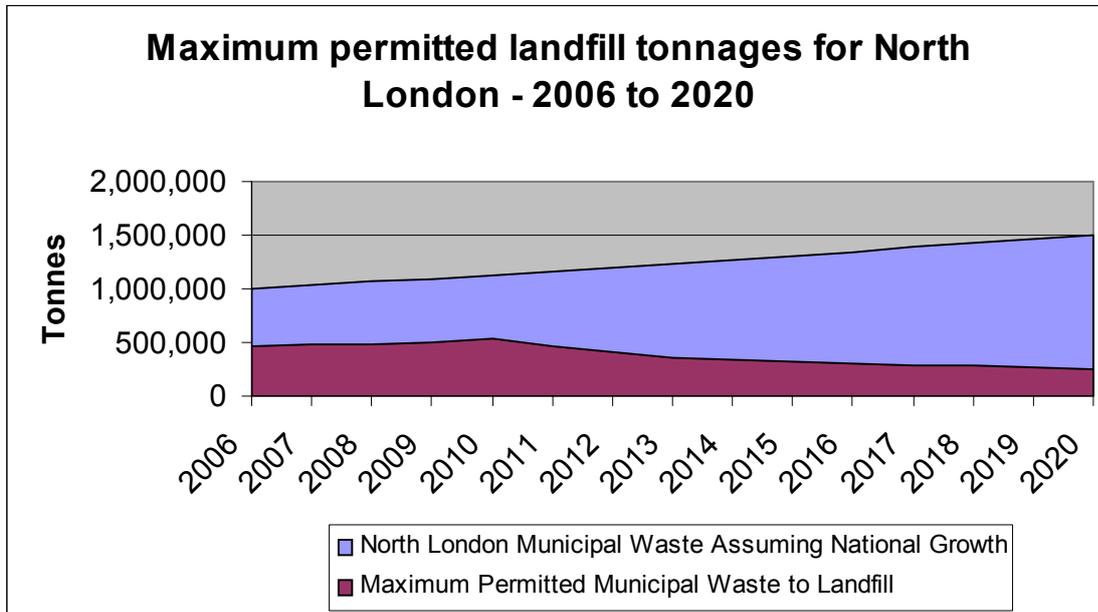
The improvements required to landfill sites used by North London Partner Authorities will result in increased costs of landfill in the medium term. This will make the alternatives to landfill more cost-effective. The bans on certain wastes to landfill are likely to require service changes and therefore increased costs. For example, all waste tyres have been banned from landfill since July 2006.

The Landfill Directive requires that the amount of biodegradable municipal waste sent to landfill is reduced to 75% of 1995 levels by July 2010, by 50% of 1995 levels by July 2013 and by 35% of 1995 levels by July 2020.

The Government has implemented this requirement through the Waste and Emissions Trading Act (2003). This sets Waste Disposal Authorities – such as the North London Waste Authority - annual allowances limiting how much biodegradable municipal waste can be landfilled in any particular year with effect from April 2005.

Subsequently the Government has issued allocations of allowances to waste disposal authorities such as the North London Waste Authority. The targets for diversion from landfill from 2009/10 are calculated from the amounts of biodegradable waste sent to landfill in 1995/96 for the whole of the United Kingdom. If annual targets are exceeded, the North London Waste Authority is able to bank surpluses for future use or trade any excess allowances to other local authorities who may require them. However, carry-over of surplus allowances is not allowed in target years. If the key national annual targets in the target years: 2009/10, 2012/13 and 2019/20 are missed, the Government has proposed to pass on considerable fines from the European Court of Justice to those Waste Disposal Authorities that failed to meet their local targets (which they could have met through actual diversion or the purchase of allowances).

The following graph indicates the landfill allowances that have been allocated to the North London Waste Authority. The graph indicates the significant diversion from landfill necessary over the period of this Strategy, with a probable requirement to reduce the amount of waste sent to landfill from the 2003/04 level of approximately 456,000 tonnes to approximately 247,000 tonnes by 2019/20.



The Waste Electrical and Electronic Equipment Directive (2002/96 /EC)

This Directive sets targets for the collection, recycling and recovery of all electrical products – everything from mobile phones to washing machines.

By July 2007, collection systems had to be introduced to separately collect electrical and electronic appliances for recycling and reuse, with a target of 4 kilogrammes of household electrical and electronic goods to be collected for recycling per head of population per year.

Producer compliance schemes have been formed to help manufacturers and other producers of electrical and electronic equipment to meet their obligations under the Directive and subsequent UK regulations. These producer compliance schemes collect waste electrical and electronic equipment for recycling from registered local authority sites or 'designated collection facilities'. In North London 15 sites have been registered by the North London Waste Authority as designated collection facilities for waste electrical and electronic equipment, and since July 2007 have had relevant categories of waste electrical and electronic equipment collected from them. The costs of collection and recycling are met by the producers of the electrical goods. Retailers and distributors of electrical and electronic equipment also have an obligation under the regulations, and those retailers who have joined the central 'Retailer Take-Back Scheme' have made a financial contribution towards the cost of developing and upgrading the local authority network of collection sites. Those who do not join the retailer take-back scheme must offer 'in-store' take-back as an alternative to directing householders to the local authority network of designated collection facilities.

3.2 National Requirements

Best Value & National Performance Indicators

All the North London Partner Authorities are required under the Local Government Act 1999 to provide “Best Value” services and to secure continuous improvement by regularly reviewing the economics, efficiency and effectiveness of their functions.

The development of this North London Joint Waste Strategy forms part of that review process for the Partner Authorities in that it challenges existing services, compares performance with other authorities, reviews the overall competitiveness of waste services, is developing co-operation between the Partner Authorities and is consulting with stakeholders to determine opinions.

As part of the Best Value framework, the North London Partner Authorities have also had to report annually on a set of ‘Best Value Performance Indicators’ - or BVPIs - and the North London Waste Authority has also had to produce an annual Best Value Performance Plan setting out the performance against the indicators set for the area in the previous year and proposals for the forthcoming year .

From 1st April 2008, a new local authority performance framework came into force for England. This includes a new set of National Indicators for local authorities. From 1st April 2008 there is no longer a requirement to produce an annual ‘Best Value Performance Plan’ but instead to publish progress against the new indicator framework as appropriate. The new set of National Indicators now includes indicators for the amount of residual waste per person and for the carbon dioxide impact of waste activities, recognising the impact that the management of waste can have upon climate change.

Waste Strategy for England 2007

The Government produced a National Waste Strategy for England and Wales in May 2000, setting out its vision and the actions necessary for making waste management more sustainable, and thereby meeting the requirements of the European Framework Directive on Waste. The Strategy was reviewed and revised and a new Waste Strategy for England was published in 2007.

The Waste Strategy for England 2007 sets new national targets for household waste recycling and composting and for the first time includes reuse within the targets. It also sets national targets for the amount of residual household waste per person not composted, recycled or reused, and sets new higher targets for municipal waste recovery (i.e. recycling and recovery of energy from waste).

The new national targets have not yet been translated into local statutory targets, but the table below shows the difference between the Waste Strategy 2000 and Waste Strategy for England 2007 targets and the targets and performance in North London.

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New Targets for Household Waste Reuse, Recycling and Composting for England and North London's Performance

Year	Waste Strategy 2000 target for % of household waste recycled and composted	Waste Strategy 2007 target for % of household waste reused, recycled and composted	North London Joint Waste Strategy target for % of household waste recycled and composted	North London actual % of household waste recycled and composted 2006/07
2006/07				22.82%
2010	30%	At least 40%	35%	
2015	33%	45%	45%	
2020		50%	50%	

The Strategy sets national targets to recycle, compost or reuse at least 40% of Household Waste by 2010, 45% by 2015 and 50% by 2020, with the further targets to recover value (reuse, recycle, compost or use to generate energy) from 53% of municipal waste by 2010, 67% by 2015 and 75% by 2020. In North London the 2006/07 recovery performance was 39.8%.

The new national targets for the amount of household waste not reused, recycled or composted are also set out below.

New Targets to Reduce the Amount of Household Waste not Reused, Recycled or Composted for England

Year		Waste Strategy 2007 performance and targets for the amount of household waste not reused, recycled or composted (in million tonnes)	Waste Strategy 2007 performance and targets for the amount of household waste not reused, recycled or composted (in equivalent kg/person)	North London actual amount of household waste not reused, recycled or composted (in equivalent kg/person)
2000	Actual	22.2	450	
2001	Actual			475
2005	Actual	18.6	370	381
2006	Actual			358
2010	Target	15.8	310	
2015	Target	14.3	270	
2020	Target	12.2	225	

Note: National performance and targets are for calendar years; North London performance is for financial years (so 2005 = financial year 2005/06)

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As noted above the Government has not yet translated the above targets into the new National Indicators to set individual performance standards for all local authorities to enable the national targets to be met. However, the last set of targets that were issued locally is outlined below:

Partner Authority	2003 / 2004 Minimum Recycling and Composting	2005 / 2006 Minimum Recycling and Composting
London Borough of Barnet	18%	27%
London Borough of Camden	22%	33%
London Borough of Enfield	18%	27%
London Borough of Hackney	10%	18%
London Borough of Haringey	10%	18%
London Borough of Islington	10%	18%
London Borough of Waltham Forest	12%	18%
North London Waste Authority	12%	18%

In order for North London to meet all the targets set in Waste Strategy for England 2007 and this joint Strategy, it is anticipated that both the North London boroughs and the North London Waste Authority will need to increase recycling and composting, i.e. it is not anticipated that the targets will be achieved through kerbside recycling and organic waste collections and composting alone, but that additional recycling and recovery of the residual fractions remaining after kerbside recycling and composting has taken place will also be required.

The Waste and Resources Action Programme (WRAP)

The previous Waste Strategy for England and Wales - Waste Strategy 2000 also established WRAP – the Waste and Resources Action Programme – to help develop end-markets for reuse and recycling of rubbish. Initially WRAP worked to improve specifications and to develop standards for specific recycled materials and to intervene in the market where necessary to develop new infrastructure. They have since been given a much larger role in assisting the Government to deliver change in the country's waste management practices.

Landfill Tax

Landfill Tax is a tax payable for each tonne of waste sent to landfill and was introduced by the Government in 1996 as a way of encouraging a more sustainable means of waste management through recognising the hidden financial effects of the environmental impact of landfill. There are two rates of tax, a lower rate for inactive waste and a higher rate for active waste (i.e. waste with some biodegradable content).

A proportion of the funding raised through the Landfill Tax is directed back into the Landfill Tax Credit Scheme, by which Landfill Companies can fund local community and environmental projects designed to lessen the effect of landfill sites on local communities. Some of the money raised is also used centrally by Government to fund national research projects on waste, WRAP and the Business Resource and Efficiency and Waste (BREW) programme which aims to improve businesses' waste performance in terms of reduction, reuse and recycling and diversion of waste from landfill.

When the Landfill Tax was first introduced in 1996, it was set at a rate of £7 per tonne for 'active' waste and £2 per tonne for 'inert' material. In 1999 the Government increased the active rate of Landfill Tax to £10 per tonne, with a further £1 per tonne increase per year until 2004/2005. In the 2003 Budget, the Government announced that the active rate of Landfill Tax would increase by £3 per tonne each year from 2005/2006 to a long-term rate of £35 per tonne. The inert rate of Landfill Tax was to remain constant at £2 per tonne. However, during 2007 the Government announced further increases from the prevailing rate of £24 per tonne (active) and £2 (inert) in 2007/2008 to £32 and £2.50 respectively in 2008/2009, £40 and £2.50 in 2009/2010 and £48 and £2.50 in 2010/2011.

The direct cost of landfilling waste is also increasing beyond the rate of inflation, as landfill site operators are being required to meet higher environmental standards. The requirement to "treat" waste before it is landfilled which was introduced in October 2007 has also pushed costs up further for commercial and industrial waste. Waste is deemed to have been 'treated' if a separate recycling service is also provided, i.e. the waste has been physically separated into separate recyclable and landfill fractions. In general terms, however, it is not difficult to see that the increases in Landfill Tax coupled with the above will cause significant increases in waste disposal costs and will provide a considerable further incentive to move to alternative more sustainable means of waste treatment in the near future.

Strategy Unit Report “Waste Not, Want Not” (2002)

The Prime Minister’s Strategy Unit reviewed progress towards the targets set within Waste Strategy 2000 in a report produced in November 2002. The report suggested that Waste Strategy 2000 may not be sufficient to move waste onto a more sustainable footing and gave 34 recommendations, including raising the national recycling and composting standard to 35% by 2010 and 45% by 2015, to ensure the United Kingdom’s compliance with the requirements of the Landfill Directive. In response to the “Waste Not, Want Not” report, the Government introduced the Waste Implementation Programme to address the recommendations made by the Strategy Unit and subsequently produced Waste Strategy for England 2007, as noted above.

3.3 Regional Requirements

The Mayor’s Municipal Waste Management Strategy (Mayor’s Strategy)

In 1999, the Greater London Authority Act established the Greater London Authority and required the Mayor of London to prepare a Municipal Waste Management Strategy for London consistent with Waste Strategy 2000. The Greater London Authority Act 1999 required the North London Partner Authorities to have regard to the Mayor’s Strategy, which was published in September 2003.

The Mayor has the following powers within the Greater London Authority Act 1999 under section 356(1).

“Where the Mayor considers that it is necessary for the purposes of the implementation of the municipal waste management strategy, he may give to a waste collection authority in Greater London, or a waste disposal authority in Greater London, a direction requiring the authority to exercise a function in a manner specified in the direction.”

These powers may be directed either generally or specifically, but only after consultation with the authority concerned. Where the Mayor gives an authority a direction, the authority is required to comply with the Direction under the Greater London Authority Act section 356 (5). The Mayor’s Municipal Waste Management Strategy contains 44 policies and 101 proposals.

The Greater London Authority Act 2007 further enhanced the Mayor of London’s powers in relation to waste planning in particular, and additionally made it a requirement that London’s waste authorities should act ‘in general conformity’ with the Mayor of London’s Municipal Waste Management Strategy so long as doing so does not impose excessive additional costs on the local authority(ies) concerned. This further review of the North London Joint Waste Strategy takes this requirement into account.

Requirements in relation to Joint Waste Strategies

Policy 44 of the Mayor's Strategy states: "The Mayor seeks that all two-tier waste authorities in London have a joint municipal waste management strategy, in line with the Government Guidance. This must demonstrate how they will work together to deliver the Mayor's Strategy in their area."

Proposal 101 of the Mayor's Strategy states: "The four statutory joint waste disposal authorities should each have a joint strategy that covers their own area..." and requires that these joint strategies "...should be presented to the Mayor for consideration within 12 months of the final publication of the Mayor's Strategy."

3.A This North London Joint Waste Strategy is prepared in line with the Government Guidance on Municipal Waste Management Strategies (2001) and the Waste Strategy for England 2007, and indicates how the North London Partner Authorities will implement the relevant policies and proposals within the Mayor's Municipal Waste Management Strategy.

Requirements in relation to Contracts

The Mayor has powers to review waste contracts and to ensure that the North London Partner Authorities act in accordance with the Mayor's Strategy under the Greater London Authority Act.

3.B The North London Partner Authorities will continue to co-operate with the Mayor's statutory contractual requirements and will develop contracts in line with this North London Joint Waste Strategy, which in turn will reflect the Mayor's Municipal Waste Management Strategy.

Requirements in relation to Best Value

The Mayor of London is seeking to influence the Partner Authorities' Best Value reviews of waste services, to fully incorporate sustainability in the reviews and to ensure that contracts allow for the results of these reviews to improve services. The strategic environmental assessment of the North London Joint Waste Strategy undertaken in 2007/08, which is outlined in Chapter 6, takes a wider range of sustainability issues and indicators into account in its assessment of the North London Joint Waste Strategy.

3.C The North London Partner Authorities will continue to seek to co-operate with the Mayor of London in relation to Best Value reviews of Waste Services.

Requirements in relation to Waste Information

The Partner Authorities already return annual information to a national central information resource (WasteDataFlow) and to a regional resource which is available to all (www.capitalwastefacts.com), and have assisted the Mayor in conducting some provisional waste composition analyses. The Mayor is seeking that the Partner Authorities advise on factors affecting waste generation and is reviewing the performance of reuse and recycling centres to assess what impact improved performance of these sites might have upon overall recycling and recovery rates.

3.D The North London Partner Authorities will continue to seek to co-operate with the Mayor of London through providing waste information where required and by using useful waste information where this is provided by the Mayor of London to plan waste services.

Other relevant policies and proposals from the Mayor's Strategy are addressed as they arise in the rest of the text.

3.4 Planning Requirements

The North London Boroughs (but not the North London Waste Authority) are Waste Planning Authorities with responsibility for producing Local Development Frameworks for land use in their areas. It is a statutory requirement for each North London Borough to include planning policies for waste management within their new Local Development Frameworks. Government guidance advocates separating waste issues into a stand-alone Development Plan Document, and the North London Boroughs have started work on a Joint Development Plan Document called the North London Waste Plan. This plan will establish the land-use planning framework for waste facilities across North London until 2020.

The Government has produced Planning Policy Statement Number 10 (PPS10) which provides guidance for authorities in setting out the land use requirements for waste of all types – not just Municipal Waste - that should be addressed within their plans.

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The Mayor of London has also produced a Spatial Development Strategy – the London Plan (consolidated with alterations since 2004) – that Waste Planning Authorities must also have regard to when developing their new Local Development Frameworks and Waste Development Plan documents. As previously mentioned, the London Plan apportions a certain amount of waste to each London borough for which it is required to plan.

The London Plan divides the North London Partner Authorities into two administrative sub-regions in relation to the London Plan, with all the North London Waste Authority area boroughs in the 'North' sub-region along with Westminster, with the exception of Waltham Forest which is in the 'North East' sub-region. Whilst this approach may have some advantages for other disciplines, such as housing, the North London Partner Authorities see benefit in developing a strategic approach to the planning of waste facilities that is in line with this North London Joint Waste Strategy and accordingly have agreed to sharing the apportionment targets collectively, rather than meeting them as individual authorities.

The North London Partner Authorities need to ensure that sufficient waste facilities are provided within their areas to address the requirements identified within this Strategy. Consequently, the seven Boroughs in the North London Waste Authority consider that the preparation of a joint Waste Development Plan Document is the best way forward in planning terms for meeting the aims of the Joint Waste Strategy. After several stages of public consultation the plan will undergo an Examination in Public, (the new name for a Public Enquiry), prior to adoption. When it has been approved, all North London Partner Boroughs will adopt the North London Waste Plan within their Local Development Frameworks.

3.E The North London Partner Authorities will develop and approve a joint Waste Development Plan Document.

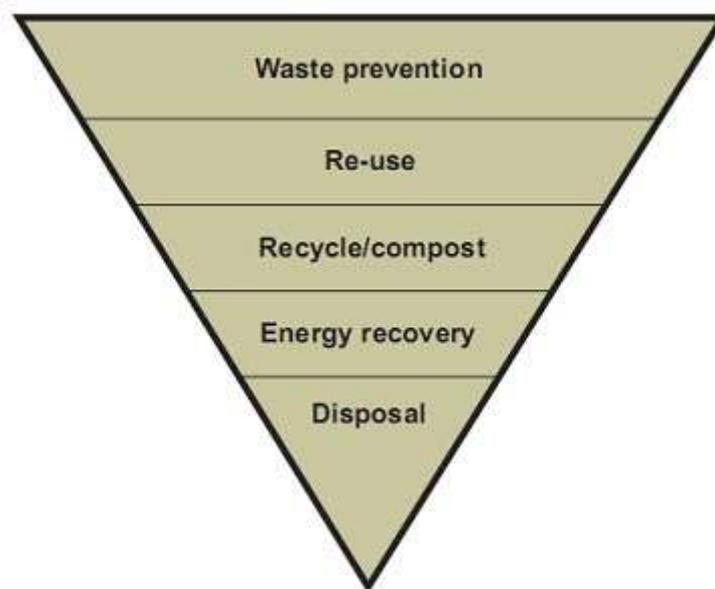
Chapter 4 – Waste Hierarchy Options

The 'Waste Hierarchy' has for some time provided the framework for managing waste both locally and nationally and at a European level. The hierarchy provides a range of options that the Partner Authorities can employ for managing waste, and the North London Joint Waste Strategy outlines how the Partner Authorities are seeking to move waste up the hierarchy. In this way a significant reduction in the amount of waste requiring disposal to landfill will be achieved in the period of this Strategy.

However, whilst recent studies, as noted in the national Waste Strategy for England 2007, have confirmed that the waste hierarchy remains a good general guide to the relative environmental benefits of different waste management options, the Waste Strategy for England 2007 also notes that there will be exceptions to this for particular materials and in particular circumstances. So, Waste Strategy for England 2007 recommends that the use of the waste hierarchy should also be informed by life-cycle thinking and the broader sustainable consumption and production agenda. This thinking also needs to be taken into account in the implementation of the North London Joint Waste Strategy.

North London Waste Treatment Option Hierarchy

The Waste Hierarchy



* Source: Waste Strategy for England, 2007

4.1 Waste Prevention

Waste prevention is here taken to mean any action that prevents waste requiring collection and disposal by the Partner Authorities. Waste prevention therefore includes waste avoidance (action to limit waste from products at source), waste reduction (avoiding unnecessary waste arising through consumer choice and control of services), reuse of waste (through repair and refurbishment, for example), together with home and community composting.

Waste prevention activities tend to be expensive, initially have low outputs and have to compete for Partner Authority funds against services with statutory requirements like recycling. But it is the collective effects of all waste prevention activities in North London that will determine whether waste is controlled or continues to increase at the current rate over the period of this Strategy. Government incentives to the Partner Authorities to invest in waste prevention are principally the Landfill Tax and the new default mechanism for apportioning the North London Waste Authority's levy across the North London Boroughs which means over time that delivering less waste means the relevant Borough pays a lower proportion of the North London Waste Authority's net costs

4.A The Partner Authorities 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.

4.1.1 Waste Avoidance

Waste avoidance – action taken by designers, manufacturers and retailers of products to eliminate waste - appears at the very top of the waste hierarchy, as it is always the best environmental option.

European legislation is incrementally incorporating 'producer responsibility' requirements to eliminate waste during the design, manufacture, use and disposal of products and these now extend to packaging, waste electrical and electronic equipment and motor vehicles. These requirements are already having a considerable impact, for example on packaging, where packaging weight has significantly reduced in the recent past. However, residents, businesses and communities are generally unaware of these requirements and often approach the Partner Authorities to ask how best to ensure that manufacturers produce less waste at the outset.

In the past, several North London Boroughs have actively supported Waste Watch Business Networks in their areas. These were networks in which local businesses came together to consider what actions they can take to prevent waste arising and thereby make efficiencies and savings. Elsewhere, the Partner Authorities have supported Middlesex University's Centre for Business and the Environment and Waste Buster campaigns. It is proposed that the Partner Authorities actively support a network of business forums focusing on waste prevention across North London throughout the period of this Strategy.

The North London Boroughs also have specific powers under the Packaging (Essential Requirements) Regulations 2003 and 2007, which require that local manufacturers of packaging ensure that "all packaging shall be so manufactured that the packaging volume and weight be limited to the minimum adequate amount to maintain the necessary level of safety, hygiene and acceptance for the packed product and for the consumer".

Local Trading Standards services can therefore take action against any North London manufacturer believed to be guilty of over-packaging goods. In reality, very few complaints are received because there are few examples where the complainant is able to establish the manufacturer of an over-packaged product and limited resources are available to conduct pro-active monitoring of compliance with the regulations.

As this is another significant area where the Partner Authorities can contribute to waste prevention, external funding for an integrated North London approach to educating local packaging manufacturers about the requirements of the Regulations is proposed.

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.

4.1.2 Waste Reduction

Waste reduction is here taken to involve action taken by consumers to avoid waste and by local authorities to discourage waste generation through controlling how waste services are accessed.

4.1.2 (i) Consumer Campaigns

The Partner Authorities have powers under the Waste Minimisation Act 1998 to take any reasonable action to minimise waste provided that other relevant authorities are consulted about the proposed action.

Waste reduction activity taken by the Partner Authorities in the past has included a highly commended 'Wipe Out Waste!' campaign conducted by the London Borough of Enfield. Residents were encouraged to join the campaign to receive a pack of leaflets that showed how to reduce waste at home, by accessing local services that avoided waste, and by shopping carefully.

Stickers were provided to discourage leafleting and unwanted free newspapers and to encourage residents to use the Mailing Preference Service, which stops junk mail being sent to residents in the post. The overall campaign, which included other waste minimisation activities, enabled some residents to cut their waste in half.

These services are expensive for individual Partner Authorities to provide but are a crucial activity if waste generation is to be controlled. It is therefore proposed that the Partner Authorities seek external funding to introduce a waste reduction public awareness campaign across North London throughout the period of this Strategy.

Any such campaign will need to take account of the needs of particular equality target groups and to ensure that feedback is obtained as to the success of any waste prevention activities that result. The Waste and Resources Action Programme's (WRAP's) various guidance documents and web-based support on effective communication provide useful advice and case studies which will be referenced in developing a campaign.

4.1.2 (ii) Controlling access to Waste Services

Local Authorities can also control the amount of waste arising through providing waste services that limit the amount of waste that residents and businesses can throw away. For example, introducing a wheeled bin collection may have advantages in terms of reducing street litter, but is also thought to lead to increases in the amounts of waste collected per household, although if integrated with effective recycling services these increases may be minimised or avoided.

All Partner Boroughs with Reuse and Recycling Centres have taken action to discourage their misuse by local commercial traders by instituting rigorous checks to ensure that only waste from households was accepted and height barriers to discourage commercial vehicles. These changes have significantly reduced the amount of waste arising at some sites.

Working together to achieve statutory recycling and composting targets has focused the Partner Authorities on the possible additional waste that may result from introducing some waste services. By sharing good practice, the Partner Authorities are improving the integration of services in an attempt to reduce waste.

4.1.2 (iii) Charging for Waste Services

Household waste disposal is paid by the North London Boroughs through the North London Waste Authority levy, i.e. the North London Waste Authority pays for the costs of disposal and then passes the cost back to the Boroughs through a levy. Previously the Boroughs' share of the levy was based upon the number of Band D-equivalent Council Tax properties that each Borough had as a proportion of the total Council Tax-base of residential properties in North London. This meant that there was little incentive for waste reduction as each Borough's levy was pegged to the number of household types that it had in its borough rather than to the tonnes of waste it collected and delivered for disposal.

Whilst the Partner Authorities recognised the advantages of moving to a tonnage based levy, they did not however agree unanimously on a method to do so, and the impact on some of the Partner Authorities of a move was considered financially unacceptable. Accordingly, the North London Waste Authority lobbied for a change in legislation to require a tonnage-based levy, and the Mayor of London also supported such a move within his Municipal Waste Management Strategy.

New legislation was successfully introduced in 2006 to require authorities such as the North London Waste Authority to move to a tonnage-based levy over a three-year period. This move allowed the change to have due regard to the financial impact on each Partner Authority and put appropriate transitional arrangements in place to reduce this impact. From 1st April 2008, the tonnage-based levy arrangements came into full force in North London.

The Mayor of London's Municipal Waste Management Strategy suggests that providing financial or other incentives to householders for recycling more, or rebates from council tax payments to residents for reducing the amount of waste presented for collection are the best way to increase recycling and introduce a "polluter pays" principle to waste management in London. The Partner Authorities are keen to consider the opportunities offered by rebate and incentive systems during the implementation of this Strategy. In 2006 one of the Partner Authorities, Haringey, was involved in a Department for Environment Food and Rural Affairs funded trial investigating the impact of incentive schemes for recycling, both individual and community-based incentives.

The United Kingdom is currently the only European Union country where direct charging for the amount of waste generated by householders is outlawed. Instead, residents are charged a flat rate through the Council Tax for waste and recycling which bears no relation to the amount of waste they generate and provides no incentive to reduce waste. Whilst the difficulties of introducing direct charging for waste are not to be underestimated: consideration would be required to assess the potential effect that such a move could have on different groups and the need for direct charging is not yet fully demonstrated; however, the Partner Authorities accept that this may be necessary in the long term if the increase in waste growth is to be controlled. In the event that such schemes were introduced it would be necessary to undertake an Equalities Impact Assessment on them.

Similarly, the move to increasing separation of waste streams to reduce their environmental impact and / or facilitate their reuse, recycling or recovery may mean that differential charging for different waste streams is increasingly necessary. For example, a financial incentive, the Biodegradable Incentive Payment Scheme, to the Partner Authorities has been introduced from 1st April 2006 to encourage a further move of biodegradable municipal waste away from disposal, e.g. through greater use of composting and recycling. The Partner Authorities will also review the need for direct and differential charging for waste during the period of this Strategy.

- 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.
- 4.B2 The Partner Authorities will share good practice on waste prevention activities and will have regard to the effects on waste arising when introducing new waste services.
- 4.B3 The Partner Authorities support a move to a tonnage-based levy system provided the transitional financial impact on Partner Authorities is minimised. [Please note that since the publication of the original North London Joint Waste Strategy this has now happened, as noted above.]
- 4.B4 The Partner Authorities will consider the opportunities presented by offering incentives and rebates to residents for reducing waste and will review the need for direct and differential charging for waste during the implementation of this Strategy.

4.1.3 Waste Reuse

Waste reuse is here taken to mean the repair, refurbishment or other reuse of materials that have become waste such that they do not require immediate recycling, recovery or disposal. Waste reuse therefore either reduces or delays waste generation but does not necessarily prevent waste in all cases, and is therefore lower in the waste hierarchy than waste prevention and reduction.

Reuse is usually more expensive than waste recycling or disposal but offers other benefits that may more than offset the hidden costs of managing waste. The Community Sector has a crucial role to play in waste reuse, often providing specialist knowledge of particular waste streams and making connections that enable social benefits as well as environmental benefits to arise.

The Government has considered Best Value Performance Indicator proposals for reuse, and has concluded that it is best to measure and set targets to reduce the amount of waste not reused, recycled or composted, largely because this can be measured. The tonnage-based levy referred to above now means that all Partner Authorities can see direct financial benefits from reuse services and can therefore assess the business case for specific proposals or projects.

The Partner Authorities were awarded £72,000 from the London Recycling Fund to introduce a collection of reusable furniture and waste electrical and electronic goods from all North London Reuse and Recycling Centres in January 2003. The service, which was provided by Restore Community Projects, is expected to divert 150 tonnes of waste to benefit over 1,400 individuals with social needs in North London. The North London Waste Authority supported a successful bid by Restore Community Projects to the Community Recycling and Economic Development Fund to expand and extend the collections until December 2005. Subsequently, the North London Waste Authority has supported a research project to investigate how best to expand Restore's services still further in North London. The work includes the potential for establishing more formal relationships, Service Level Agreements, between Restore and the individual North London Boroughs, as well as the opportunity to find new outlets for the material collected.

The London Borough of Camden and the North London Waste Authority supported a pilot nappy reuse collection service programme in the London Borough of Camden, aimed at encouraging up to 1,000 residents to begin using nappy washing services as an alternative to disposable nappies, which constitute approximately 2% of all rubbish collected directly from households. The pilot offered a £35 subsidy for each participant towards the cost of purchasing a start-up kit of reusable nappies. Following the completion of the pilot, the subsidy was extended across North London and the Authority now provides a one-off £54.15 cash-back incentive per child to parents who are washing reusable nappies at home (or an equivalent contribution towards the cost of a local laundry service), or alternatively a redeemable voucher to the value of £54.15 for parents living in those boroughs participating in the pan-London *Real Nappies for London* scheme.

The Partner Authorities were awarded £21,000 by the London Recycling Fund to develop best practice working with North London charity shops and to encourage the claiming of third party reuse "credits" equivalent to the deferred cost of disposal for each tonne of textiles reused by participating charity shops. The project identified the best way for the Partner Authorities and Charity Shops to provide consistent messages to the public, the need to avoid duplicating reuse and recycling services, and the need to improve understanding of waste legislation in this sector. The Authority subsequently introduced paying 'reuse' credits to third parties across North London from 1st April 2007.

In communicating the opportunities for residents to take part in reuse, .e.g. the opportunity to receive a voucher or cash back on the cost of reusable nappies, the Partner Authorities recognise that it is important to ensure that information and communication materials are tailored to the audience. It is recognised that it may be necessary for campaigns to be targeted to the needs of particular equality groups.

- 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.
- 4.C2 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.

4.1.4 Home Composting

Home composting is where residents collect biodegradable garden waste and kitchen scraps and use compost heaps or purpose built “bins” to break these down in their gardens to a compost which can then be used as a soil improver. Home composting is the most sustainable way to manage biodegradable waste as it is managed by the resident at source, therefore avoiding the need for collection vehicles to pick up the material; it never becomes waste and forms a usable product that is a useful alternative to peat, the extraction of which is causing habitat destruction in many parts of the world. There are estimated to be approximately 330,000 gardens in North London. In 2004 it was estimated that only 7% of North London residents with gardens composted at home; this figure has now (2007) risen to 10.9% (based on 35,845 home composters and wormeries having been distributed in North London up to the end of financial year 2006/07). Home composting has probably declined due to a reduction in garden sizes, increased use of peat, concerns about pests, and the use of gardens as outside rooms rather than places for growing plants and vegetables.

The Government has decided that the difficulty in measuring home composting means it cannot directly contribute to the achievement of statutory composting standards. Nevertheless, all the Partner Authorities offer residents purpose-built compost bins either free of charge or at a subsidised rate. Around 25,000 compost bins have been provided to residents by the Partner Authorities.

Increasing the number of residents home composting is a crucial target for North London because organic waste makes up some 37% of all household waste in North London (according to the 2003/04 survey) and if more residents do not compost at home, collections of biodegradable waste for composting could initially increase the amount of waste arising in the municipal waste stream. It is anticipated that by increasing the proportion of residents composting at home from the 2004 7% figure to 25%, up to 40,000 tonnes of waste could be diverted from collection each year by the year 2015.

A concerted and on-going home composting promotional campaign is therefore required in North London. As the North London region varies considerably in the proportion and types of gardens, the North London Boroughs will continue to provide these campaigns tailored to their local residents’ needs, but these services will be co-ordinated to share best practice across North London and to obtain economies of scale, for example, by joint purchasing of compost bins.

Early in 2004 the North London Waste Authority successfully acted as a lead authority in bidding to the London Recycling Fund for the North London Integrated Compost Project. This secured £4m for relevant Partners and included some £120,000 for a 'Master Composter' project to be delivered by the London Community Recycling Network to promote home and community composting in North London. Although this project funding has come to an end, some of the Partner Authorities continue to support local 'Master Composter' schemes where resident volunteers become home compost experts who can promote the benefits of home composting and support their neighbours in doing the same.

- 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.

4.1.5 Community Composting

Over half of households (approximately 370,000 properties) in North London do not have access to a garden, and many other residents do not wish to compost at home. Community-based compost projects, where biodegradable kitchen waste is collected for composting in local parks or communal areas, therefore offer a sustainable alternative to home composting. Community composting schemes potentially also help to ensure that composting services and facilities are accessible to all sectors of the community, taking account of language, cultural differences and the ability to access sites by public transport, because community composting schemes can be very localised, e.g. on an individual housing estate. Coupled with appropriately targeted communication strategies, such schemes can help to encourage uptake of composting amongst communities which are poorer than the average and/or without gardens.

The Government has decided that such collections can contribute to statutory composting standards, and therefore the Partner Authorities consider encouraging community composting to be a key strategic opportunity. There are 21 known community composting operations active in North London. (These are detailed in Appendix 8.) Some of these take green waste from householders and other municipal sources and one has begun trial collections of biodegradable household kitchen waste.

The outbreak of foot and mouth disease in 2001 led the Government to amend the Animal By-Products Order of 1999 and introduce new regulations in July 2003. These require the treatment of all waste either containing animal by-products, or potentially to have come into contact with animal by-products (e.g. in a kitchen) before these can be used on land where animals may be infected by any disease within the waste. The regulations have effectively banned open composting of animal by-products, requiring instead that such wastes be composted in containers or special enclosed facilities - or "in-vessel" - at specified minimum temperatures and in specified ways.

The Partner Authorities will need to collect and compost biodegradable materials including animal by-products in order to meet higher recycling standards. These regulations will therefore inevitably increase the costs of compost treatment significantly for the Partner Authorities.

The Partner Authorities recognise community composting as a fundamental part of the successful implementation of this Strategy and will work with community groups to increase capacity of this treatment option within North London throughout the period of this Strategy. An immediate way of doing this identified in 2004 was through the Environmental Protection (Waste Recycling Payments) Regulations (1992), which allow payments to third parties for delivery of recycling or composting services equivalent to the tonnages diverted from landfill, and such a scheme is now in place. A further way is to identify the capital investment needed to increase capacity and to support bids to external funding sources to provide this capacity.

As noted above at 4.1.4, the North London Waste Authority successfully secured from the London Recycling Fund some £120,000 for a 'Master Composter' project to be delivered by the London Community Recycling Network to promote home and community composting in North London, and has also made recycling credit payments for tonnages diverted from disposal via 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.

4.1.6 Overall effect of Waste Prevention Activities

It is difficult to estimate the potential contribution of waste prevention activities due to the dependence upon the success of the Partner Authorities, Government and other agencies in persuading residents, businesses and communities to take action.

The Prime Minister's Strategy Unit considered that the combination of waste minimisation activities proposed in the "Waste Not, Want Not" Report (home composting, nappy reuse, consumer waste reduction and other research and development) would enable a reduction from a baseline 3% growth in household waste to a 2% level from 2005/06. The National Resource and Waste Forum toolkit on waste prevention estimates that an overall 3% to 7.5% reduction in waste can be achieved by implementing a combination of measures including action on unwanted mail, home and community composting, home and community reuse schemes, promoting the replacement of goods with services and encouragement of reusable nappies. However, it is likely that, if direct charging for waste is not introduced, the effects of producer responsibility will have the greatest external effect on minimising waste in North London during the period of this Strategy.

The Partner Authorities consider the maximum potential annual contribution of the waste prevention activities that they will undertake directly in the period of this Strategy to be as indicated in the table below. This estimated contribution is optimistic in that it relies upon considerable goodwill by North London stakeholders, but is also considered to be realistic in terms of the potential of the waste minimisation options available and the likely increasing impact that these may have.

Whilst the total estimated contribution may be small in relation to the projected total municipal waste levels in 2020 of up to 1.5 million tonnes (if waste grows as outlined in Chapter 2), the effect is still significant in reducing the numbers of waste services and facilities that would be required by the Partner Authorities.

Potential Contribution of Waste Minimisation Activities in North London

Waste Minimisation option	North London		Maximum diversion per year (2020)
	Targeted waste stream	Approximate targeted tonnage (2020)	
Waste Prevention	All Business and Packaging Waste	As yet un-quantified	5 - 10,000 tonnes
Waste Reduction	All municipal waste	1.45 million tonnes	5 - 10,000 tonnes
Waste Reuse	Reusable waste and nappies	(4% of all household waste) 50,000 tonnes	5 - 10,000 tonnes
Home and Community Composting	Garden waste and kitchen vegetable scraps	(22% of household waste) 250,000 tonnes	25 - 50,000 tonnes
Waste Minimisation Estimated Total			40 - 80,000 tonnes

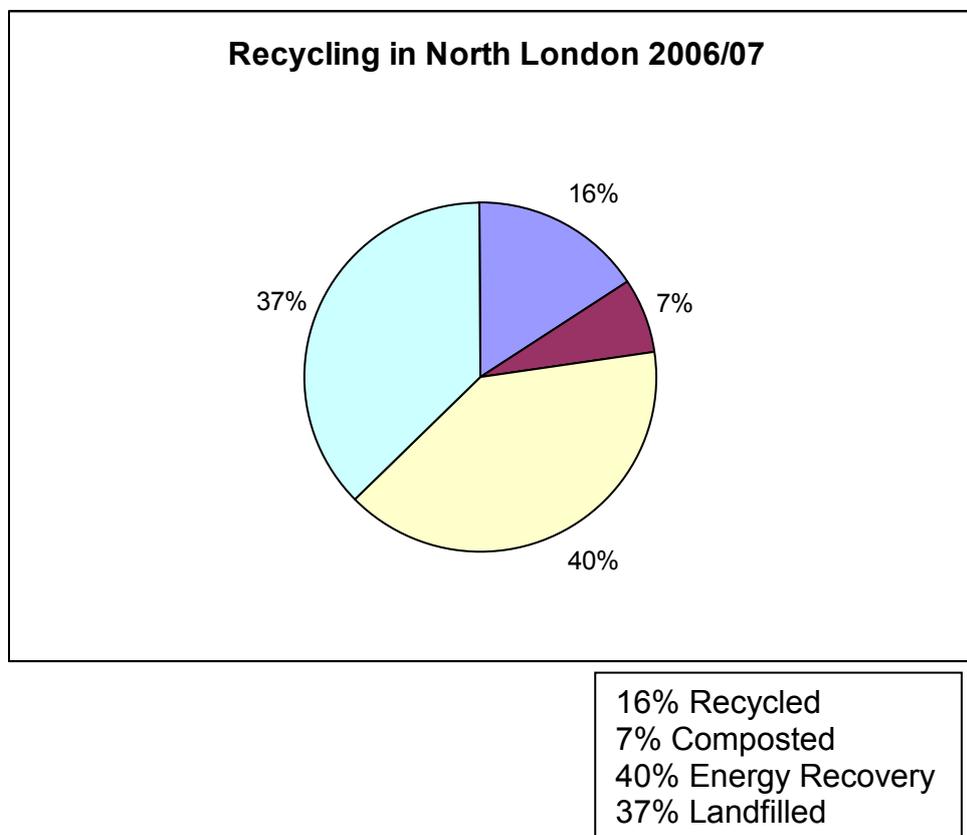
The waste prevention actions proposed are considered essential to give comfort to the Partner Authorities that municipal waste growth will indeed fall from the historic 3% level to the 2.5% level recommended by the Prime Minister's Strategy Unit, and projected within this Strategy from 2010/11. This is equivalent to a reduction from 3% growth levels of approximately 5,000 tonnes in 2010 to 80,000 tonnes by 2020. The Mayor of London's Municipal Waste Management Strategy notes that since 1996/97 London's municipal waste has grown by just over three percent per year and looking back, at less accurate data, to 1986 the growth rate has been about two and a half percent.

The Partner Authorities' active work on waste prevention will also contribute to reducing environmental and climate impacts, and to reducing the amount of residual waste in pursuit of national targets.

4.2 Waste Management

Once all waste prevention activity has been undertaken, the Partner Authorities are then presented with waste to manage. The waste hierarchy suggests that recycling and composting should be considered before treatment of waste to recover energy. Finally, any residual waste must be landfilled.

A total of about 776,728 tonnes of household waste needed to be managed in 2006/07, and 22.82% of this was recycled or composted.



Note: figures are rounded upwards to the nearest 1% in the diagram above.

4.2.1 Recycling and Centralised Composting

Recycling involves the reprocessing of waste into new products. Recycling is beneficial when it reduces the amounts of raw materials and energy required in the manufacture of new products, but it also prevents waste from requiring energy recovery or taking up space in diminishing landfill.

Centralised composting involves the collection of biodegradable (organic) kitchen and garden waste for composting in a centralised facility rather than within residents' gardens or at a local community composting site.

Waste for recycling is collected by the Partner Authorities in four main ways; through bottle banks and other on-street "bring" systems, at Reuse and Recycling Centres, direct from households via door-to-door services or from properties of multiple occupancy. Some material may also be extracted for recycling from an energy recovery incineration process, e.g. metal may be extracted from the ash that remains after incineration, but this does not count towards statutory recycling targets.

Waste for centralised composting is either collected door-to-door from residents as kitchen and/or garden waste, or from parks and streets as leaf litter.

In providing all these services the Partner Authorities recognise the need, as outlined in the strategic environmental assessment environmental report, for the needs of disadvantaged and hard to reach groups within the community to be fully taken into account and for equality issues to be considered.

The following sections provide details of the Partner Authorities' objectives in terms of provision of services to all sections of the community taking account of the needs of different sectors of the community and in particular that groups who may be disadvantaged by the provision of services are targeted.

4.2.1 (i) "Bring" Recycling Collection Systems

"Bring" systems are the collective name for recycling services that require residents to bring waste to local collection points – typically a series of large banks or smaller wheeled bins, (typically collecting paper, glass, cans and sometimes textiles or other materials, such as laminated drinks carton such as those produced by Tetrapak), located in convenient places such as shopping parades, at transport connections, in car parks and at public buildings including schools.

All the North London Boroughs have extensive bring services, with a total of nearly 400 sites across the North London area. This is equivalent to about one site per 2,000 households. In 2006/07 approximately 19,000 tonnes were collected for recycling through bring systems in North London. This contributed almost a quarter of all tonnages collected. The greatest part, 9,000 tonnes, was paper, and a further 6,000 tonnes was glass.

Some of the London Boroughs have also developed guidance within their existing Unitary Development Plans as to what bring recycling services should be provided within new property developments. All North London Boroughs also offer bring collection systems for schools, which assists in getting the recycling message across to the young.

The Mayor of London's Municipal Waste Management Strategy requires that an extensive, well-distributed and full range of recycling banks be provided. It also specifies a ratio of one site per 500 households for multiple occupancy properties not served by doorstep collection of recyclables. (Note that the definition of 'kerbside' recycling includes the provision or localised 'near entry' communal containers for blocks of flats – see the definition of 'kerbside' recycling in Appendix 6 – which means that blocks of flats served by communal containers are likely to be defined as already being provided with a kerbside service). This is covered at section 4.2.1(v) below. The Partner Authorities accept that bring systems will play a continuing and important part in the achievement of the targets within this Strategy. However, difficulties in identifying sites acceptable to local residents mean that the proportional role that bring sites can play in comparison to other recycling collection systems is expected to decrease.

4.F1 The Partner Authorities will provide a bring collection system throughout the period of this Strategy.

4.2.1 (ii) Reuse and Recycling Centres

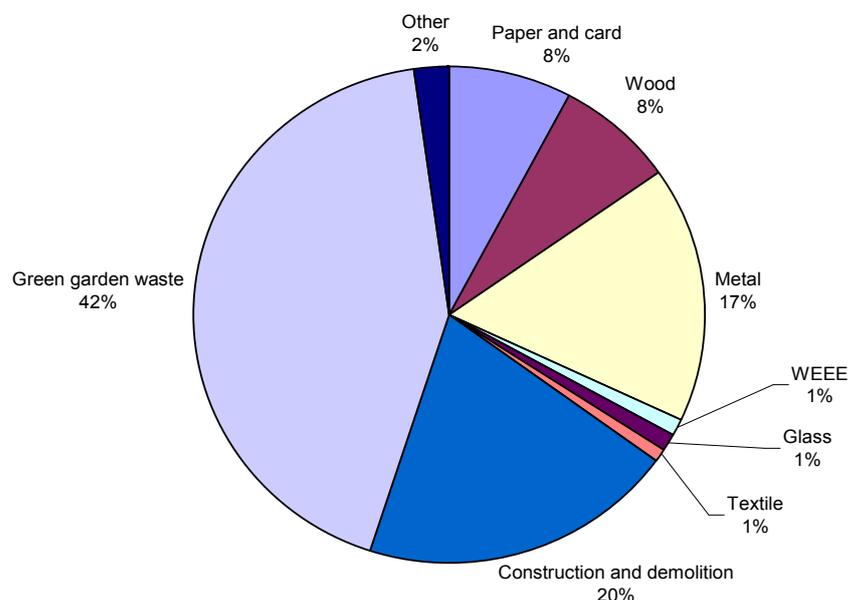
There are currently nine Reuse and Recycling Centres in North London where residents can deliver their household (and especially bulky) wastes. The London Borough of Waltham Forest has three Reuse and Recycling Centres. The London Borough of Haringey has two Reuse and Recycling Centres and the London Boroughs of Barnet, Camden, Enfield and Islington each have one Reuse and Recycling Centre. The London Borough of Hackney does not yet have a Reuse and Recycling Centre (see Appendix 5 for details for each Partner Authority).

In 2006/07, 25,401 tonnes of waste were collected for recycling and composting from reuse and recycling centres out of a total waste stream of 52,659 tonnes (including construction and demolition waste), giving a combined recycling and composting rate of 48%. Construction and demolition waste is recycled at these sites, but the Government has determined that this waste cannot contribute to recycling standards so the figures quoted above are higher than the figures used in the annual Best Value Performance Plan 2007.

The sites vary significantly, both in capacity and recycling rate. They collect an increasingly large range of materials for recycling (over 40 different types of material are collected at one site), and use staff incentives to increase recycling rates and raise awareness amongst customers about the importance of recycling. The diagram below shows the breakdown of recyclable material collected from the North London reuse and recycling centres in 2005/06.

The North London Joint Waste Strategy
- February 2009 -

Breakdown of recyclables collected at Reuse and Recycling Centres during 2005/06



In January 2003 the North London Partner Authorities were awarded £379,000 to carry out improvements to three Reuse and Recycling Centres to enable all to achieve combined recycling and composting rates of 33%.

The Mayor of London is proposing to seek that the legal obligation on Boroughs to provide Reuse and Recycling Centres (section 1 of the Refuse Disposal Amenity Act) is repealed. This would mean the duty for making civic amenity provision would fall to the North London Waste Authority under section 51(b) of the Environmental Protection Act 1990. The Mayor of London suggests this would encourage a more strategic approach to site provision and enable local authorities to use the stricter definition of waste under the Environmental Protection Act to control waste entering the sites.

The North London Waste Authority conducted a Best Value review of civic amenity provision in 2001. This concluded that the key requirement for a successful Reuse and Recycling Centre was the effective co-ordination of the agencies operating the collection site, the transport arrangements and those arranging for reprocessing or disposal rather than whether the sites were operated by Waste Collection or Waste Disposal Authorities.

In 2003, the North London Waste Authority let a contract for the transport of waste from all civic amenity sites that reflects these conclusions and under which all North London Boroughs with a Reuse and Recycling Centre also now choose to arrange the transport of some materials for recycling. This has increased the integration of services across North London and provided efficiencies in terms of recycling.

In 2007 Government officials have again suggested that it will soon consult on the legal changes sought by the Mayor of London in relation to whether the London Boroughs or the North London Waste Authority should have the sole duty to provide this service.

The Mayor of London has set a policy that all Reuse and Recycling Centres must be available free of charge to all Londoners when depositing household waste. The London Borough of Enfield introduced a permit system for their residents at a time when the Government was consulting on the introduction of a tonnage-based levy system for waste disposal. This was considered necessary as the Borough then received over 40,000 tonnes of waste through two civic amenity sites in the Borough, and the cost of moving to a tonnage-based levy would have been in excess of an additional £1 million. The restrictions successfully reduced the amount of commercial waste received at the sites significantly, and the Borough subsequently decided to relax the requirement for non-Enfield residents to pay to use the sites.

The North London Partner Authorities recognise the use of Reuse and Recycling Centres as an effective opportunity to increase recycling and composting rates and that all Reuse and Recycling Centres will need to improve these rates significantly if the targets within this Strategy are to be achieved.

The Mayor of London is also conducting a review of Reuse and Recycling Centres in London. The Partner Authorities will seek to ensure that any new North London Reuse and Recycling Centre will have a recycling and composting diversion rate in excess of 50% and will be freely available for the deposit of household waste by all Londoners, so long as no restrictions are placed by other waste disposal authorities on the receipt of wastes from North London residents. The Partner Authorities will also seek to ensure that new services and facilities are accessible to all sectors of the community taking account of language, cultural differences and the ability to access sites by public transport.

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.

4.G3 The Partner Authorities will seek to ensure that all new Reuse and Recycling Centres have a recycling and composting diversion rate in excess of 50%.

4.2.1 (iii) Door-to-Door Recycling Collection Systems

All the North London Boroughs offer a Borough-wide door-to-door recycling collection service from households. The range of materials collected in each Borough varies, but all Boroughs already comply with the 2010 target set by the Household Waste Recycling Act (to collect a minimum of two materials for recycling), and had also met the Mayor's target of collecting a minimum of three materials from households by September 2004.

In all cases, residents are provided either with a plastic collection box or bag to store recyclables in the home until a weekly collection occurs. The North London Partner Authorities then employ several different types of collection service to collect "dry" recyclable materials (i.e. paper, plastic, cardboard, glass, cans, textiles and sometimes other non-organic materials).

In the London Boroughs of Barnet, Hackney and Waltham Forest, collection boxes are hand-sorted on street into separate "stillages" on larger collection vehicles. This enables a large range of materials to be collected from householders and avoids the need for a separate centralised sorting plant or materials recovery facility to sort the recyclable material elsewhere, but requires a higher degree of manual handling and greater local vehicle movements. It does, however, produce better-quality, higher-value separated recyclable materials.

In the London Boroughs of Camden, Enfield, Haringey and Islington materials for recycling are collected commingled (mixed up together) and are then transferred to a Materials Recovery Facility in Greenwich where they are sorted for reprocessing elsewhere. This collection service substantially reduces the time and cost spent collecting materials on the street and increases the amount that can be collected in each vehicle, but requires much greater investment and energy at the central sorting facility. Hackney also provides a commingled service to some of its multiple occupancy premises.

In 2006/07 43,747 tonnes of waste was collected through door-to-door collection services, equivalent to 51% of the total recycled.

Door-to-door collections are expected to increasingly provide a greater proportion of the materials collected by the Partner Authorities in the period of this Strategy. Any expansion of services will need to ensure that the provision of door-to-door collection services takes account of the needs of different sectors of the community and in particular that groups who may be disadvantaged by the provision of services are targeted. Similarly, communication campaigns provided in support of service expansion will also need to take account of the needs of particular equality target groups.

4.2.1 (iv) Biodegradable Waste Door-to-Door Collection Services

All of the seven collection Partner Authorities also offer a collection of biodegradable waste for composting.

The material collected is either separately-collected garden waste or kitchen waste in the case of Hackney, or mixed kitchen and garden waste in the case of the other six boroughs (Camden has been trialling kitchen waste collections). Residents are offered either sacks (London Borough of Camden) for garden waste, wheeled bins (London Boroughs of Barnet, Hackney and Waltham Forest) or sealed containers (London Borough of Enfield, Haringey and Islington) to store the waste ready for collection. These collections are either weekly or fortnightly.

All Partner Authorities propose to offer a service in accordance with the Mayor's requirement that a collection be offered for biodegradable waste that is not composted at home or in community compost projects. The North London Boroughs expect biodegradable door-to-door collection services to play an important role in their achievement of the Strategy targets for recycling and composting. The contribution of these services is therefore expected to increase from 7% of total recycling and composting collections in 2003/04 to 21% in 2008/09.

Any expansion of biodegradable waste collection and composting services will also need to ensure that the needs of different sectors of the community are taken into account and in particular that groups who may be disadvantaged by the provision of services are targeted.

The efficiency of the services provided will need to increase significantly if higher recycling and composting standards are to be achieved. This will require better promotion of the services available in order to get more residents to take part, will need those taking part to participate consistently, and will require improved quality services to minimise the contamination of materials and subsequent rejection of waste by reprocessors.

As noted above at 4.1.4 and 4.1.5, early in 2004 the North London Waste Authority successfully acted as a lead authority in bidding to the London Recycling Fund for the North London Integrated Compost Project. This secured £4m for relevant Partners and included a £1.7m contribution towards a composting facility and nearly £2.2m over two years towards capital and revenue costs for biodegradable waste collections.

It is estimated that 95% of residents will need to be provided with comprehensive recycling services and participation rates will need to increase to enable 65% of targeted materials to be captured if the recycling and composting targets within this Strategy are to be achieved.

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.

4.2.1 (v) Properties of Multiple Occupancy

Approximately 56% of North London residents live in properties of multiple occupancy (396,000 households are either purpose-built or converted flats or housing estates) and therefore require specialised recycling and composting collection services to address the absence of gardens for home composting and the limited storage space that may be available for waste in general.

In September 2002 the London Borough of Islington led a successful £2.3 million joint bid in partnership with the London Boroughs of Camden, Enfield, Haringey and Waltham Forest to the London Recycling Fund for the introduction of over 500 “estates” recycling sites across North London. The project, which built on successful pilot work in the London Borough of Camden, involves the introduction of “near entry” collection wheeled bins, in consultation with residents. The collections typically include paper, glass, cans and textiles, but organic collections were also being piloted.

Following the estates scheme introduction, all seven boroughs have rolled out further services to estates. The Mayor of London has proposed that where door-to-door recycling collection services cannot be provided to multi-occupancy properties, “near entry” collection points should be provided for every 500 householders as a minimum. The Partner Authorities will aim to achieve this target.

The Partner Authorities recognise that successful collections from these properties are crucial to achievement of the recycling and composting standards, and so door-to-door collection services and incentives to recycle may also be offered to these properties in the period of this Strategy.

To achieve the higher recycling targets, the Partner Authorities will need to increase participation rates to enable 65% of targeted recycling materials to be captured by 2015 and thereafter.

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| <p>4.11 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.</p> <p>4.12 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.</p> |
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4.2.1 (vi) Recycling and Composting Facilities

When waste is collected for recycling, time can either be taken to separate the materials into separate compartments on a collection vehicle or the different materials can be quickly loaded onto a vehicle still mixed together and then separated later at a central Materials Recovery Facility. When considering between the two options it is important to take into account the total cost and impacts of collection, sorting, transfer and reprocessing.

Garden waste collected for composting can either be composted in open windrows – lines of screened and shredded material turned regularly in the open air – or, if mixed with other biodegradable waste such as kitchen scraps, must be composted “in-vessel” – in sealed containers which enable control of temperature and emissions in accordance with the Animal By-Product Regulations 2003.

There are several types of in-vessel system available ranging from modular “batch” systems where small containers are used to compost a single load of compost at a time, to large enclosed hall or tunnel systems where a continuous process of composting can be undertaken on a large scale.

In September 2002 the North London Waste Authority contracted Enviros Consulting Limited to conduct feasibility studies into the appropriate facilities that would be required to achieve the 2005/06 recycling and composting standards, given the known collection infrastructure proposed by the North London Boroughs.

Within the North London area they recorded six licensed recycling bulking facilities employed by the Partner Authorities, but none of the Materials Recovery Facilities or composting facilities employed were located in the North London area. The six recycling bulking facilities had a combined capacity of approximately 34,000 tonnes per year. This meant that most waste for recycling or composting was then being taken out of the North London area for sorting, transfer and reprocessing.

The Recycling Feasibility Study suggested that in the period through to 2005/06, the best option for recycled materials was to provide a bulking facility of approximately 16,000 tonnes capacity to serve the London Boroughs of Enfield and Haringey at the Edmonton site, and to complete a bulking facility at the Hornsey Street site to offer a capacity of approximately 50,000 tonnes to the London Boroughs of Camden, Islington and Hackney. The London Boroughs of Barnet and Waltham Forest were thought to be self-sufficient for recycling facilities in the period up to 2005/06.

The Composting Feasibility Study suggested that for the period through to 2005/06, no North London Borough had sufficient facilities to meet their collection requirements. The study suggested that the best option for organic waste would be to develop a modular “enclosed hall” or “tunnel” composting facility capable of handling 20,000 tonnes per annum of mixed organic wastes by 2004 / 2005. With the expected increasing demands on existing windrow composting capacity outside the North London area, the Composting Feasibility Study recommended that a 30,000 tonne windrow facility be developed by 2004/05 with capability to increase to an estimated 40,000 tonne capacity by 2015.

The North London Waste Authority's bid to the London Recycling Fund in 2003 for support for a recycling bulking facility at Edmonton was not successful. Nevertheless, improvements to LondonWaste Limited's bulking capacity at Edmonton, and the North London Waste Authority's demand for bulking bays at the new Hornsey Street Waste and Recycling Centre now provide sufficient bulking to ensure that recycling facilities are available in line with the Recycling Feasibility Study at the present time.

However, as part of the North London Integrated Compost Project mentioned above, £1.7m capital support was secured from the London Recycling Fund to help develop a 30,000 tonne modular in-vessel composting facility at Edmonton within the existing North London Waste Authority waste disposal contract and as part of LondonWaste Limited's EcoPark proposals.

This has enabled the Partner Authorities to not only comply with the Mayor of London's proposal that the North London Boroughs conduct a Feasibility Study into the viability of providing source-separated organic collections from households by September 2004, but to turn this into real services for local people.

The Feasibility Study did not identify any immediately suitable locations for the windrow composting facility, and this material continues to be composted outside of the Partner Authorities' area.

The Feasibility Study indicated the facility needs for North London in the short-term over a timescale that has now substantially elapsed. As ever-higher recycling and composting standards are required to be met, the facilities that offer the best overall option are likely to change in some regards, so future developments may be different. In the short term from 2008/09 the North London Waste Authority has a budgeted capital programme and will commence the procurement of additional services for the sorting of commingled recyclables and for the treatment of biodegradable wastes before the successor arrangements to the contract with LondonWaste Limited have been concluded. As part of the Partner Authorities' requirements for developing a tender specification for services post-2014 (when the North London Waste Authority's contract with LondonWaste Limited comes to an end), further modelling of future facility requirements is being undertaken. Where appropriate, an Equalities Impact Assessment of any sites strategy for new facilities would also be undertaken. Chapter 6 of this Strategy reviews the mix of facilities which were proposed in 2004 when the North London Joint Waste Strategy was first produced, but subjects these mixes to a more complete environmental assessment through the Environment Agency's new, specialist modelling tool, WRATE.

This Strategy requires the Partner Authorities to work together to ensure that the necessary facilities are provided in a timely way and in accordance with the incremental need. The Partner Authorities recognise that it may be necessary for the North London Waste Authority to use its powers of direction to ensure that the necessary facilities are developed, and that these are organised in an integrated way and that appropriate feedstock materials are guaranteed to secure the necessary private or public investment. The Strategic Environmental Assessment of the North London Joint Waste Strategy undertaken in 2007 assumes that the current mix of collection systems being used by the collection Partner Authorities remains unchanged in the future (as opposed to the original Strategy BPEO modelling that assumed all boroughs standardised on either kerbside sorting or central sorting of dry recyclable wastes).

- 4.J1 The Partner Authorities will work together to plan, develop and deliver the recycling and compost facilities required for North London throughout the period of this Strategy and will seek the development of these facilities within the North London area in accordance with the proximity principle.
- 4.J2 The Partner Authorities agree that the North London Waste Authority should use its power of direction where necessary as a contractual mechanism when working in partnership and with the agreement of relevant Partner Authorities or to achieve its own statutory targets.

4.2.1 (vii) Other Recycling Options

The Mayor of London has proposed that the Partner Authorities should further explore opportunities for non-household waste recycling, make arrangements for composting parks green waste, compost market waste where practicable, sell waste-derived compost to residents and recycle or compost street litter where possible. These parts of the waste stream have already been targeted by some of the Partner Authorities for recycling and composting.

The London Boroughs of Barnet, Enfield and Haringey send the leaves collected from street cleansing operations for composting. The London Borough of Hackney delivers green waste from its parks and housing services to a community composting operation in Hackney Marshes. Parks waste is also composted within the parks in the London Borough of Enfield. All of the North London Boroughs also sell waste-derived compost at their Reuse and Recycling Centres, and through LondonWaste Limited the North London Waste Authority arranges for compost produced from waste from North London to be provided free-of-charge in bulk to local allotments and borough parks departments.

The London Boroughs of Camden and Enfield have also been trialling a commercial waste recycling service, and the Partner Authorities are keen to see what opportunities there might be to maximise economies of scale by integrating household waste recycling and composting services with non-household waste streams. To encourage this, the North London Waste Authority introduced in 2006/07 an incentive scheme for the North London Boroughs whereby the North London Waste Authority passes on half of the value of avoided landfill allowance use for biodegradable municipal waste recycled or composted, regardless of whether it is from household or non-household sources.

- 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

4.2.1 (viii) Recycling and Composting Summary

A comprehensive and integrated approach to recycling and composting will be necessary to achieve the increasingly higher statutory recycling and composting standards that are expected during the period of this Strategy. A high level of diversion through composting will be particularly important if the requirements of the Waste and Emissions Trading Act 2003 are to be met within North London.

The Mayor of London stated that the Partner Authorities should work to ensure that London as a whole exceeds statutory recycling targets set in 2005/06, and some Partner Authorities agreed Public Service Agreement standards for recycling and composting either to exceed their statutory standards or to achieve these early. It has also been indicated by the Government that for the North London Waste Authority to secure Private Finance Initiative credit funding for the facilities it needs post-2014, when its contract with LondonWaste Limited comes to an end, it will need to reach the national household waste recycling and composting target of 50% by 2020.

It will be necessary for the Partner Authorities to commit to the achievement of this target through inter-authority agreements. Through the achievement of statutory and local targets set by all the Partner Authorities, the Partner Authorities will ensure that the North London area contributes collectively to the Mayor of London's objective to exceed standards across London as much as they can.

The Government has also offered all local authorities two opportunities to pool their collective recycling and composting standards to encourage greater partnership working and enable authorities to stage the introduction of their recycling and composting services on a regional basis. The Partner Authorities have a wide range of current recycling and composting standards, and whilst they have had real successes by working in partnership, the fact that this is still relatively new means that the opportunities for pooled targets offered by Government have not yet been taken up as locally suitable; but the Partner Authorities will review this when any future opportunity arises.

The collective North London household waste recycling and composting performance target in 2003/04 was 12%, and was exceeded. The second target of 18% in 2005/06 was also achieved, and further work and investment has taken performance to nearly 23% in 2006/07. The Partner Authorities have agreed to aim to achieve a rate of 45% by 2015, and as stated above, will also need to demonstrate real commitment to 50% recycling and composting by 2020 if they wish to secure Private Finance Initiative credits. The commitment to these targets will also demonstrate the Partner Authorities' commitment to recycling and composting in North London and thereby to minimise the need for other recovery processes for landfill diversion.

In 2004 it was accepted that a maximum recycling rate was likely to be up to 60%. Such a recycling rate is likely to require the introduction of even more comprehensive recycling and composting services than exist locally now, fortnightly collections of residual waste, stronger education and enforcement programmes and legislation for the direct charging for waste, but this is not currently favoured by Government. The Mayor of London therefore accepted that more realistic maximum recycling targets should be those suggested by the Prime Minister's Strategy Unit in the "Waste Not, Want Not" Report as being 35% recycling by 2010 and 45% by 2015. However, the Mayor of London believes that with the removal of the appropriate fiscal and legislative barriers, recycling targets of 50% by 2010 and 60% by 2015 could be achieved, and is expected to increase his targets for London to the same level as the more recent national targets when he next reviews his Municipal Waste Strategy.

These rates are ambitious when considered in the North London context, but have been achieved elsewhere. Assuming that the waste growth outlined in Chapter 2 occurs, and the waste prevention programme described earlier in this chapter is successful, a recycling rate of 45% would divert approximately 660,000 tonnes of household waste from landfill by 2015 (including approximately 110,000 tonnes of post-collection recycling) and would achieve a 50% recycling rate by 2020.

- 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.

4.2.2 Recovery

Recovery is here taken to include waste management processes that treat mixed waste to enable reclamation of energy, refuse-derived fuels or marketable products. In accordance with the waste hierarchy, waste recovery should generally only be undertaken for wastes remaining after waste prevention, recycling and composting have been maximised.

If the waste growth assumptions outlined in Chapter 2 are correct, and the waste minimisation and recycling and composting activities proposed in this Strategy are successful, the Partner Authorities will still require a significant recovery treatment process, (estimated at approximately 530,000 tonnes net diversion capacity per year) by 2020 to divert sufficient waste to ensure that no additional Landfill Allowances are required to be purchased by the North London Waste Authority on behalf of the Partner Authorities.

A significant proportion of the residual mixed waste is potentially recoverable. Waste Strategy for England 2007 includes national targets for the recovery of waste, and the North London Waste Authority records performance indicators for North London, but no statutory recovery standard exists. In North London, the Edmonton Energy-from-Waste facility has treated mixed waste to “recover” heat for electricity generation, and metals and construction materials for recycling since 1971. The incineration process reduces the volume of the waste incinerated by 90% and the weight of the waste by 80% (much of which is recycled as metals or secondary aggregates), producing enough energy in the process to provide power sufficient for 66,000 homes.

To comply with the Waste Incineration (England and Wales) Regulations (2002) improvements to the Edmonton facility have been necessary. LondonWaste Limited has refurbished the existing boilers and grates and installed other equipment to meet the lower emissions standards set by the Regulations by the end of December 2005, particularly carbon monoxide, nitrogen oxide and particulates from the facility. These improvements ensure that the Edmonton Energy-from-Waste facility meets the new emission standards.

However, the Edmonton facility is unlikely to be able to treat all the Partner Authorities’ residual waste, meaning that alternatives must be considered to supplement it, and the Partner Authorities recognise too that the Edmonton facility may have come to the end of its useful operational life by the end of the North London Waste Authority waste disposal contract in 2014. The Partner Authorities are therefore considering the recovery treatment alternatives for residual mixed waste within this Strategy.

The Renewables Obligation Order 2002 requires electricity suppliers to provide a minimum percentage of their electricity from renewable sources and to demonstrate this through the purchase of Renewables Obligation Certificates. The new order, unlike the previous Non-Fossil Fuel Obligation regime, explicitly excludes conventional Energy-from-Waste incinerators, like the Edmonton facility, from qualifying for Renewables Obligation Certificates, unless they operate in high-quality CHP (combined heat and power) mode. This puts conventional incinerators at a financial disadvantage compared to so-called “New and Emerging Technologies” for energy treatment. The Mayor of London has also stated in his Municipal Waste Management Strategy (proposal 36) that he will be ‘giving preference to new and emerging advanced conversion technologies for waste’. Given that the North London Joint Waste Strategy is now required to be in general conformity with the Mayor of London’s Waste Strategy it is important for the North London Joint Waste Strategy to take this into account.

The Mayor of London has previously also stated his desire to assist LondonWaste Limited in the development of a heat distribution network to provide the waste heat from the Edmonton plant to local buildings. The North London Waste Authority has endeavoured to establish such networks in the past, but there are significant difficulties in co-ordinating the construction of appropriate buildings and the available supply and off-take. The support of the Mayor of London is therefore welcomed by the Partner Authorities.

The Mayor of London evaluated the “New and Emerging Technologies” for energy treatment of mixed waste within the “City Solutions” Report in April 2003, which itself informed the development of the Mayor’s Municipal Waste Management Strategy. The evaluation criteria used to select the “New and Emerging Technologies” for consideration within the report restricted the technologies chosen to those able to demonstrate full-scale working plants as opposed to models or trial schemes.

The Partner Authorities reviewed the technologies arising from the City Solutions report to consider which should be included within the strategic modelling undertaken to determine the best treatment option for North London. The North London Waste Authority also considered “New and Emerging Technologies” as part of its consideration of the LondonWaste Limited options for meeting the Waste Incineration Directive.

Further assessment of new and emerging technologies will need to be undertaken by the North London Waste Authority as the Partner Authorities progress towards the North London Waste Authority letting a new contract or contracts for waste management services in North London from 2014. This will have regard to more recently published reports and analyses from the Mayor of London and others, particularly in relation to climate change.

4.2.2 (i) Pyrolysis and Gasification

Pyrolysis involves the heating of residual waste or refuse-derived fuel in the absence of oxygen to break down the waste into its basic chemical parts: a solid “char” together with gas and liquid streams that can all be used as fuels. Gasification is similar to pyrolysis but it involves heating the waste in an atmosphere where a small amount of oxygen is permitted. This allows greater control over the process and the materials that can be produced by it. Gasification produces a gas including carbon, methane and hydrogen.

Neither technology is essentially new, but no large-scale operating plants treating municipal waste yet exist in the United Kingdom. However, plants in Germany and Japan are now operating at scales of up to 225,000 tonnes of waste per year. These plants combine the pyrolysis and gasification processes to produce a synthesis gas (50-60% by weight) that can be used as a fuel, a vitreous aggregate (20-25% by weight), water (10% by weight) and small quantities of metals and salt.

Pyrolysis and Gasification plants therefore involve thermal treatment in broadly similar plants that have to meet the same emission standards as conventional Energy-from-Waste incinerators such as the Edmonton Facility. Pyrolysis and Gasification technologies have advantages in that they normally generate less ash for disposal than conventional Energy-from-Waste incineration plants and reduce the amount of ‘hazardous’ material contained within the ash; they may also be more thermally efficient than an incineration plant, although this may vary according to the technology used and the use of the end products from the process. Pyrolysis and Gasification are not yet proven at the same scale as conventional incineration, however, and require a greater degree of pre-sorting of waste. They usually require the residual waste to be pre-treated in some way, for example through a Mechanical Biological Treatment (MBT) plant to produce a more homogenous material or ‘Solid Recovered Fuel’ (SRF).

Both technologies have advantages over other energy treatments in that they can both immediately use the fuel derived from the process to generate “green” power. Pyrolysis and Gasification plants are eligible for Renewable Obligation Certificates, which partly offset their increased cost compared to conventional Energy-from-Waste incinerators.

4.2.2 (ii) Anaerobic Digestion (AD)

This process involves the fermentation of organic material in the absence of oxygen to produce a biogas - a mix of hydrogen, methane and carbon dioxide - and a sludge or digestate that, with further processing, can be used as a soil improver. The gas can be used to heat the reaction vessel in which the process takes place. Anaerobic digestion has been used in sewage treatment since the 1960s; more recent demonstration plants have also been built to show the potential for using anaerobic digestion in waste treatment.

The City Solutions report included a source-separated organic waste stream treated through an anaerobic digester, rather than mixed waste, as a proven example of anaerobic digestion. Large-scale plants, treating over 50,000 tonnes per year, also operate elsewhere in Europe using both source-separated organic waste and mixed waste. Both source-separated and mixed waste processes require a high degree of pre-screening or sorting to remove unsuitable waste. The source-separated anaerobic digestion process typically produces approximately 40% digestate soil improver (by weight) and extracts a further 10% of materials for recovery (typically glass, aggregates and metals), with the remainder requiring landfill.

Anaerobic digestion facilities can contribute to statutory composting standards and qualify for Renewable Obligation Certificates, but are still expensive when compared to conventional composting unless existing sewage treatment facilities are employed. One such facility exists at Thames Water Utilities Deephams Sewage Treatment Works in Edmonton.

4.2.2 (iii) Mechanical and Biological Treatment (MBT)

These processes are also termed Mechanical and Biological Recycling. Typically the process includes a mechanical sorting system followed by biological treatment. Mechanical biological treatment can be used to stabilise the waste or be used to reduce its mass through drying, and may also be used to prepare a waste-derived or 'solid recovered' fuel (SRF) or soil conditioner, depending upon the nature of the process. It can also facilitate the recovery of any remaining recyclable materials that were not separated before the waste was collected. Typically mechanical biological treatment facilities involve the mechanical separation (through screening, sorting and grading processes) of metal, glass and aggregates from mixed waste before aerobic composting (in a controlled environment) to separate a stabilised organic fraction with the residual matter being made into SRF. A variant is Biological and Mechanical Treatment, where the mixed waste is dried and stabilised before mechanical separation takes place.

Large-scale mechanical and biological treatment plants are widely used elsewhere in Europe and in North America, and East London Waste Authority also uses the process as the primary technology for delivery of its waste disposal contract.

Mechanical Biological Treatment is perhaps better defined as "pre-treatment" technology, which prepares waste for further treatment and is therefore highly dependent upon a successful integration with other recovery technologies. The advantage of Mechanical and Biological Treatment processes is that by stabilising the waste, water is removed, increasing the calorific value of the residual refuse-derived fuel fraction (ranging from 15% - 45% by weight). The fuel developed qualifies for Renewables Obligation Certificates, and although it can be burned within a conventional incinerator under normal operational circumstances it is also well suited for a gasification or pyrolysis plant or other specifically adapted combustion processes. SRF can be produced to a specific standard and may also be sent to a third party user such as an industrial user with a combustion process rather than a stand-alone waste facility.

It is also possible that the recycling extracted by the process (ranging from 10 - 15% by weight) will be able to contribute to statutory recycling standards, but the compostable fraction (varying between 15 - 45% by weight) is unlikely to meet the national compost standard (PAS 100) and is usually only suitable for landfill cover, meaning this is unlikely to contribute to statutory composting standards. The process benefits from being comparatively affordable in relation to other “New and Emerging Technologies”.

4.2.2 (iv) Recovery Summary

The Edmonton Energy-from-Waste facility has enabled the Partner Authorities to significantly reduce the amount of waste that would otherwise have been landfilled over the last 32 years. Through the North London Waste Authority’s waste disposal contract, the Partner Authorities are committed to LondonWaste Limited and the Edmonton Energy-from-Waste facility for all suitable residual wastes until December 2014.

The continued operation of this facility is expected to assist the North London Waste Authority keep within its 2010 landfill allowances under the Waste and Emissions Trading Act (2003). The increasing cost of landfill may mean that providing additional recovery treatment capacity could be beneficial to LondonWaste Limited, and therefore the Partner Authorities, during the period of the current waste disposal contract.

The Partner Authorities will need increased and significant energy treatment capacity - potentially 500,000 tonnes input per annum by 2020 - to comply with the later requirements of the Landfill Directive. “New and Emerging Technologies” are increasingly offering attractive alternatives both to landfill and to conventional incineration.

The Partner Authorities will need to review the recovery treatment options that provide the most acceptable option for North London within the North London Waste Authority contract tendering processes, taking account of the North London Waste Plan, the Mayor of London’s strategies and preferences in relation to energy from waste technologies, and the affordability, deliverability and performance of the different alternatives from a waste management and climate change perspective. The Partner Authorities will favour recovery technologies that are eligible for Renewables Obligation Certificates when considering proposals for waste disposal contracts in North London provided the technologies concerned provide the best overall option (See Chapter 6).

4.M1 The Partner Authorities are committed to the continued use of the Edmonton Energy-from-Waste facility for the period of the current waste disposal contract.

4.M2 Where recovery treatment is selected within any new waste disposal contract, the Partner Authorities undertake to favour processes that qualify for the Renewables Obligation Certificates where these provide the Best Practicable Environmental Option.

4.2.3 Disposal to Landfill

Landfill involves the depositing of untreated mixed waste in lined void spaces or holes in the ground, usually created by the quarrying of clay, lime or aggregates. Landfill sites are tightly regulated to prevent pollution emissions to the local environment, but emissions of greenhouse gases, in particular methane, do occur as waste decomposes, leading to the increasing regulatory framework to discourage the use of landfill. Disposal to landfill therefore falls at the bottom of the waste hierarchy and should be reserved for the residues of other treatment processes or waste where other treatment is not practical.

The Partner Authorities disposed of 290,348 tonnes of household waste to landfill in 2006/07. There are no landfill sites in the North London area and therefore sending waste to landfill involves the transport of waste over long distances.

The majority of North London's waste, for example, is currently landfilled at sites in Brogborough in Bedfordshire and Calvert in Buckinghamshire. In 2006/07 44.58% of the waste sent to landfill from North London was sent by rail from the Hendon waste transfer station. This reduces the environmental impact when compared to road transport, which is the method used to transport the remainder of North London's waste to landfill.

The East of England Regional Assembly has indicated that they see it as essential that London as a whole becomes self-sufficient in the management of its waste, and that every effort should be made by London to manage the waste it generates. The East of England Regional Waste Management Strategy 2002 states that 'it is essential that the high level of export of waste from London should be drastically reduced.' SERPLAN also has a policy (SERP 160 'Revised Waste Planning Advice' 1996) that London should aim to reduce waste exports progressively such that by 2010 only residues from the processing of waste should be landfilled outside London, and the East of England regional waste plan considers this to be a valid aim which the region should recognise and complement. Accordingly Policy 3 of the Regional Waste Management Strategy states that local authorities in the region will apply the principle that after 2010 the import of waste from outside the region will only be acceptable in very special circumstances. Only residues from other waste processes, or very exceptionally (where it can be demonstrated that there is no other practical option) waste from outside the region which would not benefit from treatment, will be acceptable in landfills in the region.

The Mayor of London has also agreed a policy stating that waste disposal authorities in London should aim to meet their Landfill Allocations. The North London Partner Authorities have undertaken to do so.

If the waste growth assumptions outlined in Chapter 2 are correct, and the waste minimisation, recycling and composting and energy recovery activities proposed in this Strategy are successful, the Partner Authorities will still need to landfill approximately 294,000 tonnes of municipal waste in 2020, of which approximately 200,000 tonnes would be process residues from other treatment options.

The North London Waste Authority expects to have sufficient Landfill Allowances to ensure that no additional Allowances will be required until 2010/11, assuming current facilities remain available and recycling and composting targets are met. The Partner Authorities must, however, plan fully for the subsequent Landfill Directive target years, by which time additional recovery capacity will be needed.

The Mayor of London has proposed in the past that the Greater London Authority should act as a “broker” for Landfill Allowances and that any London authorities with excess Landfill Allowances should agree to offer first option on purchase of these allowances to other London authorities. The Partner Authorities recognise the potential advantages for other London local authorities of these proposals and, provided that they offer Best Value to the Partner Authorities at the time, have no objection to the proposals in principle.

The Mayor of London has stated that waste disposal authorities should encourage the use of landfill gas as an energy source, and that any new waste disposal contracts that include disposal to landfill should incorporate this policy. The Partner Authorities undertake to incorporate this policy in future waste disposal contracts.

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.

4.2.4 Addressing the environmental impact of new waste management facilities

The environmental report produced as part of the strategic environmental assessment of this Strategy recommends that the environmental impacts of providing new recycling, composting and recovery facilities and services could be made more certain by providing more detail in the North London Joint Waste Strategy of how they would be managed. The Partner Authorities accept that in order to minimise the impact of any new facilities proposed as part of implementing this Strategy, new facilities should:

- Reach a high standard of sustainable design and construction.
- Site selection for new facilities should have regard to the preferred locations that will be identified within the forthcoming North London Waste Plan, as the plan and locations within it will have already have been subjected to a sustainability appraisal process (including equalities impact assessment) and public consultation as well as an independent inspector’s review and report.
- Prioritise the use of previously developed and industrial land for locations for new treatment facilities.
- Prioritise the co-location of facilities to reduce land take.

It is also anticipated that any new facilities will be subjected to individual environmental impact assessments and referred to the Mayor of London for consideration and planning decision given their likely size and strategic nature.

The Equalities Impact Assessment of the North London Joint Waste Strategy also recommended that the importance of considering the effects of any new facilities on different equality groups should also be incorporated. Accordingly the effect of any new facilities on different equality groups will be considered and where appropriate, an Equalities Impact Assessment of any sites strategy will also be undertaken.

4.3 Summary of Waste Hierarchy Options

The proposed approach to the waste hierarchy options available to the Partner Authorities would give the following change in municipal waste management in North London.

Proportions of North London Municipal Waste Treated by Options within the Waste Hierarchy (2006 - 2021)

2006/07			2020/21	
Reduction		NB:1		Reduction
Reuse		NB:1		Reuse
Recycling and Composting (293,731 tonnes)	31%	NB:2	51%	Recycling and Composting (699,913 tonnes)
Recovery (293,303 tonnes)	31%	NB:3	36%	Recovery (492,101 tonnes)
Disposal to Landfill (368,359 tonnes)	39%	NB:4	13%	Disposal to Landfill (184,465 tonnes)
Total (955,393 tonnes)	100%		100%	Total (1,376,480 tonnes)

1. Reduction and reuse initiatives are expected to be undertaken and contribute to reducing the waste growth. We have assumed a fixed waste growth of 3% and 2.5%, so waste minimisation is required to make up for increasing household number, i.e. the growth rate would be even higher without reduction and reuse initiatives.
2. Includes all recycling such as commercial waste, metals from EfW ash recycling and construction and demolition waste recycling. Equivalent to a household waste recycling rate of 27.1 % in 2006/07 and 50.2% in 2020/21 (excluding rejects and recycling from residual treatment e.g.MBT)
3. Includes all waste not landfilled, excluding recycling
4. Includes residues from recycling, composting and recovery treatment options e.g. ash.

This Strategy proposes a significant movement towards more sustainable and integrated waste management in North London, increasing recycling and composting, recovering energy and sending less to landfill.

Chapter 5 - Management of Other Waste Streams

In addition to household wastes, the Partner Authorities have duties in relation to other municipal waste streams. These merit individual attention within this Strategy due to their hazardous nature or specific waste management requirements. As with other aspects of this Strategy, the importance of taking account of the needs of different groups within the community is also a key aspect of managing these other waste streams.

Abandoned Vehicles

Abandoned Vehicles have been classified as Hazardous Waste under the European Waste Classification since January 2002. Services for the collection and disposal of abandoned vehicles are currently managed by the North London Boroughs under delegation from the North London Waste Authority and the requirements of the Refuse Disposal (Amenity) Act (1978). Under these arrangements, the Partner Authorities share information on the number and types of vehicles arising.

During 2006/07 5,648 abandoned vehicles were destroyed in North London. This figure is reduced from 6,398 in 2005/06 and 11,324 in 2004/05.

The End of Life Vehicle Directive (2000/53/EC) requires increased levels of reuse and recycling of components from End of Life Vehicles and their dismantling in Authorised Treatment Facilities, where they can be de-polluted of their hazardous components in a controlled manner. From 1st January 2007 it has been a requirement that all End of Life Vehicles are to be collected for dismantling at no cost to the owner.

The End of Life Vehicles Directive is implemented in UK law by the End of Life Vehicles Regulations 2003, which came into force in England and Wales on 3rd of November 2003.

The North London Waste Authority conducted a Best Value Review of Abandoned Vehicles and Dumped Tyres in 2002. The review encouraged the North London Boroughs to review their inspection and collection processes in line with best practice developed in the London Borough of Camden, and challenged whether the current arrangements offer best value for the Partner Authorities. The review concluded that Government regulations on the requirements for (and therefore the likely scarcity of), the Authorised Treatment Facilities where de-pollution would occur would determine whether much greater co-ordination between the Partner Authorities would be required. If treatment facilities were scarce then joint arrangements may offer Best Value for the Partner Authorities. However, contractors to the Boroughs were readily able to provide such facilities, so no further integration of services was necessary.

In October 2003 the Association of London Government (now London Councils), on behalf of the London boroughs and supported by the Home Office Anti-Social Behaviour Unit, launched an initiative 'Operation Scrap-it' to remove nuisance vehicles within 72 hours of reporting. The other elements of the scheme included a free take-back service and a commitment by boroughs to crush any untaxed and unregistered vehicles found on borough roads. The scheme received funding of £13.4 million over two years and was scheduled to run to October 2005. The funding was conditional on all boroughs signing up to the delivery of the target and delivering the service to the agreed level. As there was a small amount of Home Office funding left at the end of the period, this was then used to keep the Free Take Back scheme running until March 2006 and to provide some further training for borough officers in relation to the new Clean Neighbourhoods and Environment Act powers. The scheme has now finished.

The Partner Authorities will keep the current arrangements for dealing with abandoned vehicles under review to ensure that the increased number of dumped vehicles and the increased costs of their treatment are minimised in North London.

There may also be a role for the Partner Authorities to play in encouraging the improvement of existing, and introduction of new, dismantling facilities in North London and encouraging the public to use new authorised facilities. This may be through publicity and awareness-raising campaigns, promoting good practice through abandoned vehicle amnesty events, and developing regeneration projects for reuse and recycling of vehicle components.

- 5.A1 The Partner Authorities will continue to share information and best practice on abandoned vehicle arisings to ensure an integrated approach to provision of inspection, collection and disposal services across North London.
- 5.A2 The Partner Authorities will review their arrangements for managing abandoned vehicles to ensure that the number of vehicles that arise and the costs of their treatment are minimised.
- 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.

Asbestos

Asbestos is recognised as an extremely hazardous waste and is therefore separated from the mixed waste stream. Household bonded asbestos is collected under controlled procedures at one of the North London Reuse and Recycling Centres, namely Hornsey Street in Islington. The North London Waste Authority arranges for its disposal under contract.

All North London Boroughs are participants in the joint Household Hazardous Waste Collection and Disposal Service operated by the Corporation of London. This service enables residents to request collections of household asbestos up to three times a year. There is a small charge for larger quantities. Additional and separate arrangements are in place for householders to take asbestos waste to the Hornsey Street site in Islington. The site acts as a central location to which residents from across North London are able to bring double-bagged material, from which it is transferred via separate arrangements to a hazardous waste landfill site in Essex. The number of suitable landfill sites in the South East region has decreased with the implementation of the Landfill Directive's requirement to stop landfilling hazardous and non-hazardous wastes in the same landfill sites. The cost of asbestos disposal to the Partner Authorities is therefore expected to increase significantly in the period of this Strategy.

The Partner Authorities recognise the importance of providing easily accessible collection services for the safe disposal of asbestos, even given the likelihood of increased costs of disposal due to the implementation of the Landfill Directive.

5.B The Partner Authorities will continue to provide an easily accessible collection service for household asbestos and a means of disposal for commercial asbestos throughout the period of this Strategy.

Batteries and Accumulators

Household batteries and accumulators are classified as hazardous waste under the European Waste Classification. Although a small part of the waste stream, they have considerable polluting potential when treated through incineration or sent for disposal to landfill. It is estimated that only 4% of household batteries are currently recycled, although approximately 90% of car lead acid batteries are recycled. The European Union Directive on Batteries and Accumulators (91/157/EEC), the Battery Directive, is set to come into force in the UK by September 26th 2008. It requires that 25% of the UK's waste portable batteries must be collected and recycled by 2012, rising to 45% in 2016 and requires battery manufacturers to pay for the collection and recycling of household and non-household batteries. As well as collection and recycling targets, the new Directive will restrict the use of hazardous substances such as cadmium and mercury in making new batteries. It will also oblige battery manufacturers to provide clearer labeling on batteries to show how long the life of each battery is – to help consumers make the choice between batteries with differing environmental impacts.

The Partner Authorities collect motor vehicle lead acid batteries for recycling at Reuse and Recycling Centres. Household batteries are collected in three of the seven North London Boroughs at the kerbside, and from two Boroughs at Reuse and Recycling Centres, but currently have to be sent abroad for reprocessing following the recent closure of the last battery recycling plant in the UK. The London Borough of Camden is currently participating in a WRAP trial to investigate the most effective method of collecting household batteries in order to meet the requirements of the Batteries Directive.

5.C The Partner Authorities will work to increase the level of recycling of household batteries in North London wherever practicable.

Bulky Waste

The Partner Authorities all operate bulky waste collection services from residents, in some cases free of charge or alternatively for a reasonable fee, and all are required to provide a civic amenity provision where bulky waste can be disposed of free of charge by householders. Several of the North London Boroughs also operate community skip services and community “clear-ups” where containers are provided on a temporary basis to enable residents to discard furniture and other bulky wastes.

The Mayor’s Municipal Waste Management Strategy (2003) includes a proposal that the Partner Authorities should provide well-advertised bulky waste services to minimise dumping of bulky waste, and should offer free collections if a problem with fly-tipping of bulky waste develops. The Partner Authorities are currently experiencing no significant problems with fly-tipping of bulky waste and consider their services to be advertised effectively.

However, the Partner Authorities have recognised that a proportion of bulky waste is potentially recyclable, particularly metal, wood and construction wastes. The North London Waste Authority therefore requested that LondonWaste Limited conduct trials to separate these materials from mixed bulky waste and establish the potential contribution that this could make to the Partner Authorities’ recycling and composting standards. LondonWaste Limited subsequently built a bulky waste recycling facility at Edmonton, which receives waste from the Reuse and Recycling Centres and some separately-collected bulky wastes from the partner Boroughs, and retrieves large items of recyclable or compostable waste.

Some of the North London Boroughs screen bulky wastes for reuse before they collect them for disposal by the North London Waste Authority, or have separate arrangements in place for door-to-door collections of furniture, employing not-for-profit organisations that additionally offer employment and skills development for previously unemployed people. The North London Waste Authority has facilitated and supported this wherever possible.

- 5.D1 The Partner Authorities will provide effective and well-advertised bulky waste collection services throughout the period of this Strategy.
- 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.

Clinical Waste

Clinical Waste consists of all hazardous human or animal tissues or fluids and equipment contaminated with these materials. Household clinical waste is collected free of charge by the North London Boroughs from households, with some also providing commercial clinical waste services from doctors' surgeries and veterinary practices for a reasonable charge.

In 2006/07 904 tonnes of household clinical waste was collected by the North London Boroughs and sent for disposal by the North London Waste Authority in the clinical waste treatment facility operated by LondonWaste Limited's subsidiary company - Polkacrest Limited - at Edmonton in Enfield.

The clinical waste facilities in North London are an important strategic resource for the whole of London, and the Partner Authorities recognise the need to safeguard sufficient clinical waste treatment and transfer capacity within the North London Waste Plan.

The Mayor of London has proposed that London local authorities will be required to work in partnership with other stakeholders, especially Primary Care Trusts, to reduce the occurrence of fly-tipping of clinical waste, especially syringes and other sharp items. Some good practice already exists in North London but the Partner Authorities welcome the Mayor of London's proposal to develop best practice for clinical waste collection services.

- 5.E1 The Partner Authorities will continue to provide high-quality household clinical waste collection services free of charge throughout the period of this Strategy.
- 5.E2 The Partner Authorities will review the Mayor of London's best practice advice once this is developed and will implement any appropriate changes that improve services to North London residents.

Non-Household Waste

Non-household waste in North London is primarily composed of “trade” waste collected from commercial premises by the Boroughs and “industrial” construction waste collected from civic amenity sites or from Boroughs’ highway maintenance activities. No commercial waste is currently collected at Reuse and Recycling Centres in North London. In 2006/07, approximately 144,576 tonnes of commercial waste was collected in the area and 9,707 tonnes of construction waste.

Commercial waste is usually collected mixed with household waste, and therefore an apportionment between each element is necessary. When the first draft of the North London Joint Waste Strategy was published in September 2004 the non-household element was calculated using a methodology based on a survey carried out in 1995. From 2008/09 non-household waste is charged directly to the North London Boroughs based upon the volume of non-household waste they collect from their contracted customers. The remainder of waste is determined to be household waste and the North London Waste Authority’s costs are recovered through the levy using the Levying Bodies regulations.

The Mayor’s Municipal Waste Management Strategy includes a proposal requiring London local authorities to identify ways to minimise the amount of unpaid-for commercial waste entering the household waste stream. All the North London Boroughs have enforcement teams with responsibility for ensuring that this practice is minimised; for example, the London Borough of Barnet operates an appointment system for vans delivering waste to Summers Lane Reuse and Recycling Centre, with a monitoring officer checking any loads suspected of being commercial waste. However, it is important to note that activities aimed at improving the street environment may inadvertently increase the amount of unpaid-for waste collected in street cleansing and refuse collection services, although the new non-household charging system implemented from 1st April 2008 will discourage this.

As noted earlier, work is on-going to exploit any opportunities to improve value for money by integrating non-household recycling and composting services with similar household waste services.

- 5.F1 The Partner Authorities will implement the new method of assessing non-household charges from the 2008/09 financial year based on the volume of waste each North London Borough collects from contracted customers and agreed volume:weight ratios.
- 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.

Construction and Demolition Wastes

The Mayor's Technical Assessment for Waste Management in London (2003) identified 28 construction and demolition facilities in the North London area. (A more recent list of waste sites was also produced for the London Plan; however, this did not specify the nature of the waste activity taking places on these sites.) Any construction and demolition facilities are an important waste management resource.

The Partner Authorities use one of these sites - Camden Plant Limited - for the reuse of household-derived construction waste arising from collections at Reuse and Recycling Centres and from North London Borough highway maintenance activities. This material cannot contribute directly to statutory recycling standards.

- 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.

Liquid Wastes

The North London Boroughs, as Waste Collection Authorities, are required under the Environmental Protection Act 1990 to collect from cess-pools, and under the Highways Act 1990 to clear waste from gullies. Street washing and sweeping activities also generate liquid detritus and two Boroughs also have housing stock served by the "Garchey" waste disposal system, where liquid-born household waste is collected in tankers from properties of multiple occupancy. The Partner Authorities are not required to dispose of any non-household liquid wastes, and direct private organisations to reputable waste management companies who can provide these services.

Cess-pool collections are the responsibility of the Partner Boroughs. This material is delivered for disposal to a Thames Water Services treatment facility in Stanstead Abbots. LondonWaste Limited receives waste from Partner Boroughs' street washing and sweeping activities for disposal under the main waste disposal contract with the North London Waste Authority.

Under the new European Hazardous Waste List, some types of detritus waste have become classified as Hazardous Waste. However, this does not apply to the types of gully waste and street cleaning waste which is collected by the Partner Authorities. These wastes are still defined as non-hazardous waste. However, the North London Waste Authority did specify a purpose-built detritus bulking facility at the new Hornsey Street Waste and Recycling Centre in Islington.

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.

Fly-tipped Waste and Litter

Fly-tipping - the unauthorised or illegal dumping of waste - and littering are persistent and anti-social waste enforcement problems that the North London Boroughs are in the process of taking concerted action to address. An increase in the number and quantity of fly-tipping incidents followed the introduction of the Landfill Tax and the number of dumped tyres from old cars increased following the collapse in scrap metal prices. The introduction of new legislation, for example through restricting the commercial disposal of newly-defined hazardous wastes, also has the potential to increase fly-tipping. The North London Boroughs have invested significantly in improving the street scene in recent years, providing improved litter clearance and fly-tipping services and greater enforcement activities. In addition, many North London Boroughs have educational projects that target an anti-litter message at children.

5.I The Partner Authorities undertake to take integrated and concerted action to tackle fly-tipping and littering, ensuring that each aspect of waste enforcement is co-ordinated to avoid displacement of waste problems.

Hazardous Waste

Hazardous waste, previously known in the United Kingdom as Special Waste, is waste that can cause harm through being toxic, corrosive, flammable, radioactive or poisonous and typically composes approximately 1% of all municipal waste.

The definition of hazardous waste has widened as a result of changes to the European Waste Catalogue and associated Hazardous Waste Lists, and its disposal is also becoming increasingly more difficult due to the requirements within the Landfill Directive that hazardous waste be disposed of only in dedicated hazardous waste landfill sites. The number of hazardous waste landfill sites has significantly reduced since July 2004 as a result of this legislation, with very little treatment capacity being available in the South East Region. The combined effect of this wider definition of hazardous waste, which will require more separation of hazardous wastes, and the restriction in disposal capacity will mean that the cost of hazardous waste management is expected to increase significantly in the period of this Strategy.

The Household Hazardous Waste collection and disposal service provided to North London residents by the Corporation of London on behalf of the Partner Authorities enables residents to obtain up to three collections of hazardous waste per year. These are normally free, although large quantities of waste may incur a charge. The Corporation of London has ensured that the service has the capacity to accept the newly-defined hazardous waste materials. An exception is fluorescent tubes and fridges, which are also classified as waste electrical and electronic equipment and which can therefore also be taken to a Designated Collection Facility, such as any of the North London Reuse and Recycling Centres.

The Partner Authorities welcomed the Mayor of London's review of the Corporation of London's household hazardous waste collection and disposal service, and recognise that the service will need to be promoted to a greater degree than currently if hazardous materials are to be effectively removed from the waste stream.

The Mayor of London has also proposed that all Reuse and Recycling Centres should provide facilities for household hazardous waste collections. Many North London Reuse and Recycling Centres already provide collections of waste oil and lead acid batteries. Since 1st July 2007 all the North London Reuse and Recycling Centres also collect waste electrical and electronic equipment. However, available space at these sites is at a premium, and the increased separation necessary may be better accommodated at shared facilities across North London where hazardous wastes can be managed safely and efficiently. The Partner Authorities undertake to review the provision of household hazardous waste services to determine which collections will offer best value for the Partners.

- 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.

Ozone Depleting Substances

The Ozone Depleting Substances Regulations came into effect in January 2002, requiring the extraction of all ozone depleting substances from fridges and freezers, whereas previously only the refrigerant liquids were extracted before recycling.

The Partner Authorities agreed that a joint disposal arrangement would offer best value, and the North London Waste Authority therefore arranged for a Variation to its waste disposal contract with LondonWaste Limited to co-ordinate the disposal of all fridges and freezers in North London from August 2002. From 1st July 2007, however, the collection and reprocessing for all waste electrical and electronic equipment from local designated collection facilities (including all local Reuse and Recycling Centres) was taken over by the North London Waste Authority's appointed producer compliance scheme, currently DHL, who do this free of charge under new legislation. Fridges are sent to EMR Limited in Willesden for reprocessing. A total of 2,453 tonnes of fridges and freezers were recycled during 2006/07.

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.

Packaging wastes

The Producer Responsibility Obligations (Packaging Waste) Regulations 1997 and subsequent updates (latest 2007) implemented the European Directive on Packaging and Packaging Wastes (1994/62/EC and 1997/129/EC) in the United Kingdom. The regulations require producers of packaging to recycle and recover energy from packaging at increasingly higher rates, and to demonstrate compliance each year through a combination of their own recycling and recovery efforts and via the purchase of Packaging Recovery Notes for material recycled from accredited reprocessors of packaging. A consultation on a range of new packaging recycling and recovery targets was published in 2007 which proposed higher and more challenging targets; these have now been confirmed as outlined below.

The table below shows the business recovery and recycling targets for packaging in Great Britain (these are the targets used by businesses to calculate their obligations for 2008 – 2010):

	2008	2009	2010
Paper	67.5%	68.5%	69.5%
Glass	78.0%	80.0%	81.0%
Aluminium	35.0%	38.0%	40.0%
Steel	68.0%	68.5%	69.0%
Plastic	26.0%	27.0%	29.0%
Wood	20.5%	21.0%	22.0%
Recovery	72.0%	73.0%	74.0%

The updated targets are aimed at the UK meeting the European Directive targets.

It was thought that Local Authorities might benefit directly from increased prices for collected materials, or from direct investment in collection services as a result of the legislation, but most of the benefit of the new income has fallen to accredited reprocessors. Local authorities and obligated companies are increasingly both implementing recycling systems to meet their own recycling and recovery targets, as evidenced by the replacement of local authority recycling banks on some retailers' car parks with the retailers' own facilities focussing on obligated packaging streams.

Initially, the recycling target levels under the regulations were proportionally low compared to the amount of energy recovery required, which enabled LondonWaste Limited to benefit as an accredited energy recovery facility under the regulations. As the recycling targets have moved up, the market for energy recovery Packaging Recovery Notes has fallen away, and possible changes to European waste definitions concerning the reclassification of Energy-from-Waste as disposal rather than recovery mean that this trend is likely to continue.

5.L The Partner Authorities will seek to work with companies obligated under the Producer Responsibility (Packaging) Regulations to maximise their investment in the municipal recycling infrastructure that is required to enable the companies and the Partner Authorities achieve their respective targets.

Polychlorinated Biphenyls (PCBs)

The Environmental Protection (Disposal of Polychlorinated Biphenyls and Other Dangerous Substances) (England and Wales) Regulations 2000 implement a European Directive requiring the phasing out of these substances, which are highly toxic, persistent and build-up in animals to levels hazardous to health.

The Mayor's Municipal Waste Management Strategy requires the Partner Authorities to confirm the status of any equipment they hold containing these substances by registering with the Environment Agency each year.

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.

Special Events

The Mayor's Municipal Waste Management Strategy includes a proposal that London Local Authorities should make it a requirement of issuing a licence for special events, that the organisers of such events should have to develop a waste management plan including requirements for minimising waste and maximising recycling. The Mayor of London has proposed that London Local Authorities issue the Mayor with a list of such events and their plans for waste management at these events.

The Partner Authorities recognise that the site of part of the Olympic Stadium falls within the North London area and that the Olympics are likely to cause significant increases in recyclable and non-recyclable wastes before, during and after the event. This may require additional or improved municipal waste infrastructure, for which the Partner Authorities will lobby the Mayor of London, the London Development Agency and Government for dedicated support.

5.N1 The North London Boroughs will individually issue the Mayor with lists of the special events taking place within their areas and setting out plans for waste management at these events.

5.N2 The Partner Authorities will lobby relevant parties to ensure that the London Olympic Bid organisers minimise waste arisings and then maximise recycling and then recovery of energy value from all wastes generated by the event.

Waste Electrical and Electronic Equipment

The requirements of this Directive have been detailed earlier within Chapter 3 of this Strategy.

5.O The Partner Authorities undertake to continue working with relevant stakeholders to meet any statutory requirements imposed on local authorities under the regulations that implement the European Waste Electrical and Electronic Equipment Directive.

Chapter 6 – Identifying the Best Option for North London

When the 2004 draft of the North London Joint Waste Strategy (NLJWS) was first produced the Government then required local authorities to identify the “Best Practicable Environmental Option” when making decisions on the appropriate waste management infrastructure for their local area, and had issued guidance (Office of the Deputy Prime Minister, 2003) indicating the way that it expected this process to be carried out.

The Best Practicable Environmental Option was defined within the 12th Report of the Royal Commission on Environmental Pollution as being:

“the outcome of a systematic and consultative decision-making procedure, which emphasises the protection of the environment across land, air and water. The Best Practicable Environmental Option procedure establishes, for a given set of objectives, the option that provides the most benefits or the least damage to the environment as a whole, at acceptable cost, in the long term as well as the short term.”

However, because the NLJWS was not formally adopted by 22nd July 2006, the requirements of the Strategic Environmental Assessment (SEA) Directive² and the accompanying Environmental Assessment of Plans and Programmes Regulations 2004 (the ‘SEA Regulations’), became applicable. (SEA has now replaced BPEO as the principle decision-making tool supporting waste management strategy preparation.) This meant that it was necessary to carry out a retrospective Strategic Environmental Assessment (SEA) of the NLJWS in addition to the original BPEO assessment.

Independent consultants carried out a formal ‘screening’ assessment of the North London Waste Authority’s forthcoming Procurement Strategy and concluded that SEA was not required for the Procurement Strategy, provided that a retrospective SEA was undertaken on the NLJWS and Appropriate Assessment of the effects on European Sites for nature conservation interest under the Habitats Directive did not apply. The Authority’s Legal Adviser also identified that it would be necessary to carry out a retrospective SEA of the NLJWS and this was approved by the North London Waste Authority in December 2006.

This chapter identifies the outcomes of the SEA process and highlights the differences where relevant between the original BPEO assessment which was carried out in 2004 and the subsequent SEA review which has been carried out in 2007. A copy of the 2004 ‘Mayor’s Draft’ of the North London Joint Waste Strategy, including the original BPEO assessment, can be found on the North London Waste Authority website at www.nlwa.gov.uk .

² Directive 2001/42/EC – the Strategic Environmental Assessment (or ‘SEA’) Directive

This chapter also provides details of updated financial modelling for the different scenarios that were originally assessed in 2004, as well as the new additional procurement scenario that has subsequently been developed from the partnership approach which was identified as a preferable option for managing municipal waste in North London in 2004.

Scope

The focus of the SEA process is on environmental effects; however, it was decided to broaden the assessment to cover social and economic effects in order to make the SEA process being carried out for the North London Joint Waste Strategy more consistent with the Sustainability Appraisal (SA) process used by the Mayor of London on his strategy documents, and also with the SA process being undertaken by the North London planners for land-use planning for waste in the area. This means that the SEA is broader in scope than the previous BPEO analysis. For the SEA review the process also included an assessment of five alternative options for the Strategy using the Environment Agency's WRATE (Waste and Resources Assessment Tool for the Environment) model, this is an updated version of the Environment Agency's WISARD (Waste Integrated Systems for Recovery and Disposal) Tool which had been used in the previous assessment for BPEO. A third difference between the previous BPEO assessment and the more recent SEA is that SEAs include a requirement to provide an environmental report for consultation with the environmental authorities and the public, alongside a copy of the draft plan which is being assessed. The environmental report must describe and evaluate the likely significant environmental effects of implementing the strategy in question. The environmental report produced as a result of the SEA process is listed as an appendix to this Strategy but is separately available as it is over 200 pages long; details of the consultation process are in the environmental report, but a report on the full outcomes of the consultation process cannot be finalised until the final Strategy document is adopted.

A full description of the BPEO process can be found in the 2004 'Mayor's Draft' of the North London Joint Waste Strategy, available on the North London Waste Authority website at www.nlwa.gov.uk or in hard copy by writing to the Authority. The rest of this chapter, however, summarises the findings of the retrospective SEA process.

Retrospective Strategic Environmental Assessment

A Strategic Environmental Assessment process must involve the following stages:

- Stage A – Setting the context and objectives, establishing the baseline and deciding on the scope
- Stage B – Developing and refining options assessing effects
- Stage C – Preparing the environmental report
- Stage D – Examination
- Stage E – Monitoring

As in the previous BPEO assessment, the North London Waste Authority arranged for the work to be carried out on behalf of the Partner Authorities. The initial stages of the work were completed in-house with technical consultants appointed to carry out the modelling and options assessment work and to prepare the environmental report. Technical consultants Ramboll, with sub-consultants AEA Technology, were appointed to carry out the modelling in accordance with Government guidance. They employed the Environment Agency's new life cycle assessment tool WRATE, which has replaced WISARD, the tool which was used in the previous assessment. WRATE also uses life cycle assessment to identify and quantify all the emissions and impacts from managing waste - from the type of containers used, such as wheeled bins, right through to final recovery or disposal and including all the transport methods used to transfer the waste. However, WRATE includes more data than WISARD, in particular, it includes a larger number (24) of recycling, treatment and recovery (43) processes therefore enabling a more up-to-date assessment using newer waste management technologies to be carried out.

Ramboll and AEA Technology also again used AEA Technology's own, in-house performance model – WASTEFLOW - which models the flows of waste between processes and facilities and estimates the costs of providing the service. Another technical consultancy, ENTEC, was appointed to write the environmental report and review the initial stages of the work carried out by the in-house North London Waste Authority team. The work was conducted between September and December 2007 and the following sets out the conclusions resulting from the analysis and retrospective review of the Strategy.

Stage A – Setting the context, establishing the baseline and developing the SEA objectives

A scoping report was prepared setting out the context for carrying out the SEA, identifying other relevant policies, plans and programmes and environmental objectives; collecting baseline information, identifying sustainability issues and problems and developing the SEA framework. The scoping report was then sent to the statutory consultees for review and comment. In England the statutory consultees are English Heritage, the Environment Agency and Natural England. Following consultee comments, the scoping report was amended and this amended scoping report then set the framework for producing the SEA Environmental Report.

Appendix 4 (available separately) includes a copy of the SEA Environmental Report together with a copy of the revised scoping report.

The table following sets out the problems and issues facing the Partner Authorities in the form of strengths and challenges for the North London Waste Authority area. The subsequent table at the end of this chapter outlines the SEA objectives which were set for the review, together with relevant appraisal criteria and possible indicators to be used.

The North London Joint Waste Strategy
- February 2009 -

Challenges & Issues Faced in North London Relative to the Different SEA Objective Categories		
Category of SEA Objective	Strengths	Challenges
Population and Human Health	All boroughs' populations have increased over the last 20 years Average age across all boroughs is lower than national average	Reducing the existing health inequalities between the boroughs
Biodiversity	The North London area has a number of habitats and species of local, national and international importance.	Parts of three of the Sites of Special Scientific Interest (SSSIs) are in unfavourable condition including areas which fall within European designated sites.
Soil		Maximising the use of previously developed land
Water	Quality of rivers is generally good. Only one river failed its River Ecosystems Targets	Water consumption – The Thames region is the most populated region in the UK and consequently water is scarce Some areas at risk of groundwater pollution. Some high levels of nitrate concentrations
Air	Emissions reducing in some boroughs as a result of the introduction of the London congestion zone	Reducing nitrogen dioxide and particulate matter pollutants across the North London area
Climatic Factors		Inner boroughs more susceptible to temperature rises as a result of high densities Risk of flooding from the Lee flood plain
Material Assets/Resources	Average waste growth over the last 5 years of just 0.2%	Meeting statutory targets for recycling, recovery and landfill diversion
Built and Historic Environment	The area has a number of historic parks and gardens, listed buildings and conservation areas Large amount of high quality open and greenspace	Protecting a number of listed buildings 'at risk' due to neglect and decay Protecting land from new urban developments (predominantly urban area)
A Stable Economy	The green/environmental industry sector provides a potentially high employment source for local communities in the future	Maximising employment opportunities arising from implementing the North London Joint Waste Strategy
Accessibility and participation	Access to all services is generally good	Recycling and waste services provided to households vary greatly from borough to borough Improving access to recycling centres

The SEA objectives largely follow Government guidance and the example provided by the Mayor of London's Business Waste Strategy (as this represents the most recent regional strategy relating to waste for which SEA has been undertaken), with minor amendments necessary for circumstances specific to the North London Joint Waste Strategy.

Stage B – Developing and refining options; assessing effects

The next stage of the SEA process involves testing the North London Joint Waste Strategy objectives against the SEA framework, as outlined in the table above and at the end of this chapter; developing the North London Joint Waste Strategy options or alternatives for action; predicting the effects of the North London Joint Waste Strategy, based upon the different options evaluated; and then considering ways of mitigating adverse effects and maximising beneficial effects and providing recommendations for monitoring the environmental effects of implementing the plan or programme.

Government guidance states that it is necessary to test the objectives of the plan being reviewed by the SEA process against the SEA objectives and against each other. Appendix B of the SEA Environmental Report provides the results of the assessment which was carried out to review the 'implementation actions' or objectives of the North London Joint Waste Strategy against the 20 SEA objectives. **This assessment concluded, see section 4.1 of the Environmental Report, that the North London Joint Waste Strategy objectives were compatible with each other as were the SEA objectives with themselves and further amendments were not considered necessary.** i.e. The SEA process concluded that it was not necessary to amend the objectives of the North London Joint Waste Strategy as a result of the SEA process.

The next stage of the process as required by the SEA Directive is that the nature of the options being considered for the North London Joint Waste Strategy must be outlined and similarly assessed against the SEA framework. The previous BPEO assessment had reviewed four options or alternatives for action put forward in the North London Joint Waste Strategy:

- a minimum compliance scenario involving doing the minimum possible to achieve recycling targets and targets to divert waste away from landfill disposal; this scenario was modelled to meet a 33% household recycling rate by 2015 and carried a risk of needing to purchase landfill allowances at whatever price they are selling for at the time.
- a borough-led scenario, which was based upon each of the seven constituent boroughs developing services and facilities locally; more localised waste treatment facilities of a type each borough thought might be most appropriate for their area, along with kerbside sorting of recyclables handled via local bulking facilities.
- a partnership scenario, based upon a shared approach to meeting targets; fewer, more strategic waste treatment facilities to maximise economies of scale, along with central sorting of recyclables at materials recovery facilities.

- a Mayor's aspirational scenario based upon what was then the Mayor of London's draft higher recycling and composting rates for household waste (these were subsequently reduced downwards in the published version of the Mayor of London's Municipal Waste Management Strategy).

As part of the SEA process the original four scenarios were reviewed on the basis of the requirements that they be realistic, achievable and workable. In the light of this review it was decided that:

- None of the scenarios would be realistic in 2007 unless they achieved the new national English Waste Strategy 2007 target of 50% recycling and composting by 2020. In the modelling it was assumed that this would be achieved through recycling or composting of kerbside collected material. Recycling contributed through residual waste treatment is in addition to that. So each scenario was remodelled to reach a minimum of this level. Scenario 4, the Aspirational Model, goes beyond this to achieve 54.8% recycling by 2020.
- Because it was more certain and therefore workable, it was also assumed that in all four scenarios current recycling and collection arrangements (i.e. commingled or kerbside sorting) remain unchanged in future, i.e. with four out of the seven boroughs collecting dry recyclable waste commingled and subsequently sorting it at a materials recovery facility, and three of the seven boroughs collecting dry recyclable waste and sorting it at the kerbside. This is different from the previous BPEO modelling which assumed different mixes of commingled or kerbside sorted systems being put into place in the future.
- Thirdly, the borough-led scenario was also remodelled. In the original BPEO assessment it was assumed that this scenario would involve the Edmonton EfW plant no longer being available in 2015 and being replaced by a mix of new and emerging technologies – two pyrolysis or gasification plants, two mechanical biological treatment plants and three biological mechanical treatment plants with a total capacity of 710,000 tonnes capacity per annum. In the new assessment this scenario assumes six new plants, rather than seven and specifies that two of these are gasification plants as outlined in the table below.
- Finally a fifth new scenario was added based upon the North London Waste Authority's reference project being used for the Procurement Strategy – a theoretical mix of facilities being used to provide costings for the procurement process for providing services and facilities post 2014, when the Authority's current contract with its main waste disposal contractor comes to an end. This scenario is a further development of the partnership approach included in the previous BPEO process. It should not be assumed that this is the mix of facilities which the North London Waste Authority will be procuring as it is a theoretical mix of facilities currently being used for costing and planning purposes, but it provides a further scenario for assessment.

Scenario summaries and residual waste technologies modelled for the SEA Process

Scenarios	Technology	Capacity (ktpa)
Sc 1 – Compliance	EfW	450
Sc 2 – Borough led	Gasification (2 facilities)	Total 250
	MBT-AD (2 facilities)	Total 270
	MBT-RDF (2 facilities)	Total 385
Sc 3 - Partnership	EfW	450
	MBT-AD	250
Sc 4 - Aspirational	EfW	270
	MBT-AD	200
Sc 5 - Procurement Strategy	EfW	540
	MBT-RDF	250

All scenarios assume 3 materials recovery facilities at a total of 165,000 tonnes per annum. All scenarios assume composting of kitchen and green garden waste of 180,000 tonnes per annum based upon 40,000 tonnes of green garden waste being open windrow composted and 140,000 tonnes of mixed garden and kitchen waste being composted in-vessel.

Key:

EfW – energy from waste incineration
MBT – mechanical biological treatment
AD – anaerobic digestion
RDF – refuse derived fuel

- It is assumed that recycling of commercial waste collected by boroughs will be introduced by 5 boroughs achieving 10% by 2020. Camden and Hackney already provide some recycling collection for commercial waste; hence they have been modelled to achieve 15% recycling of commercial waste by 2020.
- Three MRFs have been modelled to be provided by NLWA – two MRFs each with 60,000 tonnes per annum capacity starting in 2011, and a third MRF being introduced by 2015 with 45,000 tonnes per annum capacity.
- New residual treatment facilities start operation in 2015/16. It is assumed that the contract with Edmonton EfW would cease after 2014/15.

- Modelling is based on waste compositions used for the Procurement Strategy - household waste, CA waste, commercial waste, street sweepings and bulky waste were added in with a composition based upon a survey carried out in Wales (The composition of municipal solid waste in Wales, MEL, WRc, AEA for the Welsh Assembly, 2003).
- It is assumed that the amount of green garden and kitchen waste which is composted is the same in all five scenarios.

The development of alternative options for the Strategy was carried out when the draft NLJWS was prepared in 2004 and was informed by the Best Practicable Environmental Option (BPEO) assessment undertaken at the time. Although SEA has replaced BPEO as the principle decision-making tool supporting waste management strategy preparation, SEA also requires development of alternative options. As the SEA was carried out retrospectively, however, the approach is slightly different to that prescribed by the Office of the Deputy Prime Minister SEA guidance. Specifically, because it was a retrospective SEA which was being carried out for the NLJWS, it was not considered appropriate to develop a range of additional scenarios to be modelled, other than the fifth procurement reference project scenario, but rather to carry out a new assessment of the original four options considered, updated as outlined above. The SEA was carried out on the 2004 draft NLJWS with the intention that the SEA process would inform an update of the Strategy prior to final adoption.

Stage C – Preparing the Environmental Report

The Environmental Report attached details the results of the strategic environmental assessment, including the results of an appraisal of the implementation actions within the North London Joint Waste Strategy, comparison of significant effects, how environmental issues were considered in choosing the preferred strategic alternatives, other alternatives considered and why they were rejected. The report also summarises the significant effects and proposed mitigation measures to offset the environmental effects.

The comparison of the different scenarios or options for the North London Joint Waste Strategy was carried out using a mixture of qualitative and quantitative assessment, in much the same way as the original BPEO assessment. This assessment included the use of:

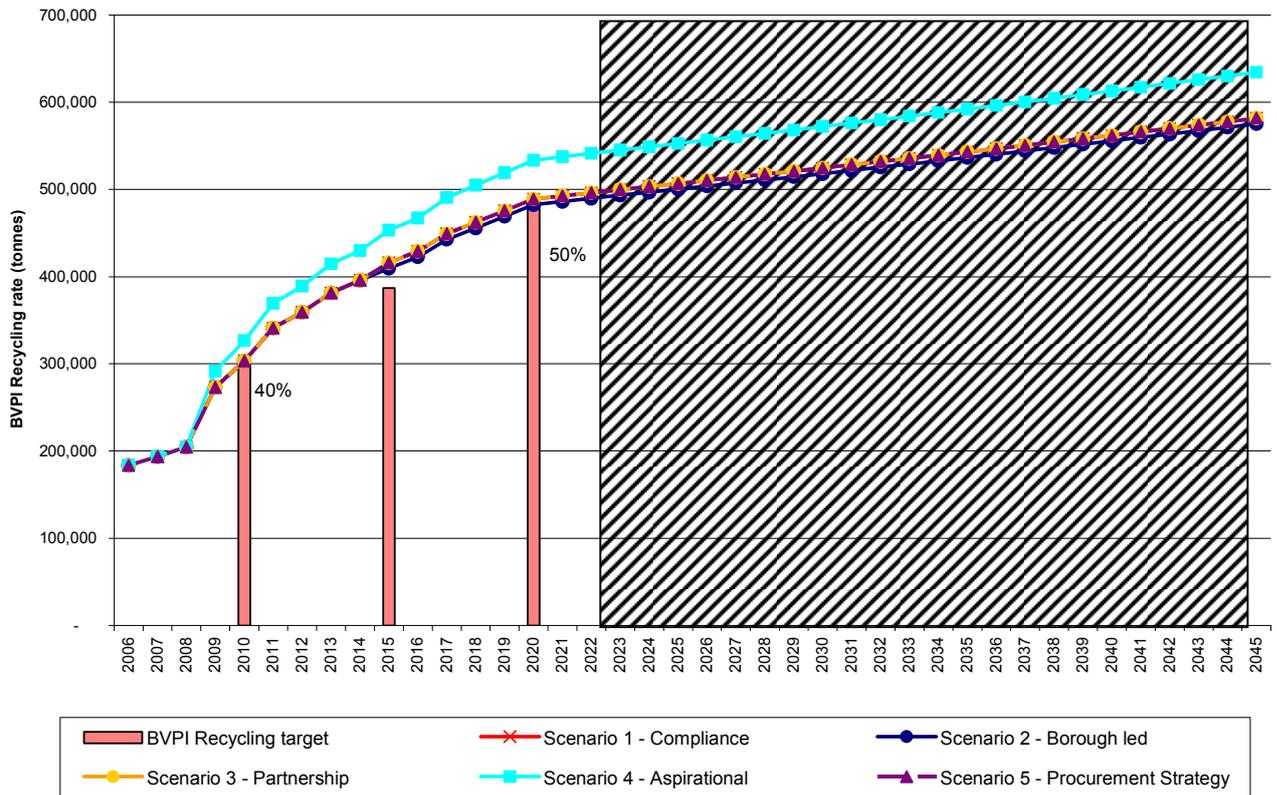
- **Professional judgement:** members of the Entec waste management and planning and environmental appraisal group were consulted in order to appraise the options. They have considerable experience of waste strategy development and implementation and Strategic Environmental Assessment of Waste Strategies and Waste Local Development Frameworks;

- **WRATE model:** The Environment Agency's life cycle assessment tool, 'WRATE', was used to model the potential environmental impacts of the options. WRATE has been specifically developed to include a full range of environmental and climate impacts of wastes management options;
- **WASTEFLOW model:** AEA Technology's performance model which models the flows of waste between processes and facilities and estimates the costs of providing the service; and
- **Technical guidance:** – for example DEFRA's 2004 Review of Environmental and Health Effects of Waste Management; DEFRA's Waste Management Technology Briefs (2007).

The following graphs show the performance of the different scenarios for recycling and composting and diversion of biodegradable waste from landfill from the WASTEFLOW model. All scenarios hit the 50% recycling and composting target by 2020, with the aspirational scenario going beyond this as already outlined. Compared to the BPEO assessment of the previous scenarios developed when the North London Joint Waste Strategy was first produced, there is much less difference between the performance of the different scenarios in terms of recycling and composting achievement. However, when it comes to landfill diversion performance it can be seen that the compliance and aspirational scenarios do not meet the landfill diversion targets after 2014.

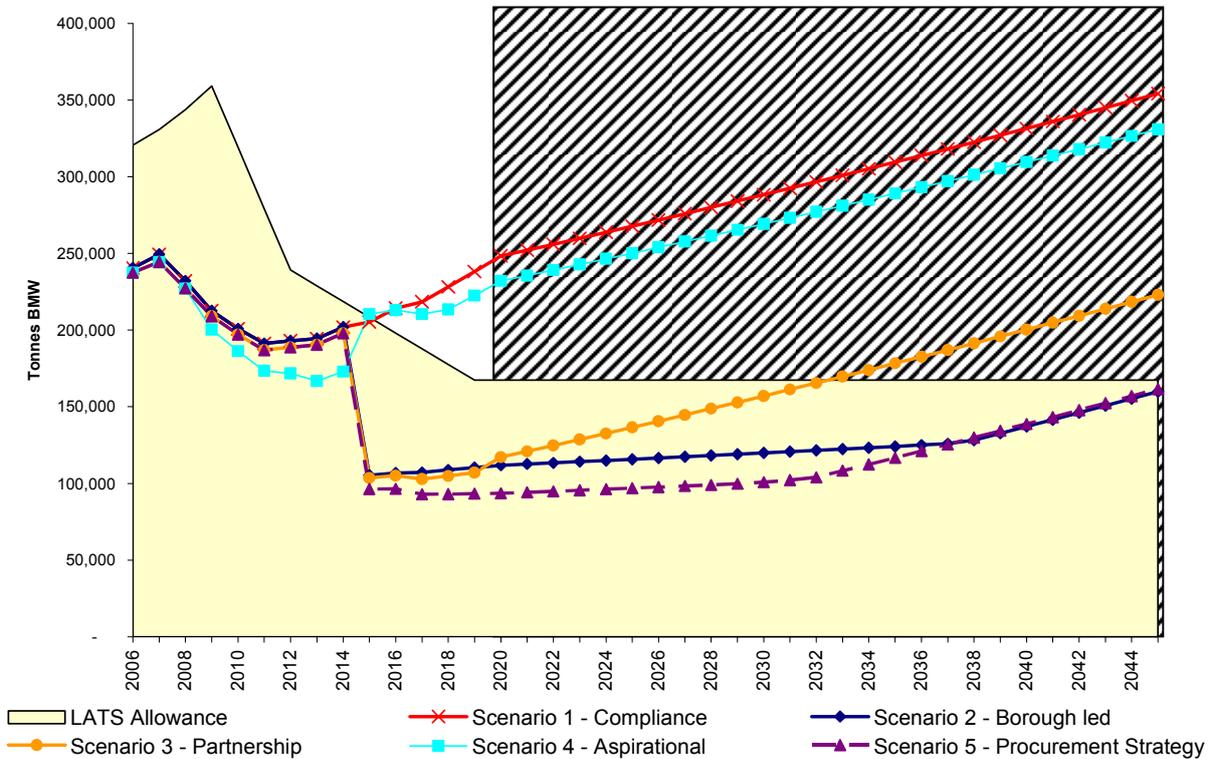
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Scenario Recycling and Composting Performance showing the tonnes of household waste in North London which would be recycled and composted each year under the different scenarios



Note that as the North London Joint Waste Strategy only runs until 2020 and the original four scenarios - compliance, borough led, partnership and aspirational - had only been modelled up to 2020, this Strategy and the accompanying strategic environmental assessment has primarily focused upon the relative performance of the five scenarios up to 2020, although where relevant, comments beyond this date are made.

Scenario Landfill Diversion Performance – showing the amount of biodegradable municipal waste which would be landfilled under each scenario and the landfill allowance trading scheme (LATS) limit for biodegradable municipal waste from 2006 to 2045



Note that as the North London Joint Waste Strategy only runs until 2020 and the original four scenarios - compliance, borough led, partnership and aspirational - had only been modelled up to 2020, this Strategy and the accompanying strategic environmental assessment has primarily focussed upon the relative performance of the five scenarios up to 2020, although where relevant comments beyond this date are made.

Costs

Costs of the different scenarios were also compared within the WASTEFLOW model, and the following table indicates the relative projected revenue costs (incorporating capital financing) for the different scenarios in key years. It is important to note, as already mentioned, that the original four scenarios in the Strategy were not originally developed beyond 2020.

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From the table below it is evident that all scenarios cost the same amount in the short term. However, by 2014 the borough-led and Mayor's aspirational scenarios are approximately £1 million per annum more expensive than the other three options. In the medium and long term the costs of the different scenarios start to diverge, with the procurement scenario predicted as being the least expensive of the scenarios by 2045 and the borough-led scenario the most expensive, £33 million per annum more than the procurement scenario in 2045. In 2020 at the end of the Strategy period, the partnership is performing the best

Scenario	Projected total costs (at 2006 prices) for waste collection and disposal (£million / year)				
	2006	2010	2014	2020	2045
Minimum Compliance	100	118	126	157	185
Borough – Led	100	118	127	187	213
Partnership	100	118	126	156	181
Mayor's Aspirational	100	117	127	169	197
Procurement	100	118	126	157	180

Note that the costs of collection and disposal also include enforcement and promotion costs.

When the cumulative costs of the different scenarios are calculated, the results show that the partnership scenario is the least expensive overall by 2045; however, this scenario does not meet the landfill diversion targets required as already outlined. The procurement scenario, which does meet the landfill diversion targets required, is the second least expensive of the five scenarios evaluated. Again the borough-led scenario is calculated as being the most expensive of the five scenarios by the end of the period.

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Scenario	Projected cumulative costs (at 2006 prices) for waste collection and disposal in £million from and inclusive of 2006				
	Baseline cost 2006	Overall cost to 2010	Overall cost to 2014	Overall cost to 2020	Overall cost to 2045
Minimum Compliance	100	553	1,046	1,935	6,227
Borough – Led	100	553	1,048	2,121	7,159
Partnership	100	553	1,046	1,938	6,131
Mayor’s Aspirational	100	551	1,045	2,003	6,586
Procurement	100	435	1,046	1,947	6,184

Transport

It is worth noting that in the assessment of the different scenarios, some assumptions had to be made for modelling purposes about the potential location of future waste facilities included within each scenario. The locations used for modelling purposes were either locations of existing waste facilities used by the North London Waste Authority or a notional central point within the boroughs without existing facilities.

The additional assessments carried out as part of the SEA process also reviewed the different scenarios in WRATE, the Environment Agency’s life cycle assessment tool which measures the potential environmental impact of different strategies and plans. Professional judgement was also used to evaluate each scenario from an environmental, social and economic perspective against the 20 SEA objectives. The table below shows the results of that analysis using the following marking system. The results of the WRATE analysis are included in the appendix to the SEA environmental report:

SEA Marking System (based on degree of influence on achieving the objectives)						
-- Move away significantly	- Move away marginally	+ Move towards marginally	++ Move towards significantly	/ No relationship	Neutral 0	? Uncertain

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SEA Objective		Scenario 1. Minimum Compliance	Scenario 2. Borough Led	Scenario 3. Partnership	Scenario 4. Aspirational	Scenario 5. Procurement
		EfW (450ktpa)	Gasifier (250ktpa)/ MBT-AD (270ktpa)/ MBT-RDF (385ktpa)	EfW (450kt)/ MBT-AD (250ktpa)	EfW(270ktpa AD(200ktpa)	EfW (540kt)/MBT- RDF(250ktpa)
O1	Biodiversity	+	++	+	+	++
O2	Health	++	++	++	++	++
O3	Soil	0	0?	0?	0?	0?
O4	Air	++	++	++	++	++
O5	Water Quality	+	++	+	+	++
O6	Water resources	?	?	?	?	?
O7	Addressing Climate Change	+	++	++	++	++
O8	Adapting to climate change	?	?	?	?	?
O9	Production of waste	/	/	/	/	/
O10	Reuse, recycling and recovery	-?	++?	++?	-?	++
O11	Consumption of resources	++	++	++	++	++
O12	Waste disposal	+	+	+	+	+
O13	Built environment.	?	?	?	?	?
O14	Infrastructure	?	?	?	?	?
O15	Land use	++?	-?	+	+	+
O16	Deprivation	+	++?	++?	++?	++?
O17	Stable economy.	?	?	?	?	?
O18	Economic performance.	+	++	+	+	+
O19	Accessibility	+	+	+	+	+
O20	Civic participation	?	?	?	?	?

The table above indicates that overall all five scenarios scored positively for the majority of the SEA objectives. There were differences, however, between the scenarios which are summarised below.

Option 1, The Minimum Compliance Scenario was the worst performing option as it scored negatively against objectives for reuse, recovery and recycling as a result of the option only proposing an Energy-from-Waste facility with a capacity for 450,000 tonnes of waste. It will therefore not produce any soil improvers like other options. This scenario is predicted to have positive effects on most other aspects of the environment, based on the WRATE modelling, and will also result in efficient use of land as the option will not require a large amount of land to be developed.

Option 2, The Borough-Led Scenario performs well against the majority of the objectives as a result of the number of facilities being provided and the types of technology proposed. This option proposes six facilities using technologies including gasification, MBT with anaerobic digestion (AD), MBT with refuse-derived fuel, and in total these facilities will treat 905,000 tonnes of waste. The technologies proposed will reduce greenhouse gas emissions, recover energy and have beneficial effects upon air, and water, and will address climate change. In addition, the number of facilities will have positive effects upon economic performance and deprivation as they would create employment. The negative effects of this option, however, were assessed to be in relation to the efficient use of land, as six facilities will require a large amount of land to be developed. In addition, on the cost indicator already outlined, this scenario performed least well of the five options.

Options 3 and 4, The Partnership Scenario and Mayor's Aspirational Scenario score positively for effects upon health, air, climate change, reuse, recycling and recovery, resource consumption, due to the technologies they are proposing. These include EfW, MBT and anaerobic digestion facilities. Under Option 4, however, overall recovery levels are lower and therefore more biodegradable municipal waste is going to landfill up to 2020.

Option 5, The Procurement Scenario is similar to Option 2 and will have a similar environmental effect; as both option 2 and option 5 treat 700,000 plus tonnes of waste (scenario 5 treats 790,000 tonnes) and include MBT technology. For most aspects of the environment, option 5 scores very well due to the large capacity of the EfW and other facilities included within it, which can divert large amounts of waste from landfill and which will help meet LATS targets in the long term and provide other beneficial effects to biodiversity, health and water. In addition, the large capacity of the EfW facility will enable the recovery of energy and reduction in the consumption of natural resources. There are no significant negative effects identified, although there are some uncertainties as the location of future facilities is not known. Option 5 is the best performing option as a result of its choice of technologies, the high volume of waste it will be able to treat and its high recycling targets. It also performs well on cost. The down-side of this scenario is that it proposes energy-from-waste incineration, which the Mayor of London does not favour.

For all the options there was uncertainty regarding their effects upon water resources; adapting to climate change; the built and historic environment; whether waste would be disposed of at the nearest appropriate installation; the economy; civic participation; and equality. This is because effects upon these aspects of the environment will only be known at the options implementation stage when specific sites and technologies are chosen for the new facilities. However, it is proposed that these aspects can be assessed by Environmental Impact Assessment when facilities are actually proposed.

Stage D – Examination

The SEA regulations require public review and assessment of the SEA process and specifically:

- Public participation on evaluating the preferred options of the North London Joint Waste Strategy and Environmental Report
- Appraising significant changes
- Appraising significant changes resulting from the representations
- Making decisions and providing information

A separate report outlines the results of the public consultation phase which was undertaken between 6th May and 17th June 2008 and outlines how the comments made were appraised and then considered in the development of the final Strategy. Comments made by the statutory consultees and the Greater London Authority at the scoping stage of the SEA process were incorporated into a revised SEA Scoping Report which is enclosed as Appendix A of the SEA Environmental Report.

Stage E – Monitoring

The SEA process requires that baseline information is collected at the start of the process, as outlined in the scoping report, and then that a series of indicators is developed and used to monitor the impact of the Strategy upon the environment over time against the SEA objectives. The SEA Directive requires consideration also of the likely evolution of the environment without the implementation of the plan or programme.

The series of indicators outlined at the end of this chapter were selected as part of the SEA process to monitor the potential impact of the Strategy against the SEA objectives.

Conclusions

The results of the Ramboll-AEA Technology Ltd. WASTEFLOW analysis and WRATE modelling, combined with the review and assessment of the different options for the Strategy carried out by ENTEC as part of the SEA process, result in the following conclusions for the Strategy period:

The Minimum Compliance Scenario (Scenario 1) offers the cheapest solution, but scores poorly because of the relatively lower environmental performance, inability to meet landfill diversion targets in the short-term (and long-term) and the high level of risk in depending upon a high level of landfill and the availability of Landfill Allowances to purchase from other authorities. Because this option only relies on energy-from-waste, unlike the other four options, it will also not produce any soil improvers.

Although the Borough-Led Scenario (Scenario 2) performs well from an environmental perspective and is also predicted to have positive effects on economic performance and deprivation as a result of the number of facilities proposed, which would create employment, this is the least beneficial option assessed. This is largely due to the high number of facilities that would be necessary under this scenario, which has an impact on costs, making it the most expensive of the five options assessed (an extra £30 million per year in 2020 compared to the procurement scenario for example). Having many close facilities offers proximity principle benefits, but the local environmental impacts of the many sites required (and the planning uncertainties associated with the same), also outweighs this advantage and is a major concern in terms of the deliverability of this scenario.

The Partnership Scenario (Scenario 3), which was the scenario selected by the Partner Authorities in 2004 as representing the Best Practicable Environmental Option for North London, offering the best combination of environmental performance, socio-economic advantage and operational practicality, continues to score well from the new analyses, particularly in cost terms (being £1 million per year less expensive than the procurement scenario in 2020). However, it doesn't perform as well as the procurement scenario on the water quality or biodiversity indicators.

The Mayor's Aspirational Scenario (Scenario 4) scored well on socio-economic factors, but as the size of the facilities proposed under this scenario is relatively low, it scores poorly overall. In particular, it also fails to deliver the necessary landfill diversion required up to 2020.

The Procurement Scenario (Scenario 5) scores better than the partnership scenario, which had been previously selected as the best practicable environmental option, on the full range of environmental indicators included in the SEA analysis. It also meets landfill diversion targets, both in the short, medium and long term (beyond the Strategy period). However, the procurement scenario is slightly more expensive than the partnership scenario, which is the next best option from a cost point of view (the cheapest option of minimum compliance is excluded for the reasons outlined above).

The Partner Authorities recognise that Energy-from-Waste incineration, which is included in this scenario, offers the only energy recovery treatment technology that is currently proven at the scale, cost and efficiency necessary for delivery of the Procurement Scenario, but also recognise that this may change before any final procurement decisions are taken, and at this stage no technology choices have been fixed. Consideration will also need to be given to the Mayor of London's preference for new and emerging waste technologies when making final technology choices in relation to residual waste treatment.

The modelling includes mechanical and biological treatment, anaerobic digestion and gasification facilities across the scenarios, demonstrating their potential contribution. It is the Authority's preferred strategy to proceed with a technology neutral procurement process, and as new and emerging technologies develop in terms of deliverability and affordability the Partner Authorities will be pleased if the contribution of these technologies in delivering the Strategy can commence.

Accordingly the Strategy implementation action 6B which follows has also been amended to reflect this.

- 6.A The Partner Authorities consider the best option for North London to be a Partnership approach involving the greater integration of collection and disposal services and the development of shared facilities for recycling, composting and treatment of residual wastes.
- 6.B The best option for North London will involve achievement of 50% household waste recycling and composting rates by 2020, with treatment of the residual waste not being landfilled provided initially through the existing Energy from Waste incineration facility, and later through processing capacity, giving preference to advanced conversion technologies, especially where the products of waste treatment could be used as fuels, that are the best overall option taking account of net environmental impact, deliverability, reliability and affordability, looking at implied collection services too.

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SEA Objectives, Appraisal Criteria and Indicators Proposed			
Category of Objective	SEA Objective	Appraisal Criteria	Possible Indicators
Biodiversity Objective	"To conserve and enhance natural habitats and wildlife, especially priority habitats and species"	<p>Will the NLJWS protect local biodiversity?</p> <p>Will the NLJWS enhance local biodiversity?</p>	<p>Biotic index before and after facilities are built</p> <p>Population of BAP priority habitats and species relevant to each waste facility (species to be identified on a site by site basis)</p>
Population and Human Health Objective	"To maximise the health and well-being of the population"	<p>Are the new facilities proposed by the NLJWS going to create unnecessary noise?</p> <p>Are the new facilities as proposed by the NLJWS going to create odour and dust problems?</p> <p>Will the new facilities proposed by the NLJWS lead to an increase in litter and vermin generation?</p> <p>Will the new facilities proposed by the NLJWS affect local infrastructure such as road movements?</p> <p>Will emissions from the NLJWS's new facilities impact upon health of the local community?</p>	<p>Number of complaints received by contractors operating municipal waste facilities in North London</p> <p>Lifecycle assessment of human health impacts (WRATE output)</p>
Soil Objective	"To conserve and enhance natural soil structure and composition"	<p>Will the NLJWS conserve and enhance soil quality?</p> <p>Is compost generated by the facilities proposed in the NLJWS being used locally?</p>	<p>Percentage of North London compost (product made from North London's waste) used within the NLWA area</p> <p>Percentage of North London compost used outside of the NLWA area</p>
Air Objective	"To improve air quality"	<p>Will the NLJWS improve local air quality?</p>	<p>Lifecycle assessment of air acidification (WRATE output)</p> <p>Facility emissions as reported for pollution prevention control permits (PPC) as appropriate</p> <p>Air quality in terms of NOx, SOx and particulates</p>
Water Objectives	"To improve water quality"	<p>Will the NLJWS improve the water quality of groundwater and surface water?</p>	<p>Life cycle assessments of water eutrophication (WRATE output).</p> <p>Life cycle assessment of freshwater aquatic eco toxicity (WRATE output)</p> <p>Number of notifiable water quality incidents</p>

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	"To achieve the wise management and sustainable use of water resources"	Will the new infrastructure impact upon water supplies?	Net Water usage for waste facilities (amount of water 'in' minus amount 'out')
Climate Change Objectives	"To address the causes of climate change."	Will the draft NLJWS minimise emissions of greenhouse gases? Will it increase the proportion of energy both generated and purchased from renewable and sustainable sources?	Life cycle assessment of climate change (WRATE output) Percentage of waste transported by road, rail and water Tonnes of waste transported by road, rail and water Amount of energy produce and used by facilities proposed Per capita reduction in CO ₂ emissions (National Indicator No. 186)
	"To adapt to the unavoidable consequences of climate change".	Will the NLJWS's new facilities avoid areas at risk of flooding? Will the NLJWS's new facilities include sustainable urban drainage systems (SUDS)? Will the NLJWS's facilities and services been designed and delivered to cope with climate change impacts (e.g. higher temperatures, increased winter precipitation)?	Percentage of developments with Sustainable Urban Drainage Systems (SUDS)
Material Assets/Resource Use Objectives	"To minimise the production of waste arising from households and local authority business customers".	Will the NLJWS reduce waste growth relative to the past?	Kg of household waste collected per head Residual household waste per household (National Indicator No. 191)
	"To maximise reuse, recycling and recovery rates by viewing waste as a resource."	Will the NLJWS result in increased diversion of Biodegradable Municipal Waste (BMW) from landfill? Will the NLJWS improve recycling/composting? How and where are the recycled/composted materials being used?	Percentage of household waste sent for reuse, recycling and composting (National Indicator No. 192) Percentage of municipal waste landfilled (National Indicator No. 193)
	"To minimise the global, social, and environmental impact of consumption of resources".	Will the NLJWS conserve natural resources?	Life cycle assessment of resource depletion (WRATE output)

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	"To enable waste to be disposed of in one of the nearest appropriate installations in the management of waste."	Will the NLJWS's new facilities be appropriately located in relation to the main sources of municipal waste?	<p>Number of bring sites per 100,000 people</p> <p>Number of reuse and recycling centres per 100,000 people</p> <p>Percentage of households served by recycling and composting collections</p> <p>Percentage of trade waste customers offered a recycling and/or composting collection service</p>
Built and Historic Environment Objectives	"To enhance and protect the existing built environment including the historic environment including heritage assets and the wider environment."	Will new infrastructure proposed create visual impacts?	Number of waste facilities intrusively visible from historic buildings
		Will new infrastructure proposed conserve and enhance heritage assets and the wider historic environment?	Number of new waste facilities having any unreasonably negative impacts on heritage assets and the wider historic environment
	"To ensure new buildings and associated infrastructure are designed and constructed in a sustainable way."	Will the NLJWS's new facilities take account of good practice in sustainable design and construction?	<p>Number of new waste management facilities designed and built to meet minimum BREEAM standards.</p> <p>Percentage of recycled content material used in any new waste facilities which are built.</p>
	"To improve the efficiency of land use through the sustainable reuse of previously developed land and existing buildings."	Will new infrastructure use previously developed land?	<p>Percentage of new waste infrastructure built on previously developed or industrially used land</p> <p>Tonnage of waste processed per hectare</p>

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<p>A Stable Economy Objectives</p>	<p>"To stimulate regeneration and urban renaissance that benefits the most deprived areas and communities"</p>	<p>Will it reduce local levels of deprivation? Will it generate satisfying and rewarding jobs? Will it help stimulate regeneration? Will it reduce overall unemployment?</p>	<p>Percentage of jobs created in areas of above average deprivation of unemployment</p>
	<p>"To encourage a strong, diverse and stable economy."</p>	<p>Will it expand the green industry sector? Will it improve the resilience of the area's business and economy? Will it help diversify the economy? Will it encourage business start-ups and growth of business in the North London area?</p>	<p>Number of direct jobs in waste services</p>
	<p>"To improve the resilience of businesses and their environmental, social and economic performance."</p>	<p>Will it encourage investment in new technologies and solutions that will contribute to achieving sustainability? Will it encourage ethical and responsible investment? Will the NLJWS improve sustainable business development and increase competitiveness?</p>	<p>Percentage of organisations delivering waste services with a recognised environmental and quality standard accreditation</p>
<p>Accessibility and Participation Objectives</p>	<p>"To maximise the accessibility of services".</p>	<p>Will the NLJWS reduce the overall need for people to travel by improving their access to the environmental services in the place in which they live? Will the NLJWS proposals reduce poverty and social exclusion in local areas that are most affected? Will it promote equality, fairness and respect for people and the environment? Will it promote equality for different communities?</p>	<p>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</p>

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	<p>"To promote civic participation, ownership and responsibility and enable individuals, groups and communities to contribute to improving their environment."</p>	<p>Will it promote social cohesion and encourage engagement in community activities?</p> <p>Will it encourage the involvement and participation of a diverse range of stakeholders?</p> <p>Will it enable participation in environmental services by all North Londoners?</p> <p>Will it demonstrate and encourage all North Londoners to take responsibility for the sustainable management of their waste?</p>	<p>Percentage of residents using waste services</p> <p>Percentage of residents satisfied with waste services</p>
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Chapter 7 – Implementation of the Best Option for North London

This chapter describes the collection, disposal, facility, transport and financial implications that will be considered in implementing this Strategy.

Waste Collection Implications

Achieving the increased recycling and composting targets of 35% by 2010, 45% by 2015 and 50% by 2020 will require a significant enhancement to the recycling services currently provided by the Partner Authorities. The amount of household material that is collected for either recycling or composting will need to increase from 85,000 tonnes per year in 2003/04 to 581,000 tonnes per year by 2015 and 699,000 tonnes per year by 2020 and the amount of municipal waste recycled and composted will need to increase too.

Bring recycling network

The “Bring” recycling network will need to be improved continuously, with new sites being introduced to keep pace with the expected increases in households and population identified in Chapter 2. “Bring” sites will provide a supplementary service in areas where doorstep collections are provided and will form the front-line service for properties of multiple occupancy. A minimum of 95% of all properties of multiple occupancy will need to be provided with a “near entry” collection for recycling and composting and participation rates will need to enable a minimum of 65% of the targeted materials to be captured. Existing sites will also need to be secured. The partner authorities and the NLWA will comment as appropriate throughout the development of the North London Waste Plan, in relation to the introduction of “Bring” recycling sites as integral to new residential and commercial developments.

Reuse and Recycling Centres

The existing Reuse and Recycling Centres will have to be improved further to enable a minimum 60% diversion rate from landfill through separation of materials for recycling and composting. The range of materials collected will also need to increase to meet the requirements of new legislation, and also to provide alternative outlets for additional materials as well as provide opportunities for reuse. Separate facilities for hazardous waste and Waste Electrical and Electronic Equipment are already provided on all sites. New Reuse and Recycling Centres may be required to encourage higher capture rates for bulky waste recycling and other materials which are not collected from the doorstep or in “Bring” collection systems.

Kerbside collection of dry recyclables and biodegradable wastes

The modelling conducted by AEA Technology Limited suggests that in order to achieve the 2015 recycling target, a minimum of 95% of households will need to be provided with a doorstep collection service and participation rates increased to enable capture of a minimum of 65% of the materials targeted for collection.

Separate and comprehensive collections of mixed biodegradable waste – green garden waste and kitchen scraps – for composting will be needed from all households. Most of these will be collections directly from the kerbside, but some may be “near entry” bring collection bins for properties of multiple occupancy, and collections of biodegradable waste are likely to be required from other bring sites. The biodegradable waste collected will need to be delivered to “in-vessel” composting facilities provided by the North London Waste Authority for all Partner Authorities.

It is likely that a “three-stream” collection will need to be provided to all North London householders, involving the separate collection of dry recyclables, biodegradable wastes and residual waste. Multi-compartment refuse collection vehicles have been shown elsewhere to enable three-stream collections to occur with the minimum number of vehicles passing each household. The Partner Authorities will need to consider the most efficient means of collecting the three waste streams through sharing of best practice from North London and elsewhere.

The modelling assumes that the current mix of recycling collection systems stays the same into the future. However, there is some flexibility for change up to the point where the North London Waste Authority requires contract specifications to be approved for services post-2014; contracts subsequently awarded will be bound by inter-authority agreements to be signed between the eight Partner Authorities to ensure certainty during the North London Waste Authority’s forthcoming procurement process. Each Partner Authority will need to implement its own mixture of either sorting at kerbside or commingled collection of dry recyclables, and notify their decision to the North London Waste Authority so that sufficient bulking facilities and/or MRFs can be provided within the North London area to meet both the Strategy recycling targets and the Landfill Directive targets.

At the highest recycling rates, alternate weekly collections of residual waste and materials for recycling and composting may be appropriate. As recycling and composting rates increase, the residual waste collection will reduce, enabling the North London Boroughs to rationalise their refuse collection services.

The high volumes of material collected for recycling and composting will almost certainly require larger or additional collection boxes, sacks or wheeled bins to be provided to North London residents. The Partner Authorities will need to have regard to the limited storage space in many North London households to provide the most appropriate collection containers for residents.

Regard must also be maintained for the requirements of the various reprocessors, who purchase the recyclable wastes and who then ultimately create the new recycled products.

7.A1 The Partner Authorities will provide door to door recycling and biodegradable waste services in accordance with Implementation Actions 4.H1 and 4.H2.

7.A2 Each Partner Authority will notify all other Partners what mixture of kerbside sorting and commingled collection for dry recyclables that it will use for the period of the Strategy no later than September 2005. This will enable the North London Waste Authority to provide sufficient recycling sorting and bulking facilities to enable the recycling and composting targets to be achieved. [Since 2004/05 this action has been replaced by an on-going programme of work to match waste treatment services to waste collection services.]

Waste Disposal Implications

The role of the North London Waste Authority will change during the implementation of this Strategy to increasingly provide the shared waste facilities necessary to enable both the higher recycling and composting targets and the Waste and Emissions Trading Act (2003) targets to be achieved.

The current waste management facilities in the Partners' area are:

- 6 recycling/bulking facilities
- 1 energy-from-waste (EfW) facility
- 3 waste transfer stations that either take waste to the above EfW facility, or to landfill sites outside the Partners' area.

It is the Partners' preferred strategy that the implementation of the residual waste treatment element of the North London Joint Waste Strategy will be determined through a technology neutral procurement process, evaluating each proposal on its own merit, in order to deliver against the Strategy's objectives and implementation actions, particularly actions 4M.2 and 6B.

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The London Plan requires London to be 85% self-sufficient for managing waste by 2020 and for North London to be 69% self sufficient in managing waste by the same year, with respective targets for municipal waste only of 60% (North London target) and 80% (London as a whole). At the current time of writing, the Partner Boroughs are undertaking public consultation to assess stakeholders' views on the degree to which North London should be self-sufficient in managing the waste that it produces as part of the North London Waste Plan Issues and Options consultation. This Strategy, which is based on achieving the recycling and composting targets identified as the preferred option within the Mayor of London's Waste Strategy, the Waste Strategy for England 2007, and meeting the Partner Authorities Landfill Directive targets, will also aim to meet the London Plan requirements to maximise the treatment of North London's waste within North London (although the self-sufficiency targets are part of the planning requirements for the North London Waste Plan.). The Partner Authorities will assess options, such as further minimisation and higher levels of recycling, which will enable the 2020 landfill target to be met, i.e. to landfill in 2020 a tonnage which is no more than 35% of the amount that was landfilled in 1995.

The Partner Authorities will identify the most appropriate timing for the recycling and composting facilities required in order to ensure that sufficient quantities of materials for recycling and composting are presented over an appropriate timescale to enable the facilities to be provided in a commercially efficient manner. The Materials Recycling Facilities will be of flexible design to enable North London Boroughs to deliver either sorted or commingled materials in accordance with Policy 7.A2 above.

The North London Waste Authority will have power under the Waste and Emissions Trading Act 2003 to direct a collection authority to deliver their waste in a separated form for recycling or recovery. The North London Waste Authority may use its power of direction as a contractual mechanism when working in partnership and with the agreement of the relevant Partner Authorities, or if it needs to do so in order to achieve its own statutory targets. In any case, this power can only be used after consultation and by compensating the relevant Partner(s) for any additional costs.

In order to ensure that the targets in the regulations resulting from the Waste and Emissions Trading Act (2003) are achieved, the North London Waste Authority has commenced procurement of (a) new waste disposal contract(s) sufficiently in advance of the December 2014 completion date for the current contract to enable the facilities necessary to be identified, procured, planning permissions obtained and facilities built. This means that the procurement process may be concluded prior to the completion of the North London Waste Plan, (timetabled for the end of December 2010). As part of this procurement process, the available energy recovery treatment technologies are being reviewed to determine the best option for the future. Additional modelling is also being undertaken for this process.

- 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 environmental report recommends that the environmental impacts of providing new recycling, composting and recovery facilities/services could be made more certain by providing more detail in the North London Joint Waste Strategy of how they would be managed. It is recommended in the environmental report that this could include stating the need for an environmental impact assessment of projects; a commitment to reduce the environmental impact of new services; or linking the site selection process to the North London Waste Plan. Changes to the Strategy to accommodate these recommendations are included at section 4.2.4.

There are uncertainties relating to the sustainable design and construction of facilities. The SEA environmental report recommends that this could be reduced by clearly stating a commitment to achieving a high standard of design and construction - for example, use of the Building Research Establishment Environmental Assessment Method (BREEAM) standard. Changes to the Strategy to accommodate these recommendations are included at section 4.2.4.

The SEA environmental report also recommends that the Strategy could make a clearer commitment to the use of previously developed land for new treatment facilities and the co-location of facilities to reduce land take. Changes to the Strategy to accommodate these recommendations are included at section 4.2.4.

Finally, the SEA environmental report notes that the Strategy as written will result in uncertain effects on equality and that the Strategy actions and text could explain more clearly how the Strategy will ensure that the needs of the most disadvantaged and hard-to-reach groups within the community will be addressed. Changes to the Strategy to accommodate these recommendations are included at sections 4.2.1 and 4.2.4.

Transport Implications

The best option identified within this Strategy is focused on the development of new recycling, composting and energy recovery treatment capacity within the North London region, in full accordance with the Regional Self-Sufficiency principle. The Mayor's Municipal Waste Management Strategy (2003) requires that the Partner Authorities consider the transport implications of waste management when tendering waste contracts, and promotes the greater use of sustainable modes of transport – specifically rail and water transport. The Mayor's London Plan also includes requirements to safeguard 'protected wharves' for water transport and to make compensatory provision if any other types of waste facility are lost due to redevelopment or closure for other reasons. The Equalities Impact Assessment of the North London Joint Waste Strategy also recommended that the Strategy include a reference to say where any significant changes in transportation take place that an Equalities Impact Assessment could be carried out, if considered appropriate at the time.

The Partner Authorities currently use the Hendon Rail Transfer Station for sending approximately 200,000 tonnes of municipal waste to landfill. Approximately 450,000 tonnes is treated via the Edmonton Energy-from-Waste facility within the North London area. The remaining waste and all material collected for recycling and composting is transported by road.

Rail Transfer

The North London Waste Authority's Hendon Rail Transfer Station is within the Cricklewood and Brent Cross Regeneration Area. The London Borough of Barnet and the Development Agencies involved in the regeneration have proposed the relocation of the Authority's Rail Transfer Station to a new, purpose-built waste facility elsewhere within the Regeneration Area.

The North London Waste Authority recognises the environmental benefits of transferring residual waste by rail, but must also have regard to the need to divert more waste from landfill to recycling, composting and energy treatment in accordance with this Strategy. As few recycling reprocessing plants currently have rail access, and the location of the new energy recovery facilities highlighted within this Strategy have not yet been determined, the North London Waste Authority has required in its provisional specification for the proposed replacement facility that it includes both rail and road transfer capability.

The new Hornsey Street Waste Transfer Station has potential for rail transfer capability in accordance with the North London Waste Authority's requirements. This new site is located adjacent to the East Coast Main Line, which could theoretically enable rail transfer in the future, were this to become practicable. The North London Waste Authority fully investigated the feasibility of rail transfer from the site, but the following factors mitigated against developing the rail transfer at this stage:

- Connecting to rail would require the construction of several bridges, relocation of a major signal box and procurement of sidings for turning around waste trains, entailing an unaffordable capital cost
- Sufficient Freight Facility Grants were unlikely to offset this cost sufficiently to make a rail link viable
- Extensive construction work connected with the St. Pancras Channel Tunnel link meant that there was no foreseeable capacity to introduce the necessary trains
- The currently available landfill sites with rail transfer facilities were not easily accessible from the East Coast Main Line

Despite the difficulties faced by local authorities in retaining existing and developing new rail transfer capability, and the increased cost of doing so, the Partner Authorities recognise the environmental advantages of this method of transport over road transport for transferring residual waste.

The potential for rail transfer of biodegradable waste for composting, or mixed waste for energy recovery treatment is also accepted by the Partner Authorities, although transferring any additional waste out of London may contradict the Partner Authorities' stated policy of developing facilities in North London in accordance with the regional self-sufficiency requirements contained within the London Plan. The potential for rail transfer of waste for recycling is less obvious, as few reprocessors currently have rail links and storing sufficient loads of different materials for recycling is likely to be prohibitively expensive in North London.

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.

Waste by Water

Transferring waste by canal can have advantages over road transport as heavier payloads can be transferred significant distances, with the potential for reduced polluting air emissions and reductions in traffic congestion within North London.

In 2003, Inter-Modal Transport secured a Freight Facility Grant to conduct trial transfers of waste by water from Hackney via the Lea Navigation Canal to a wharf at LondonWaste Limited's Edmonton Facility. This followed earlier work in 1999 / 2000 by LondonWaste Limited and the North London Waste Authority to demonstrate the potential of the Lea Navigation Canal for transferring waste - the trials included transfers of ash metal to Canning Town for recycling.

“Waste By Water” trials are on-going, but the potential for transferring waste and recyclables along the Lee Navigation Canal includes the transfer of mixed municipal waste from Hackney, Haringey and Waltham Forest to LondonWaste Limited’s Edmonton Facility, and the transfer of paper, glass, scrap metal, construction waste, biodegradable waste, ash and ash metals and mixed recyclables to reprocessors known to have reprocessing facilities close to canals in and around London.

The London Borough of Haringey, the North London Waste Authority and LondonWaste Limited have been assisting Transport for London to develop a proto-type refuse collection vehicle with a demountable body that can be loaded directly onto a barge or train, thus avoiding the costs and environmental impacts of discharging the waste from a normal refuse collection vehicle, only to reload it again into a container for bulk transportation for treatment or disposal elsewhere.

The Partner Authorities will consider submitting further bids for external funding to assess the potential for transferring wastes by water on a commercial basis.

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.

Waste Vehicle Emissions

The Mayor’s Municipal Waste Management Strategy includes proposals that the Partner Authorities should meet the highest fuel emission standards on all new waste vehicles and review existing waste vehicle fleets for opportunities to upgrade fuel emission controls. The Mayor has also proposed that the Partner Authorities minimise the environmental impact of waste management through monitoring vehicle routing.

The Partner Authorities waste vehicle fleets all already operate at Euro III emission standards and all new vehicles are specified at the new Euro IV standard (moving to Euro V from 2008/09). In addition, the North London Waste Authority has welcomed LondonWaste Limited’s decision to convert all of its articulated vehicles to Liquid Natural Gas. This fuel produces less emissions than diesel on a typical working cycle. The Partner Authorities will also have due regard for the environmental impacts of their vehicle routing, in particular the impact of the new London Low Emission Zone, which requires the minimum of Euro III standards or the payment of a charge.

Financial Implications

The Strategic Environmental Assessment procedure included a review of likely costs of the different Scenarios. This indicated that the total waste management costs (waste collection and disposal) under any of the options chosen are set to rise substantially during the period of this Strategy.

The original costings used in conducting the initial Best Practicable Environmental Option were based on generic information about the implementation of the solutions. Whilst this provided a reasonable estimate of the comparative costs between the scenarios, and an indication of the relative changes in the costs, the cost estimates did not allow for land costs or the higher costs of employment in London. Since the initial Best Practicable Environmental Options assessment was carried out in 2003/04 the cost of procuring many of the new facilities and processes has increased, reflecting the demand-led nature of the equipment supply market in response to the demands of the Landfill Directive. The effects of these changes have now been reflected in the more recent Strategic Environmental Assessment review.

In considering these costs it should be borne in mind that no allowance has been made for the potential benefits which may arise, from the Landfill Allowance Trading Scheme that came into effect in April 2005 (it is difficult to attach value to this benefit given the current low value and fluctuating value of allowances).

The following table indicates the estimated revenue effect on waste management costs (incorporating capital financing costs) expressed at 2006 prices for the different scenarios.

Scenario	Projected total costs (at 2006 prices) for waste collection and disposal (£million / year)			
	2006	2010	2014	2020
Minimum Compliance	100	118	126	157
Borough – Led	100	118	127	187
Partnership	100	118	126	156
Mayor’s Aspirational	100	117	127	169
Procurement	100	118	126	157

Note that the costs of collection and disposal also include enforcement and promotion costs.

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The table indicates that waste management costs under the Procurement Scenario as an example are expected to rise in real terms by 18% between 2006 and 2010, and by a further 33% by 2020 - i.e. a total increase of 57%.

The total costs of the five scenarios to the end of the Strategy period in 2020 are as follows:

Scenario	Projected cumulative costs (at 2006 prices) for waste collection and disposal in £million from and inclusive of 2006			
	Baseline cost 2006	Overall cost to 2010	Overall cost to 2014	Overall cost to 2020
Minimum Compliance	100	553	1,046	1,935
Borough – Led	100	553	1,048	2,121
Partnership	100	553	1,046	1,938
Mayor's Aspirational	100	551	1,045	2,003
Procurement	100	435	1,046	1,947

The following table indicates the capital expenditure required on new facilities (these costs are dependent on the technology selected and land costs).

Facility	Estimated capital expenditure (including lifecycle assessment cost)	Indicative Gate Fee (£ per tonne)
Materials recovery facility (45,000 – 60,000 tonnes per year)	£7.9m - £11.2m	£32 - £33
Energy from waste incinerator (270,000 – 540,000 tonnes per year)	£171.7 - £290.6m	£51 - £63
Gasification (125,000 tonnes per year)	£115.6m	£89
Mechanical biological treatment with anaerobic digestion	£74.8 - £102.2m	£65 - £78
Mechanical biological treatment with bio-drying (refuse derived fuel)	£74.9 - £93.1m	£54 - £55

Note 1: The lifecycle assessment cost is the initial capital cost plus the cost of major refurbishment and/or upgrades assumed to be required every 7 years; this is expenditure over and above on-going planning maintenance costs which are included within the operational costs of the modelling work.

Note 2: The gate fee excludes landfilling cost (landfill gate fee, tax and LATS) of any residues such as ash or rejects from a MRF. The gate fee is based on a 5% discounted cashflow rate.

Biodegradable waste processing, transfer stations and other operations are not calculated separately with capital expenditure and operating expenditure in the cost assessments carried out for this analysis. Instead, a gate fee per tonne has been assumed for these facilities based on NLWA costings. However, as it is the facilities listed above which vary from scenario to scenario it is these which have been presented here.

The number of recycling bulking facilities and materials recovery facilities that will need to be constructed will depend on the type (kerbside sorting or commingled collection) of kerbside collection facilities in each of the Partner Authorities, although the modelling assumes that three materials recovery facilities will be required. There is also a need for all Partners to agree collectively the nature and timing of both collection services and new facilities, and this will also impact on the timing of expenditure.

The cost of implementing the Strategy will in part depend upon the pace at which the implementation programme proceeds. Although in the longer term the rate of growth in the waste stream will also influence the final number of new facilities that will be required, the need to achieve the Government's statutory recycling and composting targets and to significantly reduce the biodegradable fraction of the municipal waste stream that can be sent to landfill will ensure that the costs of implementing the Strategy are likely to be significant and unavoidable. Even assuming a year-on-year increase of only 3% reducing to 2.5% increase in the waste stream, waste management costs in 2020/21 could still rise to c. £156 to £157m per annum at 2006 prices.

Procurement Options

The Partner Authorities will have to make significant investments in the period of the current waste disposal contract in order to implement the Strategy in accordance with the results of the Strategic Environmental Assessment.

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The Partner Authorities are fortunate that the joint waste disposal authority model means “whole system costs” (collection and disposal) can be considered without the conflict that can arise between different tiers of local government elsewhere. In addition, the North London Waste Authority’s current waste disposal contract with LondonWaste Limited anticipated the need for considerable additional recycling and composting capacity, as it actually allows all waste to be diverted in this way, and the development of an in-vessel composting facility at the LondonWaste EcoPark enabled the Partner Authorities to compost a proportion of their biodegradable waste locally, without immediate recourse to third party facilities further afield or to purchase land for additional new sites.

In the medium term, the North London Waste Authority may also benefit from the proposed relocation of the Hendon Rail Transfer Station.

However, even with this considerable support, the Partner Authorities are already needing to procure third party capacity elsewhere to process additional biodegradable waste and commingled dry recyclable material for those boroughs who collect recyclables in this way. It is also anticipated that the Partner Authorities will have to procure at least one additional recycling facility and one additional in-vessel composting facility in the period of the current waste disposal contract. A number of external funding sources have been identified during development of this Strategy, and the following are currently or will shortly be available to assist the Partner Authorities in financing the necessary investment in recycling and composting infrastructure:

National Funding

Prudential (Public Sector) Borrowing
Private Finance Initiative
Waste and Resources Action Programme
Waste Implementation Programme
Local Authority Support Unit, New Technologies Support Programme, and ROTATE –
Recycling and Organics Technical Advisory Team

Regional Funding

Anticipated new London Waste and Recycling Fund (established via the GLA Act 2007, Section 38)

The scale of these funding resources suggests that they are not yet sufficient to fully support the funding necessary for the Partner Authorities to achieve the statutory recycling and composting standards and Waste and Emissions Trading Act (2003) regulation targets without raising the local Council Tax.

The main available external means of supporting the scale of investment required to achieve this Strategy is through the Government's Private Finance Initiative. This initiative involves local authorities entering into contracts with private sector companies willing to invest in building and operating infrastructure over long periods in return for the payment by the Government of credits to assist local authorities in financing the interest on the invested funding.

The Government has indicated its desire to encourage the Private Finance Initiative arrangements, which have a mixed reputation in the local government sector, but are increasingly the norm in delivering long-term waste management contracts. Another option is the use of the Prudential Borrowing Code, as recent changes have made it easier to borrow capital. This is not to say that the more traditional design, build and operate form of contract may not be appropriate in the future too.

7.D1 The Partner Authorities will work together, through the auspices of the North London Waste Authority, to deliver the recycling and composting facilities required in the period of the current waste disposal contract.

7.D2 The Partner Authorities undertake to target appropriate available external funding and will consider the best available means of procuring a new waste disposal contract to minimise the costs of implementing this Strategy to North London Council Tax payers.

Chapter 8 – Working in Partnership to Deliver the North London Joint Waste Strategy

The Partner Authorities have set ambitious but achievable targets for making waste management in North London more sustainable in the period of this Strategy. However, this Strategy will not be achieved without the active and on-going support of all stakeholders with an interest in waste management in North London, and its implementation will also need to take account of each Partner Authority's community priorities.

A Dialogue with North London Stakeholders

The Partner Authorities recognise that there are many stakeholders (for example, residents, businesses, community groups, neighbouring boroughs and counties, the Mayor of London, and Government) who will be interested in influencing the way waste is managed in North London. When the North London Joint Waste Strategy was first developed in 2003/04, the Partner Authorities worked with MORI to develop and conduct a "Stakeholder Dialogue" to gather the views of these stakeholders on the proposals within the Strategy.

The nine key components of the Stakeholder Dialogue were:

1. Publishing a draft Strategy document setting out the vision of how the Partner Authorities propose that waste be managed in a more sustainable way. The Strategy document was available on request free of charge and could also be downloaded from a website. A brief summary document was also produced in English and ten other languages, and was made available in other formats for people with disabilities.
2. Distribution of a "flyer" by Partner Boroughs through all their public interfaces to "signpost" the draft Strategy. It raised the principal issues and informed residents how to comment on the draft Strategy (with a reply-paid card, a telephone number and a website).
3. Establishment of a website where the draft Strategy and the Summary Document could be accessed and where comments on the draft Strategy could be made.
4. A publicity campaign, across the North London area, which announced the publication of the draft strategy and sought the active involvement of stakeholders in commenting on the draft Strategy.
4. Presentation of the key issues and conclusions of the draft Strategy to a meeting of The Resource Forum (formerly the North London Recycling Forum) – a regular meeting of local community groups, waste management companies and local authorities in North London – seeking the views of the Forum participants on the proposed approach.

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5. Distribution of the draft Strategy to key stakeholders within and outside the North London area to facilitate a Technical Review of the content of this Strategy.
6. Distribution of the Summary to all known potentially interested organisations and individuals, who could also request the full draft strategy.
7. Establishment of two Stakeholder Workshops comprising a representative cross-section of North London residents to review the process by which the draft Strategy was developed and to obtain qualitative feedback on the conclusions reached.
8. Holding a Technical Stakeholder feedback meeting after the formal close of responses to clarify specific issues raised on a face-to-face basis.

A total of fifty-eight Public Feedback Forms were received by MORI. The results were collected and collated by MORI until the final date for feedback of 31st May 2004. Thirteen Technical Stakeholders and members of The Resource Forum also provided technical feedback on the draft Strategy.

Most respondents who completed a Stakeholder Feedback Form were generally positive about the draft Strategy but there were a number of concerns raised, in particular about the original Best Practicable Environmental Option process and the move to commingled systems for recyclables. The key concern from the Stakeholder Event was that the draft Strategy promoted a commingled approach whereas a system based on sorting at the kerbside would be preferable.

The Partner Authorities considered all the views expressed by stakeholders and revised the content of the draft Strategy as necessary before submitting it to the Mayor of London for approval.

The subsequent Strategic Environmental Assessment process has involved further consultation as outlined below:

1. Distribution of the Draft SEA Scoping Report to statutory consultees and the GLA for a five-week consultation period between 10th September and 15th October 2007.
2. Hard copies of the Draft SEA Scoping Report made available in all public libraries in the North London Waste Authority area and on the North London Waste Authority website for the same five-week consultation period as outlined above.
3. Attendance by North London Waste Authority staff with copies of the North London Joint Waste Strategy at a series of seven stakeholder workshops delivered for consultation on the Issues and Options report for the North London Waste Plan during January and February 2008.

4. Distribution of the revised Strategic Environmental Assessment Scoping Report, Environmental Report and revised North London Joint Waste Strategy to statutory consultees and the GLA, plus members of the North London Waste Plan sustainability appraisal panel, for a six-week consultation period dated 6th May to 17th June 2008. E-mail notification was sent to 173 individuals and organisations, including some who distributed the consultation further.
5. Copies of the revised Strategic Environmental Assessment Scoping Report, Environmental Report and revised North London Joint Waste Strategy available in local libraries in the North London Waste Authority area and available on the North London Waste Authority website for the same six-week consultation period.
6. Press release issued about the above consultation and advertisements placed in relevant local publications in the third and fourth weeks of the consultation process.

A Public Awareness and Participation Campaign

The Partner Authorities recognise that engaging the public effectively to take action will be crucial to achievement of this Strategy. A sustained, integrated and comprehensive public awareness campaign will be needed to ensure the public are informed about the need for change, their role in improving waste management in North London, and how to access the new services that they can use to achieve the necessary improvements.

Much groundwork has already been done on raising public awareness of waste; through the national waste awareness campaign “Recycle Now” and the many initiatives run by local authorities. The Partner Authorities welcomed the establishment of the “Recycle Now” national campaign when it was launched in October 2004.

The Partner Authorities recognise the need for simple messages in their publicity materials and greater investment in raising public awareness. There are already examples of relevant good practice in North London. For example, the London Borough of Camden has produced a DVD explaining what happens to waste that is recycled, why it is important to do so, as well as what services are available to make recycling easy for residents. The London Borough of Islington has a similar DVD made by young people which is used at the I-Recycle education centre.

The Partner Authorities recognise that community sector organisations, with their detailed knowledge of local communities, their innovative approaches to communicating waste messages and their ability to generate public enthusiasm for environmental causes have considerable potential to assist the Partner Authorities in implementing this part of the Strategy.

8.A The Partner Authorities are committed to an on-going Public Awareness Campaign throughout the period of this Strategy and undertake to co-ordinate their respective contributions to this campaign where this will be beneficial.

A key role for the Community Sector

There are numerous Community Sector organisations in North London already actively contributing to sustainable waste management projects. These also include large community-based companies and social enterprises providing front-line recycling and other waste management services.

There are many successful examples of Partner Authorities working with the community sector to deliver mutually beneficial aims; these include Boroughs working with social enterprises and community groups to provide front-line collection services to residents, support of furniture reuse collections from North London Reuse and Recycling Centres, support for nappy washing services, working with charity shops to reward them for their contribution to recycling in North London, and individual city farms and community gardens offering composting to a specific local community.

The Partner Authorities recognise the unique role that community sector organisations play through their distinct relationship with other stakeholders, their ability to work across disciplines to create truly sustainable projects with social as well as environmental benefits, and through their specialist knowledge in subjects where local authorities often have little knowledge or specialism.

This Strategy highlights parts of the waste hierarchy where community sector organisations already undertake significant activities, and identifies areas where the community sector organisations have particular potential to contribute further to implementation of this Strategy. The Partner Authorities wish to encourage further partnerships with the community sector organisations in delivering the Strategy,

The Partner Authorities will actively engage with community sector organisations, particularly through The Resource Forum, to identify any other new opportunities for working in partnership and to maximise the potential of existing projects. To assist this engagement, the Partner Authorities will consider developing a Waste Community Compact setting out the terms under which working on waste projects with community sector organisations will be conducted in North London. This will ensure that the specific needs, potentials and restrictions of the community sector and public sector are respected when developing new waste management projects.

- 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.

Commercial and Industrial Partners

The Partner Authorities provide waste collection and disposal services to many commercial customers in North London. These services operate in competition with the private sector waste management services, with the key difference that local authorities must provide a collection service to commercial customers on request. In practice this means that private sector companies focus on the more financially attractive large contracts, leaving the Partner Authorities with the smaller, less profitable collections.

Some Partner Authorities have provided commercial recycling services in the past, but the cost of collecting and recycling commercial waste is normally not met by the income from recycled materials and commercial customers are resistant to paying for recycling collections. In addition, local authorities are not well placed to secure income from Packaging Recovery Notes to subsidise recycling collections of packaging. The Partner Authorities would welcome national and regional incentives to encourage commercial recycling and will seek to find alternative means of offering sustainable commercial recycling collections during the period of this Strategy. Three of the constituent borough councils – Camden, Enfield and Hackney – are, however, trialling reduced-rate recycling collections to encourage greater uptake of the service, and it is anticipated in the Strategy modelling work that all seven Partner Boroughs will have a commercial waste recycling service in place during the course of the Strategy implementation up to 2020. The Partner Authorities recognise that the promotion and provision of commercial waste recycling services should take account of the needs of different groups in the community, for example the food wholesale and retail business, a high proportion of which is BAME owned.

The Waste and Emissions Trading Act (2003) has had an effect on how commercial waste services are provided, as the North London Waste Authority may have to purchase Landfill Allowances for waste containing biodegradable waste and pass the cost of doing so back to commercial customers. A Biodegradable Incentive Payment Scheme is provided by the North London Waste Authority to encourage the constituent borough councils to provide a non-landfill alternative for this waste stream. Avoiding the cost of purchasing Landfill Allowances may offer potential for the Partner Authorities to provide commercial composting services. This will depend upon the capacity available in composting facilities, the cost of purchasing Landfill Allowances, the nature of the market generally for commercial waste services, and prevailing financial regulations.

The Partner Authorities are not statutorily required to collect or dispose of industrial waste, but recognise there may be sub-regional economies of scale to be exploited by developing and extending services for the commercial sector, and possibly the industrial sector too. The Partner Authorities will be open to this during the development of future services where they offer improved value for money to council tax payers.

The Partner Authorities also recognise that the North London Boroughs, as Waste Planning Authorities, have a responsibility to ensure that land is identified for sufficient facilities with capacity for managing industrial waste within the North London Waste Plan, in accordance with the London Plan.

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.

Working with National Agencies

The Government established the Waste Implementation Programme (WIP) early in 2003, in response to the Prime Minister's Strategy Unit Report "Waste Not, Want Not". WIP was designed to respond to the package of strategic measures recommended by the Strategy Unit (SU) report "Waste Not, Want Not" published in November 2002, and the Government's Official Response. There are nine WIP programmes which include: local authority support, local authority funding, new technologies, data, the Waste Implementation and Development Programme, (WIDP), efficiencies, waste minimisation, kerbside and waste awareness. The waste minimisation initiative and an education and awareness campaign have both been delivered by the Waste Resources Action Programme. The waste minimisation initiative has most recently included projects on home composting, retailer packaging and an innovation fund. These projects are of high priority for the Partner Authorities for delivering this Strategy.

As mentioned above, the Waste Implementation Programme includes several other programmes. A Local Authority support initiative was initially awarded £1.9 million to identify the barriers effecting local authority improvement in statutory recycling and composting standards. A data and research project across the whole waste cycle is delivered within the Department for Environment, Food and Rural Affairs (DEFRA) and has historically been allocated £8.5 million. An Innovation fund for kerbside collection and new and emerging treatment technology also received £7.2 million.

The Waste Infrastructure Delivery Programme (WIDP) within DEFRA also works with local authorities and the regions to accelerate the build of new diversion infrastructure. WIDP sits within the Waste Implementation Programme (WIP) to complement their on-going support to local authorities and add resources to meeting the Landfill Directive obligations.

WIDP is charged with:

- producing a comprehensive strategy for the construction of the estimated £10 billion of infrastructure needed to meet the Landfill Directive obligations.
- providing those local authorities leading infrastructure build projects with a comprehensive, end-to-end support package across all project mechanisms (not just PFI).
- working with existing PFI projects, presently in procurement, to accelerate their progress to delivery.

The Partner Authorities can therefore be expected to engage with WIDP during the period of this strategy.

It is anticipated that, to avoid duplication with regional services, some of these projects may be managed by regional agencies in London, for example, London Remade. Other national funding opportunities are likely to occur during the period of this Strategy and the Partner Authorities will seek North London's fair share of these as they arise.

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 and the Waste Implementation Programme, as these arise.

Working with Regional Agencies

The Mayor of London, through his Municipal Waste Management Strategy, has set out policies and proposals, many of which actively involve the Partner Authorities and some of which are supported and some opposed by individual authorities. The Partner Authorities responded individually during the consultation period to support or raise concerns with the Mayor of London with regard to implementation of specific policies and proposals within his Municipal Waste Management Strategy.

The Mayor of London's Strategy includes a policy and a proposal encouraging the Partner Authorities to actively consider Partnership arrangements to deliver improved waste services. The Partner Authorities have adopted a partnership approach in developing this Strategy and will now work actively with other stakeholders, including the Greater London Authority, the Government Office for London, London Councils, the proposed London Waste and Recycling Board, other London Boroughs and other London waste disposal authorities as appropriate to implement this Strategy.

8.E The Partner Authorities will actively engage with all appropriate regional stakeholders to implement this Strategy.

Market Development and Regeneration

The establishment of London Remade by London Waste Action, the Greater London Authority and the Association of London Government (now London Councils) resulted in the development of new recycling infrastructure for glass and aggregate recycling, in-vessel composting and the introduction of additional materials recycling facilities in east and south-east London in the first two years of operation. More recent initiatives include the development of a plastics reprocessing plant and the implementation of the London Mayor's Green Procurement Code to stimulate the demand for recycled products across the supply chain.

The Partner Authorities support the continuation of London Remade as being essential for the development of a new reprocessing infrastructure in London that will provide alternative markets for recycled materials, thereby assisting delivery of this Strategy. The Partner Authorities welcome the expansion of the London Remade remit from the “Thames Gateway” to include other areas of London with potential for new reprocessing infrastructure including North London.

All of the Partner Authorities have also signed up to the Mayor of London’s “Green Procurement Code”, demonstrating their commitment to sustainable purchasing policies within their own organisations. The Partner Authorities will promote green procurement to local businesses and the concept of “buying recycled” to residents throughout the period of this Strategy.

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.

Strategy Implementation, Monitoring and Review

This Strategy sets out the vision for municipal waste management in North London for the period until 2020. It includes commitments made by the Partner Authorities that will then require implementation, on-going monitoring and regular review. The first North London Review was expected to take place in 2006, later reviews will coincide with contract review periods set within any new contracts. Individual strategy implementation plans will be reviewed on a three yearly basis as appropriate.

The success of the Cabinet Member Seminars held to facilitate the joint working needed to develop this Strategy during 2003/2004 meant that the Partner Authorities established a Strategy Implementation Board with responsibility for overseeing the implementation of this Strategy. The Strategy Implementation Board was set up as a non-executive body to enable all North London Joint Waste Strategy matters to be considered collectively, but with all ultimate decisions remaining with each relevant Partner Authority.

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The Strategy Implementation Board currently comprises one elected Member from each Partner Authority, but has not dealt with matters as originally intended due to the unforeseen delays in the finalisation of this Strategy. It was envisaged that it would consider as appropriate whether other stakeholders, such as the Community Sector, should also be represented and that it would deal with:

- Consideration of detailed relative advantages and disadvantages of kerbside sorting and bulking versus commingled collections and central sorting, and of alternatives to the default levy mechanism
- Co-ordination of the specification and letting of relevant contracts where these are intended to supply wastes to shared facilities or other forms of joint contracts sufficient to meet the Landfill Directive obligations and the recycling targets set by the Strategy
- Co-ordination of public awareness campaigns including reuse and composting, and work to minimise non-household wastes
- Engagement with the community sector and charity shops
- Co-ordination of lobbying of regional, national and European governments where appropriate to further Partners' interests
- Setting and monitoring performance against short and medium term targets, including prevailing facility capacity and likely lead times for any additional capacity that is needed
- Developing, setting and monitoring performance against other aspects of the Strategy, such as the amount or proportion of external funding obtained for new services
- Alignment to best value principles, equalities issues, on-going regeneration and sustainability and Partners' community priorities
- Sharing best practice and new experiences within North London (for example, compulsory recycling), and monitoring that elsewhere.

In the meantime alternative co-ordination structures have been created between the Partner Authorities. A significant focus is now being placed by all Partner Authorities on the North London Waste Authority's preparations for its forthcoming major waste services procurement that is likely to entail a total contract value of over £3bn, and in commissioning a suite of waste recycling, composting, recovery and disposal infrastructure in accordance with this Strategy will set the parameters for further service developments for some 20-25 years.

The process is now being guided by meetings of Leaders and Chief Executives, and meetings of Directors of Environment and Finance, with other disciplines being engaged as necessary, and the North London Waste Authority itself has appointed a Director of Procurement.

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The Partner Authorities are developing a Memorandum of Understanding that will subsequently govern relations between them as the Strategy is implemented and, in the context of the North London Waste Authority's procurement, this is expected to lead to a formal Inter-Authority Agreement that will encompass processes, responsibilities and risks of the Partner Authorities as well as future service providers.

A separate Planning Members' Group has also been formed by the collection Partner Authorities in their separate roles as planning authorities to oversee the progress of the North London Waste Plan. A Member from the North London Waste Authority is appointed as an observer to that group.

8.G1 The Partner Authorities will establish a Strategy Implementation Board with responsibility for implementing, monitoring and reviewing this Strategy.

8.G2 The Partner Authorities undertake to regularly review and update the Strategy in line with the Mayor's reviews of his Municipal Waste Management Strategy. The first North London review was expected to take place in 2006. Later reviews will coincide with contract review periods set within any new contracts.

APPENDICES

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Appendix 1 - Key Waste and Recycling Contracts

Partner	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Barnet		RC	WC*					RC			(RC)									
Camden										WC SC RC										
Enfield		SC	WC SC RC	WC RC			(WC) (RC)													
Hackney		WC RC			RC	(RC)	WC SC													
Haringey	WC SC			(RC)								(WC) (SC)								
Islington				(RC)								WC SC								
NLWA			RRC					RRC		(RRC)				WD						
Waltham Forest	RC			CA		RC														

Waste Collection Authority

Waste Collection	WC
Street Cleansing	SC
Recycling Collection	RC

Waste Disposal Authority

Waste Disposal	WD
Reuse & Recycling Centre Transport	RRC
Potential contract extension/Best Value Review	()/*

Appendix 2 - North London Joint Waste Strategy Implementation Actions

Chapter 1 Introduction

- 1.A We need to reduce the amount of rubbish we produce and to find better ways to manage rubbish that enable the recycling and recovery of energy and useful materials. This will lessen the environmental impact of our waste and make our money go further.
- 1.B In December 2001, the North London Partner Authorities agreed the following joint Aims and Objectives:

Aims

- To promote and implement sustainable municipal wastes management policies in North London
- To minimise the overall environmental impacts of wastes management
- To engage residents, community groups, local business and any other interested parties in the development and implementation of the Strategy
- To provide customer-focused, best value services.

Objectives

- To minimise the amount of municipal wastes arising
 - To maximise recycling and composting rates
 - To reduce greenhouse gases by disposing of less organic waste in landfill sites
 - To co-ordinate and continuously improve municipal wastes minimisation and management policies in North London
 - To manage municipal wastes in the most environmentally benign and economically efficient ways possible through the provision and co-ordination of appropriate wastes management facilities and services
 - To ensure that services and information are fully accessible to all members of the community
 - To maximise all opportunities for local regeneration
 - To ensure an equitable distribution of costs, so that those who produce or manage the waste pay for it.
- 1.C It has been agreed that this North London Joint Waste Strategy will:
- Form the primary strategic document setting out how the Partner Authorities will manage municipal waste for the period 2004 - 2020
 - Replace all existing Partner Authority Statutory Waste Recycling Plans and local waste strategies including the North London Waste Authority Waste Disposal Plan (1992)

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- Conform with the Government's "Guidance on Municipal Waste Management Strategies" (2001) and the Waste and Emissions Trading Act (2003)
- Have regard to the Government's Waste Strategy for England 2007 and be in general conformity with the Mayor of London's Municipal Waste Management Strategy (2003)
- Be developed in time for submission to the Mayor of London for consideration (for the Government Office for London) by September 2004.

Once approved by the Mayor of London, the Partner Authorities have further agreed to:

- Adopt and then work together to implement this North London Joint Waste Strategy

Chapter 2

Background

- 2A. 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.
- 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, but during its implementation the most recent data available will be used.
- 2C. The North London household waste composition analysis will be used to inform the development of this Strategy, but during its implementation the most recent data available will be used.

Chapter 3

Statutory Requirements

- 3A This North London Joint Waste Strategy is prepared in line with the Government Guidance on Municipal Waste Management Strategies (2001) and the Waste Strategy for England 2007, and indicates how the North London Partner Authorities will implement the relevant policies and proposals within the Mayor's Municipal Waste Management Strategy.

- 3B The North London Partner Authorities will continue to co-operate with the Mayor's statutory contractual requirements and will develop contracts in line with this North London Joint Waste Strategy, which in turn will reflect the Mayor's Municipal Waste Management Strategy.
- 3C The North London Partner Authorities will continue to seek to co-operate with the Mayor of London in relation to Best Value reviews of Waste Services.
- 3D The North London Partner Authorities will continue to seek to co-operate with the Mayor of London through providing waste information where required and by using useful waste information where this is provided by the Mayor of London to plan waste services.
- 3E The North London Boroughs will develop and approve a joint Waste Development Plan Document for consultation by December 2005.

Chapter 4

Waste Hierarchy Options

Waste minimisation

- 4.A1. The Partner Authorities 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.
- 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.

Waste reduction

- 4.B1. The Partner Authorities will seek external funding to run waste reduction public awareness campaigns across North London throughout the period of this Strategy.
- 4.B2. The Partner Authorities will share good practice on waste reducing activities and will have regard to the effects on waste arising when introducing new waste services.
- 4.B3. The Partner Authorities support a move to a tonnage-based levy system provided the transitional financial impact on Partner Authorities is minimised.

[Please note that since the publication of the original North London Joint Waste Strategy this has now happened, as noted above.]

- 4.B4. The Partner Authorities will consider the opportunities presented by offering incentives and rebates to residents for reducing waste and will review the need for direct and differential charging for waste during the implementation of this Strategy.

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.
- 4.C2. 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, possibly through a reuse "credit", to reflect the avoided or deferred cost of disposal.

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.

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.

Bring recycling

- 4.F1. The Partner Authorities will provide a bring collection system throughout the period of this Strategy.

Reuse and 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.

4.G3. The Partner Authorities will seek to ensure that all new Reuse and Recycling Centres have a recycling and composting diversion rate in excess of 50%.

Door-to-door recycling 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 organic 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.

Properties of multiple occupancy

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.

Recycling and composting facilities

4.J1. The Partner Authorities will work together to plan, develop and deliver the recycling and compost facilities required for North London throughout the period of this Strategy and will seek the development of these facilities within the North London area in accordance with the proximity principle.

4.J2. The Partner Authorities agree that the North London Waste Authority should use its power of direction where necessary as a contractual mechanism when working in partnership and with the agreement of relevant Partner authorities or to achieve its own statutory targets.

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.

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 and 45% by 2015, and 50% by 2020 in line with the Government's Waste Strategy for England 2007.

Recovery

- 4.M1 The Partner Authorities are committed to the continued use of the Edmonton Energy-from-Waste facility for the period of the current waste disposal contract.
- 4.M2 Where recovery treatment is selected under the North London Joint Waste Development Plan Document or within any new waste disposal contract, the Partner Authorities undertake to favour processes that qualify for the Renewables Obligation Certificates where these provide the Best Practicable Environmental Option.

Disposal to landfill

- 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.

Chapter 5

Management of Other Waste Streams

Abandoned vehicles

- 5.A1 The Partner Authorities will continue to share information and best practice on abandoned vehicle arisings to ensure an integrated approach to provision of inspection, collection and disposal services across North London.
- 5.A2 The Partner Authorities will review their arrangements for managing abandoned vehicles to ensure that the number of vehicles that arise and the costs of their treatment are minimised.
- 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.

Asbestos

- 5.B The Partner Authorities will continue to provide an easily accessible collection service for household asbestos and a means of disposal for commercial asbestos throughout the period of this Strategy.

Batteries and accumulators

- 5.C The Partner Authorities will work to increase the level of recycling of household batteries in North London wherever practicable.

Bulky waste

- 5.D1 The Partner Authorities will provide effective and well-advertised bulky waste collection services throughout the period of this Strategy.
- 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 the community sector or commercial organisations.

Clinical waste

- 5.E1 The Partner Authorities will continue to provide high-quality household clinical waste collection services free of charge throughout the period of this Strategy.
- 5.E2 The Partner Authorities will review the Mayor of London's best practice advice once this is developed and will implement any appropriate changes that improve services to North London residents.

Non-household waste

- 5.F1 The Partner Authorities will implement the new method of assessing non-household charges from the 2008/09 financial year based on the volume of waste each North London Borough collects from contracted customers and agreed volume:weight ratios.
- 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.

Construction and demolition

- 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.

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.

Fly-tipped waste and litter

- 5.I The Partner Authorities undertake to take integrated and concerted action to tackle fly-tipping and littering, ensuring that each aspect of waste enforcement is co-ordinated to avoid displacement of waste problems.

Hazardous waste

- 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.

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.

Packaging wastes

- 5.L The Partner Authorities will seek to work with companies obligated under the Producer Responsibility (Packaging) Regulations to maximise their investment in the municipal recycling infrastructure that is required to enable the companies and the Partner Authorities to achieve their respective targets.

Polychlorinated biphenyls (PCBs)

- 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.

Special events

- 5.N1 The North London Boroughs will individually issue the Mayor with lists of the special events taking place within their areas and setting out plans for waste management at these events.
- 5.N2 The Partner Authorities will lobby relevant parties to ensure that the London Olympic Bid organisers minimise waste arisings and then maximise recycling and then recovery of energy value from all wastes generated by the event.

Waste electrical and electronic equipment

- 5.O The Partner Authorities undertake to continue working with relevant stakeholders to meet any statutory requirements imposed on local authorities under the regulations that implement the European Waste Electrical and Electronic Equipment Directive.

Chapter 6

Identifying the Best Option for North London

- 6.A The Partner Authorities consider the best option for North London to be a Partnership approach involving the greater integration of collection and disposal services and the development of shared facilities for recycling, composting and treatment of residual wastes.
- 6.B The best option for North London will involve achievement of 50% household waste recycling and composting rates by 2020, with treatment of the residual waste not being landfilled provided initially through the existing Energy-from-Waste incineration facility, and later through processing capacity, giving preference to advanced conversion technologies - especially where the products of waste treatment could be used as fuels - that are the best overall option taking account of net environmental impact, deliverability, reliability and affordability, looking at implied collection services too.

Chapter 7

Implementation of the Best Option for North London

Waste collection service implications

- 7.A1 The Partner Authorities will provide door-to-door recycling and biodegradable waste services in accordance with Implementation Actions 4.H1 and 4.H2.
- 7.A2 Each Partner Authority will notify all other Partners what mixture of kerbside sorting and commingled collection for dry recyclables it will use for the period of the Strategy no later than September 2005. This will enable the North London Waste Authority to provide sufficient recycling sorting and bulking facilities to enable the 2010 and 2015 recycling targets to be achieved.

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.

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.

Financial implications

- 7.D1 The Partner Authorities will work together, through the auspices of the North London Waste Authority, to deliver the recycling and composting facilities required in the period of the current waste disposal contract.
- 7.D2 The Partner Authorities undertake to target appropriate available external funding and will consider the best available means of procuring a new waste disposal contract to minimise the costs of implementing this Strategy to North London Council Tax payers.

Chapter 8

Working in Partnership to Deliver the North London Joint Waste Strategy

Public awareness campaigns

- 8.A The Partner Authorities are committed to an on-going Public Awareness Campaign throughout the period of this Strategy and undertake to co-ordinate their respective contributions to this campaign where this will be beneficial.

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.

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.

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 and the Waste Implementation Programme, as these arise.

Working with regional agencies

- 8.E The Partner Authorities will actively engage with all appropriate regional stakeholders to implement this Strategy.

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.

Strategy implementation, monitoring and review

- 8.G1 The Partner Authorities will establish a Strategy Implementation Board with responsibility for implementing, monitoring and reviewing this Strategy.
- 8.G2 The Partner Authorities undertake to regularly review and update the Strategy in line with the Mayor's reviews of his Municipal Waste Management Strategy. The first North London review was expected to take place in 2006. Later reviews will coincide with contract review periods set within any new contracts.

Appendix 3 – Summary of the Mayor of London's Waste Policies and Proposals

London Mayor's municipal waste management strategy – policies and proposals

Policy 1

London will aim to exceed the recycling and composting targets for household waste set by the Government. These are currently, as set out in Waste Strategy 2000:

- to recycle or compost at least 25 per cent of household waste by 2005**
- to recycle or compost at least 30 per cent of household waste by 2010**
- to recycle or compost at least 33 per cent of household waste by 2015.**

Policy 2

London will aim to meet the recovery targets for municipal waste set by the Government by prioritising reduction, recycling and composting. The Mayor will insist that waste authorities consider options to maximise the reduction, reuse, recycling and composting of municipal waste from all sources before considering the recovery of materials and energy from the residual waste. The targets are currently, as set out in Waste Strategy 2000:

- to recover value from 40 per cent of municipal waste by 2005**
- to recover value from 45 per cent of municipal waste by 2010**
- to recover value from 67 per cent of municipal waste by 2015.**

Policy 3

The Mayor aspires to higher targets for recycling and composting and considers they can be achieved in the longer term.

Proposal 1

The Mayor intends, through working with the waste authorities and other stakeholders, to exceed the recycling and composting targets for household waste as set out by the Government in the Best Value Performance Standards for waste authorities in London and, as far as possible, achieve the recovery targets for municipal waste through waste reduction, reuse, recycling and composting. The following policies and proposals in this Strategy provide the framework within which these targets can be achieved.

Proposal 2

The Mayor supports the proposal in the Government's Strategy Unit Report to increase the recycling targets for household waste and will seek to persuade the Government to put in place the legislative changes, fiscal framework and other measures necessary to enable the achievement and the setting of targets for rates of recycling and composting of municipal waste of 50 per cent by 2010 and 60 per cent by 2015. The Mayor fully supports the House of Commons Select Committee on the Environment, Transport and Regional Affairs recommendations on household recycling targets.

Policy 4

The Mayor will work in partnership with London Remade and London's Waste Authorities to share information on waste through www.capitalwastefacts.com and improve the availability, reliability and comparability of waste data for London.

Proposal 3

The Mayor will only accept household recycling and composting rates based on relevant guidance for calculating the statutory Best Value Performance Indicators 82a and 82b.

Proposal 4

Waste authorities should return annual data on waste to the Mayor to collate for London. The Mayor will report the breakdown of tonnage, which makes up the recycling and composting rates of each waste authority in London. This information will be published through www.capitalwastefacts.com.

Proposal 5

The Mayor will continue to work with DEFRA, CIPFA and other authorities towards the joint development of an electronic survey format for the return of data, to reduce delays, data entry errors and repetition in the collection of information.

Proposal 6

The Mayor will investigate, with London waste authorities, the key factors influencing variations in waste arisings, across different parts of London.

Policy 5

The Mayor will work with relevant organisations to ensure that statistically reliable, comparable data for the composition and recyclability of London's municipal waste stream is undertaken, to inform strategic decision-making.

Proposal 7

The Mayor will work with the Environment Agency and other partners to undertake a detailed study of the composition of London's municipal waste, applying the same methodology as the National Household Waste Analysis Programme to enable comparison.

Proposal 8

When a reliable estimate of London's waste composition exists, further work will be undertaken to establish the influencing factors on composition and recyclability. This will enable the projection of changes to composition and recyclability in the future, for the strategic planning of sustainable waste management.

Policy 6

The Mayor will insist that all proposals use the Best Practicable Environmental Option when considering the way to treat particular waste streams taking into account the key considerations of the waste hierarchy, the proximity principle and regional self-sufficiency.

Policy 7

London should move towards much greater regional self-sufficiency in waste management. However, in balancing any possible conflicts between such self-sufficiency in the short term and the development of robust recycling infrastructure in the longer term, preference should be given to longer term recycling.

Proposal 9

Where appropriate the Mayor will use the power of direction in relation to waste contracts to enforce the consideration of Best Practicable Environmental Option.

Proposal 10

The Mayor will work with London's waste authorities on new contracts, and seek agreement to amend existing contracts, to ensure options as high up the waste hierarchy as possible are implemented.

Policy 8

The Mayor recognises the role for partnerships and co-operation in delivering strategic sustainable waste management for London.

Proposal 11

The Mayor will require waste authorities to thoroughly explore all partnership and co-operative working opportunities to ensure that the Government's guidelines on Best Value are adopted.

Policy 9

The Mayor considers that certain fiscal instruments will be needed to reduce waste and raise recycling rates in the future.

Proposal 12

The Mayor initially will seek to get a voluntary change from the default basis to a tonnage-based levy for the joint statutory waste disposal authorities to recover the cost of disposal from the constituent local authorities in London, including any transitional arrangements to alleviate problems, which may occur because of a changeover. However, if no agreement can be reached, the Mayor will seek to persuade the Government for a change in legislation to change the default system to a per tonne basis.

Proposal 13

The Mayor will seek to persuade the Government to ensure that effective fiscal instruments are in place for the achievement of waste reduction and high levels of recycling in London.

Policy 10

The Mayor supports the reduction and reuse of waste, with an aim to decrease the amount of waste produced per household and slow the overall growth in waste.

Proposal 14

The Mayor will develop a 'Waste Reduction and Reuse Programme for London', in partnership with relevant stakeholders, to co-ordinate, facilitate or undertake to:

- Produce a plan outlining the detail of the Waste Reduction and Reuse programme.
- Research waste growth through the identification of the key influencing factors and hence identification of solutions.
- endorse high profile 'pilots' of new techniques for waste reduction.
- Seek to persuade the Government to consider regulatory measures such as extended producer responsibility and economic instruments such as Ecotaxes.
- Create an environment for change through communication with consumers, retailers and manufacturers to encourage design for waste reduction.

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- Promote waste reduction and reuse as part of a wider waste awareness campaign for London. This should link to and complement local promotion activity and educate consumers on their powers to reduce waste and influence retailers.
- Encourage the London Development Agency to work with businesses, entrepreneurs, education and design sectors to investigate opportunities for sustainable product design. This should incorporate the concepts of using minimal resources, design for repair, reuse, upgrading, longevity and incorporating design for recycling.
- Investigate opportunities to encourage repair facilities.
- Support the development of remanufacturing workshops and centres for brown and white goods.
- Ensure effective co-ordination between the private and community sector of furniture reuse, including the establishment of a database, to match supply and demand for surplus office furniture and equipment.
- Develop, with partners, a Londonwide scheme for the refurbishment of computer equipment to ensure affordable equipment for the voluntary and education sectors.
- Develop ways to measure waste reduction and reuse and look to develop targets in the future.

Proposal 15

Waste authorities should undertake certain actions to impact on the production of municipal waste including:

- Consideration of the provision of waste collection services in relation to potential influence on the production of waste by householders and to ensure services for reduction, reuse and recycling are as high profile and convenient as waste collection services.
- Vigorous promotion of waste reduction and reuse to raise awareness locally of the need and actions to be taken in order to restrain the growth in the quantity of waste arising.
- Increase the awareness of Londoners regarding waste and the impact their behaviour has, including how individual decisions affect the amount of waste, costs of waste management and hence Council Tax bills, and the actions they can take to reduce waste and increase recycling.

- Promotion of home composting through the provision of appropriate information on how to make compost, and the benefits for the environment and making low cost compost bins and wormeries available to all households with gardens by September 2004.
- Facilitation of community composting schemes, through the provision of advice, potential sharing of resources such as shredders, and the provision of space on allotments or in parks.
- Consider the reuse of wood, rubble and other materials, and promote furniture reuse. This should be done either through the direct provision of a scheme or provision of contact details of other organisations, prior to collecting bulky waste or sending it for disposal from Reuse and Recycling Centres (Civic Amenity Sites).
- Promote reusable nappies and consider supporting schemes financially through a rebate related to the disposal costs.
- Promote the Mailing Preference Service to reduce junk mail.

Policy 11

Waste authorities should look to maximise the recycling of waste where waste reduction and reuse are not possible, in order to contribute to meeting and exceeding the recycling and composting targets and reduce municipal solid waste to landfill.

Policy 12

All waste collection authorities must introduce collections of materials for recycling from households or exceptionally extensive and effective 'bring' systems, in order to meet and exceed the national recycling targets.

Proposal 16

The waste authorities must provide all households with recycling collections of at least three materials¹, one of which should be paper by September 2004, except where impracticable. Consideration must be given to include access to the service for disabled people, children and the elderly.

Proposal 17

On estates or in multi-occupancy properties where recycling collections from homes may not be practicable, alternative arrangements of easily accessible recycling must be introduced. This should consist of no less than one recycling site per 500 households collecting at least three materials², one of which should be paper, by September 2004.

Policy 13

Waste authorities must maintain and extend the current provision of bring recycling facilities, particularly for those materials not collected as part of the authorities' recycling collections from homes schemes.

Proposal 18

The Mayor will look to identify 'best practice' in recycling, composting and promotion, to assist waste authorities to develop consistent schemes, and to save time and resources on investigating options independently.

Proposal 19

Waste collection authorities should ensure an extensive, well-distributed and full range of recycling banks for all wards within their area and look to provide best practice arrangements for their recycling sites, including where suitable the encouragement of 'adopt a bank' schemes.

Proposal 20

Waste authorities should fully explore opportunities for the recycling of street cleansing and trade waste, including trade waste recycling collections.

Policy 14

The Mayor will encourage greater participation in existing and future waste reduction, reuse, recycling and composting schemes.

Proposal 21

The Mayor with waste authorities and their contractors will investigate further the potential impact of incentives to recycle and the 'polluter pays principle' for waste. This is to help increase the levels of participation and recycling from householders but only to be implemented after the development of full boroughwide recycling collections from homes.

Proposal 22

The Mayor believes that rebates are the best way in which to increase recycling participation rates. Waste collection authorities should consider introducing schemes to help meet their targets once full boroughwide recycling collections from homes have been developed. Rebate schemes such as these would only be expected to operate for two to three years to increase the participation in recycling schemes and should not constitute a permanent charge/rebate. Any extra revenue raised should be ringfenced for improvements in the street environment.

Policy 15

Waste authorities should maximise waste composting where waste reduction and reuse are not possible, as a means of contributing to recycling and composting targets. A hierarchy of home composting, community composting, then centralised composting should be followed where practicable as part of Best Practicable Environmental Option (BPEO).

Policy 16

For organic waste not composted at home or in the community, the Mayor will request that waste authorities make appropriate provision for collections from homes.

Proposal 23

The Mayor will work with the Environment Agency to alleviate current problems of licensing, particularly of small-scale community composting sites. Central composting facilities need to be developed to complement home composting and community composting schemes. The Mayor requests that waste is composted in accordance with regulators requirements and the Animal By-Products Regulations, and will seek the provision of space for facilities through Unitary Development Plans.

Proposal 24

All Reuse and Recycling Centres (Civic Amenity sites) should be adapted and operated, so that green waste can be received and segregated on site for composting by the end of 2004.

Proposal 25

All waste collection authorities must prepare a fully costed feasibility study for the boroughwide collection of separated kitchen vegetable waste and green garden waste; in the case of green garden waste this may be on a seasonal basis. This feasibility study must be presented to the Mayor for consideration by September 2004.

Proposal 26

The London boroughs should make arrangements for the composting of compostable park waste, waste from the maintenance of cemeteries and waste from local authority-run nature reserves.

Proposal 27

Waste collection authorities should, where practicable, work in partnership with local fruit and vegetable markets to introduce arrangements for non-contaminated fruit and vegetable waste to be segregated to facilitate composting.

Proposal 28

Waste authorities should encourage London residents to use waste-derived compost by providing the opportunity for them to purchase waste-derived compost. The Mayor will look to work with London Remade and WRAP, to investigate further the development of consumer markets for composted waste in London.

Policy 17

Where waste cannot be reused, recycled or composted, value should be recovered in the form of materials and energy. In the case of energy, this should be done using a process that is eligible for Renewables Obligation Certificates, maximises the efficiency by using both the heat and the electric power, and minimises emissions of pollutants to all media.

Policy 18

The Mayor will support proposals for the treatment of residual waste through new and emerging advanced conversion technologies for waste or new waste treatment methods.

Proposal 29

The Mayor will support proposals for and work with key stakeholders to introduce new and emerging advanced conversion technologies for waste (for example, anaerobic digestion, gasification or pyrolysis) which satisfy the requirements of the Renewables Obligation Order 2002, supplying electric power and wherever possible also heat, and minimise the quantity of hazardous solid residues.

Proposal 30

The Mayor will support proposals for and work with key stakeholders to introduce new waste treatment methods such as Mechanical Biological Treatment and the production of biofuels to be used in London.

Proposal 31

The Mayor will encourage the development of anaerobic digestion plants, which treat segregated biodegradable waste and produce a digestate suitable for agricultural and horticultural use.

Proposal 32

The Mayor will continue to press the Government to classify anaerobic digestion plants, which treat segregated biodegradable waste and produce a digestate used for agriculture or horticulture, as 'recycling', as measured by the Best Value Performance Indicators.

Proposal 33

The Mayor will support the use of waste wood as a fuel, or for producing fuel. This will contribute to meeting the requirement of the Landfill Directive to reduce biodegradable waste to landfill and will also help London contribute its share to meeting the national renewable energy targets.

Proposal 34

The Mayor will work with LondonWaste Ltd and SELCHP, the waste authorities and local industry to explore the opportunities to develop heat distribution networks to supply heat from the existing incineration plants to housing, commercial and public buildings in the vicinity.

Proposal 35

The Mayor will keep developments in emissions control, monitoring and health impacts under review and, where appropriate, press the organisations responsible to adopt the new techniques.

Proposal 36

Having regard to existing incineration capacity in London, and with a view to encouraging an increase in waste reduction, reuse, recycling and composting and the development of new and emerging advanced conversion technologies for waste and new waste treatment methods such as Mechanical Biological Treatment, the Mayor will support and encourage these waste management methods in preference to any increase in conventional incineration capacity. Each case, however, will be treated on its individual merits, having regard to the Best Practicable Environmental Option and whether it meets the requirements of the Renewables Obligation Order 2002. The aim is that existing incinerator capacity will over the lifetime of the plan, become orientated towards non-recyclable residual waste.

Policy 19

In line with Government's waste hierarchy the Mayor considers landfill as the last, and least desirable option for the disposal of London's waste and wishes London to move towards self-sufficiency, as set out in the London Plan. However, the Mayor recognises that there still will be a role for landfill in the disposal of residual waste resulting from recycling, composting, pre-treatment and recovery processes or for waste streams where landfill represents the Best Practicable Environmental Option.

Policy 20

Waste disposal authorities in London should aim to meet their allocations to reduce the amount of Biodegradable Municipal Waste being landfilled as stipulated within 'Article 5' of the Landfill Directive.

Proposal 37

The Mayor will work with the South East of England and the East of England regional assemblies to co-ordinate strategic waste planning in order that London moves towards regional self-sufficiency for waste treatment and a subsequent reduction in landfill exports.

Proposal 38

The Mayor will work closely with London's waste authorities to ensure the tradable allowance system works effectively in diverting London's waste from landfill. Waste disposal authorities in London should seek to trade landfill allowances within London in the first instance so that London meets its allocation, without requiring allowances from outside of London.

Proposal 39

The Mayor will consult with London's waste authorities about arrangements for the co-ordination of trading landfill allowances through the Mayor acting as a broker.

Policy 21

In order to promote a sustainable approach to managing landfill gas, waste disposal authorities should encourage the use of landfill gas as a renewable energy source (heating or electricity).

Proposal 40

Any contract that includes the landfilling of municipal waste should encourage the use of landfill gas as a renewable energy source (heating or electricity).

Policy 22

The Mayor will promote a programme to enhance and promote opportunities for recycling and reuse and levels of service at existing Civic Amenity sites in London, to be re-branded as 'Reuse and Recycling Centres'. These Centres must be available free of charge to all Londoners when depositing household waste.

Proposal 41

The Mayor will seek to persuade the Government to announce the date on which Section 1 of the Refuse Disposal (Amenity) Act 1978 is to be repealed.

Proposal 42

The Mayor will work with key stakeholders to develop a 'best practice' design brief. This will provide the template of features to be incorporated into refurbished sites, resulting in facilities that provide a high standard of service and local environmental quality, coupled with a wide choice of reuse and recycling opportunities.

Proposal 43

The Mayor will promote a feasibility study, to be undertaken jointly with key stakeholders, including the Environmental Services Association and waste authorities, to explore the possibility of expanding the existing network of Reuse and Recycling Centres (Civic Amenity sites) in London. This study will explore the possibility of utilising the existing private waste transfer stations operating in London, as well as identifying land and premises for new sites.

Proposal 44

The Mayor will encourage all Reuse and Recycling Centres (Civic Amenity sites), where practicable, to have arrangements for the separation of reusable items and to provide sites that allow convenient and safe pedestrian access.

Proposal 45

Authorities operating Reuse and Recycling Centres (Civic Amenity sites) should not bar the use of or make a charge for the use of their sites by residents of other London boroughs for the deposit of household waste. To this end, such authorities should enter into discussions with other waste authorities whose residents use their sites, with a view to establish reciprocal arrangements whereby costs may be recovered.

Proposal 46

In order to protect Reuse and Recycling Centres and provide a uniform quality of service across London, the Mayor will, as part of his wider consultation on a single waste disposal authority, consult on options for the management and operation of Reuse and Recycling Centres in London.

Policy 23

The Mayor will work with the London boroughs improve the standard of cleanliness on London streets and public areas, and to combat environmental crime.

Proposal 47

The Mayor will work with his partners in the 'Capital Standards' Programme to raise the standard of London's street environment. This will be a high profile initiative involving the public and private sectors and will reward success.

Proposal 48

The Mayor will work with the partners in the 'Capital Standards' Programme to set standards and targets to guide local authorities, for litter collection and street cleansing and to combat fly-tipping, reduce litter production, and increase recycling of certain types of litter (eg cans and newspapers).

Proposal 49

The Mayor is working with the partners in 'Capital Standards' to produce a Londonwide advertising campaign, highlighting the Government's message of 'war on litter'.

Proposal 50

The Mayor will require all London waste authorities to identify ways to minimise the amount of unpaid commercial waste contaminating the household waste stream.

Proposal 51

The Mayor will support changes that enable local authorities to retain the revenue from fines or fixed penalty tickets.

Proposal 52

The Mayor supports, where suitable, colour-coded systems or designated containers for commercial waste collections and waste authorities should consider these when developing new commercial waste contracts or revising existing contracts. The Mayor will also request that existing contracts should examine the feasibility of changing to a system that allows clearer identification of waste.

Proposal 53

The Mayor will require waste collection authorities to have a well advertised bulky waste service to minimise the number of items dumped on the streets. The provision of a free service (for a limited number of items) must be considered where an authority has an issue with the dumping of bulky household waste. All services must maximise opportunities for recycling and reuse and collect such items free of charge.

Policy 24

The Mayor with waste authorities will seek to ensure that all abandoned vehicles are managed to a high standard and in a way that is compliant to all relevant UK legislation.

Proposal 54

The Mayor will seek an effective regulatory framework in England, for End of Life Vehicles, including incentives to encourage the owner to ensure their vehicle is delivered to an authorised treatment plant and effective regulatory powers and funding to allow waste authorities, to enforce the regulations where they apply.

Proposal 55

The Mayor will work with waste authorities and other key stakeholders, including the British Metals Recycling Association, so that London can respond effectively at the planning and implementation stages of the End of Life Vehicles Directive.

Proposal 56

The Mayor will work with waste authorities and other key stakeholders, to develop a common system of data gathering about abandoned vehicles, their removal, storage and disposal and the costs associated with this issue.

Policy 25

The Mayor will encourage waste from special events to be reduced, reused and recycled where possible.

Proposal 57

As a requirement of the licence, for a special event or where crowds are likely to gather in the vicinity of stadiums and arenas, all organisers should develop their own waste management plan. This should consider the waste that will be produced and look to place requirements for traders to use appropriate materials, and to minimise waste and maximise recycling. Boroughs should provide the Mayor with a list of their special outdoor events, and their plans for the management of waste at the event.

Policy 26

The Mayor will seek to ensure that all waste authorities obtain maximum benefit from contributing towards the targets of the packaging waste regulations on behalf of obligated businesses.

Proposal 58

The Mayor requests that all waste authorities investigate the development of their recycling collections (including packaging) through partnerships with reprocessors, obligated businesses and compliance schemes.

Policy 27

The Mayor supports the objectives of the Directives on Waste Electrical and Electronic Equipment to avoid the generation of, reduce the pollution and harmfulness of, and increase the recycling opportunities for waste electrical and electronic equipment.

Proposal 59

The Mayor will encourage waste authorities to work in partnership with the producers of electrical and electronic equipment, private waste contractors and the voluntary sector, to meet the requirements of the Directives.

Proposal 60

The Mayor will investigate opportunities for recycling and establishing markets for waste electrical and electronic goods and their components.

Policy 28

The Mayor will seek to ensure that all waste authorities have made the necessary arrangements to manage all waste refrigerators appropriately and efficiently, meeting the requirements of the ODS Regulations and where possible ensuring reuse options are considered before recycling.

Proposal 61

All waste collection authorities should look to work in partnership with neighbouring authorities or their waste disposal authority and those with technology available to deal with refrigerators. This should include working with London Remade, which is already developing partnerships in relation to fridge recycling and other appropriate refurbishers.

Policy 29

Waste authorities need to ensure that the Environmental Protection (Disposal of and other Dangerous Substances) Regulations 2000 have been adhered to and that all local authority property potentially housing PCB containing equipment has been investigated.

Policy 30

The Mayor wishes to achieve the segregation of all Hazardous Household Waste from the normal household waste stream, to enable higher recycling rates through the avoidance of cross-contamination to potentially recyclable materials and to reduce the Health and Safety risk to all and to the environment.

Proposal 62

A Londonwide Hazardous Household Waste Collection service should be delivered through consistent contract arrangements in all London boroughs, so that all Londoners have an equal opportunity to use the service. The

current service entitlement for householders should be provided free of charge and should also be available to businesses in London upon payment of a charge to recover costs.

Proposal 63

The Mayor will work with the Corporation of London as the lead authority for the Household Hazardous Waste Collection service and the waste authorities to investigate the existing usage and potential future usage of the service, including the costs of expansion, funding options and providing a high level of publicity, so that all Londoners become aware of the service.

Proposal 64

Reuse and Recycling Centres (Civic Amenity sites) should provide facilities where local residents have the opportunity to deposit items of hazardous household waste at a supervised and secure storage point.

Proposal 65

All waste authorities should lead by example, segregating old fluorescent lighting tubes from general waste and engaging specialist contractors to recycle the mercury and dispose of the remaining contents legally. This service should be promoted to all companies within the local authority area.

Policy 31

The Mayor will seek to ensure that all waste collection authorities make all necessary arrangements to manage all clinical waste associated with municipal waste arising in London to a high standard.

Proposal 66

The Mayor will request all waste collection authorities to provide a free household clinical waste collection service to a high standard. This will include working with relevant stakeholders to reduce the occurrence of, impacts from and risks associated with discarded waste, including syringe needles and dog mess, in public places and to widely publicise the availability of the collection service to all.

Proposal 67

The Mayor, along with all waste authorities, and other stakeholders such as the strategic health authorities, primary care trusts, other NHS bodies and the waste industry will seek to identify and implement best practice in clinical waste collection. This will include exploring potential partnership opportunities, which may provide economies of scale, such as a Londonwide clinical waste service.

Proposal 68

The Mayor will encourage health authorities to make plans to accommodate any changes resulting from the review of the Special Waste Regulations and the introduction of Hazardous Waste Regulations.

Policy 32

The Mayor will seek to secure effective resources for Londonwide promotion to complement local and national initiatives. The Mayor will promote messages on waste reduction, reuse and recycling, through a Londonwide programme to raise awareness of all Londoners but particularly children.

Proposal 69

The Mayor is leading the first phase of a campaign, bringing together the waste authorities and other key stakeholders, to develop Londonwide promotion on recycling and sustainable waste management. The Mayor will explore further funding opportunities to enable campaigns in future years.

Proposal 70

The Mayor will seek to ensure that waste reduction, reuse and recycling is convenient and simple, to aid the communication of Londonwide messages.

Proposal 71

The provision of waste services by an authority should include an amount to be spent on education and promotion. This could either be incorporated into waste and recycling contracts or provided directly by the waste authority.

Proposal 72

The Mayor will work with local education authorities, schools and waste collection authorities to ensure all schools, where practicable, have a mini-recycling centre within their grounds to create an understanding of the environmental importance of waste management and recycling.

Policy 33

The Mayor, through the London Development Agency, will continue to support the development of new reprocessing industries, including new business opportunities and job creation.

Proposal 73

The Mayor, through the London Development Agency, will continue to examine and address the business support needs of the waste reprocessing sector including skills requirements, business advice, finance and land premises.

Proposal 74

The Mayor, through the London Development Agency, is the major public sector funder of the London Remade programme, with funding in place until 2004, and will continue to support London Remade as it becomes successful in its role providing leadership and developing partnerships. Through the London Development Agency, the Mayor will also examine requirements for additional support mechanisms for the sector.

Proposal 75

The Mayor and the London Development Agency will help to stimulate demand for recycled products.

Proposal 76

The Mayor will work with the London Development Agency, London Remade and WRAP to continue to develop reprocessing capacity for recyclables and new markets for recycled materials and products. This will include the investigation of the benefits of Londonwide consortia for recyclable materials.

Proposal 77

The Mayor will support and encourage the development of new plastics recycling facilities and related industries in London.

Proposal 78

The Mayor will work with the waste authorities and their contractors, material reprocessors, London Remade, WRAP and other relevant organisations to help to set standards for recycled goods which are sustainable and realistic.

Proposal 79

The Mayor, with key stakeholders including the London Development Agency, will bring together a markets taskforce to:

- consider current and future markets
- consider current and future reprocessing capacity requirements
- consider London's needs, including timeframes and locations.

Policy 34

The Mayor will lead by example to reduce waste, through reusing and recycling and by using refurbished and recycled products and materials, where available.

Policy 35

The Functional Bodies, London boroughs and joint statutory waste disposal authorities should follow the Mayor's example at the GLA and develop and adopt a comprehensive environmental policy that will embrace green procurement of all goods and services.

Proposal 80

The Mayor and the London Development Agency, in partnership with London Remade, will continue to work on the Mayor's Green Procurement Code to encourage organisations to explore opportunities for buying recycled products.

Proposal 81

The Mayor, through the London Development Agency, will work with key stakeholders to develop a strategic approach to promoting business efficiency through efficient resource use, including encouraging green procurement and sustainable waste management.

Policy 36

The Mayor will lead on improving the arrangements for waste planning in London, so that this occurs on a strategic level but also involves local communities.

Policy 37

The Mayor will work with relevant stakeholders to encourage inward investment to establish the necessary strategic waste infrastructure across London. This will include seeking to protect existing waste management facilities and the provision of new sites for strategic and local recycling, composting, and other waste processing operations.

Proposal 82

When preparing or revising their Unitary Development Plans and Local Development Documents, boroughs must ensure that land resources are available to implement the Mayor's Municipal Waste Management Strategy, Waste Strategy 2000, the Landfill Directive and other EU Directives on waste. They should identify the sites needed for waste management and disposal facilities over the period of the plan and in conformity with the London Plan, including facilities for the management of waste with specific requirements, such as hazardous waste.

Proposal 83

When preparing or revising their Unitary Development Plans and Local Development Documents, boroughs must ensure they conform with the strategic policy framework on planning for waste within the London Plan.

Proposal 84

The Mayor will work in partnership with the boroughs and relevant stakeholders to produce detailed waste policy guidance for each Sub-Regional Development Framework, developed under the London Plan, outlining the number, types, and, where appropriate, locations of facilities needed to manage waste and recyclables in their area.

Proposal 85

The Mayor will work with the South East England and East England regional assemblies to co-ordinate strategic waste management across the three regions.

Policy 38

The Mayor, in conjunction with other stakeholders, will seek to identify barriers to sustainable waste management, and will lead on the influencing of national legislation to make changes beneficial to the future of sustainable management of waste in London.

Proposal 86

The Mayor believes the best way to achieve sustainable waste management in London is for waste disposal to be under the control of a single authority. The Mayor will develop an environmental and business case and consider the views of London waste authorities. In the light of London's progress towards the 2005/06 targets, the Mayor's position will be presented to Government, to consider appropriate changes to existing legislation.

Policy 39

The Mayor will, in line with the Best Practicable Environmental Option, aim to minimise the environmental impact of the collection and transportation of waste and recyclables, both before and after processing.

Policy 40

The Mayor will work with all agencies, including TfL and the LDA, to develop the capacity of sustainable modes for the transport of waste and recyclables in London, and will promote new schemes where they are feasible within this overall framework.

Proposal 87

The Mayor will ensure, in his review of contracts, municipal waste management strategies and planning applications for waste facilities, that waste authorities have considered transport implications and, where appropriate, undertaken a full transport assessment of the impacts of the transportation of their waste. Waste authorities should demonstrate that meaningful and full consideration has been given to the use of water and rail transport.

Proposal 88

The Mayor will encourage the use of sustainable modes of transport (particularly, rail, river and canal). Where materials cannot be managed locally, wharves and rail waste transfer stations that are, or can be made viable, for the movement of recyclables and residual waste should be protected through the London Plan.

Proposal 89

The Mayor will seek to ensure that all waste authorities encourage fuel management programmes, and that when waste contracts are reviewed, emissions criteria are specified for the vehicles used. Emissions criteria should comply with the currently applicable Euro standard, or the previous Euro standard with suitable after-treatment as a minimum, ie Euro II with Reduced Pollution Certificate until 2005. Waste authorities should consider all vehicle options, including those which can achieve more stringent emissions standards for air quality, and which may also bring other benefits to the environment such as reduced noise or carbon dioxide emissions.

Proposal 90

The Mayor will encourage waste authorities to consider the potential to clean the exhaust emissions from their vehicle fleets, by retrofitting after treatment technologies (such as particulate traps), using cleaner fuels or purchasing the cleanest new vehicles. The Mayor encourages waste authorities to contact the Energy Savings Trust with regard to relevant grant funding.

Proposal 91

The Mayor will encourage waste authorities to minimise the environmental impact of waste transportation, including air pollution, noise (especially night time or early morning collections), energy use and traffic impacts by appropriate vehicle specifications, routeing and operating practices.

Policy 41

The Mayor, will seek to secure for London's waste authorities London's fair share of funding to invest in sustainable waste management and with partners, will seek an increase in the total funding provided.

Proposal 92

The Mayor will seek to persuade the Government to provide London with its fair share of funding and also aim to enable waste authorities to develop partnerships and identify external sources of funds and provide a mechanism for significant leverage of other funding sources.

Proposal 93

The Mayor will work with the Association of London Government and London's waste authorities to determine the required investment to achieve sustainable waste management. A joint case will then be presented to the Government for further investment and funding.

Policy 42

The Mayor will aim to achieve, in liaison with waste authorities, a minimum service level and consistency in waste contracts across London. This will take into account the uniqueness of each London borough and will be developed through the sharing of best practice.

Proposal 94

The Mayor will require waste authorities to include contract conditions and specifications in waste or associated contracts, which:.

- Reflect appropriate proposals and targets as set out in the Mayor's Municipal Waste Management Strategy for London. The Mayor's targets should be seen as the minimum contract performance requirements.

- Enable future flexibility for the waste authority to continue to develop sustainable waste management.
- Maintain and increase the use of rail and water transport.
- Reflect best practice, through the tailoring of contract conditions and specifications to the specific requirements of the waste authority.
- Consider equal opportunity for all.

Proposal 95

The Mayor will develop best practice guidelines to assist waste authorities in the tailoring of contract conditions. The guidelines will be regularly reviewed and updated.

Proposal 96

If considering any proposed new contracts involving the conventional incineration of municipal waste, the Mayor would seek to ensure that as a minimum:

- waste is subjected to pre-treatment to remove as much recyclable materials as is practicable before the residual waste is incinerated
- to ensure flexibility is maintained in order to allow movement up the waste hierarchy there should be no guaranteed minimum tonnage contracts
- state of the art emission limiting equipment and monitoring systems are used to reduce any potential health impacts
- combined heat and power technologies are used.

Policy 43

The Mayor will take into consideration the aims and objectives of Best Value when reviewing waste contracts.

Proposal 97

The Mayor will look to co-operate and seek to work jointly with waste authorities undertaking Best Value reviews of their waste services.

Proposal 98

The Mayor will require that waste contracts are flexible enough to enable the incorporation of changes resulting from Best Value reviews and that the Best Value principle of continuous improvement has been addressed.

Proposal 99

The Mayor requests waste authorities to fully consider the social, environmental and economic benefits when undertaking Best Value reviews of waste management services.

Proposal 100

In order that waste disposal authorities can fully deliver Best Value in waste disposal contracts, the Mayor will encourage the Government to repeal, as soon as possible, Section 51(1)(a) – Schedule 2 of the Environmental Protection Act 1990.

Policy 44

The Mayor seeks that all two-tier waste authorities in London have a joint municipal waste management strategy, in line with the Government Guidance. This must demonstrate how they will work together to deliver the Mayor's Municipal Waste Management Strategy in their area.

Proposal 101

The four statutory joint waste disposal authorities should each have a joint strategy that covers their own area. The 12 unitary authorities should consider how to work together in groups and consider preparing a joint strategy for each group. At a minimum, each unitary authority should produce an 'implementation programme'. Joint strategies or 'implementation programmes' should be presented to the Mayor for consideration within 12 months of the final publication of the Mayor's Municipal Waste Management Strategy.

Appendix 4 - Strategic Environmental Assessment Environmental Report & Appendices

The Strategic Environmental Assessment of the North London Joint Waste Strategy is long with its own appendices, and is therefore available separately on request by contacting the North London Waste Authority on 020 8489 5730.

It is also available separately on the North London Waste Authority website at www.nlwa.gov.uk

Appendix 5 - Waste Management Facilities in North London

Licence number	Facility type	Annual licensed capacity (tonnes)	Annual estimated throughput (tonnes)	Annual estimated available capacity (tonnes)	Annual current % capacity used
Transfer Stations					
80147	Household, commercial & industrial waste	417,040	127,403	289,637	31%
80294	Household, commercial & industrial waste	113,360	80,206	33,154	71%
80300	Household, commercial & industrial waste	92,040	31,324	60,716	34%
80306	Household, commercial & industrial waste	93,340	70,005	23,335	75%
80317	Household, commercial & industrial waste	166,920	14,235	152,685	9%
80319	Household, commercial & industrial waste	85,280	42,827	42,453	50%
80328	Household, commercial & industrial waste	332,150	73,806	258,344	22%
80334	Household, commercial & industrial waste	374,400	200,556	173,844	54%
80689	Household, commercial & industrial waste	730,000	354,287	375,713	49%
80146	Household, commercial & industrial waste	129,168	33,795	95,373	26%
80154	Household, commercial & industrial waste	57,200	46,133	11,067	81%
80308	Household, commercial & industrial waste	91,000	45,680	45,320	50%
80316	Household, commercial & industrial	46,020	34,515	11,505	75%

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	waste				
80323	Household, commercial & industrial waste	130,780	210,414	-79,638	161%
80331	Household, commercial & industrial waste	46,280	34,436	11,844	74%
80363	Household, commercial & industrial waste	74,880	70,143	4,737	94%
80509	Household, commercial & industrial waste	50,000	11,341	38,659	23%
80555	Household, commercial & industrial waste	28,600	19,992	8,608	70%
80690	Household, commercial & industrial waste	62,500	70,263	-7,763	112%
80312	Non-biodegradable wastes	11,440	9,989	1,451	87%
80337	Household, commercial & industrial waste	267,284	267,284	0	100%
80716	Household, commercial & industrial waste	20,000	34,030	-14,030	170%
80728	Household, commercial & industrial waste	23,600	485	23,115	2%
80756	Household, commercial & industrial waste	10,000	7,500	2,500	75%
Total	24				
Reuse and Recycling Centres (Civic Amenity Sites)					
80296	Reuse and recycling centre	74,999	12,027	62,972	16%
80324	Reuse and recycling centre	37,492	38	37,454	0%
80514	Reuse and recycling centre	45,613	30,596	15,017	67%
80548	Reuse and recycling centre	37,200	27,613	9,587	74%

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80155	Reuse and recycling centre	5,902	2,939	2,963	50%
80301	Reuse and recycling centre	9,468	4,062	5,406	43%
80349	Reuse and recycling centre	14,631	4,773	9,858	33%
80576	Reuse and recycling centre	24,999	192,737	-167,738	771%
80577	Reuse and recycling centre	210,187	210,187	0	100%
Total	9				
Physical Treatment Facility					
80334	Physical treatment facility	112,112	84,084	28,028	75%
80596	Physical treatment facility	71,500	13,456	58,044	19%
80574	Physical treatment facility	57,000	46,235	10,765	81%
80350	Physical treatment facility	4,999	403	4,596	8%
80413	Physical treatment facility	24,000	14,145	9,855	59%
80717	Physical treatment facility	24,999	4,305	20,694	17%
Total	6				
Composting Facility					
80714	Composting facility	30,000	29,354	646	98%
Total	1				
Materials Recycling Facility					
80292	Materials recycling facility	24,999	18,749	6,250	75%
Total	1				
Incinerator					
YP3033BE	Incinerator	520,000	485,548	34,452	93%
Total	1				
Clinical Waste Facility					
80322	Clinical waste transfer station	936	702	234	75%
80477	Clinical waste	10	8	3	75%

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	transfer station				
80544	Clinical waste transfer station	13,350	3,970	9,380	30%
Total	3				
Metal Recycling Site					
80298	Metal recycling site (Mixed MRS's)	199,264	192,569	6,695	97%
80314	Metal recycling site (Mixed MRS's)	289,640	217,230	72,410	75%
80326	Metal recycling site (Mixed MRS's)	15,397	15,397	0	100%
80607	Metal recycling site (Vehicle dismantler)	6,100	6,100	0	100%
80141	Metal recycling site (Mixed MRS's)	286	215	72	75%
80151	Metal recycling site (Vehicle dismantler)	3,766	2,825	942	75%
80291	Metal recycling site (Mixed MRS's)	5,642	4,232	1,411	75%
80297	Metal recycling site (Vehicle dismantler)	13,000	9,750	3,250	75%
80302	Metal recycling site (Mixed MRS's)	1,014	761	254	75%
80320	Metal recycling site (Vehicle dismantler)	1,300	975	325	75%
80321	Metal recycling site (Vehicle dismantler)	780	585	195	75%
80325	Metal recycling site (Vehicle dismantler)	2,600	100	2,500	4%
80335	Metal recycling site (Mixed	2,080	1,560	520	75%

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	MRS's)				
80339	Metal recycling site (Vehicle dismantler)	780	585	195	75%
80342	Metal recycling site (Mixed MRS's)	364	273	91	75%
80343	Metal recycling site (Vehicle dismantler)	5,200	3,900	1,300	75%
80344	Metal recycling site (Mixed MRS's)	57,160	42,870	14,290	75%
80345	Metal recycling site (Vehicle dismantler)	5,200	3,900	1,300	75%
80386	Metal recycling site (Vehicle dismantler)	2,080	1,560	520	75%
80631	Metal recycling site (Vehicle dismantler)	7,950	7,950	0	100%
80647	Metal recycling site (Vehicle dismantler)	3,766	2,825	942	75%
80640	Metal recycling site (Vehicle dismantler)	3,766	2,825	942	75%
80707	Metal recycling site (Mixed MRS's)	750	391	359	52%
80630	Metal recycling site (Vehicle dismantler)	188	141	47	75%
80653	Metal recycling site (Vehicle dismantler)	16.3	16	0	100%
80722	Metal recycling site (Vehicle dismantler)	3,766	2,825	942	75%
Total	26				

Source: North London Waste Plan, Issues and Options Technical Report, October 2007

Appendix 6 - Glossary of Terms

Term	Description
Anaerobic Digestion	Anaerobic digestion (commonly referred to as AD) is a biological process by which biodegradable waste is broken down in the absence of oxygen in an enclosed reactor vessel. The process produces a biogas – a mixture of mostly hydrogen, methane and carbon dioxide - and sludge or ‘digestate’.
Best Value	The duty on local authorities to deliver effective, economic and efficient services and seek improvement in the quality and standard of their service provision.
Biodegradable waste	Waste that may decompose through the action of bacteria or other microorganisms, including materials such as paper, food and garden waste.
Best Value Performance Indicator	Indicator used to measure the performance of a local authority. Now replaced by National Performance Indicators.
Biodiversity	The variety of life on our planet, measurable as the variety within species, between species and the variety of ecosystems. Increased biodiversity may be indicative of a more mature or a more healthy ecosystem.
Bring bank / site	A bring site or bring bank is a local collection point for recyclables such as glass, paper or cans.
Brownfield site	A brownfield site is land which has previously been developed but excludes mineral workings or other temporary uses. Concentrating development on brownfield sites can be the best use of the available land bank and can be used as a mechanism to clean contaminated land and assist environmental, economic and social regeneration.
Bulky waste	An item of waste is considered ‘bulky’ if it weighs more than 25 kilograms or does not fit into a householder’s bin; or if no container is provided, would not fit into a hypothetical cylindrical receptacle measuring 0.75 metres in diameter by 1.0 metres high.

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Carbon dioxide	A colourless and odourless gas naturally present in low concentrations in the atmosphere. It is an important “greenhouse gas” and helps to regulate the surface temperature of the Earth. It is absorbed by plants during photosynthesis and released by living organisms during respiration and other biological processes. Many combustion processes also release carbon dioxide as an end-product.
Central composting	Large-scale biological treatment operation converting household kitchen and garden waste into compost and which may also accept green parks waste. See also “composting”.
Civic amenity site	Site operated by either the Waste Disposal Authority or the Local Authority where residents can dispose of their household waste free of charge. These sites are also known as Reuse and Recycling Centres.
Clinical waste	Clinical waste is defined in the Controlled Waste Regulations 1992. It may prove hazardous or cause infection to people coming into contact with it.
Commercial waste	Commercial waste arises from premises used for trade, business, sport, recreation or entertainment, but excludes household and industrial waste.
Climate change	The non-seasonal variation in the Earth’s global or regional climate over a period of time. These changes may be natural or anthropogenic.
Combined heat and power (CHP)	A technology that recovers both heat and power as an integral part of the process. Typically used to describe some modern waste treatment technologies such as incineration, gasification or pyrolysis.
Composting	The microbiological degradation of organic wastes in the presence of oxygen to produce fertiliser or soil conditioner. This can either be an enclosed process (in-vessel) or operated as an open process.
Construction and demolition waste	Waste arising from the construction, repair, maintenance and demolition of buildings and structures, including roads. It consists mostly of brick, concrete, subsoil and topsoil, but it can contain quantities of timber, metal and occasionally hazardous waste.
Dry recyclables	Materials such as paper, textiles and cans that can be collected through kerbside schemes or bring banks.

Ecosystem	<p>A collection of living organisms and their environment that coexist as if they were a single unit. Each organism within the ecosystem is co-dependent on the other parts. The only inputs and outputs are energy (as sunlight and heat) and water.</p>
Energy from Waste (EfW)	<p>EfW includes a number of established and emerging technologies, though most energy recovery is through incineration technologies. Many wastes are combustibles, with relatively high calorific values – this energy can be recovered through (for instance) incineration with electricity generation.</p>
Energy Recovery	<p>Energy recovery is the recovery of useful energy in the form of heat and/or electric power from waste. This includes combined heat and power, combustion of landfill gas and gas produced during anaerobic digestion.</p>
Environment Agency (England and Wales)	<p>The Environment Agency for England and Wales was created by the Environment Act 1995 to regulate emissions to air, land and water.</p> <p>The Agency's main role in the management of waste is to protect the environment and human health.</p> <p>Its duties include:</p> <ul style="list-style-type: none">• licensing waste management facilities• monitoring and inspecting waste management facilities• enforcing regulations to prevent unlawful waste management activities• providing data and information on waste quantities and management regimes. <p>In Scotland the Scottish Environment Protection Agency (SEPA) fulfills the equivalent role. In Northern Ireland the function is performed by the Environment and Heritage Service.</p>
Fly-tipping	<p>The unlawful deposit of waste on land.</p>
Gasification	<p>A process that uses heat to decompose matter in an air supply that has <u>insufficient</u> oxygen. The products of the process include oxides of carbon, methane and hydrogen. Heat, energy and chemicals can be recovered as part of the process. A similar process to pyrolysis.</p>

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Gershon Review	Sir Peter Gershon's review of local government funding took place in 2004. The review makes a number of recommendations to increase efficiency and places targets on local government to reduce costs by increasing efficiencies.
Greenhouse gas	A gas that strongly absorbs infra-red (heat) in the Earth's atmosphere causing a rise in temperature. Greenhouse gases in order of significance on Earth are water vapour, carbon dioxide, methane and ozone. The amounts of these gases in the atmosphere can be adversely affected by anthropogenic activities.
Green waste	Vegetation and plant waste from households and public parks and gardens.
Hazardous waste	Waste subject to the Hazardous Waste (England and Wales) Regulations 2005
Household waste	Waste from domestic properties including waste from Reuse and Recycling Centres, material collected for recycling and composting, and waste from educational establishments, nursing and residential homes and street cleansing waste.
Incineration	This is the controlled burning of waste, either to reduce its volume or polluting potential. Heat and energy can be recovered as part of the process.
Kerbside collection	A collection of waste from households, commercial or industrial premises. Often used to refer to the regular collection of recyclable material from households. 'Kerbside collections' include 'Near entry collection' or paladins etc. for blocks of flats and estates, as long as the recycling bins are provided specifically for that block of flats in the same way, or similar way, to how waste collection more generally would be provided for that block, or is within the building or complex, or is as close to the building as the kerb.
Landfill	Landfill is the deposit of waste into engineered void spaces. These are often quarries that have been previously excavated. Landfill sites must be constructed to facilitate the management of leachate and landfill gas to prevent pollution of the environment. Landfill gas is often used to generate electricity.

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Landfill Allowance Trading Scheme (LATS)	A Government scheme to ensure that the United Kingdom meets the targets set in the European Union Landfill Directive. Every Local Authority (LA) is allowed to landfill a set amount of waste. If this is exceeded they must purchase additional capacity from another LA. A LA that sends less than its allowance to landfill can sell the capacity at a market rate.
Local Government Association	The LGA promotes the interests of Local Authorities in England and Wales and works for better local government.
London Councils	London Councils promotes the interests of the 33 local authorities in London and runs a range of services on behalf of them.
Materials Recovery Facility (MRF)	A waste transfer station with equipment for the storage and segregation of recyclable materials. Also known as a material recycling facility or materials reclamation facility.
Municipal waste	All waste collected by a Waste Collection Authority, or its agents, including waste from households, parks and gardens, beach cleansing, street cleaning, commercial or industrial premises, and fly-tipped wastes.
National Indicators	A set of 198 indicators that reflect national priorities for local authorities working alone or in partnership. National Indicators replaced Best Value Performance Indicators and are reported from April 2008.
New and Emerging Technologies	Technologies that are either still at a developmental stage or have only recently started operating on a commercial scale. In relation to waste, these technologies include: anaerobic digestion, in-vessel composting, biological-mechanical treatment (BMT) or mechanical-biological treatment (MBT), and 'advanced thermal treatment technologies such as pyrolysis and gasification. New technologies may include the 'new' application of existing technologies to waste, in particular to municipal solid waste.
Precautionary Principle	Defined in Waste Strategy 2000: Any integrated waste management system must make allowance for the precautionary principle, which states that where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

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Producer Responsibility	Producers and others involved in the distribution and sale of goods taking greater responsibility for those goods at the end of the products' lives.
Putrescible	Organic material with a tendency to decay rapidly forming unpleasant or odorous products, e.g. kitchen waste.
Pyrolysis	A process that uses heat to decompose matter in the <u>absence</u> of oxygen. The products of the process include carbon, methane and hydrogen. Heat, energy and chemicals can be recovered as part of the process. A similar process to gasification.
Recycling	The reprocessing of waste material, either into the same product or a different one. Common wastes that are recycled include paper, glass, cardboard, plastics and scrap metals.
Recovery	Recovery is defined in Waste Strategy 2000 as meaning obtaining value from waste through reuse; recycling; composting; material or energy recovery.
Reduction	The process of generating less waste by reviewing the production processes as to optimise utilisation of raw (and secondary) materials and recirculation processes. This lowers disposal costs and the use for raw materials and energy.
Renewable Obligation Certificates (ROCs)	ROCs demonstrate the amount of electricity generated from renewable sources. One certificate is issued for each megawatt hour of electricity generated from renewable sources. Electricity generators must generate a specified amount of electricity from renewable resources and supply companies must buy a specified proportion of such electricity or pay a fine. The fine is distributed to the generators that produce electricity from renewable sources. The scheme is administered by the Government's energy watchdog Ofgem.
Reuse	The reuse of products that are designed to be used on more than one occasion, thus reducing the generation of waste. Reuse contributes to sustainable development and can save raw materials, energy and transport costs.

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Reuse and Recycling Centre	Site operated by either the Waste Disposal Authority or the Local Authority where residents can dispose of their household waste free of charge. These sites are also known as Civic Amenity Sites.
Separate collection	Kerbside waste collection schemes where recyclables are collected separately from residual waste either by the use of a different vehicle/part of the vehicle or at a different time.
Special waste	The term formerly used to describe "Hazardous Waste".
Strategic Environmental Assessment (SEA)	A statutory procedure intended to ensure that the environmental impact of plans and strategies are properly assessed.
Sustainability	The principal of maintaining socio-economic activity in a manner that balances the supply and demand of resources.
Treatment	The thermal, chemical or biological processing of waste to render it harmless, to reduce its volume before landfilling, or to recycle certain materials.
Unitary Authority	A local authority which has the responsibilities of both the Waste Collection and Waste Disposal Authorities.
Waste	Refers to "controlled waste" defined in the Environmental Protection Act 1990. It includes most unwanted, discarded, redundant or broken materials including agricultural wastes. Mines and quarries wastes, explosive wastes and radioactive wastes are excluded.
Waste arising	The amount of waste produced in a given area during a given period of time. Usually reported as "tonnes per annum".
WasteDataFlow	WasteDataFlow is the web based system for municipal waste data reporting by UK local authorities to government. The system went live on 30 April 2004.

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Waste Hierarchy	<p>The waste hierarchy, introduced by the EU Waste Framework Directive, prioritises the options for waste management. It represents a sliding scale starting with the most sustainable option (reduction) and ending with the least:</p> <ul style="list-style-type: none">• prevention• minimisation• re-use• recycling (including composting)• energy recovery• disposal
Waste management industry	<p>Businesses and not-for-profit organisations carrying out the collection, treatment and disposal of waste.</p>
Waste streams	<p>Waste arising from either the same or different producers and identifiable as discreet and separate from another waste stream.</p>
Waste and Resources Action Programme (WRAP)	<p>WRAP is a private company limited by guarantee. It was established by the Government to help create stable and efficient markets for recyclables and remove barriers to increased recycling.</p>

Abbreviations

AA	Appropriate Assessment
ACORN	A Classification of Residential Neighbourhoods
AD	Anaerobic Digestion
BMW	Biodegradable Municipal Waste
BPEO	Best Practicable Environmental Option
BREAM	Building Research Establishment Environmental Assessment Method
BVP	Best Value Performance
BVPI	Best Value Performance Indicator
CA	Civic Amenity
CPRE	Council for the Protection of Rural England
DEFRA	Department for Environment, Food and Rural Affairs
DETR	(former) Department for the Environment, Transport and the Regions
DPD	Development Plan Document
DSO	Direct Service Organisation
DTI	(former) Department of Trade and Industry
EA	Environment Agency
EfW	Energy from Waste
EIA	Environmental Impact Assessment
ELV	End of Life Vehicle
ENCAMS	Environment Campaigns (formally Tidy Britain Group)
EPA	Environmental Protection Act 1990
EU	European Union
GDP	Gross Domestic Product
GHGs	Greenhouse Gases
IAA	Inter Authority Agreement
IPCC	Intergovernmental Panel on Climate Change
JWDPD	Joint Waste Development Plan Document
LATS	Landfill Allowance Trading Scheme
LDD	Local Development Documents
LDF	Local Development Framework
LGA	Local Government Association
MBT	Mechanical Biological Treatment
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
MWMS	Municipal Waste Management Strategy
NGO	Non Governmental Organisation
NLJWS	North London Joint Waste Strategy
NLWA	North London Waste Authority
OJEU	Official Journal of the European Union
PFI	Private Finance Initiative
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
RDF	Refuse Derived Fuel
ROC	Renewables Obligation Certificate
RPG	Regional Planning Guidance

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RSS	Regional Spatial Strategy
RTAB	Regional Technical Advisory Body
SEA	Strategic Environmental Assessment
SA	Sustainability Appraisal
UA	Unitary Authority
UDP	Unitary Development Plan
UK	United Kingdom
WCA	Waste Collection Authority
WDA	Waste Disposal Authority
WDF	WasteDataFlow
WEEE	Waste Electrical and Electronic Equipment
WET	Waste and Emissions Trading Act
WPA	Waste Planning Authority
WRAP	Waste and Resources Action Programme