

London Borough of Merton

**Municipal Waste Management
Strategy**

2006 - 2021

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1. INTRODUCTION

1.1 The need for a strategy

The way in which municipal waste is currently managed is undergoing radical policy and regulatory change at European, national and regional levels. The European Landfill Directive 1999 requires Member states to reduce their reliance on landfill as the primary means of waste disposal. This has resulted in shifting the emphasis towards sustainable waste management that reinforces the need to reduce the amount of waste produced and maximise the value of the waste that is produced. The key drivers are:

- The introduction of statutory standards for recycling and composting of household waste;
- European and national legislation that require a significant reduction in the amount of biodegradable waste being disposed to landfill;
- The Landfill Tax escalator that will result in increasing costs for landfill disposal.

In order to adapt and move forward, Merton needs to develop a municipal waste management strategy that provides a robust framework for delivering the required changes. Since the publication of the council's Draft Waste Recycling Plan 2002-2008 the scope of issues for consideration has increased significantly and it is prudent to develop a wider strategy, in particular with a view to future procurement issues. This strategy therefore replaces the draft Waste Recycling Plan 2002-2008 and has been developed in order to meet the challenges of dealing with and disposing of waste in the future.

This Strategy recognises that whilst alternative waste collection and disposal methods can be developed in order to meet the challenges set, this must be carried out alongside steps to reduce the overall amount of waste produced.

1.2 Structure of the strategy

This strategy document sets out how Merton proposes to manage municipal solid waste over the next 15 years. It is a strategic level document that sets out the key policy objectives and regulatory targets for waste collection, recycling/composting, treatment and disposal. It also outlines the key stages of implementation (action plan) and the process for monitoring and reviewing progress.

It is designed to address the issues that face Merton Council with respect to its role as a unitary authority, responsible for both the collection and disposal of municipal waste.

The Strategy has been prepared to be consistent with the draft Practice Guidance for the Development of Municipal Waste Management Strategies (July 2005).¹ It is anticipated that the strategy document is used as a working document, which is fluid and dynamic, keeping abreast with future changes but is focused enough to present a clear picture to the existing and future waste management aims for the London Borough of Merton.

An outline of the proposed structure of the municipal waste management strategy is shown in Figure 1.

Figure 1 Proposed structure of Merton's Municipal Waste Management Strategy



¹ Draft Practice Guidance for the Development of Municipal Waste Management Strategies. (DEFRA, 2005)

1.3 The South London Waste Partnership

The Best Value Review of Waste Services carried out in 2002 recognised the need to put in place new management arrangements and partnerships to meet the challenges of current and emerging drivers to manage waste in a more sustainable fashion. In response to this need Merton Council has joined neighbouring authorities in reconvening the South London Waste Disposal Group as a means to invite discussions on possible partnering arrangements.

In 2004 the partnership was successful in bidding for consultancy support from Defra's Waste Implementation Programme Local Authority Support Unit to investigate the scope for joint partnering and procurement of waste disposal services. The initial stages of this work highlighted that a joint approach could benefit from economies and efficiencies of scale and is likely to improve market appetite and hence competition.

The Council recognises the value of this partnership, in particular the potential for scoping of joint waste procurement. The following Memorandum of Understanding has been agreed between the partner boroughs to provide for the development of closer partnership working:

“To enable the Boroughs to work together to manage municipal waste within the geographical area of the four Boroughs in the most efficient, effective, economical and sustainable manner”

A joint waste statement is currently being prepared to provide a joint framework around which the four London boroughs can further develop their waste management infrastructure.

2. STRATEGY OBJECTIVES

2.1 Introduction

This section sets out the key aims and objectives that form the basis of the Waste Strategy. It draws upon the core visions, values and goals of the London Borough of Merton as well as considering other relevant strategies and policies of importance. This section consolidates Merton's principles for waste management and is the foundation for the Waste Strategy.

For the purposes of this document, the following definitions are used:

- ◆ **AIM** - the intention or aspiration for the objectives in the Waste Strategy. The aim explains WHY the objective has been set.
- ◆ **OBJECTIVE** - WHAT is being achieved in order to meet the aim, i.e. what particular aspect of waste management is being focussed upon, e.g. biodegradable waste and recycling

2.2 Aims and Objectives

Aim 1	WA1. Reduce waste growth in Merton
Objectives	WO1. Engage the community to act sustainably by choice – through the development and delivery of an extensive waste awareness and education programme. WO2. Through lobbying at a regional and national level to develop producer responsibility measures that will impact positively on municipal waste arisings.

Aim 2	WA2. Achieve statutory performance standards for recycling and composting of household waste
Objectives	WO3. Maximise reuse, recycling and composting of municipal waste, including household, commercial, industrial and the council's own waste.

Aim 3	WA3. Meet the landfill Directive targets of diverting waste from landfill
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Objectives	<p>WO3. Maximise reuse, recycling and composting of municipal waste, including household, commercial, industrial and the council's own waste.</p> <p>WO4. Investigate the feasibility of new treatment technologies.</p>
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Aim 4	WA4. Develop and work in partnerships that ensure sustainable waste management services are affordable and represent value for money
Objectives	<p>WO5. Maximise efficiencies and value for money through partnership working with neighbouring authorities to deliver sustainable residual waste recovery and disposal solutions that are robust and flexible to meet ever changing future demands.</p> <p>WO6. Develop strong community based partnerships that build on current capacity to help deliver waste minimisation, recycling and composting infrastructure.</p> <p>WO7. Encourage closer working with the waste management industry to secure expert advice and investment in the infrastructure required to deliver sustainable waste management solutions.</p>

Aim 5	WA5. Provide a service that is in the best interests of Merton residents and businesses whilst managing waste responsibly
Objectives	<p>WO3. Maximise reuse, recycling and composting of municipal waste, including household, commercial, industrial and the council's own waste.</p> <p>WO8. Provide a customer focussed approach to service design and improvement.</p> <p>WO9. Engage the community through effective consultation and customer feedback mechanisms.</p> <p>WO10. Improve levels of satisfaction with waste services provided.</p>

Aim 6	WA6. Develop a social contract with residents and businesses, demonstrating best practice within the
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	council
Objectives	WO3. Maximise reuse, recycling and composting of municipal waste, including household, commercial, industrial and the council's own waste. WO11. Minimise environmental impacts through the effective procurement of environmentally sustainable goods and services.

An essential element in delivering this strategy will be the Council's ability to secure additional funding in order to supplement existing resources.

3. CURRENT SITUATION

3.1 Roles and Responsibilities

This section provides information on the current situation and performance and sets the context for the strategy.

3.1.1 London Borough of Merton

The London Borough of Merton is a unitary authority and as such is responsible for both waste collection and disposal. This enables a high degree of integration between the services.

As a unitary authority Merton Council does not receive recycling credits for waste that it recycles. However, savings are made directly by diverting waste from landfill. This acts as a major impetus towards increasing levels of recycling and facilitates truly integrated services.

Merton Council has a duty to provide a commercial waste collection service, if requested, under the provision of the Environmental Protection Act 1990. Private companies also provide services to the commercial sector in the Borough of Merton.

3.1.2 Waste Planning

As a Waste Planning Authority (WPA), Merton Council is responsible for land-use planning control over waste management. It is the responsibility of WPAs to ensure that there is a framework in the development plans to enable the waste management industry to establish suitable waste management facilities, in a way that meets the objectives of sustainable development.

The Council's Unitary Development Plan sets out Council policies with regard to waste planning. These policies are set out in Section 4.3.3 of this Strategy. The UDP states that the Council will seek to ensure that major new industrial, commercial and retail developments minimise their waste arising in line with the waste hierarchy and dispose of it in a sustainable manner.

Planning policy is required to identify potential facilities that will provide for all waste sources. But a borough is only required to deal with the disposal of its municipal waste not the industrial and commercial waste streams. This is the new guidance set out in Planning Policy Statement 10 (PPS 10) and has been reflected by the recently published alterations to the London Plan.

The Planning and Compulsory Purchase Act 2004 introduced a new system of planning policy that replaces the current Unitary Development Plan (UDP) with the Local Development Framework (LDF). This document is made up of a number of folders that will contain the various policies in Development Plan Documents (DPDs). Merton is scheduled to produce a Core Strategy,

Development Control and Site Allocations DPD. It will also be producing Supplementary Planning Documents on Sustainable Construction and New Residential Development.

Planning Policy Guidance Note 10 - Planning and Waste Management was replaced by PPS 10 - Planning for Sustainable Waste Management in July 2005. Future waste policies in the LDF will have to be in line with this guidance.

PPS 10 reflects the principles set out in DEFRA's Waste Strategy 2000. A key objective is to drive waste management up the waste hierarchy to try and reduce the environmental impact of waste. The general theme of the document is for communities to start planning for their own waste arisings in future with regional and local authorities required to make provision in their plans for the waste needs of their areas in order to do this.

The major implication for authorities is the requirement to identify suitable sites and locations for new or enhanced waste management facilities that meet the waste management needs of their areas. This will have to be in accordance with the waste management facilities requirements set out in the London Plan.

London's Spatial Development Strategy has to comply with the guidance set out in PPS 10 and the Mayor is currently consulting on alterations to the London Plan. As required, this sets the municipal and industrial/commercial waste projections for the borough and sub-regions through to 2020. The alterations also identify the amount of waste that should be dealt with by each sub-region and the facilities should be installed to deal with this waste.

The new planning regulations give an authority the option to enter into a joint planning arrangement with one or a number of its neighbours. This would involve creating a Joint Development Plan Document. This approach is particularly suitable for waste planning where a Waste Disposal authority exists and it is being adopted in north and east London and Greater Manchester. Officers are currently having discussions with the neighbouring boroughs of Croydon, Sutton and Kingston upon Thames to decide how to take forward a Joint Waste Planning DPD.

3.1.3 Environment Agency

The Environment Agency took over the role and responsibilities of the London Waste Regulation Authority in 1996. The Agency is primarily a regulatory body with regard to waste issues but has an important role to play in promoting good practice, the provision of expert advice and maintaining up-to-date information on the movements, trends and composition of waste.

The Agency is responsible for ensuring the Council complies with its waste management licences for the Garth Road Civic Amenity and Recycling Centre and Weir Road Reuse and Recycling Centre and regular inspections take place.

The Environment Agency also requires the Council to provide daily returns on tonnage imports and exports from the sites. The information provided assists the agency to produce its strategic waste management assessments which detail cross regional movements of waste and its final disposal point.

Further duties include checking the performance of the Landfill Allowance Trading Scheme in England and Wales. This involves monitoring WDAs against their allocated allowances for each year of the scheme.

3.1.4 Mayor of London

The Greater London Authority Act 1999 requires the Mayor to prepare a Municipal Waste Management Strategy. The Strategy must include proposals and policies for implementing the National Waste Strategy (Waste Strategy 2000 for England and Wales) within Greater London, and meet waste recycling and recovery targets. It must contain the Mayor's proposals and policies for the recovery, treatment and disposal of municipal waste and may contain such other proposals and policies relating to municipal waste as considered appropriate.

In preparing and revising the Strategy, the Mayor must have regard to the principal purposes of the Authority, the effect the proposed Strategy will have on the health of the people of London and the achievement of sustainable development in the UK. The principal purposes of the Authority are to promote economic development and wealth creation; promote social development and to promote the improvement of the environment in Greater London.

The Mayor's Municipal Waste Management Strategy was published in September 2003. Waste Collection and Disposal Authorities in London must pay due regard to the Mayor's Municipal Waste Management Strategy.

The Mayor has set out his proposal for a London Single Waste Authority and greater waste planning powers. It is proposed that the London Single Waste Authority would have responsibility for management of London's municipal waste. It would replace the existing 16 waste disposal authorities in London and would be directly responsible for the delivery of the Mayor's Municipal Waste Management Strategy. It would be responsible for the disposal of London's waste - London's boroughs would cease to have responsibility for waste planning and disposal, but waste collection responsibility would remain with the boroughs.

3.1.5 Voluntary and Community Sector

Merton Council recognises the importance of working closely with the local community in the delivery of sustainable waste services within the borough and is committed to developing and fostering links with its community sector partners.

The community sector is well placed to extend both the message of sustainable waste management through providing a medium through which the Council can develop its customer focus principles and to deliver specific services within the community. A key partnership with respect to community engagement is with Merton's Environment & Safety Forum.

The Council seeks to build capacity within the community through developing and supporting initiatives that will ensure greater community involvement in the design and delivery of this Strategy. It is actively engaged in supporting networks such as the Kingston and Merton Real Nappy Network, the Community Scrapstore scheme, "Squirrels", the Commonsides Community Development Trust, Groundwork Merton and The Vine Project, a furniture reuse and repair organisation operating in Merton and Sutton.

The Council has also entered into partnership arrangements with the Waste and Resources Action Programme (WRAP) to encourage home composting through the subsidised sale of compost bins.

3.1.6 Joint Waste Management Partnership

The London Boroughs of Merton, Croydon, Kingston and Sutton have a history of working together on waste management issues. With the London Borough of Sutton as lead partner, the boroughs have been successful in securing £4million from the London Recycling Fund to develop waste treatment infrastructure in the region in partnership with private sector providers.

Other projects have included a review of the potential for cross-border usage of civic amenity sites across the London boroughs of Merton, Bexley, Bromley, Croydon, Kingston and Sutton and the scoping of joint partnering and procurement options for waste treatment.

Merton, Croydon, Kingston and Sutton have signed up to a Memorandum of Understanding to further the work of the partnership and to establish a joint strategy for the boroughs. The Joint Strategy will incorporate and integrate as far as practicable, the strategies of each of the individual boroughs and will be supported, monitored and reviewed through regular joint officer working meetings.

3.1.7 Private Sector

Merton considers that it is in its interest to encourage investment from the private sector to ensure the development of the necessary infrastructure to meet the future needs of the Borough. A partnering approach is preferred to secure long-term integrated contracts, offering the contractor the security it needs to invest in the necessary facilities and services.

In order to comply with future UK and European commitments, Merton believes that investment in innovative technologies is required to meet increasingly challenging targets. These technologies are most likely to be

effectively delivered by the private sector in a situation where the contractor has certainty for an extended period of time.

3.2 Background information

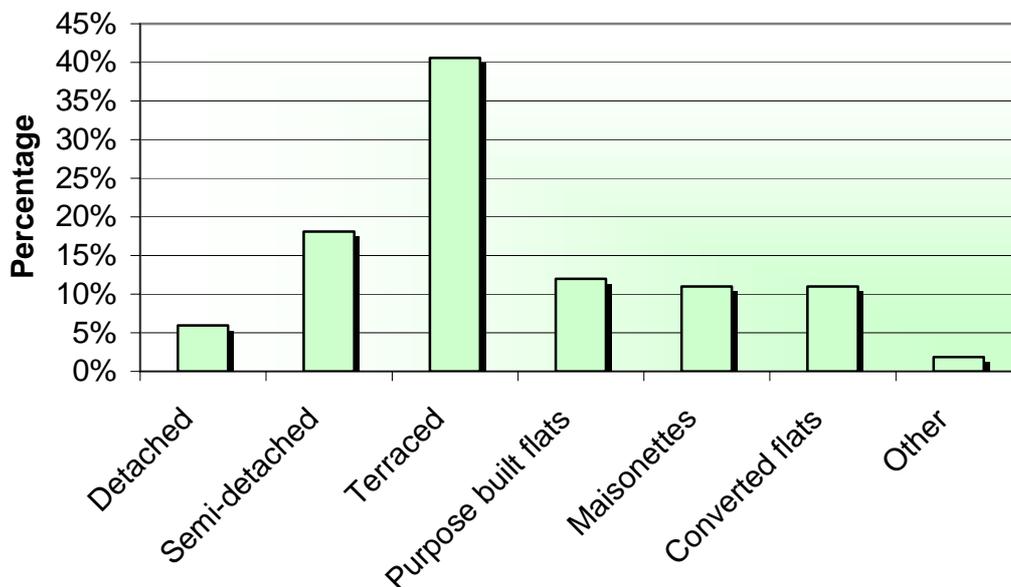
The London Borough of Merton is situated in South West London, covering an area of approximately 3,795 hectares. It is bordered by the London Boroughs of Lambeth, Sutton, Croydon, Wandsworth and the Royal Borough of Kingston upon Thames.

3.2.1 Housing

The borough is predominantly residential and consists of 78,884 occupied households of which almost 70% are owner-occupied. 14.3% of housing is either Council or Housing Association property and the remainder is privately rented. The 2001 census registered a total of 81,062 household spaces of which 2,005 were vacant and 173 were being used as second or holiday homes.

It is estimated that all households except purpose built flats, receive a front of property weekly refuse and recycling collection. The remaining 12% are provided with communal waste storage facilities.

Figure 2. Household space and accommodation type



Source: Census 2001, ONS

The London Plan, in assessing the needs for additional housing capacity in London, established borough housing targets for the period up to 2016.² The total target for Merton is to provide additional capacity of 8,610 units, with a monitoring target of 430 households per year. This target was subsequently reduced to 385 additional homes in the draft alterations published in July 2005.

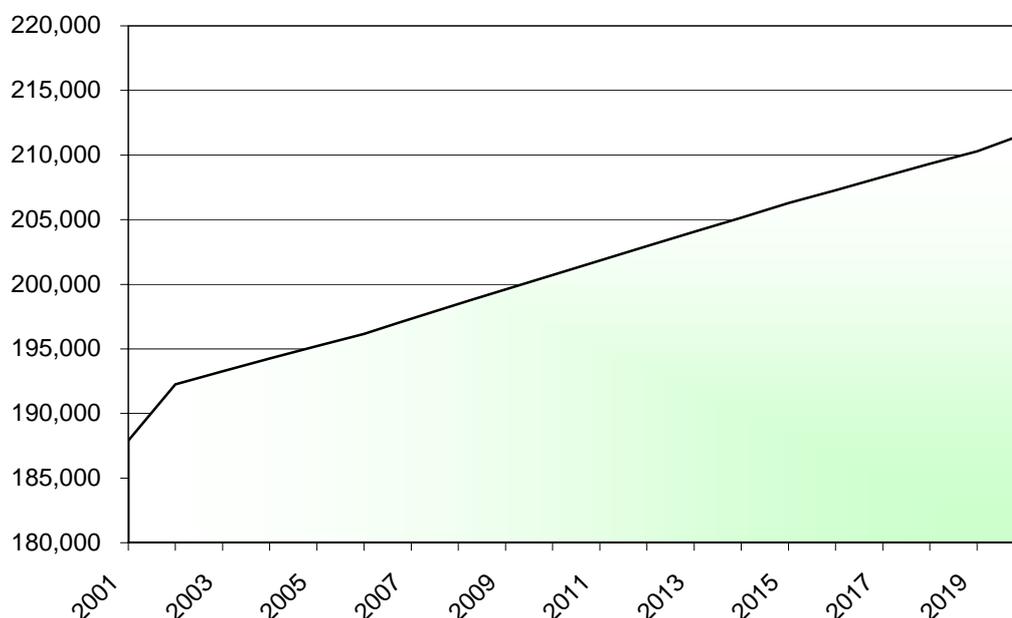
In October 2005, the Mayor published a further consultation paper on “Draft Alterations to the London Plan (Spatial Development Strategy for Greater London)” that proposes a revision to housing provision targets. The alterations propose reducing Merton’s annual housing provision target to 370 additional homes each year to 2016/17.

3.2.2 Population

At the time of the Census in 2001, the total resident population was 187,908. This represents an increase of 10% on the figure for 1991 and is the highest increase in outer London since 1981.

Between 2001 and 2020, the population of Merton is expected to increase by 23,352 to 211,260, an increase of almost 12.5% (Figure 3).

Figure 3. Projected population levels within the London Borough of Merton



Source: ONS mid-year population estimates

Similar to the rest of the country as a whole, the number of households in the Borough is increasing at a greater rate than the size of the population and

² The London Plan: Spatial Development Strategy for London” (2004) The Mayor of London

consequently the average size of households is decreasing. The average household size in Merton is 2.4—similar to the average for the UK as a whole.

3.3 Overview of Existing Services

In 2004/05 the Council collected approximately 100,000 tonnes of household and commercial waste through a range of services provided by the council's in-house contractor. See below for existing contracts.

Table 1. Existing contracts

Service	Contractor	End Date / Review Date
Disposal of collected waste	SITA (GB) Ltd	31/08/2008
Kerbside green waste	Viridor (Thames)	31/03/2015
Disposal of waste from Garth Road	SITA (GB) Ltd.	31/08/2008
RRC green waste	Viridor (Thames)	31/03/2015
Kerbside Refuse collection	MRCS	Extended to 2008
Kerbside recycling (including flats recycling)	MRCS	Extended to 2008
Bring sites	MRCS	Extended to 2008
Street cleaning (including gully cleaning)	MRCS	Extended to 2008

3.3.1 Domestic waste collection

Approximately 88% of households within the borough are provided with a front-of-property black sack refuse collection service. The remainder — those living in flatted properties where such a service is impractical — are provided with wheeled containers for communal refuse storage.

3.3.2 Recycling services

Recycle from Home

The Council provides a weekly curtilage collection of paper, glass, cans, card and plastic bottles from domestic properties where a front-of-property refuse collection is available. Two 53 litre boxes (green and purple) are provided free of charge. The current service has developed over a number of years and has been the product of extensive consultation and trials throughout the borough.

Bring Recycling

Merton Council provides an extensive network of recycling banks positioned throughout the borough. In addition to the Reuse and Recycling Centres at Garth Road and Weir Road, there are 28 public recycling sites, 34 housing estate sites, 39 commercial sites and paper recycling facilities are provided at 46 schools. These bins are emptied in accordance with the Council's highways recycling sites collection schedule.

The public recycling sites are positioned either on public highways or in supermarket car parks. Including the Garth Road and Weir Road Reuse and Recycling Centres, there is an average of one site for every 1,789 residents—excluding commercial waste recycling sites.

The positioning of highways recycling sites can be critical to both the success of the site in terms of resident participation and acceptance. The Council has therefore established “siting” criteria for any proposed site. These criteria are attached at Appendix A.

The Council can also, upon request, provide recycling facilities for commercial premises for which a charge is made.

Green waste composting

The Council provides an on-request green garden refuse collection service which can be booked through the Council’s Waste Helpline. Clear sacks must be used, and these can be obtained from the Council. The small charge made for the clear sacks was removed in April 2005. Residents are now entitled to two free reusable sacks and free collections. Additional sacks can be purchased if required.

Alternatively, residents can take green garden waste to either the Garth Rd or Weir Road Reuse and Recycling Centres where it can be disposed of free of charge. All green waste is collected separately for centralised composting.

Merton Council runs a Christmas tree collection service free of charge for Borough residents. Residents are asked to set their tree out for collection in early January each year, and the trees are collected over a 2-week period. One collection vehicle covers the whole Borough. Residents can also dispose of their Christmas trees free of charge at the borough’s Reuse and Recycling Centres. All trees are shredded and used as mulch in Borough parks.

3.3.3 Reuse and Recycling Centres

Garth Road

Civic amenity and recycling facilities are provided at the Garth Road depot in Morden, which is operated and managed by the Council’s in-house contractor. The site provides a wide range of facilities for residents and businesses to dispose of or to recycle their waste. Recycling facilities currently exist for a wide range of materials including bulky items such as DIY rubble, wood, scrap metals (including white goods), garden waste and cardboard.

The facilities are free to residents of Merton. Commercial users of the site must report to the Waste Transfer Station and are charged for depositing their waste. The Reuse and Recycling Centre facilities are available Monday to Sunday from 08:00 - 16:00.

Weir Road

An additional Reuse and Recycling Centre has opened at Weir Road in Wimbledon. Items that can be brought to the site for recycling include: green garden waste, paper and card, plastic bottles, cans, glass bottles and jars, textiles, wood, items of furniture that are in suitable condition for reuse, and electrical and electronic equipment. No general waste or trade waste is accepted at the site.

Weir Road is a 'Zero Waste' site and the only materials accepted must be reusable, repairable or recyclable. The Weir Road site is open to the public on Monday (12.00 to 19.00) and Friday, Saturday, Sunday (08.00 – 16.00). It is closed Tuesday to Thursday.

3.3.4 Bulky waste

The Council provides all households within the Borough with an on-request bulky household waste collection service. A charge of £15 for up to 5 items is made for this service. A separate collection for waste refrigeration equipment is also carried out. Residents are charged £10 per fridge (please see below: "Hazardous Waste Collection).

Special collections of bulky waste from commercial premises can also be arranged.

3.3.5 Street cleaning (including gully cleaning)

Merton provides an extensive street cleansing service to keep roads as far as practicable free of litter and refuse. The service now includes evening sweeping in town centres and additional cleansing to the 30 worst residential streets. As well as these recent improvements, gully cleansing is now operating at improved efficiency to improve the rate of gully clearance.

3.3.6 Non-household (commercial)

Commercial properties within the Borough have the opportunity to enter into an agreement with the Council to have their refuse and recycling collected. The Council provides a range of wheeled containers and refuse sacks depending on individual circumstances.

3.3.7 Clinical waste

Clinical waste collections are carried out five days per week (Monday, to Friday) except for bank holidays. The service currently collects "yellow" sacks and "sharps" boxes from approximately 200 domestic properties and 50 commercial premises,

3.3.8 Hazardous waste collection

Merton Council provides a service to householders and businesses for the collection of hazardous waste. The provision of the collection and disposal service is carried out by the Corporation of London on behalf of Merton Council. Items such as fluorescent tubes, toner cartridges, inkjet cartridges, oil/fuel filters, aerosols and light bulbs are now also classed as hazardous waste.

Since the introduction of the Ozone Depleting Substances Regulations (2002) it has been necessary to collect fridges and freezers separately from other bulky household waste and white goods. This ensures that they can be made safe and that all recyclable elements are separated and reprocessed. The Council offers an on-request front-of-property collection service for fridges and freezers at a charge of £10 per item. Residents can bring fridges and freezers to the Reuse and Recycling Centres where they can be deposited free of charge.

Fridges and freezers collected at the Council's Reuse and Recycling Centres are inspected to see which ones can be repaired and reused. Those that cannot be repaired are sent to a dedicated contractor for safe processing and recycling in accordance with the regulations.

3.3.9 Other

Merton Council also carries out fly tip removal and the procurement of a larger capacity grab vehicle is now operating to proactively remove fly-tips from known problem sites. The fly tip removal service includes waste dumped inside abandoned vehicles.

3.3.10 Waste disposal

In 2004/5, landfill remained the predominant disposal method for the municipal waste managed in Merton. The Council disposed of 83,301.14 tonnes through landfill, representing 83.11% of the total waste collected by the Council.

Two separate contracts currently exist with SITA (UK) Ltd. for disposal to landfill of municipal waste collected by the Council. Each contract is for 15 years and is due to expire in 2008. 78% of waste sent to landfill is taken to the Benedict Wharf waste transfer station for bulk loading and onward transport, whilst approximately 21% of landfilled waste is transported from the Garth Road Reuse and Recycling Centre. The remaining 1% comprises of clinical waste that is taken to Grundons for incineration and gully waste that is taken to the Western Riverside waste transfer station at Smugglers Way.

Benedict Wharf

Benedict Wharf is situated in the heart of the borough, off Church Road in Mitcham. The site is open for the receipt of waste at the following times:

Monday to Friday 07:30 – 17:00
Saturday 07:30 – 13:00

The site is conveniently located for tipping collected waste throughout the day.

Garth Road Waste Transfer Station

The Garth Road Waste Transfer Station is situated on the south-western edge of the borough, next to the Reuse and Recycling Centre. The site accepts trade waste, for which a charge is made and other municipal waste collected by Merton Council or its representatives.

The site has been developed to act as a bulking and transfer station for the recyclable materials collected through the “Recycle from Home “ scheme and through the council’s network of highways recycling banks.

The site opening times are as follows:

Garth Road Waste Transfer Station	
Monday to Friday	08:00 – 16:00
Saturday	08:00 – 13:00
Sunday	Closed

Waste Treatment Facilities

Merton Council, through an innovative partnership has secured £2million of funding to assist in the development of a mechanical biological treatment facility (MBT) at the Beddington Lane landfill site.

The partnership includes the London Boroughs of Croydon, Kingston and Sutton, together with SITA (UK) Ltd.—the Council’s current waste disposal contractor—and Viridor Waste (Thames) Ltd.

The MBT facility mechanically separates mixed municipal waste. It is designed to treat the residual waste stream produced when source separated recycling is operational, insuring maximum diversion from landfill.

The Dano Drum will:

- Extract metals from the household waste stream for recycling
- Process waste by Bio-drying to reduce disposal costs (in the short term)
- Prepare waste for further processing (in the longer term)
- Provide additional composting capacity (in the longer term).

The plant is designed to receive and process 110,000 tonnes of municipal waste from the partner authorities (LB Sutton, LB Merton, LB Croydon and RB Kingston-upon-Thames). Merton's allocation is 33,333 tonnes, of which approximately 22% is expected to be diverted from landfill through composting and recycling.

Access to the facility has been secured through a variation to the current waste disposal contract with SITA (UK) Ltd. and will be available until 31 August 2008 when the current waste disposal contract expires.

3.4 Current Performance

3.4.1 Waste arisings and growth

In addition to the stringent targets set by the government to increase the amount of waste recycled and reduce the amount of BMW disposed of to landfill, another challenge is recognised in this Waste Strategy. In general the amount of waste handled by the council is increasing each year, although recent years have seen a small reduction. Increasing waste is generally caused by a number of factors, including a rising population and an increase in the number of smaller households, both of which generate more household waste per head of population.

A year-on year comparison is outlined in Table 2, where total waste arisings suggests a slowdown in growth, although the accuracy of the data for 2000/01 and 2001/02 cannot be verified. The total household waste collected in the London Borough of Merton in 2004/05 was 76,422 tonnes, which equates to 417kgs per head.

Table 2. Summary of waste growth rates

Year	Tonnes	Annual % increase
2000/01	98,076	-
2001/02	100,731	2.71%
2002/03	105,426	4.66%
2003/04	100,043	-5.11%
2004/05	100,233	0.19%
Average over 5 years	100,829.80	0.61%

Table 3. Summary of waste arisings 2004/05.

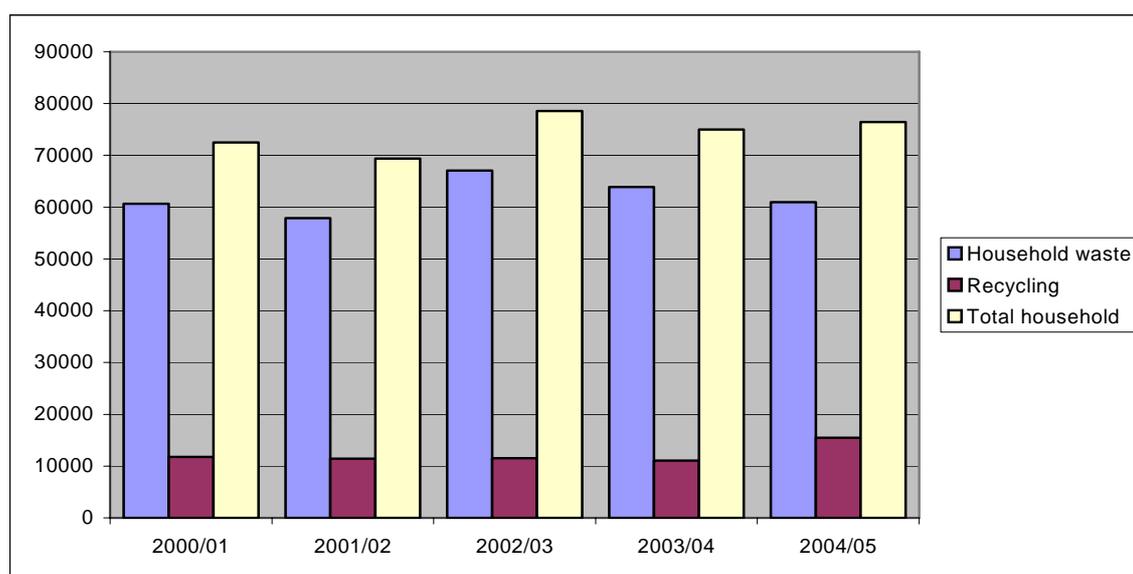
Source	Total Arisings (t/yr)	Kg per head
Household recycling/composting	15,277.79	84.35
Household Residual Waste	61,120.29	333.11
Total Household	76,398.08	417.46
Total Non Household	23,835.44	130.06
Total Municipal Waste (MSW)	100,233.52	547.52

As commercial waste is dealt with in a different context and the legislative requirements in terms of targets relate to household waste, the following table demonstrates the increase in household waste growth (Table 4). The corresponding graph (Figure 4) also shows household waste levelling of although not quite to the same extent as the total municipal waste stream, which suggests that Council's commercial waste arisings have decreased somewhat.

Table 4: Household waste growth

Source	2000/01	2001/02	2002/03	2003/04	2004/05
Household waste	60,682.67	57,928.45	67,074.14	63,894.69	61,120.29
Recycling	11,800.62	11,443.06	11,522.13	11,112.36	15,277.79
Total household	72,483.29	69,391.51	78,596.27	75007.04	76,398.08

Figure 4: Household waste and recycling growth



3.4.2 Capture rates

Compositional analysis surveys carried out MEL Research Ltd in October 2004 and May 2005 calculated the participation rates of the kerbside recycling scheme in Merton. The 'capture rate' in this context means the proportion of recyclable waste in the kerbside boxes of that in both the boxes and in the residual waste (for those households that recycle). The diversion rate is the overall capture rate multiplied by the level of participation (approximately 50%). The analysis concluded that participation rates in the kerbside recycling scheme is 'high'.

Table 5. Capture rates of Merton's kerbside scheme

	Oct-04	May-05	Combined
Diversion rate %	29.57	27.00	28.29
Overall capture rate %	61.29	60.43	60.86
Paper capture rate %	71.43	68.86	70.14
Card capture rate %	46.71	47.29	47.00
Plastic capture rate %	46.29	46.43	46.36
Glass capture rate %	44.00	60.29	52.14
FE cans capture rate %	22.57	32.14	27.36
Alu cans capture rate %	30.86	31.00	30.93

The "Recycle from Home" scheme has serviced the whole borough since April 2004. Monitoring resident participation across the whole borough indicates that approximately 57% of residents are actively recycling through the scheme. The popularity of the scheme is reflected in the increased amount of materials being collected (Table 6).

Table 6. Tonnes of household waste recycled

	2000/01	2001/02	2002/03	2003/04	2004/05
Tonnes of household waste recycled/composted	11,800	11,443	11,533	11,112	15,277

3.4.3 Recycling and Composting Targets

On 9 December 2004, Defra announced that Statutory Performance Standards for recycling and composting of household waste would be held at 30 per cent in 2005/06. This means that the Statutory Performance Standard

for all local authorities with a 2005/06 target in excess of 30 per cent had their target re-set at 30 per cent affected by a Statutory Instrument in 2005.

Defra is currently consulting on the proposal for the extension of the existing Statutory Performance Standards for recycling and composting to the year 2007/08. It does not propose any targets are set for the year 2006/07 as local authorities need sufficient time to plan for new targets. Regardless of which of the four options currently being consulted on is finally adopted, Merton's existing targets will not change.

Table 7. Best Value Performance Indicators

Performance Indicator	Target 2003/4	Performance 2003/4	Target 2004/5	Performance 2004/05	Target 2005/6
% tonnes recycled BVPI 82a	15%	13.02%	20%	17.06%	23%
% tonnes composted BVPI 82b	3%	1.79%	3.5%	2.94%	4%
% tonnes recycled & composting BVPI 82a + 82b	18%	15%	27%	20.00%	27%
% tonnes landfilled BVPI 82d	82%	85.19%	76.5%	80.00%	73%

The combined statutory target for 2003/04 for recycling and composting (BVPI 82a and 82b) was set at 18%. The performance for 2003/04 was 15% initially, although this increased to 18% following the implementation of several initiatives encouraging householders to recycle. The overall performance for 2004/05 increased to 21%, and is still increasing in the current year, highlighting the good work being carried out in Merton.

3.4.4 Current Initiatives

Merton has a number of initiatives that have been implemented and that have been successful in contributing to reducing, minimising and effectively managing waste.

It is recognised that the impact of waste minimisation initiatives such as home composting cannot be used as part of the recycling rate calculations. However, the process does reduce the overall amount of waste being collected and managed and hence impacts on the levels of recycling.

Home composting

In order to encourage residents to compost their garden and kitchen waste, the council funded the provision of home composting bins to residents free of charge in the 1990s. Approximately 9,000 home compost bins were distributed to borough residents.

From January 2005, the Council has extended the home composting scheme with a range of compost bins offered to residents at subsidized prices. This is the result of Merton Council's successful application to become a home composting partner with the Waste and Resources Action Programme (WRAP, an independent Government funded organisation). By October 2005, nearly 5,000 home composting bins had been sold and many composting workshops have been delivered.

To date, the total number of compost bins in the local community sourced by the Council is 14,000.

Real Nappies

Disposable nappies make up a significant proportion of the biodegradable municipal waste sent to landfill. The Council recognises the impact real and cloth nappies can have on diverting BMW from landfill.

The Council has been working in close partnership with Merton Real Nappy Network since October 2002 and is fully supportive of the merger of the Merton and Kingston Real Nappy Networks in order to create Kingston and Merton Real Nappy Network (KMRNN) in January 2005.

The network's aims are to promote cloth nappies and help to increase their use among households in the London Boroughs of Merton and Kingston.

KMRNN is delivering workshops to residents and health professionals at a variety of talks and events. They answer enquiries from the public, organise displays for Real Nappy Week and contact nurseries to promote the use of washable nappies.

Since July 2005, the KMRNN information leaflet has been added to the birth registration packs given by the registry office to new parents in Merton

Furniture Reuse

Merton Council is currently developing a partnership with the charity The Vine Project. The project provides furniture and household goods at low cost to local families and individuals on the lowest incomes, who are referred to the project by agencies in the Borough of Sutton and Merton.

The Vine Project involves all sections of our community as volunteers, donors or clients, creating volunteering and job opportunities. They are member of the Furniture Recycling Network.

3.5 Waste Composition

The amount and nature of waste produced within the UK has significantly changed during the latter half of the twentieth century. The degree of change has accelerated over the past ten or twenty years.

The increasing population is likely to have a direct affect on the amount of household waste the Council is collecting and managing. Increasing affluence is also widely regarded as an influencing factor on waste growth. The challenge to de-couple economic growth, the use of resources and the creation of waste is recognised at national and international levels.³

Additional factors often cited include: changing shopping habits, increases in packaging and the emergence of a “consume and throw-away” society.

It is important to understand the composition of waste streams in order to draw up plans and implement changes in services to meet the waste minimisation and recycling targets. Analysis of the composition of waste assists in estimating the potential for recovery of these materials through recycling or composting.

As part of the development of this Strategy, Merton commissioned an analysis of collected household waste, including that collected for recycling and civic amenity waste. The initial analysis was carried out in October 2004 and this was repeated in May 2005 to show any seasonal variation.

The analyses examined collected waste from 7 geographical areas (Beats) of the borough that correspond to the current refuse and recycling collection patches. The composition of waste arising within each Beat was separately assessed so that each could be considered on its own and also in comparison with the others. A representative sample was taken within each Beat area based on Acorn (a classification of residential neighbourhoods) socio-demographic profiling. The detailed results of the analyses are contained within the appendices (Appendix B). The following table and graph provide a brief summary of the composition of household waste in Merton:

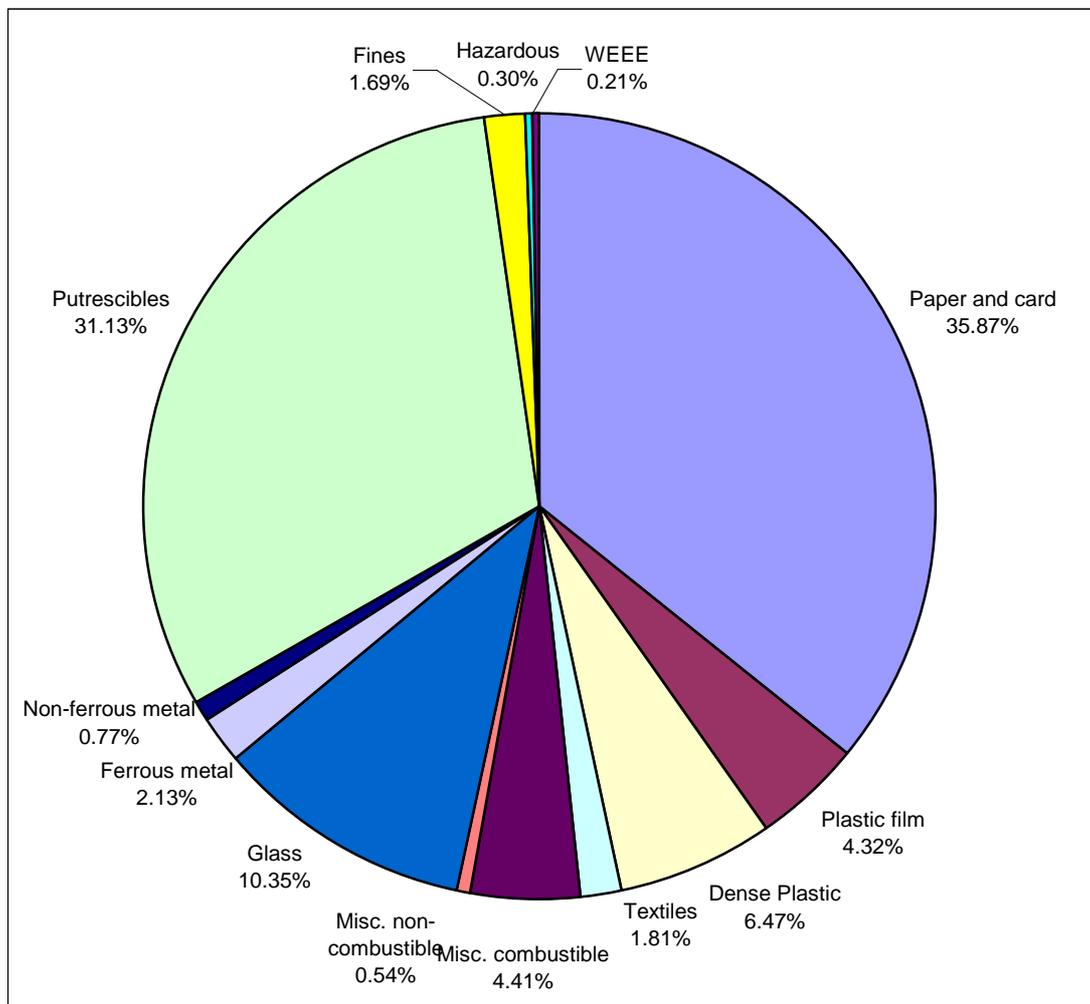
Table 8. Summary of Merton’s household waste composition

Household waste type	% by weight
Paper and card	35.87%
Plastic film	4.32%
Dense plastic	6.47%

³ For example, Commission Communication COM (2001) 264 final of 15.5.2001: “A sustainable Europe for a better World: a European Union Strategy for Sustainable Development”.

Textiles	1.81%
Miscellaneous combustibles	4.41%
Misc. non-combustible	0.54%
Glass	10.35%
Ferrous metal	2.13%
Non-ferrous metals	0.77%
Putrescibles	31.13%
Fines	1.69%
Hazardous waste	0.30%
Waste electronic and electrical equipment	0.21%

Figure 5 Summary of Merton's household waste composition (M.E.L. Research 2004/05)



4. PROJECTED SITUATION

4.1 National Policies and Targets

The development and implementation of the Waste Strategy is influenced by a number of key national policies and legislation, including the Mayor's Municipal Waste Strategy objectives. The key drivers include Waste Strategy 2000, recycling targets, the Landfill Directive BMW diversion targets and the Mayor's Municipal Waste Strategy.

The following policies and legislation significantly influence the way Merton will manage waste in the future. They not only affect the need for increasing materials recycling at the 'front end', i.e. before any treatment of residual waste, but also affect the treatment of residual waste.

The Landfill Directive

- By 2010 to reduce the biodegradable municipal waste disposed to landfill to 75% of that produced in 1995;
- By 2013 to reduce the biodegradable municipal waste disposed to landfill to 50% of that produced in 1995;
- By 2020 to reduce the biodegradable municipal waste disposed to landfill to 35% of that produced in 1995.

The Waste and Emissions Trading Act (WET Act)

The Waste and Emissions Trading Act 2003 (WET Act) received Royal Assent in November 2003. Part 1 of the Act provides for an allowance scheme which will help the UK to meet its obligations under Articles 5(1) and 5(2) of the Landfill Directive 1999/31/EC.

The WET Act provides for the allocation of allowances, which may be tradable, to waste disposal authorities. These allowances convey the right for a waste disposal authority to landfill a certain amount of biodegradable municipal waste (BMW) in a specified scheme year. The number of allowances allocated reduces year on year.

Municipal solid waste (MSW) has been defined as waste that comes under the control of a local authority. This includes all household waste, some commercial waste and where appropriate, some industrial waste. The biodegradable element is assumed in the regulations to amount to 68% of the total municipal waste. This waste is organic in nature and capable of breaking down or biodegrading.

Waste Strategy 2000 targets

Waste Strategy 2000 established a range of targets for recycling/composting and recovering value from waste. In particular, it sets out the vision of how

best to meet the challenge of the EU Landfill Directive. The key targets and goals detailed in Waste Strategy 2000, as a means of achieving the reductions set out in the EU Landfill Directive are set out below:

- To recycle or compost at least 25% of household waste by 2005;
- To recycle or compost at least 30% of household waste by 2010;
- To recycle or compost at least 33% of household waste by 2015

- To recover value from 40% of municipal waste by 2005
- To recover value from 45% of municipal waste by 2010
- To recover value from 67% of municipal waste by 2015

“Recover” means to obtain value from waste through one of the following means: recycling, composting, energy recovery from waste or other form of material recovery such as through anaerobic digestion.

The Government, through the framework of Best Value, committed itself in Waste Strategy 2000 to introduce statutory performance standards for each waste authority. These standards were subsequently published in the “Guidance on Municipal Waste Management Strategies” (DETR, March 2001, Annex A). The statutory performance standards required of Merton Council are:

- To recycle and/or compost 18% of household waste by 2003;
- To recycle and/or compost 27% of household waste by 2006.

DEFRA is currently consulting on future statutory performance standards. A review of the consultation paper suggests that each of the four options proffered would result in extending Merton’s target of 27% to 2007/8.

The Mayor of London’s Municipal Waste Strategy

The Mayor’s Strategy sets out key aspirational targets for the management of municipal waste in London and concurs with the House of Commons Select Committee on the Environment, Transport and Regional Affairs recommendations that the following targets should be set:

- Recycling target for municipal waste by 50% by 2010
- Recycling target for municipal waste by 60% by 2015

With respect to the recovery targets set out in Waste Strategy 2000, the Mayor states that he 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 (Mayor’s Municipal Waste Management Strategy, Policy 2).

Further information on current, future legislation and the wider strategic context can be found in Appendix 3.

4.2 Targets

4.2.1 LATS Compliance

In February 2005 the Secretary of State for the Environment, Food and Rural Affairs issued the final allocation of landfill allowances to each waste disposal authority in England, pursuant to section 4 of the Waste and Emissions Trading Act 2004. These allocations were based on data supplied by authorities in the 2001/02 Municipal Waste Management Survey returns and assumes that 68% of all municipal waste collected—including that collected for recycling and composting—is biodegradable.

Table 9. Summary of LATS allowance

Target Years	Tonnage
2005/06	56,701
2009/10	38,930
2012/13	25,930
2019/20	18,144

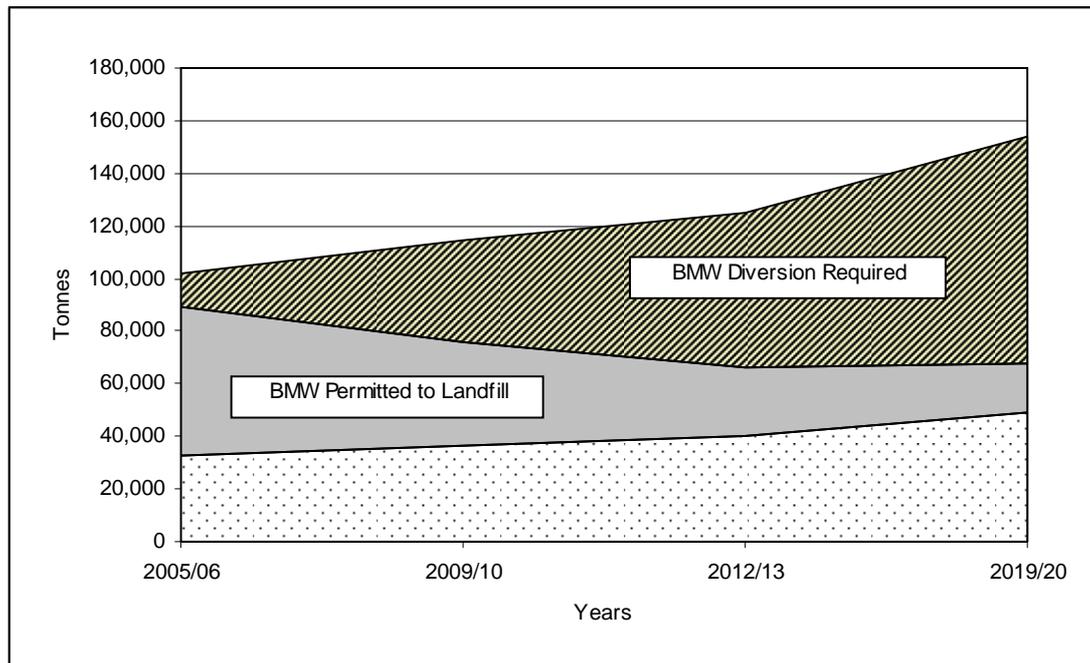
Each waste disposal authority will be able to determine how to use its allocation of allowances in the most effective way. It will be able to trade allowances with other authorities (buying and selling), save them for future years (bank) or use some of its future allowances in advance (borrow).

Merton recognises that the diversion of BMW from landfill is required in order to avoid penalties of non-compliance with the LATS. Using the waste projections developed it is possible to calculate the impact of LATS on the quantity of BMW that can be sent to landfill. The impact is summarised in Table 10 and Figure 6.

Table 10 Summary of LATS impact for Merton

Year	MSW Arisings	BMW Arisings	LATS BMW Permitted to Landfill (tonnes)	Diversion Required (tonnes)
2005/06	101,768	69,202	56,701	12,501
2009/10	114,541	77,888	38,930	38,958
2012/13	125,162	85,110	25,930	59,180
2019/20	153,933	104,675	18,144	86,531

Figure 6 Requirements to divert material from landfill



Biodegradable waste will need to be diverted to achieve the targets. Merton will be required to divert some material from landfill from 2005/06. In 2005/06 the expected BMW arisings is approximately 69,200 tonnes. Merton will need to reduce this amount by approximately 12,500 tonnes to 56,700 tonnes to comply with the 2005/06 allowance.

In 2019/20 the expected BMW arisings is approximately 104,675 tonnes. Merton would need to reduce the amount by approximately 86,500 tonnes to 18,144 tonnes to comply with the 2019/20 allowance.

Merton Council has secured access to the Dano Drum facility in Sutton (details earlier in the Strategy) and this impacts positively on the amount of biodegradable waste sent to landfill. Merton has access to the facility from September 2006 until August 2008 at which time Council's current waste disposal contracts terminate. The table below highlights the impact of the Dano Drum on BMW diverted (2006/07 – 2008-09):

Table 11. Predicted BMW diversion including Dano Drum (source: Enviros)

Financial year	Recycling tonnage	Compost tonnage	BMW Diverted	Extra BMW diversion required	Recycling rate achieved (BV 82a+b)
2004/5	13,028	2,249	11,206	N/A	20.1%
2005/6	14,323	3,179	12,882	-381	22.9%
2006/7	15,446	6,547	17,845	-306	27.9%
2007/8	16,396	9,039	21,581	2,046	31.3%
2008/9	16,541	7,673	19,867	10,898	28.9%
2009/10	16,826	6,905	19,051	19,907	27.5%
2010/11	17,309	7,013	19,483	26,144	27.4%
2011/12	17,808	7,123	19,928	32,440	27.3%
2012/13	18,321	7,237	20,387	38,793	27.1%
2013/14	18,673	7,315	20,702	41,292	27.1%
2014/15	19,032	7,395	21,023	43,819	27.0%
2015/16	19,399	7,477	21,352	46,375	26.9%
2016/17	19,773	7,560	21,686	48,958	26.8%
2017/18	20,154	7,644	22,028	51,571	26.7%
2018/19	20,543	7,730	22,377	54,215	26.7%
2019/20	20,940	7,819	22,733	56,888	26.6%
2020/21	21,142	7,863	22,914	57,684	26.6%
2021/22	21,347	7,909	23,097	58,489	26.5%

4.2.2 Recycling and Composting Targets

The overall recycling and composting performance for 2004/05 was at 20%, 7% off the target set for that year. For 2005/06 the recycling and composting target has stayed the same at 27%. Table 11 shows the recycling and composting targets for future years.

Defra is currently consulting on the proposal for the extension of the existing Statutory Performance Standards for recycling and composting to the year 2007/08. It does not propose any targets are set for the year 2006/07 as local authorities need sufficient time to plan for new targets. Regardless of which of the four options currently being consulted on is finally adopted, Merton's existing targets for 2005/06 will not change.

Table 12. Best Value Performance Indicators

Performance Indicator	Target 2005/6	Target 2006/7	Target 2007/08	Target 2008/09
% tonnes recycled BVPI 82a	23.5%	23.5%	24%	-
% tonnes composted BVPI 82b	3.5%	3.5%	4%	-
% tonnes recycled & composting BVPI 82a + 82b	27%	27%	27%	-
% tonnes landfilled BVPI 82d	73%	73%	73%	-

BVPI Performance standards for 2008/09 are yet to be determined.

4.3 Local Policies and Targets

The key aims set out in this strategy have been developed taking into account both national and local policy objectives.

4.3.1 Merton's Community Plan Framework Document 2005 – 2015 (Consultation Version 1)

Merton's Community Plan is a 10 year plan that aims to improve the quality of life in the area. The plan details the overall vision for Merton and a framework of principles that underpin the way in which specific outcomes will be achieved. The principles are aimed at securing a sustainable future for Merton. It outlines a set of objectives to guide decision making.

The community plan considers the environment of Merton and in particular waste management, commenting on recycling targets, the EU Landfill Directive, Waste Strategy 2000 and The Mayor's Municipal Waste Strategy. It also acknowledges that there is a hierarchy to the approach that should be taken when considering the sustainable management of waste in the future.

The policies/aims with relevance to waste management are as follows:

- Reduction of overall consumption
- Selective consumption – maximum use of secondary materials, durable, repairable and recyclable products
- Waste minimisation
- Re-use
- Recycling (including composting)
- Recovering materials and energy from residual waste
- Disposal to landfill as a last resort on a minimal level.

The objectives in the Community Plan specifically relating to waste management are:

- Sustainable approach to waste and energy – includes meeting recycling targets, ensuring that the appropriate waste treatment and disposal technologies will be procured, generating 10% of Merton’s energy usage from renewable energy by 2015
- Public act sustainably by choice – includes coordinating a strategy to work with schools, businesses and the community to commit to waste minimisation.

For more information on Merton’s Community Plan go to <http://www.merton.gov.uk/communityplan.htm>

4.3.2 Merton Council Business Plan

Decisions made within the Waste Strategy framework will take into consideration Merton Council’s Business Plan. Merton’s Business Plan (2006-2009) sets out five strategic themes:

- Sustainable communities
- Safer and Stronger Communities
- Healthier Communities
- Older People
- Children and Young People

The theme relevant to waste management is “sustainable communities”. This strategic theme establishes five key priorities including a commitment to develop and implement a holistic approach to environmental sustainability through which it is proposed to achieve the following planned outcomes:

- Reduce energy and carbon dioxide emissions
- Improve the sustainability of the transport system
- Minimise waste and increase levels of recycling and composting

A further key priority is to improve the quality of the public realm for residents of and visitors to Merton. Planned outcomes include:

- Create a better local environment, working with local communities
- Improve the management of the local environment
- Improve residents’ perception of public realm services

The following targets have been adopted within the Business Plan which relate specifically to waste:

Table 13: Business Plan targets

	2007	2008	2009
Percentage of household waste recycled and composted	27%	28%	29%
Amount of biodegradable municipal waste that has been landfilled	53,700 tonnes	49,800 tonnes	44,900 tonnes

4.3.3 Merton's Unitary Development Plan (UDP)

The Unitary Development Plan 2003 is a statutory development plan for the whole of the Borough up to 2016. Its purpose is to guide development in the Borough and is essentially concerned with land use planning and integration of planning with environmental concerns.

The strategy provides an overview of the main aims and objectives of planning policies in Merton within the southwest London context.

A key aim of the UDP Strategy is to “produce a more sustainable pattern and form of activity in Merton by the year 2016”. To ensure that Merton's UDP contributes to the achievement of sustainable development aims locally, a Sustainability Appraisal of the 1996 Adopted UDP was carried out. With specific regard to waste, the following objectives were adopted:

- o Waste production is minimised, and, where possible, waste is re-used or recycled.
- o Waste is managed or disposed of as close as possible to the point at which it is generated.
- o Pollution from waste is limited to levels which natural systems can cope without damage.

Key policies that relate to the management of waste within Merton include:

Policy PE.10: Waste Minimisation and Waste Disposal

The policy states that the council will seek to ensure that major industrial and commercial developments minimise their waste arising in line with the waste hierarchy and dispose of it in a sustainable manner. These developments will be encouraged to adopt environmental management schemes for the treatment and disposal of waste and planning obligations may be sought in respect of these where appropriate.

Policy PE.11: Waste Facilities

The policy on waste facilities states that applications for waste management facilities will not be permitted outside the designated industrial areas. The council will assess applications for waste management facilities against a number of criteria.

PE.12: Recycling points

The policy states that new residential, retail, leisure and business developments will be expected to provide recycling collection facilities. Where collection facilities cannot be provided on site, their provision in a location off site will be sought by the use of planning obligations.

PE.13: Energy efficient design and use of materials

The policy states that the council will encourage the energy efficient design of buildings and their layout and orientation on site. The use of sustainable building materials and the re use of materials will also be encouraged as will the use of recycled aggregates.

In line with the UDP, the Borough's Waste Management Strategy will take into consideration the planning policies identified above which impact on waste management.

For further information on Merton's UDP please visit the council's website at <http://www.merton.gov.uk/planning/udp.htm>

5. FUTURE SITUATION – HOW WILL WE GET THERE?

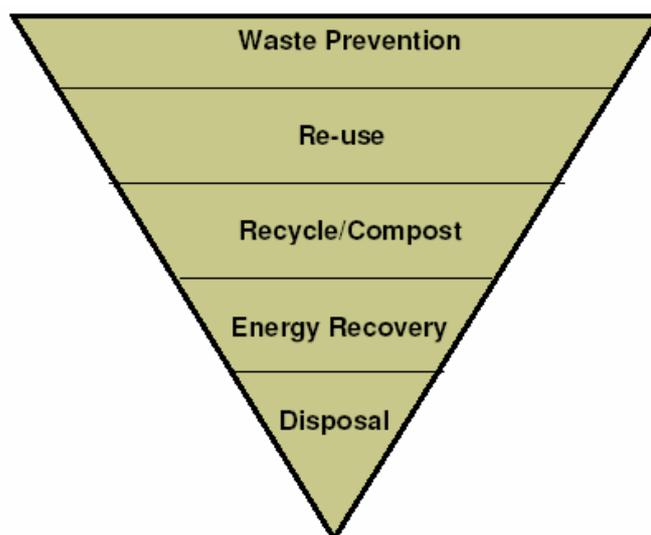
5.1 Introduction

This section sets out the strategic options and objectives identified in Section 2 and sets out how Merton will meet the objectives and targets through a framework of specific policies and actions. The policies will aim to where possible, move waste up through the waste hierarchy and consider options at each stage of this hierarchy.

Managing waste in a sustainable way through optimising recycling and re-use, as well as limiting production, forms a core part of Government policy to protect the environment.

The waste hierarchy has become a foundation of sustainable waste management, setting out the order in which options for waste management should be considered based on environmental impact. Figure 7 illustrates the stages of the waste hierarchy.

Figure 7. The Waste Hierarchy



The waste hierarchy gives top priority to waste reduction followed by re-use, then recycling and composting and energy recovery with disposal to landfill being the final option for consideration.

This section will consider the initiatives that will be introduced and promoted by the London Borough of Merton so that the key aims and objectives of the Waste Strategy can be met within the overall aim of moving up the waste management hierarchy.

This section translates the strategic aims and objectives into clear policies upon which waste management decisions will be made. In accordance with existing national, regional and local policies, this Strategy contains key policies

on waste reduction, waste reuse, waste recycling and composting, reuse and recycling centres, residual household waste collection, commercial waste collection, waste treatment and disposal, enforcement and the council setting an example.

The over arching policies which will be considered when developing any current or proposed initiatives for Merton are:

WP1: Merton Council will strive to provide an efficient, sustainable and cost-effective operation for the collection and management of all municipal waste arising within the borough through its continued commitment to the principles of sustainable development, Best Value and the waste hierarchy.

WP2: Merton Council supports the concept of the proximity principle in respect of waste management facilities and the management of wastes produced within the borough and where practicable will seek to manage wastes as close to the source of its production as possible.

WP3: The Council will encourage the development of partnering arrangements with neighbouring authorities, the Community Sector, the waste management industry and other partner agencies that will deliver sustainable waste management solutions.

5.2 Recycling Schemes

The London Borough of Merton is currently achieving a recycling and composting rate of approximately 23%. The current statutory performance standard for Merton is to achieve 27% by 2005/06. The Community Plan for the London Borough of Merton sets local targets that will require combined recycling and composting rates of 30% by 2010 and 33% by 2013. This will require a significant increase in the amount of waste collected through kerbside schemes, bring sites and at Household Reuse and Recycling Centres.

With respect to increasing the level of recycling and composting activity within the borough the council has established the following policies:

Waste recycling and composting

WP4: The Council will ensure that all residents have convenient access to recycling services.

WP5: The Council will ensure that a minimum of five materials is collected through the “Recycle from Home” scheme.

WP6. The Council will continuously review the range of materials collected through the existing kerbside collection systems, bring sites and Reuse and Recycling Centres and introduce additional materials where appropriate.

WP7. The Council will seek to maximise the diversion of biodegradable waste through the development of organic waste collection schemes.

WP8. The Council will seek to maximise the efficiency of its on-street recycling facilities (bring banks) ensuring that they are located in convenient and accessible areas in accordance with agreed siting criteria.

WP9. The Council will provide a network of Neighbourhood Recycling Centres and will seek to ensure they are attractive facilities that enhance the street scene as far as practicable.

WP10. The council will consider introducing measures to encourage increased participation in recycling schemes.

Merton has developed policies on reuse and recycling centres which state that they will seek to increase the levels of recycling and types of materials that are accepted at the reuse and recycling centres.

Reuse and Recycling Centres

WP11. The Council will seek to increase levels recycling and composting rates achieved at its Reuse and Recycling Centres (RRCs).

WP12. The Council will seek to extend the number and types of materials that can be separated for recycling and composting at its RRCs.

WP13. The Council will actively seek to minimise the amount of non-household waste being deposited at the site from commercial users.

5.3 Landfill Allowance Trading Scheme

The London Borough of Merton recognises that the diversion of biodegradable waste from landfill is required in order to avoid the penalties of non-compliance with LATS.

Landfill Allowance Trading Scheme

WP14: Minimise the need to borrow and purchase allowances where practicable, and ensure the Council avoids financial penalties associated with the Landfill Allowance Trading Scheme.

5.4 Waste Streams

The London Borough of Merton has a responsibility for dealing with non-household municipal waste if requested to do so. There are also a number of waste streams that require special collection and treatment arrangements for example clinical waste, fridges and freezers.

There are no specific targets for the reduction of non household waste streams, however the terms of the overall aim of reducing waste growth and increasing recycling and composting, Merton will take measures to minimise.

Commercial waste collection

WP15: The Council will review the current arrangements for the delivery of commercial waste services to identify improvements and enhance financial performance.

WP16: The Council will seek to maximise the amount of recycling achieved through the commercial waste collection service.

Residual household waste collection

WP17: The Council will examine operational and financial mechanisms to encourage the reduction in residual waste.

WP18: The Council will examine operational mechanisms to improve service efficiency and to improve significantly the impact of residual waste collection on the street scene.

5.5 Initiatives

Waste minimisation offers the opportunity to be more sustainable in terms of production and consumption patterns. It includes activities of waste avoidance i.e. waste prevention at source, reduction and reuse, including home and community composting and community re-use. Reuse activities are considered to be 'preventative' as they contribute to reducing the amount of

household waste entering the collected waste stream, whereas recycling is diversion i.e. the waste to landfill is minimised.

The impact of waste minimisation schemes, as well as manufacturers and emphasis the government places on it, will depend on the actions of retailers who are a key source of household waste e.g. packaging, as well as on participation levels of householders in waste minimisation schemes.

Communication and promotion activities are critical if the aim of reducing waste and increasing participation in recycling activities is to be achieved. Merton has developed a number of policies on waste awareness, waste reduction and waste reuse.

For information on the development of further initiatives please refer to Section 7 which is an Implementation Plan and will be revised annually.

Waste awareness

WP19: The Council will seek to develop an extensive waste awareness and education programme that focuses on all aspects of waste management including waste prevention, minimisation, reuse, recycling, composting, treatment and disposal.

Waste reduction

WP20: Merton will encourage and strengthen partnerships with the community and voluntary sectors and investigate opportunities for external funding to generate community-based waste minimisation initiatives.

WP21: The Council will continue to promote home composting and will make available subsidised home compost bins to all households with gardens and schools.

Waste reuse

WP22: Merton will seek to implement initiatives that maximise the reuse of goods and materials before they enter the waste stream. The Council will seek to develop partnerships with community groups and charities to implement such initiatives.

WP23: The Council will investigate opportunities for maximising the diversion of bulky household waste collected through the Council's bulky waste collection service and will seek to ensure the beneficial reuse of such materials by those in need in the community.

In addition to raising awareness of the issues of sustainable waste management within the community as a whole, the Council recognises that it is imperative to demonstrate good practice within its own organisation. It is believed that setting a positive example with respect to the management of its own waste and resources will reinforce the message and demonstrate the practicalities of adopting such practices. The council has therefore adopted the following policies:

Setting a positive example

WP24: The Council will establish a programme of waste prevention, reduction, reuse, recycling and composting of waste materials in respect of its own functions and the services it provides.

WP25: The Council is committed to the Mayor's Green Procurement Code and will explore practical opportunities for specifying and purchasing products made from recycled and recyclable materials.

WP26: The Council will seek to encourage service providers to minimise waste arisings and maximise recycling of any waste products arising from the provision of services and/or goods, as far as practically possible.

5.6 Options for Residual Waste Management

It is the council's intention to manage waste in accordance with the waste hierarchy and a number of policies designed to optimise waste reduction reuse, recycling and composting have been outlined above. However, it is not expected that intensive recycling and composting will deliver the targets set out in the EC Landfill Directive or compliance with LATS. In order to minimise the need to landfill residual waste alternative treatment and disposal facilities will be required. The Borough is keen to develop waste management facilities to ensure the infrastructure is in place to deliver the strategy.

Merton has therefore developed the following policies on waste treatment and disposal.

Waste treatment and disposal

WP27: The Council will continue to work with boroughs within the South London Waste Partnership with a view to establishing formal partnering arrangements for the joint procurement of waste treatment and disposal services.

WP28: The Council will seek to use new and emerging technologies in order to maximise the recovery of value from residual waste.

WP29: The Council will encourage the treatment of waste at the highest level of the waste hierarchy as is economically practicable.

There is a wide variety of waste treatment methods for dealing with municipal solid waste that should limit the amount of residual waste requiring disposal to landfill. The following section provides some brief background information on the technologies available. The following descriptions have been taken from “Introductory Guide: Options for the Diversion of Biodegradable Municipal Waste from Landfill” (DEFRA, July 2005). Each of the options detailed should not necessarily be regarded as stand alone options and it may be preferable to develop treatment facilities that combine a variety of the options in an integrated manner.

5.6.1 Thermal treatment

Energy from Waste (EfW)

EfW facilities combust waste under controlled conditions to reduce its volume and hazardous properties, and to generate electricity and/or heat. In most cases EfW plants are designed to process significant quantities of municipal solid waste with no need for any pre-treatment of the wastes prior to processing.

Recent rulings by the European court of Justice have focused attention on the primary purpose of incineration. If the main purpose of the process is the recovery of energy and/or materials, then the process is genuinely considered to be recovery. However, if recovery is purely incidental to the main objective, then it is not a recovery process.

This form of treatment is proven technology within the UK and Europe and is subject to strict standards. Although emission limits have achieved progressive reductions in emissions from EfW plants there is, nevertheless, continuing public concern about the emission of heavy metals and persistent organic pollutants such as dioxins. Furthermore, it is believed that the availability of EfW facilities can impact on levels of recycling as such plants require a continuous flow of waste as a feedstock which acts as a disincentive to the development and improvement of recycling and composting services.

Advanced Thermal Treatments (ATT)

There are a variety of treatments that are placed within this category usually because they incorporate “advanced” or “emerging” technologies for the treatment of municipal wastes. The most common ATT systems are pyrolysis and gasification.

Pyrolysis is a medium temperature thermal process where organic derived materials in the waste are broken down under the action of heat and in the absence of oxygen and is a similar process to that used to produce charcoal. Only carbon-based materials can be pyrolysed and in most cases mixed MSW is pre-sorted to remove the majority on the non-organic element of the waste.

The process breaks down the carbon-based content of the waste to produce a gas, known as syngas. The syngas may be condensed to produce pyrolysis oil. The oil or the gas may be used as a fuel to generate electricity or in an engine.

Specialist disposal or additional processing of the solid residues (pyrolysis char) will be required. Additional processing can be carried out through gasification.

Gasification operates at higher temperatures than pyrolysis. Air and oxygen is used to partially combust the waste to achieve higher temperatures. This process is similar to that used to produce town gas from coal. The syngas produced can be combusted to produce electricity. A solid residue will be produced that will require specialist disposal.

Flue gas clean up measures would be required for emissions from both gasification and pyrolysis processes.

5.6.2 Biological treatment

Composting is a biological process in which biodegradable wastes, such as kitchen and garden waste are decomposed in the presence of air under the action of micro-organisms. The process results in elevated temperatures of the waste, the production of carbon dioxide, water and a stabilised residue. The nature and quality of the residue will depend on the input material, the composting process itself—including any screening of materials to refine the product—and the market into which the residue will be sent.

The composting processes for municipal waste tend to fall into two categories: windrow composting and ‘in-vessel’ composting. Windrow composting is an established technique for garden wastes within the UK whereby the waste is shredded and then piled in elongated rows (windrows) and aerated through either turning of the windrows or by air forced through the material. This process can take place within buildings or externally. Although there are other techniques available, open-windrow is the most prevalent.

In-vessel composting (IVC) is capable of taking mixed garden and kitchen waste, which are composted together in an enclosed vessel or tunnel under strict controls. In particular, the temperatures that facilitate bacteria destruction in accordance with the Animal By-products Regulations (please see Appendix C) can be controlled. There is limited experience of this type of process within the UK but in view of the Landfill Directive targets and Animal By-products legislation, this experience is growing.

The above treatment processes are often referred to aerobic processes. Anaerobic digestion (AD) is another potential method for biologically treating organic wastes but this process takes place in the absence of air.

Biodegradable wastes are converted into a digestate (containing bio solids and a liquid) and a biogas, which is rich in methane and can be collected and burnt as a fuel to produce electricity.

5.6.3 Mechanical treatment

This form of treatment involves the mechanical sorting of waste into various component parts and in many cases is used in conjunction with other treatment processes. The development of the sorting processes very much depends on the type of waste being input. For example, the sorting of kerbside collected mixed recyclables would normally be carried out in a Materials Recycling Facility (MRF). However, processes exist that can sort mixed municipal waste and a variety of techniques can be used depending on the purpose of the facility. This can be to:

- Extract recyclable materials
- Separate out an organic rich fraction for biological processing, or
- Produce a fraction with a high calorific value that may be used as a fuel.

5.6.4 Mechanical Biological Treatment (MBT)

This is a generic term for an integration of several processes commonly found in the other treatment processes listed above. In its simplest form it provides a drying and bulk reduction operation for mixed waste prior to landfill. In more complex systems, organic rich fractions can be treated in composting or anaerobic digestion plants and the high calorific fraction used as a refuse-derived fuel (RDF) for energy recovery.

5.6.5 Autoclave

This technology has been used to sterilise certain hospital type wastes for many years and is essentially a steam treatment process. Shredded mixed waste is processed in a pressurised steel drum under the action of steam and produces a 'flock' like material with metals, glass and some plastics partially cleaned for extraction as recyclables. The 'flock' like material, once sorted, has a high calorific value and can be used as a refuse derived fuel (RDF).

5.7 Market Development

All waste management options, incorporating increased recycling and composting performance, will generate additional quantities of recyclate and compost which we must find markets for.

As the amount of recycled material increases, the availability of markets for those materials becomes increasingly scarce. Therefore, there is a need to develop markets for recyclate. It is important that Councils consider longer term contracts for the receipt of recyclates, not only to guarantee prices but to also guarantee a reliable recyclate market.

Waste Resources Action Programme, London Remade and London Waste Action

The success of any long-term, sustainable recycling scheme is reliant on the availability of satisfactory and stable markets for all materials collected. Developing markets for the materials that Merton Council intends to collect or separate for the purposes of recycling, is therefore crucial to the success of this strategy.

The National Waste Strategy 2000 proposed to set up the Waste Resources Action Programme (WRAP) in order to overcome market barriers to promoting re-use and recycling. This organisation has been awarded £40million of Government funding in order to progress this main objective.

Other market development groups include London Remade. Merton Council will actively support and facilitate the objectives of both programmes where it is practical to do so.

5.8 Enforcement

Merton believes that much can be done through the provision of a range of effective services designed to promote and encourage the community to act sustainably by choice. However, it is recognised that in some instances enforcement action will be required to ensure actions are not detrimental to the aims and objectives of this Strategy. The Council has therefore developed the following policies on enforcement

Enforcement

WP30: The Council will seek to use its statutory powers to the full in order to ensure abuse of civic facilities and services is minimised.

WP31: The Council will seek to use its statutory powers to the full in order to ensure that businesses manage their waste in accordance with agreed regulations and to minimise and where possible prevent the illegal deposit of waste (fly tipping) within the borough.

WP32: The Council will work in co-operation with the Environment Agency, the local Police, neighbouring boroughs and other partner agencies to minimise the instances of fly tipping in the region.

6. ACTIONS & NEXT STEPS

Merton faces a considerable challenge in achieving its recycling, recovery and landfill diversion targets and the success of this Strategy will be dependent on the involvement of a wide range of stakeholders. It will be necessary to engage residents and businesses in the process to ensure an increasing number of people participate in reduction, reuse and recycling activities. It will also be necessary to ensure that sufficient sustainable markets are available for the increasing range and tonnage of materials collected for recycling.

It is the council's view that intensive waste reduction, reuse, recycling and composting schemes can go a long way towards achieving the targets but that additional waste treatment infrastructure will be required to manage residual waste in order to achieve the required levels of diversion from landfill.

Section 5 outlines the key policies that will guide the future direction of waste management within Merton. This section provides details of the proposed solution for Merton. It recognises that widespread changes to the collection, sorting, treatment and disposal infrastructure cannot be implemented immediately and must therefore be a staged process.

6.1 Short term actions

This section outlines the immediate and on-going actions that will be implemented in order to ensure the council achieves both its recycling and composting performance standards in the short term and the immediate requirements to divert biodegradable municipal waste from landfill.

6.1.1 Waste Awareness

Education and awareness raising are recognised as an essential element of Strategy implementation and key to promoting the reduction of waste and encouraging the use of recycling and composting facilities offered to the householder.

Awareness in schools

Merton Council has already been running a comprehensive education and awareness raising campaign in schools for a number of years and wishes to continue and extend this programme. Key activities will include:

- Continued development of and commitment to funding the waste education programme in primary schools including, exploring options for extending the waste education programme into secondary schools.
- Developing a programme to train teachers (cross service) with a view to embedding waste education within the curriculum.
- Encouraging borough primary schools to participate in the London Schools Environmental Awards scheme.

- Governors' services presentation training.

The wider community

The council also wishes to raise the awareness of waste issues within the wider community and plans to develop a wider community education programme that will concentrate on promoting waste reduction, reuse, recycling and composting.

The key principles of the programme will be to engage the community through consultation, information, education and involvement.

The emphasis of the programme will be to raise awareness of the services provided, increase levels of participation in recycling services and to increase levels of public satisfaction with waste services overall. Key activities will include:

- A targeted door knocking campaign to Merton residents to increase participation in the kerbside recycling scheme will be carried out during the Spring of 2006.
- The provision of appropriate and timely information leaflets and other forms of media to householders and businesses, such as the delivery of Christmas cards informing residents of collection day changes over the holiday period. This will include the borough-wide delivery of "refresher" information during 2006/07 on the "Recycle from Home" scheme and the provision of improved Reuse and Recycling Centre facilities at Garth Road and Weir Road.

6.1.2 Waste reduction

The comprehensive, subsidised home composting scheme currently operating in partnership with the Waste and Resources Action Programme (WRAP) is estimated to have distributed bins to approximately 5,000 households in Merton. This follows on from an extensive promotion in the late-1990s that resulted in approximately 9,000 compost bins being delivered to residents free of charge. We will:

- Continue to work in partnership with WRAP to promote composting at home through the subsidised sale of home composting bins (subject to Wrap funding review).
- Carry out composting workshops throughout the borough and provide displays and information boards at borough shows, such as the Mitcham Carnival.
- Develop customer support through reviving links with the Merton Gardens & Allotments Habitat Action Plan group (composting).

The waste composition analysis carried out by MEL in October 2004 and May 2005 showed that approximately 3.23% of household waste consisted of

disposable nappies. The council recognises that this represents a significant proportion of the domestic waste stream. We will:

- Continue to support Kingston and Merton Real Nappy Network through the provision of start up funding for up to March 2007 and ongoing advice and support.

6.1.3 Waste reuse

There is significant potential to increase reuse of unwanted items by the public through various means and existing networks and services are already in place. Merton Council will encourage further reuse by:

- Investigating initiatives to pass on reusable bulky waste items deposited at RRCs to charities and community organisations.
- Investigating opportunities to run 'Bring and Buy' sales / waste exchange at the council's RRCs.

6.1.4 Waste Recycling

There is an extensive recycling network throughout the borough including a kerbside collection (the "Recycle from Home" scheme), two Reuse and Recycling Centres, and a network of highways recycling sites (bring sites) located throughout Merton. There is potential for refining current services and increasing participation to increase recycling levels to assist in meeting statutory performance standards. Planned initiatives include:

Kerbside and flats

- Roll out recycling to all flats. Paper, glass and plastics to be collected for recycling.

Bring banks

- A review of bring sites and consideration of the opportunities for increasing the number of sites across the borough and the range of materials that are targeted for collection.
- Investigating opportunities to form partnerships with supermarkets and other large stores to encourage bring sites to be established with a view to promoting greater awareness of producer responsibility
- The repair and clean up of bring sites as well as the introduction of new sites and re-branding them as Neighbourhood Recycling Centres (NRC).

Schools recycling

- The provision of mixed paper and card recycling banks to all borough schools and colleges.

- Investigating the feasibility of extending the range of materials collected separately for recycling from borough schools and colleges.

Street cleaning

- Introduce litter recycling in the town centres
- Investigate options for recycling commuter targeted waste

6.1.5 Organic waste collection

Organic waste represents a large part of the waste stream and includes garden and kitchen waste. Due to the targets for reducing biodegradable waste as part of LATS and the possible consequences for failing to achieve LATS compliance, special recognition will be given to reducing organic waste going to landfill. The council will:

- Continue to provide the current on-request garden waste collection and trial a scheduled collection for 2006/07.
- Carry out a feasibility study to carry out a wider organics collection including kitchen waste.
- Continue on an annual basis to provide a separate collection of Christmas trees from householders for the purposes of composting.
- Continue to collect leaf-fall separately from street litter and detritus, ensuring that the materials are effectively treated to provide a mulch product for reuse.

6.1.6 Reuse and recycling centres (RRCs)

A new Reuse and Recycling Centre opened in Weir Road in September 2005. The Council is always considering new ways to increase the items that can be brought to the sites and raising awareness of the sites. We will:

- Utilise available space at the Garth Road RRC to develop a fast track recycling lane to encourage greater use during 2006/07.
- Continuously review opportunities for recycling new and additional waste streams at RRCs.

6.1.7 Residual household collection

The London Borough of Merton is committed to providing a refuse collection services that meets the needs of its residents. This includes maintaining tidy streets and providing an efficient service.

- Review the provision of waste containers for domestic properties currently in receipt of a weekly front-of-property refuse collection.

6.1.8 Commercial waste collection

The Environmental Protection Act 1990 places a duty on the council to provide a commercial waste collection service if requested. Commercial waste collected by or on behalf of the council is regarded as municipal waste and therefore impacts on the amount of biodegradable municipal waste sent to landfill. It is also regarded as good practice to encourage waste minimisation across all sectors. Therefore we will:

- Encourage existing commercial customers to recycle through phone surveys and financial incentives.
- Encourage and provide support for commercial waste audits which encourage greater consideration for reuse
- Encourage commercial users to separate recyclable materials before depositing waste at the Garth Road transfer station.
- Investigate opportunities for clusters of businesses to share recycling facilities.

6.2 Medium term solutions

The actions identified above may help deliver short-term targets with respect to recycling and composting performance standards but will ultimately fall short of achieving the longer-term requirements to divert biodegradable municipal waste from landfill. It is recognised that significant capital investment in waste treatment infrastructure will be required in order to meet this short fall.

The council recognises that it is unlikely to secure the necessary infrastructure alone and is therefore committed to working on a sub-regional basis with the London Boroughs of Croydon, Kingston and Sutton through the South London Waste Partnership.

An initial scoping report for joint partnering and procurement, carried out by Enviro on behalf of the partnership, suggests that partnership working should deliver improved efficiencies of scale with respect to procurement, management, operating and client costs and increased market appetite.

The partner boroughs have committed to further joint working through an agreed Memorandum of Understanding. However, in order to deliver the medium to long-term solutions, the following issues will need to be addressed in the short term:

- The development of formal partnering arrangements.
- The production of a joint waste statement.
- The appraisal of the waste management options available to the partnership of a sub-regional basis.
- The development of a procurement strategy for the Partnership.

Current waste disposal contracts for the London Boroughs of Croydon, Kingston and Merton are due to expire in Autumn 2008. It will therefore be necessary to finalise the above arrangements during the Summer of 2006 in order to commence procurement of facilities in time.

The options appraisal will incorporate waste flows, projections and composition of the partner boroughs jointly and has not been included as part of this Strategy. The cost implications and affordability of the options will also be assessed as part of this process. Full consultation on the preferred options will be carried out once the draft Joint Waste Statement has been completed.

It is anticipated that Merton will be in a position to complete this section of the waste strategy when the partnership arrangements have been considered further and agreement concluded.

6.3 Planning

A critical aspect in securing the appropriate treatment facilities will be the identification of suitable sites on which to place the facilities.

The Council is currently working with Enviros, with funding from the DEFRA Waste Implementation Programme's Local Authority Support Unit (LASU), to further the work on identifying sites within the sub-region that may be suitable for waste treatment facilities.

As part of this project officers are investigating the feasibility of producing a joint waste development plan document together with the partner boroughs that will ensure that the planning process supports this Strategy and the joint waste statement of the partner boroughs.

It is anticipated that actions will be established following the completion of the 'planning tasks' of the LASU funded project and that this section will incorporate the strategic actions which need to be completed in order to fulfil the objectives of the strategy.

6.4 Public Consultation

Following the completion of the strategy it will be available to the general public for consultation. The strategy will be available on the Council's website and hard copies will be placed in the local libraries.

6.5 Monitoring

Progress toward statutory targets is monitored monthly and reported to the appropriate authority on an annual basis. The statutory targets are challenging and therefore there are no targets exceeding these that have been set in the Strategy. Existing targets are subject to their own reporting requirements (e.g. Community Plan targets). The annual review and development of the action plan will monitor progress against the agreed aims and objectives of the Strategy.

6.6 Timetable for review of the Strategy

The Strategy needs to be regularly reviewed to assess its effectiveness and to allow for any changes that might occur in national waste policy and legislation or changes in the waste management needs of the council. Waste composition and volumes will also change considerably over the 15-year period covered by the Strategy and the review process will allow accurate data to be maintained and incorporated within the Strategy. There will be several routes for assessing the degree of success with which the Strategy is being implemented and whether performance will meet targets. Many of these will be indicative of the effectiveness of public education and waste awareness campaigns.

This Strategy covers the period 2006 – 2021. In view of the speed of change in waste management the Strategy will need to be subject to frequent review. This will ensure that it responds to changes in legislative and any other drivers. It is proposed that a formal review of the Strategy takes place every 5 years.

6.7 Review of the Implementation Plan

It is proposed to formally review the Implementation Plan annually. The main purpose of the review will be to assess the extent to which the Plan has furthered the aims and objectives of the Strategy as well as progress towards meeting targets. The review will involve input from various members of staff from different departments within Council. The review will be reported to senior officers and members and, as well as reviewing progress of the Plan against aims and objectives, will seek agreement for any revisions plan.

A dedicated officer will monitor the initiatives in the Action Plan monthly to ensure initiatives are being implemented and progress is maintained.

APPENDIX 1: GLOSSARY OF TERMS RELATING TO WASTE MANAGEMENT AND POLICY

Advanced conversion technologies - are defined in the Renewables Obligation Order 2002 as meaning gasification, pyrolysis or anaerobic digestion, or any combination thereof.

Aggregates - granular material used in construction. Aggregates may be natural, artificial or recycled.

Anaerobic digestion - a process where biodegradable material is encouraged to break down in the absence of oxygen, in an enclosed vessel. It produces carbon dioxide, methane and solids/liquors known as digestate, which can be used as fertiliser and compost.

Basel Convention - the 1989 United Nations Basel Convention on the control of transboundary movements of hazardous wastes and their disposal provides a framework for a global system of controls on international movements of hazardous and certain other wastes.

Best Practicable Environmental Option (BPEO) - a BPEO is the outcome of a systematic and consultative decision making procedure that emphasises the protection and conservation of the environment across land, air and water. The BPEO 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 costs, in the long term as well as in the short term.

Best Value - Government programme to seek continuous improvement in service quality in the way in which authorities exercise their functions.

Biodegradable - material which is capable of being broken down by plants (including fungi) and animals (including worms and micro-organisms). In municipal solid waste, the property is generally attributed to the following fractions: paper and card, kitchen (food) and garden waste and a proportion of textiles, fines and miscellaneous combustible waste, including disposable nappies.

Biodegradable Municipal Waste - is defined in Council Directive 1999/31/EC on the landfill of waste as meaning any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard. Biodiversity the diversity, or variety, of plants, animals and other living things in a particular area or region. It encompasses habitat diversity, species diversity and genetic diversity. Biodiversity has value in its own right and has social and economic value for human society.

Biomass - is defined in the Renewables Obligation Order 2002 as meaning fuel used in a generating station of which at least 98 per cent of the energy content (measured over a period of one month) is derived from plant or animal

matter or substances derived directly or indirectly therefrom (whether or not such matter or substances are waste) and includes agricultural, forestry or wood wastes or residues, sewage and energy crops (provided that such plant or animal matter is not or is not derived directly or indirectly from fossil fuel).

Bottom Ash - burnt out residues from the bottom grate of waste incinerators, which represents between 20 and 25 percent of the processed waste by weight. Ferrous metals can be removed by magnetic separation for recycling and bottom ash itself is being increasingly used in the manufacture of masonry blocks and in road construction.

Bring Recycling - refers to a recycling site, see recycling site. Known as such, as the recycler has to 'bring' their materials to the site.

Central Composting - large-scale schemes which handle kitchen and garden waste from households and which may also accept suitable waste from parks and gardens.

Civic Amenity Sites - sites operated by either the Waste Disposal Authority (under the Environmental Protection Act 1990) or the local waste authority (under the Refuse Disposal (Amenity) Act 1978) where residents within a specified area can dispose of their household waste, in particular bulky waste, free of charge. The focus of these sites is due to change to concentrate on reuse and recycling. Also see Reuse and Recycling Centre.

Civic Amenity Waste - a sub-group of household waste, normally delivered by the public direct to sites provided by the local authority. Consists generally of bulky items such as beds, cookers and garden waste as well as recyclables.

Clinical Waste - waste which consists of human or animal tissue, bodily fluids, pharmaceuticals, sharps etc. and any waste arising from medical, dental veterinary or similar practices etc.

Commercial Waste - waste arising from premises which are used wholly or mainly for trade, business, sport, recreation or entertainment, excluding industrial waste and waste from municipal facilities.

Community Sector - including charities, campaign organisations and not-for-profit companies.

Composting - this is the biological degradation of organic materials, such as garden and kitchen waste, in the presence of oxygen producing gas and residue suitable for use as a soil improver (see anaerobic digestion, central composting and home composting).

Compost plant – a facility for carrying out composting. Large scale schemes may handle kitchen and garden waste collected directly from households and civic amenity sites and may also accept suitable waste from municipal parks and gardens.

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, hardcore, subsoil and topsoil, but it can contain quantities of timber, metal, plastics and occasionally special (hazardous) waste materials.

Controlled Waste - household, industrial or commercial waste as set out in the Controlled Waste Regulations 1992.

Conventional incineration - is the controlled burning of waste in the presence of sufficient air to achieve complete combustion. Unsorted waste is fed onto a, usually inclined, grate and burnt as a red-hot mass as it moves through the furnace. For this reason the process is also sometimes referred to as 'mass burn'. Plants are generally large-scale, having an annual capacity of 100,000 tonnes or more. The term 'conventional incineration' is used in this strategy to refer specifically to this type of processes as distinct from other thermal treatment processes such as pyrolysis, where air is absent, or gasification processes. The two existing waste incineration plants in London are both conventional incineration plants, and both plants recover energy in the form of electric power. Electricity generated in conventional incineration plants is not eligible for Renewables Obligation Certificates (ROCs). See also separate definitions of incineration, pyrolysis, gasification, and Renewables Obligation Certificates. Dioxins polychlorinated dibenzo-para-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) are generally referred to as dioxins and furans. They are a group of over 200 related chemicals, a small number of which are highly toxic. They are by products of chemical and combustion processes including waste incineration. Emissions from waste incineration fell by 82 per cent between 1990 and 2000 but this is still the largest source in the UK, accounting for 29 per cent of emissions in 2000.

Duty of Care - the Duty of Care (Section 34 of the Environmental Protection Act 1990) places a general duty on waste producers (or anyone else with responsibility for waste) to take all reasonable steps to keep their waste safe. If they transfer their waste to someone else, they must ensure that that person is authorised to take it and can transport (See Registration of Waste Carriers), recycle or disposed of it safely. The duty of care does not apply to waste produced by householders in their own homes.

Energy Recovery from Waste (EfW) - includes a number of established and emerging technologies, though most energy recovery is through incineration technologies. Many wastes are combustible, with relatively high calorific values – this energy can be recovered through (for instance) incineration with electricity generation.

Energy Recovery - the recovery of useful energy in the form of heat and/or electric power from waste. Includes combined heat and power, combustion of landfill gas and gas produced during anaerobic digestion.

Environment Agency (England and Wales) - The Environment Agency for England and Wales was formed by the Environment Act 1995. It took over the functions and responsibilities of its predecessor organisations, the National Rivers Authority, Her Majesty's Inspectorate of Pollution, the 83 Waste Regulators of England and Wales and a number of smaller Waste Technical Departments from the (former) Department for the Environment, Transport and the Regions. Amongst other things the Agency's functions and duties include the management of radioactive waste, other forms of waste and industrial pollution control. The Agency has been given a key role in implementing the National Waste Strategy and undertook the National Commercial and Industrial survey of Waste Arisings. It also regulates the waste industry through, amongst other things, the waste management licensing regime.

Environmental Impact Assessment - the process whereby information about the environmental effects of a project is collected, assessed and taken into account in reaching a decision on whether the project should go ahead or not (DETR November 2000). See also Environmental Statement.

Environmental Protection Act 1990 (EPA 90) - a new regulatory regime that came into force in 1990. It is designed to implement an approach to prevent harm to human health and the environment by ensuring an integrated (air, land and water) approach to environmental regulation and protection.

Environmental Technology Best Practice Programme (ETBPP) - aims to demonstrate the benefits of managing resource use and reducing environmental impact to companies across the whole of the UK.

European Landfill Directive - the EU Landfill Directive progressively reduces the amount of biodegradable municipal waste that is landfilled - in the UK to 75%, 50% and 35% of 1995 levels by 2010, 2013 and 2020 respectively.

Exemptions from Licensing - certain waste reclamation and recycling activities (which are not seen as a threat to human health or the environment) are exempt from waste management licensing requirements. This includes the storage of certain materials for recovery or reuse – although limits on quantities of material apply. These activities must however register with the Environment Agency.

Fines - particles of waste too small to identify.

Fly-tipping - the illegal deposit of waste on land.

Gasification - the heating of organic materials with air, steam or oxygen to produce gaseous fuels, ash and tar.

Greater London - The geographical area encompassed by the 32 London boroughs and the City of London, representing most of the continuous built-up area of London and covering 1600 km².

Greater London Authority -The organisation responsible for carrying out the functions set out in the Greater London Authority Act, including the Mayor, Assembly and four functional bodies: the London Development Agency, Transport for London, the Metropolitan Police Authority and the London Fire and Emergency Planning Authority. There is a clear separation of powers within the GLA between the Mayor – who has an executive role, making decisions on behalf of the GLA – and the London Assembly, which has a scrutiny role.

Green Industries - the business sector that produces goods or services, which compared to other, generally more commonly used goods and services, are less harmful to the environment.

Green Waste - organic garden waste such as grass clippings, tree prunings, leaves etc. which can be used as composting feedstocks. Also known as 'garden waste' or 'yard waste'. They can arise from gardens, parks and landscaping activities.

Greenhouse gas - one of a number of gases (including methane and carbon dioxide) that can contribute to climate change via the 'greenhouse' effect when their atmospheric concentrations exceed certain levels.

Hazardous wastes - the most harmful wastes to people and the environment, and defined according to properties listed in Annex III to Council Directive 91/689/EEC on hazardous waste.

Home Composting - compost can be made at home using a traditional compost heap, a purpose designed container, or a wormery.

Household hazardous Waste (HHW) - hazardous waste normally produced by households e.g. batteries and asbestos.

Household Waste - all waste collected by Waste Collection Authorities under section 45(1) of the Environmental Protection Act 1990, plus all waste arisings from Civic Amenity sites and waste collected by third parties for which collection or disposal credits are paid under Section 52 of the Environmental Protection Act 1990. Household waste includes waste from collection rounds of domestic properties (including separate rounds for the collection of recyclables), street cleansing and litter collection, beach cleansing, bulky household waste collections, hazardous household waste collections, household clinical waste collections, garden waste collections, Civic Amenity wastes, dropoff/'bring' systems, clearance of fly-tipped wastes, weekend skip services and any other household waste collected by the waste authorities.

Household waste recycling centre – see Civic amenity sites

Incineration - normally refers to the controlled burning of waste in the presence of sufficient air to achieve complete combustion. Energy is usually recovered in the form of electric power and/or heat. The emissions are controlled under EU Directive 2000/76/EC. This Directive also applies to other

thermal treatment processes such as pyrolysis and gasification, so the term incineration may be applied to a wider range of thermal waste treatment processes. See also separate definitions of conventional incineration, pyrolysis, and gasification.

Industrial Waste - waste from any factory and any premises occupied by industry (excluding mines and quarries) as defined in Schedule 3 of the Controlled Waste Regulations 1992.

Inert waste - is defined in Council Directive 1999/31/EC on the landfill of waste as waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater.

Integrated Waste Management - involves a number of key elements, including: recognising each step in the waste management process as part of a whole; involving all key players in the decision-making process and utilising a mixture of waste management options within the locally determined sustainable waste management system.

Integrated Pollution Prevention and Control (IPPC) - the Integrated Pollution Prevention and Control Directive (96/61/EC Directive), as implemented in the Pollution Prevention and Control Regulations 2000, is designated to prevent or, where that is not possible, to reduce pollution from a range of industrial and other installations, including some waste management facilities, by means of integrated permitting processes based on the application of best available techniques.

Kerbside Collection - any regular collection of recyclable from premises, which can include collections from commercial or industrial premises as well as households. Excludes collection services delivered on demand. Also see recycling collections from homes

Landfill Allowance Trading Scheme (LATS) - The Landfill Allowance Trading Scheme introduces significant and innovative changes in waste policy and practice for the diversion of biodegradable municipal waste from landfill. It is intended to provide a cost effective way of enabling England to meet its targets for reducing the landfilling of biodegradable municipal waste under Article 5(2) of the EC Landfill Directive.

Land Use Planning - the Town and Country Planning system regulates the development and use of land in the public interest, and has an important role to play in achieving sustainable waste management.

Landfill Sites - are areas of land in which waste is deposited. Landfill sites are often located in disused quarries or mines. In areas where there are

limited, or no ready-made voids, the practice of landraising is sometimes carried out, where some or all of the waste is deposited above ground, and the landscape is contoured.

Landfill Tax - landfill operators are liable for tax on all consignments of waste disposed at landfill, except for certain exempt categories of waste. The rate of tax for 2002/03 is £2 per tonne for inert waste and £13 per tonne for non-inert waste (and set to rise to £1 per year to £15 per tonne by 2005).

Landfill Tax Credit Scheme - the tax is paid quarterly to the Inland Revenue. The Landfill Tax Credit scheme allows up to 20 per cent of the funds generated by the tax to be channelled into bodies with environmental objectives. The aim of the scheme mirrors those of the tax, in that it aims to help projects which benefit communities in the vicinity of landfill sites, therefore helping to compensate for the local environmental impacts of landfilling. The system of registering Environmental Bodies and approving projects is overseen by ENTRUST.

Landspreading - is the spreading of certain types of waste onto agricultural land for soil conditioning purposes. Sewage sludge and wastes from the food, brewery and paper pulp industries can be used for this purpose.

Licensed Site - a waste disposal or treatment facility, which is licensed under the Environmental Protection Act for that function.

Mass burn incineration - See conventional incineration.

MRF (Material Reclamation Facility) - a transfer station for the storage and segregation of recyclable materials. Also sometimes known as Material Recycling Facility or Materials Recovery Facility.

Mechanical biological treatment - may be used as pre-treatment to stabilize residual wastes prior to landfilling. A combination of mechanical and biological processes are employed to achieve stabilisation of the wastes. Typical plants generate three material streams; recyclable material comprising mainly ferrous and non-ferrous metals; a biostabilised stream suitable for landfill cover and a residual stream that can either be landfilled or converted into a secondary fuel.

Miscellaneous Combustibles (Misc combs) – combustible waste too contaminated to be categorised e.g. ash

Miscellaneous Non Combustibles (Misc non combs) – non-combustible waste too contaminated to be categorised e.g. some plastics

Multi-Material Kerbside Collection (MMKC) - the collection from homes of more than one type of material for recycling. The collection can be made using a box, or boxes, from which materials are sorted into separate containers on a collection vehicle or could be mixed together in a bag and sorted later at a MRF.

Municipal Waste - see Municipal Solid Waste (MSW)

Municipal Solid Waste (MSW) - this includes all waste under the control of local authorities or agents acting on their behalf. It includes all household waste, street litter, waste delivered to council recycling points, municipal parks and gardens wastes, council office waste, Civic Amenity waste, and some commercial waste from shops and smaller trading estates where local authorities have waste collection agreements in place. It can also include industrial waste collected by a waste collection authority with authorisation of the waste disposal authority.

New and Emerging Technologies - technologies that are either still at a developmental stage or have only recently started operating at a commercial scale. May include new applications of existing technologies. In relation to waste, these include anaerobic digestion, Mechanical Biological Treatment (MBT), pyrolysis and gasification.

Non-renewable resources - resources that cannot regenerate within human-life time, for example, fossil fuels.

Planning Policy Guidance Notes (PPGs) and Mineral Planning Guidance Notes (MPGs) - Government Policy Statements on a variety of planning issues, including waste planning issues, to be taken as material considerations, where relevant, in deciding planning applications.

Precautionary Principle - where significant environmental damage may occur, but knowledge on the matter is incomplete, decisions made and measures implemented should err on the side of caution.

Producer Responsibility - is about producers and others involved in the distribution and sale of goods taking greater responsibility for those goods at the end of the products life.

Proximity Principle - dealing with waste as near as practicable to its place of production.

Putrescibles – waste that decomposes, such as meat and vegetable waste.

Pyrolysis - the heating of organic materials in the absence of air, causing the volatilisation of combustible gases. Also produced is a combustible char, a mixture of oils and liquid effluent.

Recovery - is defined in Waste Strategy 2000 as meaning as meaning obtaining value from waste through reuse; recycling; composting; other means of material recovery (such as anaerobic digestion); or energy recovery (combustion with direct or indirect use of the energy produced, manufacture of refuse derived fuel, gasification, pyrolysis and other technologies). In addition, certain operations are defined as recovery operations in Annex IIB of Council

Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.

Recycling - involves the reprocessing of waste, either into the same product or a different one. Many non-hazardous industrial wastes such as paper, glass, cardboard, plastics and scrap metals can be recycled. Special wastes such as solvents can also be recycled by specialist companies, or by in-house equipment.

Recycling collections - from homes refers to any regular collection of recyclables from households, often using a bag, separate wheeled bin or a box. Excludes collection services delivered on demand. Commonly referred to a 'kerbside' or 'door to door' collections.

Recycling Site - a group of containers for the collection of a variety of materials for recycling. Often located in supermarket or public building car parks or on street corners. Commonly referred to as 'bottle banks' but usually collecting a variety of materials. Also see bring site.

Reduction - achieving as much waste reduction as possible is a priority action. Reduction can be accomplished within a manufacturing process involving the review of production processes to optimise utilisation of raw (and secondary) materials and recirculation processes. It can be cost effective, both in terms of lower disposal costs, reduced demand for raw materials and energy costs. It can be carried out by householders through actions such as home composting, reusing products and buying goods with reduced packaging.

Regional Self-sufficiency - dealing with wastes within the region or country where they arise.

Registration of Waste Carriers - any person who carries (controlled) waste in the course of any business with a view to profit, is required to be registered with the Environment Agency.

Renewables Obligation Certificates - are certificates issued when electricity is generated from renewable sources. The Electricity Act 1989 requires electricity suppliers to meet a certain percentage of their total sales from renewable sources. Under the Renewables Obligation Order 2002, only plants that generate electricity from biomass will be eligible although the biomass may be a waste. Plants processing wastes must, however, use advanced conversion technologies in order to be eligible, and it is only the biomass component of the waste that will earn Renewables Obligation Certificates or ROCs. Advanced conversion technologies are defined in the Order as anaerobic digestion, gasification and pyrolysis. Electricity generated through the conventional incineration of mixed waste is not eligible. See also separate definitions of conventional incineration, gasification, incineration and pyrolysis.

Renewable Resources - resources that will regenerate within human life scales, for example, trees.

Residual waste - is that portion of the waste stream collected by local authorities which is not re-used, recycled or composted and remains to be treated through the recovery of energy and/or materials or through disposal to landfill.

Residues - are secondary waste materials requiring further treatment or disposal following a waste recycling, composting or treatment process. For example, bottom ash following the incineration of waste or contaminated recyclable material from Material Reclamation Facility.

Reuse - can be practised by the commercial sector with the use of products designed to be used a number of times, such as reusable packaging. Householders can purchase products that use refillable containers, or reuse plastic bags. The processes contribute to sustainable development and can save raw materials, energy and transport costs.

Reuse and Recycling Centres - are Civic Amenity sites which have changed their emphasis in operation from disposal towards reuse and recycling. Also see Civic Amenity sites.

Separate Collection - recycling collection schemes from homes where materials for recycling are collected either by different vehicle or at a different time to the ordinary household waste collection.

Section 106 Agreements - planning obligations on persons with an interest in land in order to achieve the implementation of relevant planning policies as authorised by Section 106 of the Town and Country Planning Act 1990.

Self-sufficiency - in relation to waste this means dealing with wastes within the administrative region where they are produced.

Source segregation - involves the segregation at source of waste in to individual materials. In the case of household waste, this source segregated waste would include recyclable and compostable materials collected separately at the kerbside or taken to civic amenity and bring sites.

Special Waste - waste which because of the risks posed to human health and the environment (is dangerous to life, has a combustion flashpoint of 210C or less, or is a medical product) are subject to additional controls under the Special Waste Regulations 1996. Before such waste can be collected, the waste producer must notify the Environment Agency of the waste's final destination through a Consignment Note system. All those party to the waste transfer must retain copies of the completed note on a register for at least three years.

Strategic Waste Management Assessment - produced by the Environment Agency to provide consistent, comprehensive, local information about the amounts and types of wastes produced and how they are managed.

Sustainable Development - development that is sustainable is that which can meet the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable Waste Management - means using material resources efficiently, to cut down on the amount of waste we produce. And where waste is generated, dealing with it in a way that actively contributes to the economic, social and environmental goals of sustainable development.

SWMO - Sustainable Waste Management Option – the result of a systematic process to identify the most sustainable method of waste management.

Treatment - involves the chemical or biological processing of certain types of waste for the purposes of rendering them harmless, reducing volumes before landfilling, or recycling certain wastes.

Unitary Authority - a local authority, which has the responsibilities of both Waste Collection and Waste Disposal Authorities.

Unitary Development Plans (UDPs) - statutory plans produced by each borough that integrate strategic and local planning responsibilities through policies and proposals for development and use of land in their area.

Waste - the strict legal definition of waste is extremely complex but it encompasses most unwanted material which has fallen out of the commercial cycle or chain of utility, which the holder discards, or intends to, or is required to discard.

Waste Arising - the amount of waste generated in a given locality over a given period of time.

Waste Collection Authority (WCA) - the authority responsible for arranging the collection of household waste in their area (in London this is on a borough-wide basis) and commercial or industrial waste on request. They must also produce a 'Recycling Plan'. (See recycling plans)

Waste Disposal - this is defined by the list of operations that constitute disposal (for under Part III of Schedule 4 of the Waste Management Licensing Regulations). This includes landfill, land raising, incineration, permanent storage etc.

Waste Disposal Authority (WDA) - the Authority responsible for arranging for the disposal of waste collected in their area by the Waste Collection Authority. They also provide sites where householders can deposit waste free of charge (Civic Amenity sites).

Waste Hierarchy - suggests that: the most effective environmental solution may often be to reduce the amount of waste generated – reduction; where further reduction is not practicable, products and materials can sometimes be used again, either for the same or a different purpose – reuse; failing that,

value should be recovered from waste, through recycling, composting or energy recovery from waste; only if none of the above offer an appropriate solution should waste be disposed.

Waste Management Industry - the businesses (and not-for-profit organisations) involved in the collection, management and disposal of waste. Waste Management Licensing a waste management licence (operated and enforced by the Environment Agency) authorises the treatment, keeping or disposal of waste. These are separate but complimentary to the Land Use Planning System. See Exemptions from Licensing.

Waste Recycling Credits - payments have to be made by a Waste Disposal Authority to a Waste Collection Authority who retains waste for recycling. This amount is intended to represent the net saving of expenditure on the disposal should it have been disposed of. There is also provision to pass savings in both collection and disposal costs to voluntary bodies or other who organise recycling schemes.

Waste Transfer Station - a site to which waste is delivered for sorting prior to transfer to another place for recycling, treatment or disposal.

WISARD (Waste Integrated Systems Assessment for Recovery and Disposal) – a tool developed by the Environment Agency to assist in assessing the LCA of waste management systems.

Further common abbreviations

AD	Anaerobic Digestion
BMW	Biodegradable Municipal Waste
BPEO	Best Practicable Environmental Option
BVPI	Best Value Performance Indicator
CA	Civic Amenity
CHP	Combined Heat and Power
CIPFA	Chartered Institute of Public Finance
DEFRA	Dept. for Environment, Food and the Regions Rural Affairs
EA	Environment Agency
EfW	Energy from Waste
ELV	End of Life Vehicle
EPA	Environmental Protection Act 1990
EU	European Union
GLA	Greater London Authority
HHW	Household Hazardous Waste
LWA	London Waste Action
LWRA	London Waste Regulation Authority
MME	Mechanised Metal Extraction
MRF	Materials Reclamation Facility
MSW	Municipal Solid Waste
NFFO	Non-Fossil Fuel Obligation
NGO	Non Governmental Organisation
ODS	Ozone Depleting Substance

PPG	Planning Policy Guidance
ROC	Renewables Obligation Certificates
RPG	Regional Planning Guidance
SELCHP	South East London Combined Heat and Power
SLR	SLR Consultants
UA	Unitary Authority
UDP	Unitary Development Plan
WCA	Waste Collection Authority
WDA	Waste Disposal Authority
WEEE	Waste Electrical and Electronic Equipment
WRAP	Waste Resources Action Programme

APPENDIX 3 LEGISLATIVE CONTEXT

EU Current and Future legislation

Landfill Directive

The Landfill Directive (99/31/EC) aims to improve waste management practices with regard to landfill disposal. The key provisions in the Directive are summarised below:

- Prohibition of the co-disposal of hazardous and non-hazardous waste in the same landfill site;
- Reduction in all types of biodegradable waste sent to landfill;
- Ban of tyres, hazardous liquids and flammable, corrosive, explosive, oxidising and infectious wastes; and
- Requirement for pre-treatment of landfilled waste.

Landfill (England and Wales) Regulations

The Directive is implemented in England through the Landfill (England and Wales) Regulations 2002 (SI 1559). The Waste Acceptance Criteria determine the properties of a waste which are acceptable for landfilling. The criteria are set for inert, hazardous and non-hazardous wastes. In order to fulfil the Waste Acceptance Criteria, a waste must demonstrate that it does not contain substances which leach from the waste in breach of the leaching limit values. If the waste does breach the thresholds, it will require treatment prior to landfilling.

Other forms of treatment and disposal will be required for waste types which are banned from landfilling and it is likely that the costs of disposal and treatment will increase, as will the requirement for treatment capacity.

Waste Electronic & Electrical Equipment Directive

In February 2003, the European Waste Electrical and Electronic Equipment (WEEE) Directive became European law. The Directive includes:

- setting collection; and
- recycling and recovery targets for all types of electrical products.

The categories of WEEE included in the Directive are in 0.

Table of the Directive WEEE Categories.

Category	Main Heading	Includes
1	Large Household	Cookers, fridges, microwaves,

	appliances	washing machines
2	Small Household Appliances	Vacuum cleaners, irons, toasters
3	IT & Telecommunications	Computers, printers, faxes, telephones
4	Consumer Equipment	Radios, TVs, videos
5	Lighting Equipment	Lamps
6	Electrical and Electronic Tools	Drills, saws
7	Toys, leisure / sports equipment	Trains or car sets, video games
8	Medical Devices	Radiotherapy and dialysis equipment
9	Monitoring and control instruments	Smoke devices, heating regulators
10	Automatic Dispensers	Automatic dispensers for drinks, money

The Directive was to be implemented in European Member states by August 2004. Collection, treatment and financing systems for WEEE must be in place by September 2005 and the first collection and treatment targets are to be attained by December 2006.

Key requirements of the WEEE Directive include:

- A compulsory household collection by the end of 2006 – a target of 4 kg per household is set and a new target will be set in 2008;
- A compulsory producer responsibility – this ensures that the producers finance the management of consumer electronic and electrical waste;
- Financing - producers are able to use collective or individual financing schemes;
- Measures to decrease the disposal of WEEE by consumers as unsorted municipal waste by the Member States;
- The banned of producers from preventing re-use or recycling of products with "clever chips".
- Treatment costs – the cost of treating historical waste to be shared proportionately between producers in the market when the costs arise.
- Financial guarantees - made by producers (up front) to guard against costs arising from orphan WEEE.

In August 2005, the UK Government announced further delays to the start of producer and retailer responsibility and has stated that the legislation will be transposed in UK law by means of the "WEEE Regulations" in June 2006.

Collection methods have not yet been confirmed, however it is understood that certain sites would be Designated Collections Facilities (DCF) and that the producer will bear the costs for these facilities as set out in the Directive.

One collection method being discussed is the use of Civic Amenity (CA) sites as potential collection points for household WEEE. Due to the delay in the Regulations, the Department of Trade and Industry (DTI) has stated that local authorities would be paid for any costs associated with arranging the treatments required for any televisions and PC monitors containing CRTs and fluorescent lamps which they collect separately and send to a hazardous waste landfill in advance of the WEEE Regulations (DTI website).

End of Life Vehicles Directive 2000/53/EC

The End of Life Vehicles (ELV) Directive came into force on 21 October 2000. Member States should have transposed the Directive into national law by 21 April 2002. The Directive sets out measures which aim, as a first priority, at the prevention of waste from vehicles and, in addition, at the reuse, recycling and other forms of recovery of end-of-life vehicles and their components so as to reduce the disposal of waste, as well as at the improvement in the environmental performance of all the economic operators involved in the life cycle of vehicles and especially the operators directly involved in the treatment of end-of-life vehicles.

Owners must be able to have their complete ELVs accepted by collection systems free of charge, even when they have a negative value, from 1st January 2007 at the latest (earlier in respect of vehicles put on the market on or after 1st July 2002). This has implications for the ELV recovery network which will need to have the capacity to accept, store and treat the ELVs. The legislation also contains targets for the recycling of certain materials from End of Life Vehicles.

Ozone Depleting Substances Regulations No.2037/2000

European Council Regulation No. 2037/2000 on substances that deplete the ozone layer, which came into effect in October 2001, requires Member States to remove ozone depleting substances (ODS) (including CFCs and HCFCs) from refrigeration equipment prior to disposal. This recovery is in addition to the 'degassing' of cooling circuits that local authorities have carried out for some time.

This requirement came into force immediately for industrial and commercial appliances and applied to domestic appliances from 1 January 2002. The introduction of these regulations result in the development of treatment capacity to remove ozone from refrigeration equipment and it is considered unlikely that this treatment capacity will expand significantly in the future.

Proposed Directive on Batteries and Accumulators

This Directive applies to batteries containing lead, mercury or cadmium, and is primarily aimed at controlling the disposal of spent batteries and accumulators (energy storage devices) containing potentially dangerous materials.

The Directive requires Member States to ensure that appropriate systems are in place for consumers to return used batteries. The Directive will also require the re-design of appliances to allow for the easy removal of spent batteries and ban the use of NiCad batteries from 2008. It is envisaged that a Directive will be introduced to set targets for the collection and recovery of consumer batteries, most of which are disposed of in the dustbin.

EC Working Document on Biological Treatment of Biowaste

In 2001 the European Commission issued a second draft of the EU Directive on the Biological Treatment of Biological waste (known as the Biowaste Directive).

The Directive aims to promote the biological treatment of biodegradable waste (e.g. anaerobic digestion or composting) to help meet the Landfill Directive targets for the diversion of biodegradable waste from landfill.

The proposed Directive covers not only municipal waste (including household waste) but also biodegradable residues produced by industry, such as agricultural or food and drink industry wastes.

The draft Directive proposes that local authorities may be required to set up separate collections of biodegradable waste in order to maximise the scope for composting and anaerobic digestion. Urban areas with over 100,000 inhabitants would be required to set up such systems within three years of implementation. Urban area with over 2,000 inhabitants would have five years to do the same.

In order to minimise the waste material left over following biological treatment of municipal waste i.e. contaminants, the draft Directive proposes that separate collections of materials such as packaging, metals and hazardous wastes are undertaken.

In addition, the draft Directive sets out standards for air emissions and leaching, during the treatment of 'biowaste'.

Biowaste management is a crosscutting environmental issue, which impinges upon sustainable resource use and is relevant to the EU's Thematic Strategy on Soil Protection

UK Current and Future Legislation

Waste & Emissions Trading Act 2003

In order for UK to meet its national BMW diversion targets set out in the Landfill Directive the Government has set targets for each Waste Disposal Authority (WDA). Through the Waste and Emissions Trading Act (WET Act), each WDA has been allocated a maximum allowance of BMW that it is permitted to dispose of to landfill in each year between 1st April 2005 and 2020. Failure to achieve these minimum diversion rates will lead to punitive financial penalties.

Landfill Allowance Trading Scheme (England) Regulations 2004

The Landfill Allowance Trading Regulations came into effect on the 1st April 2005. These regulations set out the detail for the operation of the Landfill Allowance Trading Scheme (LATS) and sets out allowances for English authorities up to the period 2020 to allow for long term planning.

LATS is a scheme by which authorities that perform well by diverting more biodegradable waste from landfill than set out in their allowance can trade allowances with authorities that miss their targets. WDA's are able to bank a limited amount of unused allowances to a future year with the exception of the set target years of 2010, 2013 and 2020.

The penalty for non-compliance with the LATS allowance was set at £150/tonne by the Landfill Allowances and Trading Scheme (England) (Amendment) Regulations 2005 that came into force in May 2005. The government has also reserved the right to pass on any European fine imposed by the European Court of Justice on the UK for missing the Landfill Directive targets onto the local authorities who have exceeded allowable levels.

Household Waste Recycling Act 2003

The Household Waste Recycling Act (previously known as the Municipal Waste Recycling Bill) was a Private Members Bill introduced by Joan Ruddock MP. The Act makes provision regarding the collection, composting and recycling of household waste.

The Act requires English Waste Collection Authorities to collect at least two recyclable materials from households separate from residual waste by 2010. Councils with particular difficulties in meeting the demands of the legislation could be granted derogation. The provision of 'comparable' recycling facilities, such as a bring bank or civic amenity site within 100 metres of households, could satisfy the Act's requirements.

The key impact is the adherence to the first legislative requirement for local authorities to collect two streams of recyclable materials from the kerbside. It is anticipated that in many authorities this is already happening, however in areas where it is not, further action will be required or derogation sought whilst suitable infrastructure is developed

Local Government Act (Best Value) 1999

Best value was introduced under the Local Government Act 1999 and became compulsory for all waste collection and disposal authorities from April 2000. The former Department of Environment, Transport and the Regions (DETR) defined 'Best Value' as:

'A duty to deliver services to clear standards – covering both cost and quality – by the most effective, economic and efficient means available' (DETR, 1998).

The Act obliges local authorities to secure continuous improvement in a way that they exercise all their functions "having regard to a combination of economy, efficiency and effectiveness".

At its core, Best Value requires authorities to undertake 'fundamental performance reviews' across all services including collection and disposal contracts. In doing so, authorities are encouraged to take a corporate approach and to focus on cross-cutting issues such as community regeneration, requiring review across service areas and organisations. Best Value includes the following four key features:

- 'Compare' - a continuous process of improving the quality and effectiveness of services, using comparisons and target-setting;
- 'Consultation' - a regular review of all services to find out what the public value most and whether the new delivery systems are more cost-effective;
- 'Competition' - an even-handed approach that doesn't favour either the council or external organisations as service providers; and
- 'Challenge' – a rigorous monitoring and audit system.

Following the introduction of Best Value a new set of Best Value Performance Indicators (BVPIs) was devised in 2000/01. Current BVPIs for waste management include the key indicators of total waste arisings, waste disposal, composting and recycling.

Waste Minimisation Act 1998

The Waste Minimisation Act 1998 enables local authorities throughout the UK (except Northern Ireland) to take steps to minimise the generation of household, commercial or industrial waste. The Act was initiated in 1998 by the Women's Environmental Network. It gives recognition to the fact that local authorities are not just waste collection and disposal authorities, but have duties to promote waste minimisation.

The Act was inserted in after section 63 of the Environmental Protection Act 1990 and allows a local authority to "do or arrange for the doing of, anything which in its opinion is necessary or expedient for the purpose of minimising the quantities of controlled waste, or controlled waste of any description, generated in its area".:

The Act does not place any obligation on authorities to carry out such initiatives or set targets, nor does it allow councils to impose any requirements on businesses or householders in their area. The Act does not actually mean that local authorities have to do anything about waste minimisation.

Landfill Tax Regulations 1996

The landfill tax came into effect on the 1st October 1996. It is a specifically targeted levy on the disposal of waste to landfill, introduced by the government to prompt change in UK waste management. The main aims of the tax are:

- To ensure that the cost of landfill properly reflects its environmental impact, and
- To help ensure that the UK nation targets for more sustainable waste management are achieved.
- There are two rates of landfill tax:
 - A lower rate of £2/tonne for specified inactive or inert wastes. These are wastes which do not give off methane or other gases after disposal and that do not have a potential to pollute groundwater; and
 - A standard rate of £18/tonne is currently applied to all other wastes. In the 2003 budget the Chancellor announced that from 2005 the landfill tax will rise by £3/tonne per year up to a value of £35/tonne.

Animal By-Products Regulations (ABPR) 2003

The Animal By-Products Regulations (ABPR) came into force in England on 1 July 2003 and implement EU Regulation 1774/2002.

The ABPR divides animal by-products into three categories and sets rules for the collection, handling, transport and disposal of animal by-products which include catering waste, former foodstuffs and other animal waste, such as fallen stock.

Category 1 is the highest risk category - including carcasses and materials infected or suspected of being infected diseases such as scrapie in sheep or BSE in cattle, the carcasses of zoo and pet animals, Specified Risk Material (SRM) and catering waste from means of international transport.

Catering wastes are only regulated by ABPR if they are going to composting or biogas, are to be fed to animals or are derived from means of international transport. Otherwise they are not controlled by the ABPR and thus can be disposed of by landfill or other means.

Category 2 is also high-risk material, and includes diseased animals, animals that die on farms and which do not contain SRM at the point of disposal and animals which are not slaughtered for human consumption.

Category 3 is essentially material which is fit (but not intended) for human consumption and as such includes parts of slaughtered animals, blood, raw milk, fish caught in the open sea, and shells. Permitted disposal methods include treatment in a biogas or composting plant.

Transitional Measures

Some transitional measures were introduced to allow industry and those concerned time to adapt to the requirements of the Regulation. The main transitional measures still in place allow for the collection and disposal of certain types of former foodstuffs from food manufacturing premises and retail outlets, until 31 December 2005. After December 2005 former foodstuffs from retail outlets will be treated as Category 3 animal by-products and may no longer be disposed to landfill. Former foodstuffs include items such as out of date foods of animal origin. Certain storage requirements will also apply.

Therefore food waste from retail outlets can no longer be disposed to landfill from December 2005. Alternative disposal routes will be required. Food waste collected from commercial and retail premises, if sent for treatment in a biogas or composting facility must be carried out in a two stage composting facility, e.g. an in-vessel or Anaerobic Digestion facility. Food wastes which are not animal by-products (such as out of date fruit and vegetables) can continue to be disposed to landfill as long as they are separately collected and not mixed with any food waste containing animal by-products.

Waste Incineration (England and Wales) Regulations 2002 (SI 2980)

The Waste Incineration Regulations transpose the Waste Incineration Directive, 2000/76/EC (WID). The WID incorporates and extends the requirements of the 1989 Municipal Waste Incineration Directives (89/429/EEC and 89/369/EEC) and the Hazardous Waste Incineration Directive (94/67/EC), forming a single Directive on waste incineration.

The Directive applies to incineration and co-incineration plants. Coincineration includes plant where waste is used as a fuel or is disposed of at a plant where energy generation or production is the main purpose. A plant will only be classed as an incineration or co-incineration plant if it burns waste as defined in the Waste Framework Directive. Such wastes will include municipal waste, clinical waste, hazardous waste, general waste and waste-derived fuels.

There are some important exclusions from the scope of the Directive, including plants burning only animal carcasses and in many circumstances, vegetable and wood waste. The regulations include the following definitions:

- incineration “an incinerator dedicated to the thermal treatment of wastes with or without recovery of the combustion heat generated” and
- co-incineration is incineration in which the “main purpose is the generation of energy or production of material products and:
 - which uses wastes as a regular or additional fuel; or

- in which waste is thermally treated for the purpose of disposal

Environmental Protection (Duty of Care) Regulations 1991 (SI 2839) (England and Wales & Scotland) (as amended)

There is a duty of care in respect of waste, placing responsibility for that waste on any person who produces, imports, carries, keeps, treats or disposes of controlled waste, or as a broker has control of such waste. This includes Waste Collection and Waste Disposal Authorities and Unitary Authorities.

The duty of care is designed to be an essentially self-regulating system that is based on good business practice. It places a duty on anyone who in any way has a responsibility for controlled waste to ensure that it is managed properly and recovered or disposed of safely.

These regulations establish a mandatory system of transfer notes, which must be completed when waste is transferred. A Code of Practice recommends the following series of steps for holders (including producers) of waste, which should normally be enough to meet the duty:

- prevent the escape of waste in their control;
- transfer it only to someone who is authorised to accept it;
- ensure that it is handled lawfully by others; and
- upon transfer provide details of the waste including a written description.

The Landfill Regulations in England and Scotland amended the Duty of Care regulations to require the transfer note to include a European Waste Catalogue code.

Hazardous Waste Regulations 2005

In July 2005, new controls on Hazardous Waste came into force in England, Northern Ireland and Wales. The regulations replace the previous Special Waste regime.

The change in UK legislation brought into force the revised European Waste Catalogue (EWC). The EWC has been combined with the Hazardous Waste List (HWL) to provide an extended list of wastes. The list indicates which wastes are classified as hazardous. A waste may be classified as hazardous if it has an 'absolute' entry on the EWC, or if it has an asterisked entry or 'mirror' entry, meaning the waste is only hazardous if it meets certain threshold criteria relating to the nature of the waste.

The key impacts of the regulations include the replacement of the term 'Special Waste' with 'Hazardous Waste', and the likelihood of increased hazardous waste arisings, given that more waste is classified as 'hazardous'

than was classified as 'special'. Examples of 'new' hazardous wastes include fluorescent light tubes, televisions and dental amalgam.

Wider Strategic Context

This section identifies any key themes from plans or strategies that may impact upon Merton's Waste Strategy. It also considers the Mayor's Municipal Waste Strategy which will be a key driver for the strategy. The wider review demonstrates that waste management policies can contribute to the achievement of wider sustainability issues.

The following documents have been identified as having a possible impact on waste management and the development Merton's Waste Strategy:

- Merton's Unitary Development Plan (UDP)
- Merton's Community Plan Framework Document 2005 – 2015 (Consultation Version 1)
- Mayor's Municipal Waste Strategy
- The Joint Waste Partnership

Some of the key links with other strategies are outlined below

Mayor's Municipal Waste Strategy

The Mayor's strategy sets out a clear vision of where London should be in 2020 in relation to all areas of waste management. The document presents a set of policies and proposals which focus on the period 2005/06. The key issues are:

- London will aim to exceed the recycling and composting Best Value Performance Standards for waste authorities set out by the Government;
- Waste authorities should consider options to maximise the reduction, recycling and composting of municipal waste from all sources before considering the recovery of materials and energy from municipal waste;
- All London boroughs must introduce collection from homes of materials for recycling except where impracticable, in which case effective 'bring' recycling facilities should be maintained and extended where they exist and should be developed in areas where they don't. Home composting and community composting should be promoted;
- The Mayor wants to encourage the development of new and emerging advanced conversion technologies for non recyclable residual waste and new waste treatment methods;

- The Mayor encourages unitary authorities to work together in groups and devise joint strategies; and
- The Mayor is keen to develop a single waste disposal authority which would cover the whole of the London area.

Merton's Waste Strategy will ensure that the key issues from the Mayor's Municipal Waste Strategy are included in the strategy. In line with the Mayor's Municipal Waste Strategy, Merton's Waste Strategy will ensure that meeting recycling targets, working in partnership with other boroughs to develop a joint strategy and the waste hierarchy will be included.

For further information regarding the Mayor's Municipal Waste Strategy see http://www.london.gov.uk/mayor/strategies/waste/doc_download.jsp

Merton's Unitary Development Plan (UDP)

The Unitary Development Plan 2003 is a statutory development plan for the whole of the Borough up to 2016. Its purpose is to guide development in the Borough and is essentially concerned with land use planning and integration of planning with environmental concerns.

The strategy provides an overview of the main aims and objectives of planning policies in Merton within the south west London context.

The UDP proposes policies on:

- Waste minimisation and waste disposal

The policy states that the council will seek to ensure that major industrial and commercial developments minimise their waste arising in line with the waste hierarchy and dispose of it in a sustainable manner. These developments will be encouraged to adopt environmental management schemes for the treatment and disposal of waste and planning obligations may be sought in respect of these where appropriate.

- Waste facilities

The policy on waste facilities states that applications for waste management facilities will not be permitted outside the designated industrial areas. The council will assess applications for waste management facilities against a number of criteria.

- Recycling points

The policy states that new residential, retail, leisure and business developments will be expected to provide recycling collection facilities. Where collection facilities cannot be provided on site, their provision in a location off site will be sought by the use of planning obligations.

- Energy efficient design and use of materials

The policy states that the council will encourage the energy efficient design of buildings and their layout and orientation on site. The use of sustainable building materials and the re use of materials will also be encouraged as will the use of recycled aggregates.

In line with the UDP, the Borough's Waste Management Strategy will take into consideration the planning policies identified above which impact on waste management.

For further information on Merton's UDP go to <http://www.merton.gov.uk/planning/udp.htm>

Merton's Community Plan Framework Document 2005 – 2015 (Consultation Version 1)

Merton's Community Plan is a 10 year plan that aims to improve the quality of life in the area. The plan details the overall vision for Merton and a framework of principles that underpin the way in which specific outcomes will be achieved. The principles are aimed at securing a sustainable future for Merton. It outlines a set of objectives to guide decision making

The community plan considers the environment of Merton and in particular waste management, commenting on recycling targets, the EU Landfill Directive, Waste Strategy 2000 and The Mayor's Municipal Waste Strategy. It also acknowledges that there is a hierarchy to the approach that should be taken when considering the sustainable management of waste in the future.

The policies/aims with relevance to waste management are as follows:

- Reduction of overall consumption
- Selective consumption – maximum use of secondary materials, durable, repairable and recyclable products
- Waste minimisation
- Re-use
- Recycling (including composting)
- Recovering materials and energy from residual waste
- Disposal to landfill as a last resort on a minimal level.

The objectives in the Community Plan specifically relating to waste management are:

- Sustainable approach to waste and energy – includes meeting recycling targets, ensuring that the appropriate waste treatment and disposal technologies will be procured, generating 10% of Merton's energy usage from renewable energy by 2015

- Public act sustainably by choice – includes coordinating a strategy to work with schools, businesses and the community to commit to waste minimisation.

For more information on Merton's Community Plan go to <http://www.merton.gov.uk/communityplan.htm>