BARNSLEY

Metropolitan Borough Council

Municipal Waste Management Strategy

April 2007

Executive Summary

Following the publication of the Draft Municipal Waste Strategy for Barnsley 2003-2020 in July 2003, Barnsley Metropolitan Borough Council (BMBC) has made significant improvements to its recycling and composting performance to achieve all Central Government targets to date. However, there is a considerable need to continue to improve arising from public pressure, legislation setting ever more stringent targets and the escalating costs of waste management.

This new Municipal Waste Management Strategy (MWMS) for Barnsley covers the period up to 2030 and devises a framework of policies to deliver more sustainable waste management practices within Barnsley to move the management of waste up the waste hierarchy (based on the reduce, re-use, recycle and recover themes).

This Strategy particularly focuses on diverting the biodegradable waste fraction (e.g. kitchen waste, garden waste, cardboard etc) of municipal waste away from landfill in response to the Government's Landfill Allowances Trading Scheme (LATS). LATS allowances have been allocated to all English Waste Disposal Authorities, including Barnsley, for the period up to 2020 and relate to the quantity of biodegradable waste that they can send to landfill. They are fixed and decrease year on year to ensure that the UK meets its EU Landfill Directive obligations. Trading allows authorities to meet their LATS obligations in the most cost effective way.

The new Strategy has been derived through a series of options Appraisals of each tier of the waste hierarchy (Waste Prevention and Re-use, Recycling and Composting and Residual Waste Management). These Option Appraisals assess a number of realistic options against robust decision-making criteria to derive a Strategy for Barnsley, which will provide the greatest social and economic benefit without causing significant harm to the environment.

Waste Prevention & Re-use

The year on year increase in waste arisings is one of the most significant waste management problems that BMBC has to deal with. The key reasons for this growth are that more people are moving into the Borough, more people are living on their own leading to increased waste arisings per person, increased economic growth, increased levels of packaging on products and the consumer based 'disposable' society.

We already operate and promote a range of waste prevention and re-use schemes within the Borough, including a home composting bin promotion, segregated weekly collection service and non-collection of side refuse. We propose to provide resources to promote waste prevention and re-use alongside recycling and composting services through a sustained and coordinated waste awareness campaign aimed at householders. If resources allow, this may be extended to local businesses and industry.

In addition, BMBC are actively lobbying Central Government, Regional Government, manufacturers and retailers to reduce waste packaging through our involvement in an independent and cross-sector group called Waste Action Forum. We plan to continue this work and engage in other initiatives that have the overarching goal of reducing waste generated in the Borough.

Recycling & Composting

Barnsley has made significant improvements to its recycling and composting performance in recent years. Prior to the introduction of kerbside collections, the recycling rate within Barnsley was just 2.9%. With the introduction of kerbside collections, the recycling rate has increased annually and was 19.9% in 2005/06. This has meant that we have achieved all our Central Government targets to date.

With future targets becoming more stringent, we will continue to improve the existing range of recycling/composting services and facilities through kerbside collections, Household Waste Recycling Centres (HWRC) and Bring Sites, to ensure recycling is convenient and second nature to the residents of Barnsley.

BMBC operated a segregated weekly collection service pilot study, where residual waste is collected on an alternating fortnightly cycle with green waste (garden waste and cardboard) and dry recyclables (glass, paper and cans) to 26,000 properties within the Borough. This service was very successful at promoting waste prevention, increasing participation in recycling and most importantly, diverting biodegradable waste away from landfill. We therefore plan to roll out the segregated weekly collection service to the whole Borough by 2009.

To further increase recycling, kitchen waste, which comprises a significant proportion of a Barnsley bin, will added to the segregated weekly collection service. Due to the Animal By-products Regulations, the mixed biodegradable waste will need to be composted under controlled conditions in an in-vessel composting (IVC) facility. No such facility exists locally and BMBC will need to plan, procure and develop such a facility.

Following the roll out of the segregated weekly collection service, the exact need to add more kerbside collections for dry-recyclables (e.g. plastic) will be analysed. The decision will be made on recycling performance, legislation changes, public demand and cost efficiencies.

HWRCs and Bring Sites will continue to provide additional capacity to householders for recycling. These facilities will be under continuous review by BMBC and emphasis will be placed on providing additional recycling facilities for waste types that cannot be recycled at the kerbside due to current economic factors (e.g. plastics).

Residual Waste Treatment

With waste growth reduced, and recycling and composting set to hit 45%, there will be still 55% of the waste stream left to deal with. This residual waste fraction is currently sent to landfill, which will not be possible in the future due to LATS penalties and its environmental impacts.

Independent consultants undertook a Best Practicable Environmental Option (BPEO) appraisal to assess various alternative waste management technologies. The key decision-making criteria used within the appraisal were;

- compliance with LATS;
- protection of the environment;
- minimise cost of waste management;
- deliverability of technical solution (i.e. ability of the industry to deliver a technical solution that is proven for municipal waste management);

- reliability of delivery (i.e. public acceptance and achievement of planning permission).

The technologies considered included:

High Recycling with Landfill	The Borough's recycling target is 45% achieved by a comprehensive kerbside collection service, HWRCs and Bring Sites. An IVC is constructed to treat the segregated green and kitchen wastes. The remaining waste is sent to landfill.
Energy from Waste (EfW)	EfW plants burn waste under controlled conditions, to reduce its volume, hazardous properties and to generate electricity and/or heat.
Mechanical Biological Treatment (MBT) – Refuse Derived Fuel (RDF)	MBT-RDF plants involve chopping, shredding and screening the residual waste using manual and mechanical processes. The resulting waste fractions are recycled (5%), RDF (50%), which is sent to an industrial or EfW facility for thermal treatment and residual fraction, which is sent to landfill. 20% moisture lost also occurs during the process.
MBT – Anaerobic Digestion (AD)	In this version of MBT, the organic rich fraction is biologically treated to reduce its volume and stabilise it. The end product can be used as landfill cover. A fraction can also be burnt as a fuel to generate electricity.
Advanced Thermal Treatment (ATT)	ATT comprise two new technologies, Pyrolysis and Gasification, which use heat to treat residual waste.

The BPEO assessment identified thermal treatment in the form of an EfW facility as the preferred option for the treatment of Barnsley's residual waste. This is due to compliance with LATS obligations, comparatively lower waste management costs, a UK proven technology and protection of the environment. The advantage of an EfW plant over gasification is that there is considerable experience of EfW plants in the UK compared to gasification.

One alternative to an EfW plant is an MBT-RDF facility, however this still involves thermal treatment of the RDF end-product and significant quantities of materials being sent to landfill.

BMBC essentially has two choices for the treatment of residual waste. One is that all residual waste is sent directly to an EfW plant or alternatively residual waste is sent to a MBT-RDF plant for processing and then the end-products are sent to an EfW and landfill. Both choices therefore involve some form of thermal treatment.

BMBC considers that the preferred strategy for Barnsley is to provide household segregated collections for dry recyclables and compostible waste, which is treated by an IVC facility and to develop a sensitively scaled EfW plant to deal with the remaining residual waste. This solution is in accordance with the waste hierarchy and is considered to provide the greatest social, economic and environmental benefits. It also allows BMBC to achieve its

future recycling/composting targets and obligations under the EU Landfill Directive (and avoid significant financial penalties in the long term).

The preferred option may not necessarily be the delivered waste management solution for Barnsley. As there are many influences that are outside the scope of the BPEO assessment, BMBC will therefore consider all management solutions for residual waste that take account of the following principles:

- Diversion of waste from landfill is beneficial.
- Energy recovery through thermal treatment is favourable.
- MBT technology has uncertainty of markets for RDF that needs to be overcome.
- Improvement of the recycling/composting performance is beneficial and can aid the diversion of biodegradable municipal waste, reducing the scale of the residual treatment facility.
- Use of a third party treatment facility is a potential option if available locally.

Planning

The actual location of the new waste management infrastructure will be covered within the two new Waste Management Sites Development Plan Documents (DPDs), which form part of the Local Development Framework for Barnsley. A joint South Yorkshire DPD is proposed to allocate sites for strategic waste management (e.g. for EfW). Each Council will produce a second DPD to allocate sites for local small-scale waste management and other waste management purposes (e.g. industry and commercial). The DPDs will be used alongside the Council's Core Strategy to determine planning applications regarding waste management in Barnsley.

LATS Strategy

BMBC have devised a strategy regarding the problem of the ever-decreasing LATS allocations. Assuming kitchen waste is collected from the kerb-side, BMBC will meet its LATS obligations in 2008/09 through banking the previous years allowances. BMBC cannot use banked allowances in the first target year (2009-10) and the Council will either have to trade in LATS or pay the LATS penalties of around £1.5 million (significantly lower than £3 million under the business as usual scenario).

The Council will not meet its LATS obligations in 2010/11 and 2011/12, however trading may mitigate the deficit in 2010/11. However once the new waste management infrastructure is in operation, BMBC will be able to sell a significant proportion of its LATS allowances and generate an income for the Authority.

Implementation

A Consultation Strategy, Action Plan, Monitoring Programme and Risk Assessment have been developed to ensure that the Strategy is implemented. During the critical implementation phase, these documents alongside the MWMS will be continually reviewed.

Significant investment is required to implement this Strategy, but if we carry on as normal, waste management costs and LATS penalties will be significantly higher (approximately £6 million a year). BMBC is actively examining ways to deliver the strategy and one potential solution is to work

with neighbouring authorities. Doncaster and Rotherham MBCs are considered to be our most likely partners and initial work has already started. However Barnsley will keep all its options open, as it is so critical that we implement this Strategy.

CONTENTS

ABBREVIATIONS

In this document you will encounter the following terms:

AD	Anaerobic Digestion
ATT	Advanced Thermal Treatment
BPEO	Best Practicable Environmental Option
BMBC	Barnsley Metropolitan Borough Council
BVPI	Best Value Performance Indicator
DEFRA	Department for Environment, Food and Rural Affairs
DPD	Development Plan Document
EfW	Energy from Waste
EU	European Union
IVC	In-Vessel Composting
HWRC	Household Waste Recycling Centre
LATS	Landfill Allowances Trading Scheme
LDF	Local Development Framework
MBT	Mechanical Biological Treatment
MRF	Materials Recovery Facility
MWMS	Municipal Waste Management Strategy
PFI	Private Finance Initiative
RDF	Refuse Derived Fuel
SEA	Strategic Environmental Assessment
SPD	Supplementary Planning Document
UDP	Unitary Development Plan
WEEE	Waste Electrical and Electronic Equipment
WDA	Waste Disposal Authorities
WRAP	Waste and Resources Action Plan
WIP	Waste Implementation Programme

1. Introduction

What is a Municipal Waste Management Strategy?

1.1 Barnsley Metropolitan Borough Council (BMBC) published its Draft Municipal Waste Strategy for Barnsley 2003-2020 in July 2003 in order to develop a framework to deliver more sustainable waste management practices within the Borough. Many of the measures proposed have been implemented and recycling rates within the Borough have already increased significantly, however there is still a long way to go.

1.2 The existing Draft Municipal Waste Strategy for Barnsley makes a commitment to maintain a watching brief on new and emerging technologies for the treatment of residual waste (what is leftover after reuse, recycling and composting initiatives) in order to remove Barnsley's reliance on landfill as a final disposal option.

1.3 With the introduction of new European legislation, the UK including Barnsley, can no longer rely on landfill disposal and therefore waste management will need to be transformed nationally over the next 20 years. It is essential to manage this process at a local level through a clear and structured strategy to guide important decisions and commitments.

1.4 BMBC needs to update and revise its Draft Municipal Waste Strategy in accordance with the requirements of the new legislation. To help local authorities, like Barnsley, the Government has released the following guidance on Municipal Waste Management Strategies (MWMS):

- Guidance on MWMSs, Department for Environment, Food and Rural Affairs (DEFRA) (July 2005)
- A Practice Guide for the Development of MWMSs, DEFRA (November 2005)

1.5 The structure and content of this revised MWMS for Barnsley is based on the above documents. The MWMS for Barnsley comprises a series of documents and the key documents are:

- **Headline Strategy** sets out the agreed objectives of the Strategy and provides a route-map of how these will be achieved.
- **Action Plan** provides a timetable of events and decision-making processes to achieve the long-term strategic vision of the MWMS.

1.6 A series of background documents have been produced to provide an evidence base for the Strategy and transparency in the decision making process. They have evaluated key options for service deployment that seek to deliver sustainable waste management. The background documents are:

- Baseline Report
- Waste Prevention and Re-use Options Appraisal
- Recycling and Composting Options Appraisal
- Environmental Options Assessment for Municipal Waste in Barnsley (undertaken by independent consultants) (Residual Waste Treatment Options Appraisal)
- Sustainability Appraisal Report

1.7 This document is the Headline Strategy and is a statement of the key objectives, targets and the policies being introduced to ensure that they are

met. It is based on the robust baseline information and the findings of the technical option appraisals. The Headline Strategy provides responses to the following questions in terms of waste management:

- Where are we today?
- What we have achieved already?
- Why we need to change?
- Where do we want to get to?
- What do we need to do to get there?
- How do we implement the MWMS and keep it on track?

Timescale

1.8 This Strategy covers the period up to 2030. However the proposed major waste management facility could be built in 2012 and would take 25 years to be financially viable and therefore could still be in operation in 2037. This provides a time period (2030-37) for BMBC to develop and implement a new MWMS as waste management technologies are likely to have radically changed from what they are now.

1.9 Unfortunately there is considerable uncertainty regarding waste management due to standards, targets and technologies changing frequently. Some parts of the MWMS will be under almost continuous review whenever significant commitments and investments are being considered. Also as part of the MWMS process, we will carry out a full review every 5 years.

Scope

1.10 Municipal waste is waste generated by the householder together with waste that BMBC becomes responsible for such as fly-tipping, street cleaning and commercial waste where the producer has asked the Council to collect it.

1.11 Some Central Government targets are for the household waste fraction of municipal waste, which in addition to waste collected from households includes waste arisings from Household Waste Recycling Centres (formerly known as Civic Amenity Sites), Bring Sites, street cleaning and roadside gully emptying.

1.12 This Strategy does not cover industrial, commercial and agricultural wastes. This sector of the Borough's waste is regulated by the Environment Agency and at present, the vast majority of it also ends up in landfills. To influence this sector, Barnsley needs to act in partnership with the other local authorities and agencies operating at a regional and sub-regional level. Plans for the alternative disposal routes for these waste streams will be considered in the Waste Management Sites Development Plan Document (DPD) as part of the Local Development Framework (LDF).

Consultation

1.13 BMBC undertook a consultation exercise on the draft MWMS for Barnsley 2006-30 in September and October 2006. The consultation is detailed within the Consultation Report and is summarised here.

1.14 A consultation leaflet and questionnaire was distributed to the people of Barnsley and 135 completed forms were returned. The responses to the questionnaires were generally supportive to the overall aims of the Strategy. 80.7% of the questionnaires stated that Energy from Waste was the preferred option to treat Barnsley.

1.15 The consultation also targeted statutory groups, non-government organisations, regional government, waste and recycling partners and neighbouring local authorities. This final MWMS takes account of their comments.

1.16 If you would like a copy or extract of this document in audio format, large print, Braille or in Hindi, Urdu, Punjabi, Chinese, Polish, Albanian, Russian or another language other than English, please call 01226 772567 for this to be arranged.

यदि आपको इस दस्तावेज़ की हिन्दी, उर्दू, पंजाबी, चीनी, पोलिश, अलबेनियन, रूसी या बरेल में कापी चाहिए, तो कृप्या सम्पर्क कीजिए।

اگر آپکو اِس دستاویز کی کاپی ہندی، اُردو، پنجابی، چینی، پولش، البانین، روسی یا بریل میں چاہئے تو براہِ مہربانی ہم سے رابطہ قائم کریں:

ਜੇਕਰ ਤੁਹਾਨੂੰ ਇਸ ਦਸਤਾਵੇਜ਼ ਦੀ ਪੰਜਾਬੀ, ਹਿੰਦੀ, ਉਰਦੂ, ਚੀਨੀ, ਪੋਲਿਸ਼, ਅਲਬੇਨੀਅਨ, ਰੂਸੀ ਜਾਂ ਬਰੇਲ ਵਿਚ ਕਾਪੀ ਚਾਹੀਦੀ ਹੋਵੇ ਤਾਂ, ਕ੍ਰਿਪਾ ਕਰਕੇ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰੋ।

如閣下需要此份文件之其他文字翻譯版本，我們可提供的有：印地文、烏爾都文、旁遮普文、中文、波蘭文、埃塞俄比亞文、俄文、和盲人凸字版，請與我們接洽。

Gdybyś chciał kopię tego dokumentu w języku Hinduskim, Urdu, Punjabi, Chińskim, Polskim, Albańskim, Rosyjskim lub wypukłym piśmie dla niewidomych, proszę się skontaktować z nami.

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Partnership Arrangements

1.17 It is vital that BMBC and other key stakeholders develop effective partnerships at all levels in order to develop a coordinated approach to delivering sustainable waste management in the Borough. During the development of the MWMS, BMBC has already started to build partnerships both internally within the Council and regionally with neighbouring authorities. The effectiveness of its partnerships is a key measure of the long-term success of the Strategy.

1.18 There are a number of groups that will be involved in implementing Barnsley's MWMS:

- National Government – DEFRA provides national legislation and guidance on all aspects of municipal waste management. The Waste and Resources Action Programme (WRAP), the Waste Implementation Programme (WIP) and the Local Authority Support Unit all support local authorities in respect to waste management.
- Regulators – the Environment Agency ensures that facilities for processing dry recyclables, composting collected organic material and

treating residual waste meet all environmental requirements on emissions to air, water and land.

- Regional – Yorkshire & Humber Assembly provide regional planning guidance. Potential joint working with neighbouring local authorities to design, procure and implement the delivery of new waste management facilities for the treatment of the region's waste.
- BMBC – production and implementation of the MWMS, co-ordination of kerbside collection service, coordination of waste awareness campaigns, provision of facilities for recycling and composting, procuring a new waste management contract, and ensuring that any new treatment facilities are sited in accordance with the policies in the LDF.
- Waste management companies – operating recycling, composting and disposal services and providing capacity for any landfilled waste.
- Voluntary groups including North Barnsley Partnership and Barnsley Chamber of Commerce – providing and assisting in local re-use and recycling schemes within the Borough.
- Commerce and Industry – reducing waste arisings by, for example, reducing the amount of packaging required for products, and increasing the amount of material that they recycle.
- Public – actively participating in both waste reduction and recycling activities. The public will also have an important role in the continuing consultation as the strategy is implemented, particularly with regard to the provision of new waste management infrastructure.

1.19 BMBC's Planning and Transportation Service (Sustainability Group) within the Development Directorate is responsible for producing this Strategy in partnership with the Waste Management Service within the Council's Environmental Services Directorate. Waste and Mineral Planning Officers were also actively involved in the development of the Strategy.

1.20 The Council's Waste Management Service is responsible for implementing the MWMS to ensure the management of waste is moved up the waste hierarchy in a sustainable manner and that BMBC achieves Central Government's targets for recycling/composting and diverting biodegradable waste away from landfill.

1.21 The Council and Groundwork Dearne Valley joint organisation called Neighbourhood Pride is responsible for the cleanliness of Barnsley. BMBC's Environment Regulatory Services Unit enforces the relevant legislation and a programme of education regarding dog fouling and straying, littering, fly tipping, abandoned vehicles and other environmental problems.

1.22 The Environment Partnership is the executive board for environmental issues for Barnsley and one of its key priority areas is waste recycling and energy conservation. The Partnership will work closely with the Council's Environment Forum, whose membership includes representatives from local businesses and industry, to promote the waste agenda in these sectors.

Links to Other Strategies, Plans and Programmes

1.23 The MWMS for Barnsley must also align with existing national, regional and local frameworks and link into the strategic goals of BMBC, which are summarised below.

Strategic Environmental Assessment (SEA)

1.24 The EU Directive on SEA was implemented in England and Wales in July 2004. The objective of the Directive is '*to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development*'. SEA is a formalised, systemic and comprehensive process designed to ensure that significant environmental effects arising from proposed plans and programmes are identified, assessed, subjected to public participation, taken into account by decision-makers and monitored.

1.25 As part of an SEA, an appraisal of the options available to delivering the plan and/or programme is required using decision-making criteria relating to social, economic and environmental effects. An SEA has been undertaken on the MWMS policies and is reported in the Sustainability Appraisal Report.

Yorkshire & Humber Regional Waste Strategy 'Let's take it from the tip'

1.26 The first Regional Waste Strategy (RWS) was published in 2003. It set out the aims and objectives of the Region in relation to waste. The draft planning policies in the RWS were subsequently refined and formally issued in the Selective Review of Regional Planning Guidance 12 in 2004.

Yorkshire and Humber Regional Spatial Strategy

1.27 The Government has made radical changes to the planning system, which has changed the way development plans are drawn up across England. The new provisions are made in the Planning and Compulsory Purchase Act, which came into force at the end of September 2004.

1.28 This review introduced the Regional Spatial Strategy (RSS) to replace Regional Planning Guidance. The Yorkshire and Humber Assembly submitted its draft RSS in 2005. A formal examination in Public in September to October 2006 discussed the Draft, including the waste policies. The Inspectors report is expected early 2007, with the RSS being issued by Government at the end of 2007.

1.29 Government Planning Policy Statement 10 (PPS10) indicates that Regional Spatial Strategies should aim to provide sufficient opportunities to meet the identified needs of their area for all the waste streams (commercial, municipal etc). The RSS sets out "Apportionments", which are waste tonnages requiring management/treatment by district (e.g. Barnsley) within the region.

1.30 The guidance contained in the RSS has a statutory status and is therefore part of the formal development plan for Barnsley.

Local Development Framework (LDF)

1.31 BMBC is required to prepare a LDF, which will be made up of a portfolio of Development Plan Documents (DPDs). This will replace the Unitary Development Plan (UDP) at the point of adoption but until that time the UDP will be used as the policy framework for planning decisions.

1.32 The LDF will include several DPDs and a number of Supplementary Planning Documents (SPDs). The DPDs, along with Regional Spatial Strategy, will

form the Council's Development Plan and will be the basis upon which all planning decisions are made.

1.33 The LDF for Barnsley has to consider the policies of the RSS and this MWMS in order to allocate a range of sites for waste management facilities to support the delivery of more sustainable waste management practices within the Borough.

Neighbouring authorities MWMSs

1.34 The MWMS has taken into account the existing waste strategies of neighbouring authorities, especially where there is potential for partnership working to deliver new waste management infrastructure.

1.35 BMBC has a history of partnership working with the neighbouring Metropolitan Boroughs of Doncaster and Rotherham since the abolition of South Yorkshire County Council in 1986. All three authorities have their waste disposal contracts with the Waste Recycling Group and all three contracts are timed to terminate in 2008. The three authorities worked closely together to formulate a joint authority tender document for the management of HWRCs. The joint contract covers 14 sites across the sub-region and has been operating since 2002. Joint working continues on a regular basis between the authorities as the options regarding future waste management activities are considered and evaluated.

BMBC Strategic Goals

1.36 BMBC`s mission statement is "*to improve the social, economic and environmental well-being of Barnsley by working with, and on behalf of, all those who live, invest or work in the Borough."*

1.37 The Local Authority has a statutory duty to deliver services to the residents of the Borough following the principles of "Best Value". The statutory duties and performance frameworks relating to waste management are the responsibility of the Environmental Services Directorate. The full details of the Best Value reviews can be seen in Barnsley's Best Value Performance Plan on the BMBC website[1].

1.38 The principles of Best Value:

- *Challenging* why and how a service is being provided;
- *Comparing* their performance with others;
- Embracing *Competition* as a means of securing efficient and effective services; and
- *Consulting* with local taxpayers, customers and the wider business community.

1.39 Local Authorities must also demonstrate that they are achieving continuous improvement in all of their services.

1.40 The duty of Best Value, and its implications in respect of BMBC's waste management responsibilities, is incorporated within the proposals and action plan of this MWMS and incorporates the recommendations of the BMBC Waste Management Best Value Review (2004/05).

[1] www.barnsley.gov.uk

The Barnsley Community Plan

1.41 The Community Plan is prepared by One Barnsley (the Local Strategic Partnership) and is the overarching policy document embodying the aspirations of the whole community and guiding its regeneration activities. The six core principles of the Community Plan are equality of opportunity, equity, diversity, tolerance, inclusion and partnership.

1.42 The over-arching ambition of the Plan is:

"A successful, uniquely distinctive 21st century market town at the centre of a borough that offers prosperity and opportunity for all:

- *a vibrant residential, business and cultural community.*
- *a place of regional and national significance.*
- *known for its economic, creative and cultural success and its outstanding urban and rural environment and quality of life."*

1.43 A significant objective for the MWMS is to facilitate the Community Plan's aim without an increase in waste arisings, which is often linked to increased economic growth.

Other Council Strategies and Policies

1.44 Along with the Best Value Performance Plan and the Community Plan, the principles of the MWMS need to be fully integrated into the business plans of other BMBC's directorates and departments, including:

- Purchasing and Procurement Strategy.
- Environmental Policy.
- Corporate Performance Assessment.

2. Where Are We Today?

2.1 This section is a comprehensive summary of the Baseline Report, which establishes "where we are today" in terms of waste management before any plans are made for the future. The section presents the evidence base underpinning this MWMS.

2.2 As part of establishing "where we are today", consideration is made to the following aspects of waste management:

- What are the future targets?
- What have we achieved already?
- Why we need to change?

Legislation and Policy

2.3 There is a wide range of European, national, regional and local policies influencing municipal waste management. The key policies that are setting the future targets, which are causing the fundamental transformation of waste management in England are summarised below.

Waste Strategy 2000

2.4 This strategy outlines the need to manage waste in a more sustainable manner and sets out a number of challenging targets for improved waste management in England and Wales. The key targets are:

- Statutory Performance Targets to recover value from 40% of municipal waste by 2005, 45% by 2010 and 67% by 2015 (recover means by recycling, composting, other forms of material recovery and energy recovery);
- To recycle or compost at least 25% of household waste by 2005, 30% by 2010 and 33% by 2015.

Best Value Framework

2.5 To ensure that all Local Authorities contribute to achieve the above national targets, the Government through the Best Value Framework introduced statutory performance standards, as summarised for Barnsley below.

The statutory recycling/composting targets for Barnsley MBC are:

- ***10% of household waste by 2003/04 – already achieved***
- ***18% by 2005/06 – achieved***
- ***20% by 2007/08***
- ***30% by 2010/11***

Review of England's Waste Strategy – Consultation Document (2006)

2.6 The Government proposes to revise England's waste strategy in 2007 to take account of existing waste generation trends and the main challenges now faced by waste management as a whole. In order to meet the national EU Landfill Directive obligations, the consultation document proposed the following targets:

- Statutory Performance Targets to recover value from 53% of municipal waste by 2010, 67% by 2015 and 75% by 2020 (recover includes recycling, composting and energy recovery);

- To recycle or compost at least 40% of household waste by 2010, 45% by 2015 and 50% by 2020.

2.7 The revised strategy identifies waste as a resource and particularly focuses on waste reduction and recovery. The potentially important role of thermal treatment facilities in the treatment of residual waste is also explored. Financial incentives are to be considered to develop markets for refuse-derived fuels and the delivery of thermal treatment facilities.

EU Landfill Directive

2.8 The EU Landfill Directive endeavours to raise standards in landfill practice and involves two general principles: firstly significantly reducing the amount and nature of waste going to landfill and secondly tightening the regulation and management of landfill. The Directive aims to reduce the quantities of greenhouse gases (methane and carbon dioxide) released from landfills by setting a timetable for the progressive reduction of biodegradable municipal waste going to landfill. The national targets are;

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

2.9 Biodegradable waste is the fraction of municipal waste that will break down releasing greenhouse gases, with or without the presence of air. Biodegradable wastes include kitchen wastes, garden wastes, paper, card, cork and textiles. The Environment Agency assumes that 68% of municipal waste is biodegradable.

Landfill Allowance Trading Scheme (LATS)

2.10 LATS was launched on the 1st April 2005 and Central Government has given allowances to all the English Waste Disposal Authorities (WDAs), including Barnsley, for the period to 2020 to ensure that the UK meets its EU Landfill Directive Targets.

2.11 The allowances relate to the quantity of biodegradable waste, which Barnsley is permitted to send to landfill. They are tied to the amount of municipal waste produced in 2001/02, and that starting point is fixed even through waste quantities are increasing. It is this ever-widening gap between what municipal waste is produced and what can be disposed to landfill that provides the most decisive force for change in the next 20 years. The allowances for BMBC are presented in Table 1.

2.12 The allowances can be traded, banked and borrowed to enable the WDAs to meet their LATS obligations in the most cost effective way. Trading is not mandatory; however it reflects the fact that different WDAs will face different waste diversion costs depending on their situation. WDAs can bank allowances and borrow up to 5% of the next year's allowance. However, allowances cannot be banked out of or borrowed into the target years or the year proceeding a target year as this may cause England to breach its target (see Table 1).

Table 1: Provisional allocation of Landfill Allowances for Barnsley (quantity of biodegradable municipal waste permitted to be sent to landfill)

Year	BMW permitted to landfill*	Banking and Borrowing of Allowances	Trading of Allowances
2005/6	91,095	Yes	Yes
2006/7	85,235	Yes	Yes
2007/8	77,422	Yes	Yes
2008/9	67,655	No	Yes
2009/10 – Target Year	**55,934**	**No**	**Yes**
2010/11	49,708	Yes	Yes
2011/12	43,482	No	Yes
2012/13 – Target Year	**37,256**	**No**	**Yes**
2013/14	35,658	Yes	Yes
2014/15	34,060	Yes	Yes
2015/16	32,462	Yes	Yes
2016/17	30,864	Yes	Yes
2017/18	29,266	Yes	Yes
2018/19	27,667	No	Yes
2019/20 – Target Year	**26,069**	**No**	**Yes**

* Source: www.environment-agency.gov.uk

Financial Penalties

2.13 A fixed penalty of £150 per tonne will be incurred if a WDA including Barnsley breaches its LATS targets in the scheme year. In addition, the Government has reserved the right to pass on any European Fine imposed on the UK, by the European Court of Justice for missing the Landfill Directive targets (in 2009/10, 2012/13 and 2019/20), to the local authorities, which have exceeded their allowances. This could amount to a share in a fine as high as £0.5 million per day until the national target is met.

2.14 In addition, Landfill Tax is rising at annual £3 / tonne increments from the current level of £21 / tonne (2006/07) up to £35 / tonne in 2011/12. This will significantly increase the cost of landfill.

Strategic Principles

2.15 A number of strategic principles are incorporated into European, national, regional and local policies, which must be considered and applied during the development of this MWMS. The principles are:

Sustainable Development

2.16 The most commonly used definition of sustainable development is "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs", which is taken from The 1987 Report of the World Commission on Environmental Development (the Bruntland Report).

2.17 The Government to set the UK on a more sustainable track developed a strategy called 'A Better Quality of Life' (May 1999), which explained sustainable development in terms of four central aims;

- social progress, which recognises the needs of everyone;
- effective protection of the environment;
- prudent use of natural resources;
- maintenance of high and stable levels of economic growth and employment.

2.18 In 2005, the Government developed a new strategy for sustainable development called 'Securing the Future', which sets out five guiding principles that replace the four aims of the old strategy. The five guiding principles are incorporated into the new Planning Policy Statements and are;

- living within environmental limits;
- ensuring a strong, healthy and just society;
- achieving a sustainable economy;
- promoting good governance; and
- using sound science responsibly.

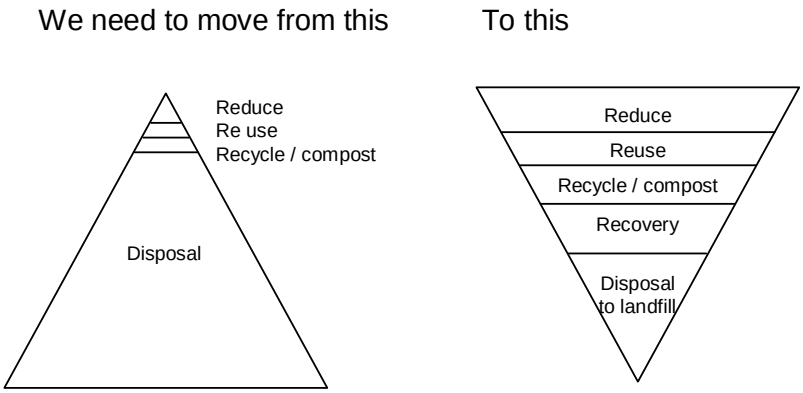
2.19 Waste generation is a Government headline indicator for sustainable development and there are specific indicators aimed at decreasing the amount of waste being sent to landfill for disposal.

2.20 Removing Barnsley's reliance on landfill for disposal of its municipal waste and developing a MWMS, which considers waste as a resource that needs to reduced, re-used or recycled and when this is not possible, a benefit recovered from it (e.g. energy production), would enable Barnsley to contribute to the national and regional sustainability agenda.

The Waste Hierarchy

2.21 The EU Waste Framework Directive introduced the Waste Hierarchy, which is a framework that prioritises the options for waste management. The Waste Hierarchy is illustrated in Figure 1 and shows how we need to move existing waste practices from the least sustainable options (disposal) to the most sustainable option waste prevention and reduce.

Figure 1: The Waste Hierarchy



2.22 The terms within the Waste Hierarchy are defined as follows:

REDUCE	The most effective environmental solution may often be to reduce waste generation in the first place, for example, ensuring products are not over packaged.
RE-USE	Where further reduction is not possible some materials and products can be used again for either the same or a different purpose.
RECYCLING	Where direct re-use is not possible, materials can be recycled or may be used in production processes as secondary raw materials.
RECOVERY	If reduction, re-use or recycling is not possible, the next best thing is to regain as much value from the waste as possible through energy recovery.
DISPOSAL	If none of the previous options offer an appropriate solution only then should the waste be disposed of.

Best Practicable Environmental Option

2.23 The Best Practicable Environmental Option (BPEO) has been defined by the Royal Commission on Environmental Pollution as:

> *'The outcome of a systematic consultative and decision making procedure which 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 and at a acceptable cost, in the long term as well as in the short term.'*

2.24 Waste Strategy 2000 promotes the use of BPEO assessments in order to manage waste in a more sustainable manner and give transparency to the decision making process. However, the BPEO process has been taken out of the recent 'Review of England's Waste Strategy'. A BPEO assessment has still been undertaken as part of this MWMS development as it provides a systemic evaluation of options on the basis of their social, economic and environmental performance. This also forms part of the new SEA process.

The Precautionary Principle

2.25 When dealing with issues of environmental protection the Government has stated that regard must be given to the Precautionary Principle. This means "*where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost effective measures to prevent environmental degradation*".

2.26 The precautionary principle means that it is not acceptable to assume uncertainty that serious damage will happen and implement no measures to prevent it.

The Proximity Principle and Self Sufficiency

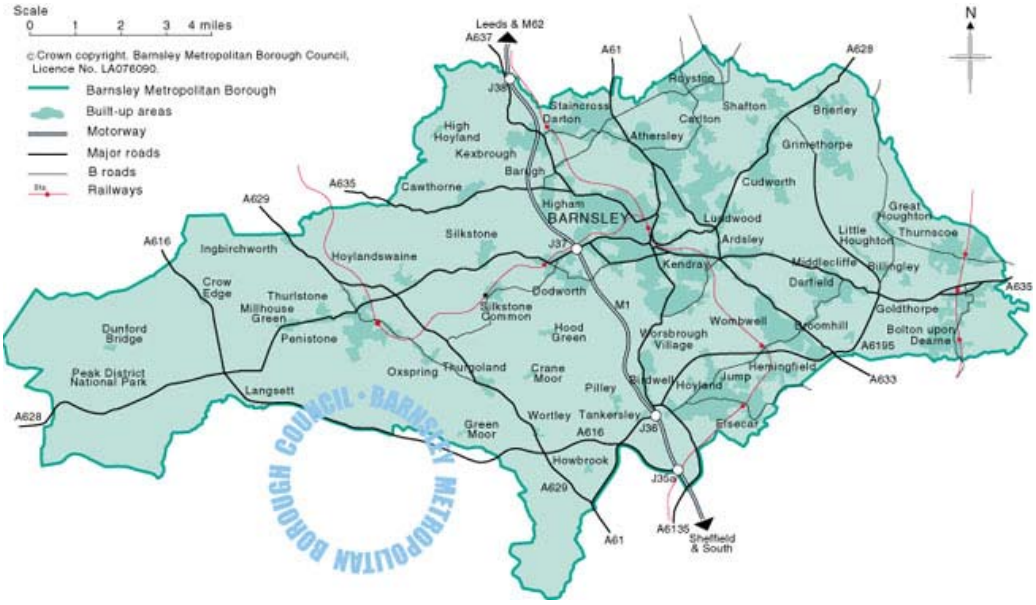
2.27 BMBC will seek to dispose of its own waste within the Borough or, if working in partnership with other neighbouring authorities, within the partnership area in order to limit the environmental impact of transportation and create a more responsible approach to waste generation. However, materials recovered for recycling or reprocessing may be sent further a field to appropriate facilities.

The Barnsley Borough

2.28 Socio-economic and geographical data regarding the Borough provides a background on factors that could influence the quantity and nature of municipal waste in the future and the likely reactions of the communities to new waste initiatives.

2.29 Barnsley is a very varied Borough to the east of the Pennines. It contains ten towns, ranging from Barnsley itself to the former coalfield towns to the east, north and south and the one rural market town, Penistone, in the west and a number of smaller villages. Figure 2 shows the Barnsley Borough.

Figure 2: The Barnsley Borough



2.30 Following a decline in the population of Barnsley at the end of the last century, the Borough's population is now increasing again due to substantial new housing development and was around 221,000 in 2005. Future new housing is planned for Barnsley with an approximately 675 dwellings built per year until 2015. This increase in housing stock has been taken into account in the municipal waste forecasts, which underpin this MWMS.

2.31 Historically the local economy and industry of Barnsley was dominated by coal mining. This has now disappeared and new industries have grown up including manufacturing, construction and service. Significant economic growth is predicted for the Borough over the next 10 years.

2.32 The Borough's economy is linked to the region's economy as it is located close to the flourishing and vibrant cities of Manchester, Leeds and Sheffield and it is estimated that 33% of the working population are travelling out of the borough to work.

Existing Waste Practices within the Borough

2.33 This section provides a summary of the existing waste practices employed by Barnsley MBC.

Kerbside residual waste collections

2.34 The majority of the Council's residual household waste is collected weekly using a wheeled 240-litre bin.

2.35 A segregated weekly collection service was started in 2005 for 26,000 properties within the Borough where residual waste is collected on an alternating fortnightly cycle with green waste and other recyclables. This service was designed by BMBC using waste composition studies of typical waste bins in the Borough to ensure householders convenient access to recycling/composting services and have sufficient receptacle capacity to accommodate the less frequent collections. Households within these areas were given an extra brown 240-litre bin to store the green waste.

Kerbside recyclables

2.36 BMBC introduced a fortnightly kerbside recycling scheme in July 2004 for paper and glass. Paper is collected in a blue bag, and is re-processed in North Wales. Glass is collected within a green plastic box and is processed in Barnsley. Following consultation within the segregated weekly collection areas, wheeled bins have been provided for these materials upon request.

2.37 Green waste (garden waste and cardboard) collected as part of the segregated weekly collection service is taken to a South Yorkshire based contractor for composting. Cans were also formally added to the fortnightly kerbside recycling service as part of the segregated weekly collection service and these are reprocessed in Sheffield and Cheshire.

2.38 The North Barnsley Partnership (Rabbit Recycling) is also currently operating a fortnightly kerbside collection scheme of glass, cans, paper and textiles for 9 000 homes in the north of the Borough (Royston, Carlton, Shafton and Monk Bretton. In May 2006, Rabbit Recycling started a trial to collect waste portable batteries from these households. This trial is funded through WRAP until March 2007. The results of the trial, which involves a wide range of collection methodologies, will be used to inform best practice nationally.

2.39 Waste composition analysis of a typical Barnsley bin shows that 25% is paper and glass, of which only a small proportion (16% and 58% respectively) is being captured by the existing kerbside collection service. Similarly with the segregated weekly collection service only operating in part of the Borough, a very small proportion of green waste (10%), which comprises alongside kitchen food waste 44% of a typical bin, is being captured and diverted from landfill. This shows that there is considerable potential to further increase our recycling/composting performance.

Household Waste Recycling Centres (HWRC)

2.40 BMBC operates four HWRCs within the Borough at Goldthorpe, Barnsley, Penistone and Worsbrough Bridge. The sites are open daily with the exception of Christmas Day, Boxing Day and New Years Day and operate seasonal operation hours (9:30 am to 4.30 pm (9.30 am to 7.45 pm Saturday) October to March and 9.30 am to 7.45 pm April to September). The sites are designed to allow the residents of the borough to dispose of their bulky wastes and certain types of hazardous wastes free of charge. They have controls in place to prevent illegal dumping of trade and commercial wastes at the site.

2.41 Waste types accepted at the HWRCs include batteries, cardboard, chipboard, electrical, fridges, glass, green waste, inert, non-ferrous scrap, oil, paper, plastic, scrap, textiles and wood.

2.42 A contractor currently manages the HWRCs and the contract places emphasis upon the contractor to achieve and maintain significant levels of

material recycling. This is seen as a major contributor to achieving the statutory recycling targets facing the Council.

2.43 HWRCs have achieved very high recycling rates. In 2005/06, they diverted 8,900 tonnes out of 16,653 tonnes they received, representing a recycling rate of 53%. 3,649 tonnes of this was green waste, which was composted, and the rest was recyclables.

Bring Banks

2.44 There are 48 Bring Sites (19 flagship sites) across the Borough, which accept paper, glass, cans, shoes and textiles. A total of 996 tonnes of materials were recycled through the Bring Sites in 2005/06, which is slightly down on previous years. This decrease can be attributed to the introduction of kerbside services.

Other Municipal Waste Streams

2.45 BMBC make charges for hiring skips and collecting bulky household waste to householders within the Borough. Fridges/freezers collected as part of this service are recycled.

2.46 BMBC arrange for the collection of low-grade clinical waste from households and currently make no charge for the service. In 2004/05, 115 tonnes of clinical waste collected by BMBC, which was disposed of by landfill or incineration.

2.47 BMBC will collect commercial waste arising in its area and make a reasonable charge for the service. At present, approximately 2,000 companies (1,500 external and 500 internal) use this service. Rabbit Recycling also collects paper for recycling from over 140 non-domestic sites across the Barnsley Borough.

2.48 The Council has a scheme in place for recycling office quality paper and some cans from vending machines within Council premises.

2.49 The Council's Neighbourhood Pride organisation is responsible for the removal of fly tipped waste within the Borough and grounds maintenance of the Council's parks and open spaces. Approximately 4,000 tonnes of waste arising from these operations was disposed to landfill in 2005/06. All green waste collected by Neighbourhood Pride is composted for re-use as a soil conditioner in parks and landscape projects. All wood waste from the arboricultural team is recycled into woodchip and plans are in place to use this material as biofuel for heating the Council's Smithies depot.

2.50 Abandoned cars are removed by BMBC under current legislation and disposed of using a specialist contractor.

2.51 Waste arisings from street sweeping operations and roadside gully emptying is currently disposed to landfill.

Construction and Demolition Wastes

2.52 Construction and demolition waste comprising clean brick and cement etc, collected the Highways and Engineering Directorate, is used as a commodity and is either re-used or sold.

Disposal of Residual Waste

2.53 BMBC currently use landfill as it predominant disposal route for residual waste through its existing contract with Waste Recycling Group. This contract is due to expire in 2008. In 2005/06, 102,546 tonnes of municipal waste was

sent to landfill by BMBC. This figure needs to be drastically reduced in order to meet future Government targets and decrease waste management costs.

What we have achieved already?

2.54 Table 2 shows that using the existing services and infrastructure; Barnsley has already achieved its recycling targets in 2003/04 and 2005/06.

Table 2: Recycling Rates and Targets

	2001/02	2002/03	2003/04	2004/05	2005/06
Barnsley's BVPI target			10%		18%
Recycling rate	2.9%	6.7%	13%	17.5%	19.9%

2.55 Barnsley has significantly increased its recycling performance from a low baseline of 2.9% in 2001/02 to achieving its statutory targets in 2003/04 and 2005/06. This has been achieved through the high performance of the HWRCs and the introduction of kerbside collections. With the kerbside collections operating, the recycling rate has increased annually and was 19.9% in 2005/06. This is above the target of 18% for 2005/06 and can be partially attributed to a pilot scheme for segregated weekly collections.

Why we need to change?

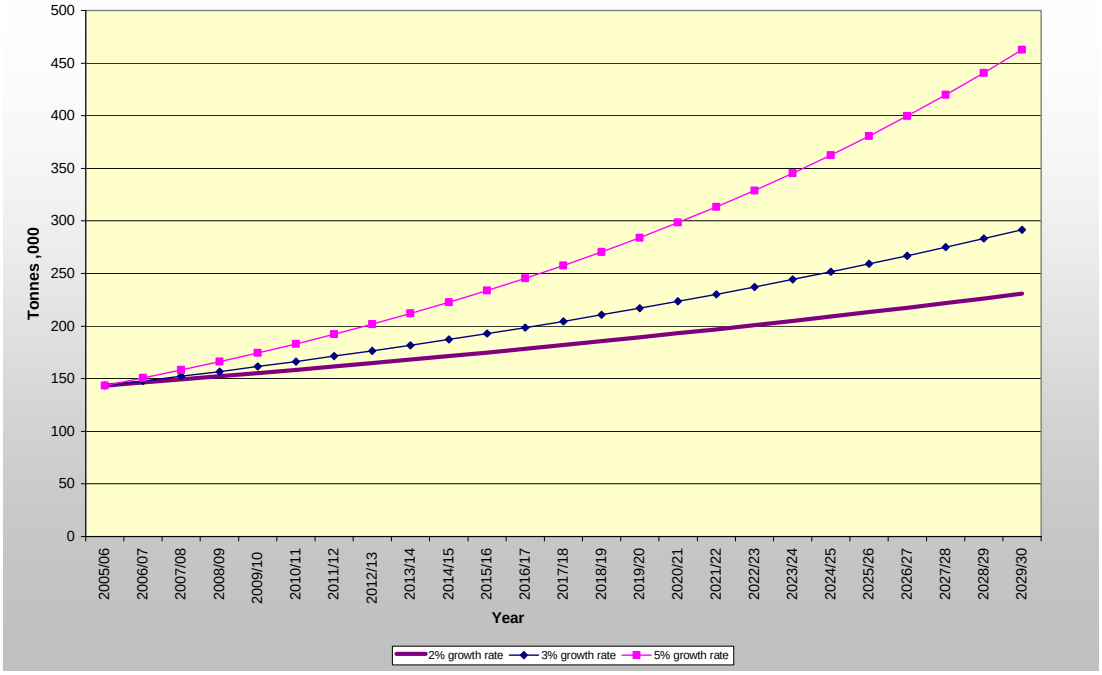
2.56 The three main drivers why we need to change our waste management practices in Barnsley are;

- increased waste arisings year on year;
- more stringent recycling/composting targets; and
- diverting biodegradable waste from landfill to avoid LATS penalties.

Increased waste arisings

2.57 If we make no changes to the way we manage municipal waste in Barnsley, waste arisings will just continue to grow annually at somewhere between 2% and 5%. This is in line with the economic growth of the Borough and the new planned housing development. This will face the Council with increased waste management costs and adding pressure to the Council budget. Predicted business as usual growth rates are shown in Figure 3.

Figure 3: Business as usual waste growth projections



2.58 If we do nothing, municipal waste arisings could grow at 3% to 5% causing waste arisings to double or even treble in the future.

Recycling/Composting Targets

2.59 The future statutory recycling/composting targets for Barnsley are:

- 20% by 2007/08
- 30% by 2010/11

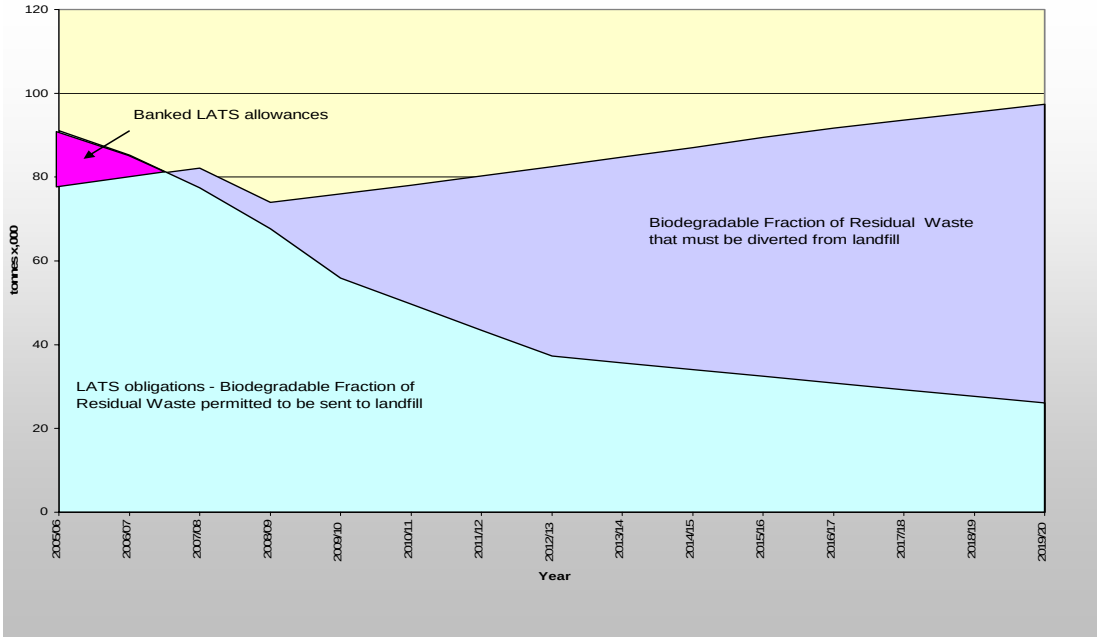
2.60 The recent Government review of England's waste strategy proposes more stringent national targets for waste recovery, recycling and composting. At present, it is unknown whether these will be adopted nationally and what the future recycling/composting targets will be for Barnsley.

Diverting Biodegradable Waste from Landfill

2.61 With the introduction of LATS, it is critical that Barnsley diverts significant quantities of biodegradable material from landfill. We have already started the process with the introduction of the segregated weekly collection service in some areas of the Borough.

2.62 If BMBC roll out the segregated weekly collection service to the entire Borough and we recycle/compost as much as we can using the existing service. We would still have the problem of the ever-widening gap between the biodegradable waste we produce and what we are permitted to landfill. This is illustrated in Figure 4. The area on the right shows the amount of waste that needs to be treated in some other way to divert it away from landfill. Without the segregated weekly collection service, the gap would be even bigger.

Figure 4: The Biodegradable Waste Problem



2.63 BMBC cannot use banked allowances within any of the target years and will therefore need to divert biodegradable waste away from landfill or trade in LATS allowances. At present, there is uncertainty regarding the availability and costs of LATS within the target years and it can be expected that the cost will increase due to market demand.

2.64 If we do nothing, BMBC will fail to meet its LATS obligations in all target years (2009/10, 2012/13 and 2019/20). The Council will face penalty fines of £3 million in 2009/10, £7 million in 2012/13 and £10.5 million in 2019/20, and these fines could be significantly higher as they do not include the potential EU fines. In addition, rising Landfill Tax is significantly increasing the cost of landfill.

3. Where Do We Want To Get To?

3.1 We need to develop a strategic vision for municipal waste management in Barnsley, which is both realistic and achievable, in order to devise policies, which will lead to a fundamental shift in current waste management practices to allow us to comply and potentially exceed future targets for both recycling/composting and divert significant quantities of biodegradable waste from landfill.

Strategic Vision

3.2 It is important to consider the strategic vision of the Government's new draft Waste Strategy for England when formulating the over-arching vision for the MWMS for Barnsley. The Government's strategic vision is based on their sustainable development strategy (Securing the Future, 2005) and is as follows:

> *'Protection of human health and the environment by producing less waste and by using it as a resource whenever possible. Through more sustainable waste management – reduction, re-use, recycling, composting and using waste as a source of energy – the Government aims to break the link between economic growth and the environmental impact of waste.'*

3.3 In order to achieve this over-arching aim at a local level, BMBC has developed the following strategic vision for our MWMS.

> *'The aim of the MWMS is to decouple economic growth from the amount of municipal waste produced and drive the management of waste up the waste hierarchy through the delivery of sustainable waste management practices within Barnsley. By being based on a sound evidence base and a transparent decision making process, the Strategy aims to meet the aspirations of local residents and stakeholders, by achieving the proposed new Central Government targets for municipal waste management and being flexible enough to exceed any potential changes in legislation and tightening of these targets.'*

Decision-making Principles

3.4 The MWMS is underpinned by the following principles:

i. A review of the existing Draft Waste Management Strategy for Barnsley 2003-2020.

ii. To examine the European and National legislation that is driving the need for radical change in the way waste is currently managed.

iii. Identify the issues associated with current waste practices in the Borough and explore the options for change in the way we manage our waste in the future.

iv. To establish an Action Plan in order to move the management of waste up the waste hierarchy through the delivery of sustainable waste management technologies within Barnsley i.e. 2006-2030.

v. To enable the Council to achieve its statutory targets, as a minimum:

- Recycle or compost 20% of household waste by 2007/08;

- Recycle or compost 30% of household waste by 2010/11.

vi. To incorporate the capacity within the MWMS to achieve aspirational recycling targets, which are above the existing statutory targets. This will allow the MWMS to respond to the forecasted tightening of statutory targets and may also attract additional funding to implement this MWMS. The aspirational targets for the MWMS will be reviewed periodically in line with the Waste Strategy for England and the expectations of the Barnsley residents and are set at present as:

- Recycle or compost 33% of household waste by 2009/10;
- Recycle or compost 40% of household waste by 2012/13;
- Recycle or compost 45% of household waste by 2015/16.

vii. Establish a series of clear policies for waste prevention, re-use, recycling and composting and the treatment of residual waste within Barnsley.

viii. To establish a monitoring and review method that ensures accountability but is flexible enough to adapt the MWMS to a change in circumstance.

Strategic Objectives

3.5 The following strategic objectives have been incorporated into the development of the MWMS:

- Individuals, communities and organisations should take responsibility for their waste and contribute to the success of the strategy.
- All realistic options, which form part of the waste hierarchy, should be identified and considered in a systematic and transparent decision making process (Options Appraisal).
- Social, economic and environmental impacts of the realistic options are predicted and assessed, as part of the Options Appraisal and SEA processes.
- Operational and cost implications of all options should be considered.
- Barnsley will seek to dispose of its own waste within the Borough or the sub-region, to limit the environmental impact of transportation.
- Decision-making process must be publicly accountable and open to consultation.
- The potential for partnership working with neighbouring Local Authorities to assist the delivery of this MWMS.
- The Council will seek to encourage and attract private sector investment and external funding to achieve the implementation of this Strategy.

4. What Do We Need To Do To Get There?

Appraisal of Options

4.1 This MWMS has been derived through a series of Options Appraisals of the three tiers of the waste hierarchy (Waste Prevention and Re-use, Recycling and Composting and Residual Waste Management Options). These Options Appraisals assess a wide range of options using sound decision-making criteria and identifies the most preferred option or options, which would contribute to the strategic vision of the MWMS with the greatest social and economic benefit but without causing significant environmental harm.

4.2 All of the Options Appraisals have been undertaken in accordance the latest Government guidance available. The aim of the Options Appraisals is to provide transparency to the decision making process through a balanced and systematic evaluation of the alternative options using national, regional and local social, economic and environmental criteria.

4.3 The appraisals follow the waste hierarchy, in the fact that the Waste Prevention & Re-use Appraisal has been undertaken initially, then Recycling and Composting and lastly Residual Waste Treatment. The Options Appraisals have been an evolving process and there has been feedback from the later Appraisals into the Options Appraisals of the tiers higher up the waste hierarchy in order to develop a cohesive and coordinated MWMS for Barnsley.

4.4 When assessing options for the MWMS, the waste hierarchy has been used as a guide rather than being applied rigidly. A certain amount of flexibility is required to deliver a balanced strategy that gives rise to the most social, economic and environmental benefits.

4.5 The robust decision-making criteria, which form the basis of the Options Appraisals have been developed or approved by officers within the Development and Environmental Services Directorates. Only options that can realistically and effectively contribute to the achievement of the strategic vision of the MWMS have been evaluated through the Options Appraisal process.

4.6 The results of the Options Appraisals have led to the development of a series of policies contained within the Headline Strategy and these will be implemented through the Action Plan and monitored through the Monitoring Programme.

Waste Prevention & Re-use

4.7 The yearly growth in household waste arisings is one of the most significant waste management problems that BMBC has to deal with. The key reasons for this growth are that more people are moving into the Borough, more people are living on their own leading to increased waste arisings per person, increased economic wealth, increased levels of packaging on products and the consumer based 'disposable' society[2].

4.8 All the proposed waste prevention and re-use initiatives performed positively against the social, economic and environmental objectives because they are considered to encourage community involvement, reduce waste management costs and benefit the environment. BMBC intend to focus on the initiatives,

[2] DEFRA Waste Implementation Programme (2005) Introductory Guide – Options for the Diversion of Biodegradable Municipal Waste from Landfill

which potentially have the greatest effect on waste arisings and include the following;

- roll out of a segregated weekly collection service across the Borough;
- continuation of the policy of non-collection of side refuse;
- continuation of the promotion of home composting;
- promote the existing re-usable nappies scheme (Made in Barnsley) and encourage new schemes to start within borough;
- promote and facilitate re-use schemes within the Borough;
- support government initiatives on effective waste reduction;
- implement a sustained education and public awareness campaign to underpin the above initiatives; and
- lobby Central Government, Regional Government, Manufacturers and Retailers to reduce packaging.

4.9 BMBC are actively lobbying Central Government, Regional Government, manufacturers and retailers to reduce waste packaging through our involvement in the Waste Action Forum. The vision statement of this independent cross-sector group is "*To strengthen the relationship between industry, the public sector and government in order to improve sustainable recycling performance and waste minimisation*". We plan to continue this work and engage in other similar initiatives in order to reduce the quantities of packaging waste produced in the Borough.

4.10 The waste awareness campaign will be targeted to all householders, schools and Council services. It will aim to achieve a sustained reduction in waste generation through the joint promotion of waste prevention and re-use initiatives and the recycling and composting services in one coherent message. It is predicted that a long-term and well thought out campaign will decrease the growth rate in municipal waste arisings to around 2% per year. If resources allow in the future, the campaign will be extended to businesses within the Borough.

4.11 Through reducing the quantities of municipal waste generated within the Borough, BMBC can achieve;

- its statutory targets more easily for recycling and diversion of biodegradable waste from landfill;
- achieve a LATS balance and reduce its associated financial risk;
- lower comparative waste management costs (i.e. collection and disposal/treatment), and thus releasing finances for other services provided by BMBC and reducing the pressure on council tax increases;
- reduce the scale of any new waste management infrastructure, and therefore decreases its environmental and economic impacts; and
- contribute towards preserving natural resources.

4.12 The Council already has two dedicated Recycling Officers, who provide advice to householders on waste prevention and promote re-use schemes. These officers, with support from the rest of the Council, will co-ordinate and

manage the waste awareness campaign for householders within the borough and the Council.

4.13 At present, the awareness campaign does not include incentives to encourage residents to reduce, re-use, recycle or compost their waste. As past experience indicates they do not have a long-term detectable effect on decreasing the quantities of waste produced.

4.14 We will continue to monitor national trials of new waste prevention initiatives in order to determine their effectiveness for Barnsley. If in the future a new initiative is identified as a priority for Barnsley, we will need to find the financial and operational resources to implement the initiative.

Policy 1	**Resources will be provided by BMBC to promote waste prevention and re-use through a sustained and co-ordinated campaign across all waste streams and material types**

Recycling & Composting

4.15 Barnsley has made significant improvements in its recycling and composting performance in recent years. Prior to the introduction of kerbside collections, the recycling rate within Barnsley was just 2.9%, which was mainly achieved through the HWRCs. With the kerbside collections making recycling more convenient for the householders, the recycling rate has increased annually and was 19.9% in 2005/06 meaning that we have achieved all our Central Government targets to date.

4.16 With future targets becoming more stringent, our recycling and composting performance needs to continue to improve. To ensure that recycling/composting is convenient and becomes second nature to the residents of Barnsley, BMBC will provide the following recycling/composting services and facilities.

Policy 2	**BMBC will continue to provide recycling/composting services and facilities to the residents of Barnsley through kerbside collections, HWRCs and Bring Sites.** **Services and facilities will be subject to a rolling programme of improvement to ensure they are up-to-date and convenient for use as possible.**

Roll-out of the Segregated Weekly Collection Service to domestic properties

4.17 The high recycling rate achieved in 2005/06 can be attributed to a pilot scheme for segregated weekly collections for 26,000 properties within the Borough, where residual waste is collected on an alternating fortnightly cycle with green waste (garden waste and cardboard) and dry recyclables (glass, paper and cans). Within the segregated weekly collection areas, household recycling/composting rates of 44% have been achieved for the period May to October 2005.

4.18 The pilot study has demonstrated the following considerable benefits of a segregated weekly collection service;

- householders taking responsibility of the waste they produce;

- waste reduction through fortnightly collections of the residual waste bins;
- increased participation in kerbside recycling collection schemes;
- production of high quality recyclables product to satisfy a secure and preferably local market;
- significant diversion of biodegradable waste from landfill;
- potential capacity to allow diversion of further waste streams away from landfill (e.g. kitchen waste); and
- removes the need for an additional industrial facility called a Material Recovery Facility (MRF), which sorts and segregates recyclable materials from either co-collected materials or the residual waste stream, and its associated costs and environmental impacts.

4.19 Current legislative drivers focus heavily on the diversion of biodegradable waste away from landfill and the pilot study has shown that the segregated weekly collection service is very successful at achieving this. BMBC therefore propose to roll out the segregated weekly collection service to the whole borough in three phases.

4.20 Using our experience of the pilot study, a consultation exercise will be undertaken prior to the expansion of the service into new areas to develop a tailored service taking account of the circumstance of the individual householders (e.g. size of containers/bins required, space and mobility issues). The consultation will also aim to improve householder participation in recycling/composting service and hence increase recycling performance (i.e. increase quantities of materials captured for recycling).

Policy 3	**By 2009, the segregated weekly collection service for household waste will be rolled out across the Borough.**

HWRCs

4.21 The HWRCs will continue to provide householders of Barnsley additional recycling capacity and a suitable disposal route for bulky wastes and some hazardous wastes (e.g. bonded asbestos, fluorescent tubes and batteries). The facilities at HWRCs will be under continuous review by BMBC and emphasis will be placed on providing additional recycling facilities for waste types that cannot be currently recycled at the kerbside because of economic factors (e.g. plastics and Waste Electrical and Electronic Equipment (WEEE)).

Bring Sites

4.22 Bring Sites will continue to provide additional capacity to householders for recyclable materials, which will not fit into the kerbside collection receptacle and prevent these materials entering the residual waste stream. The use and locations of the Bring Sites around the Borough will be continuously reviewed by BMBC to ensure they are convenient and fulfil the recycling requirements of the residents.

4.23 There may be a need to expand the bring sites to accept types of recyclables that cannot be recycled at the kerbside due to current economic factors (e.g. plastics and household batteries). This can only occur when a local reprocessing market has been developed with sufficient capacity to take

Barnsley's plastics. We are actively working with regional partners (RAY and Yorkshire Forward) to establish such a market.

4.24 Where possible, bring sites will be improved in order to bring them up to flagship status (e.g. fencing, landscaping and litter receptacles).

Charity Collections and Shops

4.25 A well-established network of charity shops and household collections exists within Barnsley, which accepts a wide range of goods including clothes, shoes, household goods and toys. The people of Barnsley regularly use these services and therefore there are no current plans for the Council to collect textiles at the kerbside.

Compostible Materials

4.26 At present green waste collected as part of the segregated weekly collection service and at the HRWCs, is composted by a South Yorkshire-based Contractor using the windrow composting process. Windrow composting is an established process in the UK, where the material is shredded and then piled in elongated rows and aerated through either turning of the windrows or by air forced through the material. Aeration stimulates the biological process, which causes biodegradable waste to decompose under the action of micro-organisms. There is a drive towards the containment of this composting process by regulatory control, environmental issues and public acceptance.

4.27 The future recycling targets and current legislative drivers focusing on the diversion of biodegradable waste from landfill mean that there will be a need to segregate kitchen waste out of the municipal waste stream as it comprises a significant proportion of a typical Barnsley bin. The most effective and convenient way for the householder to segregate kitchen waste would be alongside garden waste and cardboard within the green bin and therefore removing the need for an additional receptacle. It is anticipated kitchen waste collections will start in 2009.

4.28 Kitchen waste cannot be subjected to windrow composting due to the Animal By-products Regulations and can only be composted within a controlled environment in an in-vessel composting facility (IVC) (see table 3). There is no suitable infrastructure at present in Barnsley. We are working with regional and local partners, to examine ways to develop new windrow composting sites and an IVC facility within the Borough in order to move the management of waste up the waste hierarchy.

4.29 The nature and quality of the resulting compost will depend on the quality of the input material and the composting process itself. The residue may be marketed as a compost, soil conditioner or mulch, again depending on the quality and the physical character of the material. BMBC is actively working with local farmers to secure a final beneficial use for the product.

Policy 4	**BMBC, potentially in partnership with neighbouring authorities, will provide an in-vessel composting facility to support the separate collection of organic materials and the processing and marketing of the final product.**

Dry Recyclables

4.30 For the entire Borough (98% of households), Barnsley operates a kerbside collection service for glass and paper, which has been sorted within the household. Cans have been formally added to the service in the segregated

weekly collection service areas using the same collection receptacle as glass. These recyclables are delivered directly to an existing facility within Barnsley for reprocessing or bulking up.

4.31 It is essential that the householders in Barnsley continue to provide high quality, well-sorted and clean recyclables in order to develop and maintain secure and stable markets for materials generated through our recycling schemes. As material can only be considered to have been recycled if it has been put to a beneficial use.

4.32 Following the roll out of the segregated weekly collection service, the exact need to add additional kerbside collections for dry-recyclables (e.g. plastic and textiles) to the service will be analysed. The decision to implement will depend on;

- recycling performance against targets;
- life cycle analysis (e.g. WRATE (Waste and Resources Assessment Tool for the Environment)
- changes in legislation towards material specific targets;
- public demand; and
- cost efficiencies.

4.33 BMBC cannot collect plastics at the kerbside at present, as there are no re-processors in the local area with sufficient capacity to deal with the quantities that would be collected. We are actively working with regional partners (RAY and Yorkshire Forward) to identify a sustainable long-term reprocessing market for plastics. When this market is established, consideration can be made to collecting plastics at the kerbside.

4.34 No additional stand-alone sites (Materials Recovery Facility) are planned to act as central collection points for receiving and bulking up the dry recyclables collected by the kerbside services and/or HWRCs. Instead BMBC will continue to work closely with existing and/or new recycling partners to undertake this service. This situation will be under continual review by BMBC to ensure all targeted materials are successfully recycled.

Policy 5	**BMBC will continue to work with the recycling industry to support the Council's kerbside collection, HWRCs and Bring Sites and to ensure an effective market for the collected dry recyclables and organic wastes.**

Social Enterprise Groups

4.35 At present, the Social Enterprise Group, Rabbit Recycling, operate recycling services to households in the north of the Borough and non-domestic properties across the Borough. The Council will continue to work with and encourage potential Social Enterprise Groups to deliver waste management services to the residents and businesses of Barnsley as long as they provide best value and encourage public engagement in waste prevention and recycling.

Commercial Waste

4.36 BMBC currently collects and disposes commercial waste from approximately 2000 companies within the Borough and makes a reasonable charge for doing so. When the necessary resources and infrastructure (i.e. an in-vessel composting facility) are in place, BMBC will work with these companies and

others through existing networks to explore the possibilities to recycle/compost this waste.

4.37 There is considerable potential to recycle or compost a large proportion of waste derived from commercial premises. For example, recycling paper and cardboard arising from schools or offices, glass from pubs and restaurants and kitchen wastes arising from restaurants, cafes and takeaways. The benefit of collecting additional compostible wastes from commercial premises is that the procurement of new treatment facilities (e.g. an in-vessel composting facility) can take advantage of economies of scale.

Policy 6	**BMBC working with local businesses and industry will explore opportunities for commercial waste recycling/composting.**

Residual Waste Treatment

4.38 With waste growth reduced, and recycling and composting set to hit 45%, there will be still 55% of the waste stream left to deal with, and this is called residual waste. At present, we simply dispose of this waste to landfill, however in the future this will not be possible due to the limited number LATS allowances allocated to Barnsley.

4.39 Landfill is considered to cause significant environmental harm and be detrimental to the over-arching goal of sustainable development, and therefore should be avoided as far as possible. There are also concerns regarding the availability of landfill void space in the region, which may lead to waste being transported long distances, which is against the proximity and self-sufficient principles. Table 3 describes the alternative waste treatment technologies to landfill.

Table 3: Treatment Technologies

Technology	**Description**
High recycling (45%) with green waste processed in an IVC facility.	The Borough's recycling rate is around 45% in 2015 by a comprehensive kerbside collection service, HWRCs and Bring Sites. An IVC facility is constructed to treat the segregated green wastes. The remaining residual waste is sent to landfill. In-vessel composting facilities are generally housed within an enclosed industrial unit and a strictly regulated by the Environment Agency.
Energy from Waste (EfW)	EfW plants combust waste under controlled conditions, to reduce its volume, hazardous properties, and to generate electricity and/or heat. They have considerable process control measures for emissions and extensive flue gas cleaning equipment to minimise atmospheric emissions. Since the introduction of new EU legislation in 1996 and 2000, there have been significant cuts (over 85%) in cadmium, lead and dioxin emissions for modern EfW plants. There are 2 solid residues arising from thermal treatment systems. The bottom ash is the solid remainder of the waste feedstock after treatment, and this can be recycled into appropriate construction applications or disposed to landfill. The flue gas treatment residues from the air pollution control process may be classified as hazardous waste and require specialist disposal. There is considerable experience of EfW plants in the UK with

Technology	Description
	16 EfW plants operating, including at Huddersfield and Sheffield.
Mechanical Biological Treatment (MBT) – Refuse Derived Fuel (RDF)	MBT plants are housed in enclosed industrial buildings and in their simplest form treat residual waste by drying, sorting and bulking it up before it is landfilled. The treatment involves chopping, shredding and screening the residual waste using manual and mechanical processes to make the material uniform and easier to handle. During this processing, the residual waste is separated into 3 main fractions; • metals and minerals for recycling (5%); • materials of fuel value, such as paper, card, plastic, wood and textiles (50%); and • residual reject fraction which will be sent to landfill (20%). 25% of the weight of residual waste is lost during the processing through moisture loss. The fraction that holds fuel value is known as RDF and can be sent to a third party facility for combustion. At present, there is a very limited market for this product due to existing regulatory controls and it is envisaged that local authorities will need to pay to dispose of the RDF. Potential future markets for RDF are cement kilns, power stations and EfW Plants. If no markets for RDF are developed in the future, this fraction will be sent to landfill and BMBC will therefore need to pay LATS penalties and Landfill Tax. There is limited experience of MBT technology within the UK and at present there is only one in operation at Leicester. With the introduction of LATS, local authorities are becoming increasingly interested in MBT technology and there are number of plants planned, including one at Wakefield.
MBT- Anaerobic Digestion (AD)	In this version of MBT, the organic rich fraction (garden waste, kitchen waste, some cardboard and other materials) is biologically treated through anaerobic digestion to reduce its volume and partially or wholly stabilise it. The digestate product can be used as a soil conditioner for landfill restoration. There will be a reject fraction, which will require landfill disposal. Anaerobic digestion involves biodegradable wastes being decomposed by bacteria in the absence of oxygen within an enclosed vessel under controlled conditions. It forms a digestate (containing biosolids and a liquid) and biogas (carbon dioxide and methane), which can be collected and burnt as a fuel to produce electricity.
Advanced Thermal Treatment (ATT)	The ATT technologies most commonly promoted to treat municipal waste are Pyrolysis or Gasification. These are very similar technologies and can be used together in the same plant. Pyrolysis is a very similar technique to the process that produces charcoal and involves breaking down the biodegradable fraction (plastics, paper and other organic derived waste) of residual waste under the action of heat and in the absence of oxygen. The process creates Pyrolysis Oil, which can by used as a fuel to generate electricity or in an engine.

Technology	Description
	Gasification is similar to the process, which produced 'town gas' from coal. It operates at higher temperatures compared to Pyrolysis and uses oxygen (from stream or air) to react with the carbon present in residual waste to produce a gas (Syngas), which can be used to generate electricity. A solid residue is also produced, which will require disposal by landfill. The ATT technologies are unproven for residual waste treatment in the UK and there is only limited experience overseas. A number of plants are planned in the UK in the future.

4.40 BMBC commissioned consultants to undertake an independent BPEO Appraisal of the alternative treatment technologies for residual waste in order to identify the preferred solution for Barnsley in terms of its social, economic and environmental effects and operational impacts. The key decision-making criteria used within the appraisal were;

- compliance with LATS;
- protection of the environment;
- minimise costs of waste management;
- deliverability of technical solution (i.e. ability of the industry to deliver a technical solution that is proven for MSW); and
- reliability of delivery (i.e. public acceptance and achievement of planning permission).

4.41 Table 4 provides a summary of the Options Appraisal.

Table 4: Appraisal Summary

Technology	Compliance with LATS	Protection of the environment	Minimise costs of waste management	Deliverability of Technical Solution	Reliability of delivery
High recycling	X	X	X	✓	✓
EfW	✓	✓	✓	✓	X
MBT-RDF	✓	X	X	X	✓
MBT-AD	X	X	X	✓	✓
ATT	✓	✓	✓	X	X

Key	✓	Criteria achieved	X	Criteria not achieved

4.42 The BPEO assessment, as summarised in Table 4, identified that thermal treatment in the form of an EfW as the preferred option for the treatment of Barnsley's residual waste due to compliance with LATS obligations, comparatively lower waste management costs, a UK proven technology and

protection of the environment. The advantage of an EfW plant over gasification is that there is considerable experience of EfW plants in the UK compared to gasification. Both technologies suffer from low reliability of delivery due to difficulties obtaining planning permission for thermal treatment facilities.

4.43 One alternative to straight thermal treatment is an MBT-RDF facility, which is likely to be more public acceptable than thermal treatment as the technology extracts further materials for recycling and decreases the volume and weight of the residual waste fraction. However they send significant quantities of residual waste to landfill, which will count towards Barnsley's LATS obligations and cause environmental harm (e.g. greenhouse gas emissions, risk of water pollution). There is also considerable uncertainty regarding markets for the RDF end-product. If no markets are found, BMBC may need to construct a thermal treatment facility to gain a benefit from this end-product (e.g. electricity production).

4.44 From the above, BMBC has essentially two choices for the treatment of residual waste, one is that all residual waste is sent directly to an EfW plant or alternatively residual waste is sent to MBT-RDF plant for processing and then the end-product is sent to a EfW or similar facility. Both choices therefore involve some form of thermal treatment.

4.45 BMBC considers that the preferred strategy for Barnsley is an EfW plant, which would be sensitively scaled to deal with residual waste after targeted kerbside collections of segregated dry recyclables and compostible waste. The EfW will have extensive flue gas cleaning equipment to minimise atmospheric emissions and the design and operation of the facility would be regulated by the Environment Agency.

4.46 The preferred option may not necessarily be the delivered waste management solution for Barnsley. As there are many influences that are outside the scope of the assessment including the ability of the market to deliver, partnership working, failure to gain planning consent and additional funding sources.

Policy 7	**BMBC will consider all management solutions for residual waste that take account of the following principles:** ▪ **Diversion of waste from landfill is beneficial.** ▪ **Energy recovery through thermal treatment is favourable.** ▪ **MBT technology has uncertainty of markets for RDF that needs to be overcome.** ▪ **Improvement of the recycling/composting performance is beneficial and can aid the diversion of biodegradable municipal waste, reducing the scale of the residual treatment facility.** ▪ **Use of a third party treatment facility is a potential option if available locally.**

Planning Implications for new residual waste treatment facilities

4.47 All new planning applications for waste management facilities are subject to intense public scrutiny and potentially generate opposition from a variety of interested parties (national pressure groups to local residents). Opposition to

applications for EfW plants is particularly well-documented and has led to local authorities having to change their MWMS (in the case of Herefordshire and Worcestershire) or suffer significant delays to the implementation of their strategy (in the case of Surrey County Council). The delays during the planning process are not just isolated to EfW plants, alternative waste treatment technologies (e.g. MBT plants) have also encountered public opposition leading to delays caused by a public inquiry (e.g. in Dorset). Significant delays in planning lead to increased waste management costs through LATS penalties and escalating landfill tax.

4.48 The problems of gaining planning permission and the deliverability of the preferred waste management solution have been incorporated into the Options Appraisal, which underpin this MWMS (see Table 4). The operational, environmental and economic benefits combined with the technically proven credentials of an EfW plant are considered to out-weigh the potential risk of deliverability. BMBC proposes to minimise the risk of deliverability through implementing the MWMS Action Plan, a consultation strategy and the development of the Waste Management Sites DPD.

Interim Arrangements for Residual Waste

4.49 With the Council's current disposal contract ending in August 2008 and the new residual waste treatment facilities not programmed to be operational until 2012, there is a period of approximately 5 years where we need to find alternative ways to dispose or treat the residual waste. Options currently being investigated include;

- landfill disposal;
- thermal treatment within an existing facility, or
- a combination of both.

4.50 In the future, there will be a small element of waste that will require landfill disposal and therefore will be disaggregated from the new residual waste treatment contract. This means that a landfill contract may need to be procured for longer than 5 years.

Waste Management Sites Development Plan Documents

4.51 This MWMS specifies the need for new waste management facilities but does not cover the actual locations of where these will be located. This will be covered in the new Waste Management Sites DPDs, which will be used alongside the Council's Core Strategy to determine planning applications regarding waste management in Barnsley.

4.52 This MWMS promotes the option of joint working with neighbouring authorities to procure and develop a strategic waste management facility (see Chapter5). This approach would benefit from a coherent and integrated planning framework for South Yorkshire. It is therefore planned to produce a DPD for Strategic Waste Management facilities. Each Council will produce an additional DPD for all other waste streams (e.g. industrial and commercial) and local small-scale facilities.

4.53 The preparation of the Waste Management Sites DPDs will have several key stages namely:

- **Issues and alternative options stage** – when we ask residents to tell us what the main planning issues are and how we should tackle them.
- **Preferred options stage** – when we set out what options we have considered and which options we prefer.

- **Submission stage** - at this stage we produce a DPD that clearly sets out what we want to do and we submit it to the Government.
- **Examination stage** - a Government Inspector will examine the DPD and will write a report making changes to the document.
- **Adoption** - we will make the changes required by the government inspector, produce the final document and 'adopt' it, which means it will come into force

4.54 This MWMS, which informs and is informed by local DPDs, is an essential element in aiding development of the Waste Management Sites DPDs which, combined with the core policies, will provide an overarching spatial strategy on waste management for the district of Barnsley.

4.55 The sites allocated and policies contained within the Waste Management Sites DPD will also make provision for the treatment of industrial and commercial wastes within the Borough. The Waste Management Sites DPDs will be subject to a Sustainability Appraisal, which will also incorporate the requirements of the SEA Regulations.

Policy 8	**Waste Management Sites DPDs will be developed to allocate sites suitable for the treatment of municipal waste and to devise polices for all other waste streams.**

LATS Strategy

4.56 Assuming that waste prevention and re-use initiatives remain in operation, an IVC is in operation in 2009 and kitchen waste is collected at the kerbside, BMBC will meet its LATS obligations in 2008/09 through banking the previous years allowances. BMBC cannot use banked allowances in the first target year (2009-10) and the Council will either have to trade in LATS or pay the LATS penalties of around £1.5 million (lower than £3 million under the business as usual scenario). Table 5 shows the LATS projections to 2012, when the residual waste treatment facility will come on line.

Table 5: LATS projections to 2012

	2005/06	**2006/07**	**2007/08**	**2008/09**	**2009/10 Target Year**	**2010/11**	**2011/12**
Biodegradable waste (tonnes)	74,607	71,500	68,341	65,057	65,428	65,693	64,775
LATS Allowance (tonnes)	91,095	85,235	77,422	67,655	55,934	49,708	43,582
Variance	+14,661	+13,370	+8,262	+1,314	-11,366	-18,523	-25,656
Cumulative Banked allowances	14,661	14,031	22,293	23,607	Not available		
Borrowed allowances	nil	nil	nil	Not available	Not available	nil	Not available
Traded allowances	nil	-14,000	nil	nil	Trading will reduce net effect.		
LATS compliance	✓	✓	✓	✓	X	X	X

4.57 The Council will not meet its LATS obligations in 2010/11 and 2011/12, but trading can mitigate the effect. However once the new residual waste management infrastructure is in operation, BMBC will be able to sell a significant proportion of its LATS allowances and generate an income for the Authority.

5. How Do We Implement The MWMS And Keep It On Track?

5.1 Now we have devised our preferred approach to ensure that waste is managed in sustainable way in Barnsley. It is essential to determine how we are going to deliver the strategy to ensure legislation compliance and avoid huge financial burdens being placed on the Council and the residents of Barnsley through their Council Tax.

Consultation Strategy

5.2 In addition to the consultation on this Strategy, BMBC will develop a consultation strategy to ensure the public are fully involved in and informed of the implementation of this Strategy. Key areas will be the roll out of the segregated weekly collection service, the introduction of new kerbside recyclable collection services and the development of the new waste management facilities (e.g. IVC facility and the residual waste management facility).

5.3 BMBC will liase with other local authorities that have previous experience of gaining planning permission for major waste management infrastructure, in order to develop a robust consultation strategy to address the potential concerns of the local residents and stakeholders. This is critical to prevent delays in gaining planning consent, which have been a feature of past applications.

5.4 The potential locations of the new waste management infrastructure will be determined through the future Waste Management Sites DPDs, which will be subject to public consultation through the LDF process.

5.5 When the potential site option or options have been identified for the residual waste management facility, BMBC potentially working in partnership with the waste management contractor and neighbouring local authorities, will consult the local community to address any resident concerns and queries in order to develop a package of mitigation measures to minimise the impact of the facility on the local area and its residents. This consultation will inform the planning process.

5.6 The exact nature of the consultation will be determined when the exact site and waste management technology is known but is likely to comprise a rolling programme of open days and site visits.

Action Plan

5.7 The Action Plan is built upon the outputs of the Options Appraisals and provides a timetable to implement the policies for waste reduction, re-use, recycling and composting, and residual waste treatment.

5.8 It builds in the steps required to procure a major new residual waste management facility for Barnsley, which is required to deliver this strategy effectively. There needs to be a large degree of flexibility within the Action Plan to enable it to respond to a change of circumstance (e.g. new legislation, partnership arrangements).

5.9 Appendix A contains the detailed Action Plan and the key actions for each policy is shown on the Action Plan Time Line on Figure 4 (presented at the end of the document).

Business Case

5.10 The Options Appraisals identified that significant investment is required to deliver new treatment facilities for the segregated compostible waste and residual waste fractions of the municipal waste stream in order to avoid burdening the Council with huge financial penalties from LATS and escalating landfill tax.

5.11 Funding is also required to implement and co-ordinate a long-term waste awareness campaign to promote the waste minimisation initiatives and recycling/composting services.

5.12 The Options Appraisal included the full range of costs in its assessment including building costs, gate fees, landfill tax, transportation costs, LATS penalties/trading costs and any associated landfill disposal costs. The cost hierarchy based total annual revenue cost projections of each technology assessed is shown on Table 6.

Table 6: Cost Hierarchy of the different Residual Waste Treatment Technologies

Level of Cost	Waste Treatment Technology
Most Expensive	No nothing
	High Recycling
	MBT-RDF
	MBT-AD
	Gasification
Least Expensive	EfW

5.13 This shows that the most expensive option for Barnsley would be the do-nothing scenario where we roll out the segregated weekly collection service to the entire Borough and carry on sending the residual waste to landfill. This is due to the cost of paying LATS penalties and high landfill costs. The preferred approach of constructing an EfW plant facility within the Borough is the least expensive option (saving approximately £6 million a year) due to considerable UK experience of this technology, the potential to obtain additional energy production offsetting the use of fossil fuel, minimal transportation costs, small quantities of waste being sent to landfill and avoidance of LATS penalties. In fact, BMBC would not require the majority of its LATS allowances and therefore would be able to sell its LATS allowances creating an income for the authority.

5.14 In terms of cost the use of a third party EfW outside the Borough may be beneficial, however it is only viable if there is a facility with sufficient capacity to take Barnsley's residual waste and the gate fee is less expensive than the additional cost of transporting the waste. At present, this is considered unlikely.

5.15 This Strategy has demonstrated a business case for delivering the proposed municipal waste management solution for Barnsley as cost has been incorporated into all the decision-making processes. BMBC is actively examining ways to deliver this Strategy and an Outline Business Plan will be developed during the procurement process.

5.16 One potential solution to deliver this MWMS is to undertake partnership working with a neighbouring authority or authorities. Following a review of where they are all at in terms of their waste management provision, the favoured authorities are Rotherham MBC and Doncaster MBC as all our existing disposal contracts finish at similar times.

5.17 Combining the residual waste streams of the Barnsley, Rotherham and Doncaster would take advantage of the economies of scale. For example, building costs and gates fees would be proportionally lower with one large waste management facility rather than each Authority building its own. There would be environmental benefits as well.

5.18 Partnership working is in accordance with Government policy and may help all three Authorities gain additional funding from Central Government. For example through Private Finance Initiative (PFI), this may help to ensure best value for the residents of Barnsley.

5.19 Partnership working has started, which Barnsley is fully involved with, however we will keep all our options open and examine alternative means to deliver our Strategy as it is so critical.

Policy 9	**BMBC will continue to work alone and with neighbouring authorities to procure and deliver the preferred waste treatment technology for the region.**

Monitoring and Reviewing

5.20 Monitoring is essential to ensure that the strategic vision and objectives are achieved. Some parts of the MWMS will be under almost continuous review whenever significant commitments and investments are being considered. Also as part of the MWMS process, we will carry out a full review every 5 years against the achievement of the Strategy's objectives and targets.

5.21 In addition to the annual Comprehensive Performance Assessment (CPA), the Waste Strategy Working Group comprising of officers from both the Waste Management Service and Sustainability Group will undertake monitoring to ensure the implementation and progress of the Strategy. The monitoring indicators and the specific waste management targets are shown in the Monitoring Programme in Appendix B.

5.22 If the monitoring shows that performance is falling short of the Strategy objectives, the first action will be to make improvements to performance. If this is not possible, the corrective action as described within the Monitoring Plan will be required to maintain the performance of the MWMS. If this fails and it is clear that the Action Plan cannot deliver the MWMS, the MWMS will be reviewed in its entirety.

5.23 As well as monitoring our performance, the MWMS aspirational targets for recycling and composting will be continually reviewed against the National Waste Strategy, the RSS and the Regional Waste Management Strategy to ensure compliance.

Policy 10	**BMBC will continually monitor the progress of the implementation of the strategy using waste reduction and re-use targets, the statutory and aspirational recycling/composting targets and the actions outlined on the Action Plan.**

Risk Assessment

5.24 The overall aim of undertaking a risk assessment of the Action Plan is to identify risks that may affect implementation of the MWMS policies in order to avoid or minimise them or if this is not possible, prepare a contingency plan. The risk assessment is shown in Appendix C.

Figure 4: Action Plan Time Line

	Key Actions	2006	2007	2008	2009	2010	2011	2012
MWMS	Adopt MWMS for Barnsley	X						
	Monitoring during critical implementation phase							
	Full review of MWMS						X	
Waste Minimisation (Policy 1)	Continue existing activities							
	Implement sustained waste awareness campaign							
Recycling & Composting (Policies 2, 3, 5 & 6)	*Statutory Recycling/Composting Targets*		*20%*			*30%*		
	Aspirational Recycling/Composting Targets				*33%*			*40%*
	Improve performance of existing facilities and services							
	1st phase roll out of segregated weekly collection service							
	2nd phase roll out of segregated weekly collection service							
	3rd phase roll out of segregated weekly collection service							
	Plan, procure and construct an IVC facility				X			
	Kitchen waste added to the green bin collections							
	Additional dry recyclables added to the kerbside service							
	Waste awareness campaign for local businesses							
Residual Waste Treatment (Policies 7 & 9)	*LATS Target Year*				*!*			
	Explore methods of procurement for major infrastructure							
	Continue partnership working with other Authorities		**Potentially Ongoing**					
	BMBC make decision on preferred procurement route	X	X					
	Plan, procure and construct new infrastructure							
	New waste treatment solution operational							X
Waste Management Sites DPD (Policy 8)	Identify sites suitable for waste management sites							
	Public consultation on DPD							

X : Key milestone

APPENDIX A
MWMS ACTION PLAN

Policy No.	No.	Task	Status	Action	Timescale	Responsibility
WASTE PREVENTION & REUSE						
POLICY 1: Resources will be provided by BMBC to promote waste prevention and re-use through a sustained and coordinated campaign across all waste streams and material types						
1	1	Roll out of segregated weekly collection service	Pilot study for 26,000 properties reactivated in January 2006.	Roll out to the rest of borough in three phases.	2006 2007 2008	BMBC and householders
1	2	Council's policy of no side waste collection.	Policy is currently in operation.	No change to existing operations but with a more rigorous reinforcement of the policy.	No new actions	BMBC and householders
1	3	Promotion of home composting.	Scheme currently advertised on and advice available through Waste Management help line (01226) 772045	On request, distribute the remaining 2,000 bins available through the existing funding stream. Identify new funding streams to encourage participation.	On-going	BMBC and householders
1	4	Promote the re-usable nappies schemes	A scheme in operation within the Borough but not promoted by BMBC.	Promote re-usable nappies schemes on BMBC's web-page www.barnsley.gov.uk and through future waste awareness campaigns.	2007	BMBC
1	5	Promote and facilitate re-use schemes within the Borough.	A number of re-use schemes operating within the Borough.	Encourage and promote the use of charity shops and doorstep collections for the re-use of unwanted items on BMBC's web-page www.barnsley.gov.uk. Assist charities with promotion	On-going	BMBC, local charities

Policy No.	No.	Task	Status	Action	Timescale	Responsibility
				of re-use schemes for furniture, electrical and white goods, paint, materials, computers, cycles etc. Investigate the potential to develop re-use schemes at the HWRCs in order to provide uses for potentially useful materials (e.g. wood) and goods (e.g. electrical appliances).		
1	6	Implement a public waste awareness campaign	Ad hoc advice on new service provision through leaflet drops and the waste management central help line number (01226) 772045 is currently available.	Develop an advertising and promotion campaign based on the reduce, re-use and recycle themes and coordinated with the introduction of new waste management services. The campaign will be both a leaflet and web-page promotion (www.barnsley.gov.uk) and include: • A Purchasing Guide – to reduce packaging waste; • Re-use Guide – promoting local services; • Home guide – examining ways in the home to reduce waste (e.g. DIY practices); • Availability of advice and assistance;	2006/2007 onwards	BMBC Waste Management Service and Communication Services

Policy No.	No.	Task	Status	Action	Timescale	Responsibility
				• Introduction and explanation of new and existing services, which will ease the convenience of participation in recycling schemes. Identify potential funding streams for a sustained waste education programme and links with other consultation programmes run by BMBC.		
1	7	Identify funding streams to implement a long-term public waste awareness campaign.	BMBC continually identify new funding stream.	Recycling officer to identify new potential funding streams.	On-going	BMBC Waste Management Service
1	8	Lobby Government, Manufacturers and Retailers	On-going active involvement in the Waste Action Forum	Maintain involvement in the Waste Action Forum and other lobbying initiatives.	On-going	BMBC Waste Management Service
WASTE RECYCLING & COMPOSTING						
POLICY 2: BMBC will continue to provide recycling/composting services and facilities to the residents of Barnsley through kerbside collections, HWRCs and Bring Sites						
2	1	Rolling programme of improvement to ensure that recycling/composting services and facilities are up to date at possible	Programme on-going	Continued close working with the waste management contractors operating the HWRCs and bring sites to monitor and further improve facilities. Consultation with householders	On-going	BMBC Waste Management Service Waste management contractor

Policy No.	No.	Task	Status	Action	Timescale	Responsibility
				prior to the introduction of new kerbside services to ensure recycling/composting services are tailored to meet the needs of the resident.		Householders
2	2	Maintain political and financial commitment to increasing recycling/composting performance.	Actions on-going	Close working with elected members and the public of Barnsley to demonstrate the environmental and economic benefits of recycling.	On going	BMBC Waste Management Service Elected Members
POLICY 3: By 2009, the segregated weekly collection service for household waste will be rolled out across the Borough.						
3	1	Pilot scheme for the segregated weekly collection service turned into a permanent service.	Pilot study reactivated in January 2006.	Communications to householders detailing the need for the service to be made permanent. Following requests made as part of the "Thank you Consultation", new collection receptacles will be delivered to residents to tailor the service to their needs.	Spring/summer 2006	BMBC Waste Management Service
3	2	First roll-out of segregated weekly collection service to 26 000 properties.		Consultation exercise with householders prior to the introduction of the new service to; ▪ demonstrate the benefits of the scheme; ▪ advice on changing householder's waste management practices	Summer 2006	BMBC Waste Management Service Householders

Policy No.	No.	Task	Status	Action	Timescale	Responsibility
				to accommodate the service; and ▪ tailor the service (i.e. collection receptacles) to the resident's needs.		
3	3	Second roll-out of segregated weekly collection service to 26 000 properties		As above	2007	BMBC Waste Management Service Householders
3	4	Third roll-out of segregated weekly collection service across the rest of the Borough		As above	2008	BMBC Waste Management Service Householders
POLICY 4: BMBC, potentially in partnership with neighbouring authorities, will provide an in-vessel composting facility to support the separate collection of organic materials and the processing and marketing of the final product.						
4	1	BMBC, working with regional recycling partners, identifying sites for windrow composting within the Borough.	BMBC is actively working with local farmers to assist them gaining appropriate permissions to operate	BMBC together with Recycling North and Business Link to assist the farmers. Tendering Process ▪ Gain planning permission ▪ Construct the facility ▪ Gain regulatory consent from the Environment Agency	2006-2008	BMBC Waste Management Service Local Farmers Business Link Recycle Yorkshire
4	2	Procure and construct an IVC facility (may be combined with procurement of the waste treatment facility for	BMBC is actively involved in investigating methods to procure, fund and construct an	▪ Tendering Process ▪ Gain planning permission ▪ Construct the facility	2006-2009	BMBC Waste Management Service

Policy No.	No.	Task	Status	Action	Timescale	Responsibility
		residual waste).	IVC facility.	▪ Gain regulatory consent from the Environment Agency		
4	3	Kitchen waste is segregated by the householder and included within the green bin collections.	Service can only start when IVC facility is fully operational and holds appropriate licences.	BMBC to fully communicate the change in service prior to its implementation and provide advice to householders using the service.	2009	BMBC Waste Service Householders
POLICY 5: BMBC will continue to work with the recycling industry to support the Council's kerbside collection, HWRCs and Bring Sites and ensure an effective market for the collected dry recyclables and organic wastes.						
5	1	Partnership working and market development	BMBC is actively working with the industry to maintain a market and generate an income from recycling.	Continue existing work	Ongoing	BMBC Waste Management Service
5	2	Review of the recycling/composting services and facilities against targets to illustrate the need to introduce collections for additional dry recyclables.		BMBC to investigate feasibility and find markets for kerbside collected recyclables (e.g. plastics). If service is economically feasible, BMBC to consult with householders prior to introducing the new service to tailor the collection receptacle to the needs of the householders (e.g. bag or wheeled bin)	2009/11	BMBC Waste Management Service Householders
POLICY 5: BMBC working with local businesses and industry will explore opportunities for commercial waste recycling/composting.						
6	1	Develop a sustained waste awareness campaign targeted at	Ad hoc advice through the waste management central help line	Work with local businesses to raise the awareness of	When	

Policy No.	No.	Task	Status	Action	Timescale	Responsibility
		businesses within the Borough.	number (01226) 772045 is currently available.	advantages of recycling and composting through a targeted campaign.	resources allow	
6	2	Develop a recycling/composting scheme for commercial waste collected by the Council.	All commercial waste collected by the Council is disposed to landfill at present.	Following consultation with the local businesses, a tailored recycling/composting service will be developed.	2012	BMBC Waste Management Service Local Businesses Local Business Networks. e.g. the Barnsley's Chamber of Commerce
6	3	Council internal recycling	Green recycling bins available to the majority of staff	Promotion campaign to reinforce waste minimisation and recycling.	On-going	BMBC
RESIDUAL WASTE TREATMENT						
POLICY 7: BMBC will consider all management solutions for residual waste that take account of the following principles: ▪ **Diversion of waste from landfill is beneficial.** ▪ **Energy recovery through thermal treatment is favourable.** ▪ **MBT technology has uncertainty of markets for RDF that needs to be overcome.** ▪ **Improvement of the recycling/composting performance is beneficial and can aid the diversion of biodegradable municipal waste, reducing the scale of the residual treatment facility.** ▪ **Use of a 3rd party treatment facility is preferable if available locally.**						
7	1	Obtain financial and officer resources	BMBC is actively working within	Partnership working will	On-going	BMBC Waste

Policy No.	No.	Task	Status	Action	Timescale	Responsibility
		to procure and deliver the residual waste management facilities	developing internal and regional partnerships to deliver a residual waste management facility capable of treating Barnsley's waste.	continue in order to have the required officer and financial resources to procure a major residual waste management facility.		Management Service BMBC Planning and Transportation BMBC Financial Resources Regional Bodies Neighbouring local authorities
7	2	Securing long-term political commitment to deliver the residual waste management facility.	BMBC is actively working with its elected members and members from neighbouring authorities in order to gain long-term political commitment.	BMBC to continue existing work.	On-going	BMBC Waste Management Service BMBC Planning and Transportation Regional Bodies Neighbouring local authorities
POLICY 8: Waste Management Sites DPD document will be developed to allocate sites suitable for the treatment of municipal waste and to devise policies for all other waste streams.						
8	1	Identification and assessment of sites suitable to be used for waste management/resource treatment	Some sites are allocated in Barnsley's UDP.	Undertake an independent search for sites across the Borough to identify a suite of potential sites suitable for waste	Summer 2006	BMBC Planning and Transportation

Policy No.	No.	Task	Status	Action	Timescale	Responsibility
		sites		management facilities.		Service
8	2	Develop a South Yorkshire or Sub-Region Strategic Waste Management Sites DPD.	Initial discussion started between the 4 South Yorkshire authorities	The DPD will allocate sites suitable for the strategic waste management and devise policies.	2007	BMBC Planning and Transportation Service Doncaster MBC, Rotherham MBC, Sheffield City Council
8	3	Develop Waste Management Sites DPD for local small-scale waste management sites and other waste streams (e.g. commercial and industrial).		The DPD will allocate sites suitable for the treatment of municipal waste and to devise policies for all other waste streams.	2007	BMBC Planning and Transportation Service
POLICY 9: BMBC will continue to work alone and with neighbouring authorities to procure and deliver the preferred waste treatment technology for the region.						
9	1	Identification of the funding streams and methods for the procurement and delivery of major waste management infrastructure (e.g. PFI).	Work on-going	BMBC are researching different types of funding available and talking to other Local Authorities regarding their experience of procurement of waste management facilities.	2006/07	BMBC Waste Management Service BMBC Planning and Transportation Service
9	2	Partnership working with Rotherham and Doncaster MBC to develop a feasibility study to indicate the	Work on-going	Continuation of existing work.	2006/07	BMBC Waste Management

Policy No.	No.	Task	Status	Action	Timescale	Responsibility
		benefits (if any) of a joint procurement strategy.				Service Doncaster MBC Rotherham MBC
9	3	Decision made on joint procurement method.		• Completion and Agreement on the South Yorkshire Reference Project • Expression of Interest for PFI funding to DEFRA	February 2007	BMBC Doncaster MBC Rotherham MBC
9	4	Appointment of Contractor to delivery the new waste management infrastructure (in partnership or alone).		▪ Development of an Outline Business Case ▪ Preparation of Tender Documents ▪ Agree and advertise OJEC notice ▪ Tendering Process ▪ Response from market ▪ Competitive dialogue with market ▪ Appointment of Preferred Contractor.	2006-Mid 2007 Mid 2007 Late 2007 2008/09 2009	BMBC Waste Management Service
9	5	Construct new waste management facility for the treatment of residual waste. Operational in 2012.		▪ Gain planning permission ▪ Construct the facility ▪ Gain regulatory consent from the Environment	2009-2012	BMBC Waste Management Service

Policy No.	No.	Task	Status	Action	Timescale	Responsibility
				Agency		
POLICY 10: **BMBC will continually monitor the progress of the implementation of the strategy using waste reduction and re-use targets, the statutory and aspirational recycling/composting targets and the actions outlined on the Action Plan.**						
10	1	Actions detailed within Monitoring Programme				

APPENDIX B
MWMS MONITORING PROGRAMME

No.	Objective	Performance Indicator	Target	Corrective Actions (if target not achieved)	Responsibility
The MWMS					
1	To implement the MWMS Action Plan	Successful completion of actions within Action Plan	To achieve actions and dates outlined in the Action Plan.	Increase officer resources. Strengthen partnership working with neighbouring authorities.	BMBC Waste Management Service BMBC Planning and Transportation Service
2	To ensure that MWMS is update and follows National and Regional Guidance.	Review; ▪ Changes in legislation and targets (in the National Waste Strategy, RSS, Regional Waste Strategy) ▪ Waste practices ▪ New Technologies ▪ Effectiveness of existing strategy against targets	A sound and robust MWMS, which is in line with national and regional guidance.	Full review of the MWMS	BMBC Waste Management Service BMBC Planning and Transportation Service
Waste Prevention & Reuse					

No.	Objective	Performance Indicator	Target	Corrective Actions (if target not achieved)	Responsibility
3	Increase participation in waste reduction initiatives.	Monitor numbers of residents: ▪ Requesting home composting bins; ▪ Using the real nappy schemes; ▪ Using Freecycle Barnsley web-page.	Continuous increase in participants each year (by 5 to 10 %).	Review and strengthen the waste prevention and re-use campaign Review status of the roll out of the segregated weekly collection service	BMBC Waste Management Service
4	Reduce quantities of municipal waste produced within the Borough	Annual performance monitoring of the growth rate of the total municipal waste arisings compared to the baseline year - 2005/06.	Performance monitoring against the following waste growth targets: ▪ 2.77% for years 2006 to 2015 ▪ 2.01% for years 2016-2025 ▪ 1.25% for years 2026-2030	Review and strengthen the waste prevention and re-use campaign Review status of the roll out of the segregated weekly collection service Review Action Plan	BMBC Waste Management Service
5	To ensure Barnsley implements best practice waste prevention and re-use initiatives	Assess and review effectiveness of national/regional trials of new waste prevention and re-use initiatives. Implement initiatives most applicable to the situation in Barnsley.	Maintain best practice to ensure that the aims of the MWMS are achieved and waste arisings are reduced.	Maintain and promote existing planned initiatives. Identify funding streams to strengthen initiatives.	BMBC Waste Management Service
Recycling and Composting					
6	To ensure the whole Borough has access to the segregated	Number of properties on the	The targets are; ▪ 52,000 properties in	Improve operational	BMBC Waste Management

No.	Objective	Performance Indicator	Target	Corrective Actions (if target not achieved)	Responsibility
	weekly collection service	segregated collection service	2006 ▪ 78,000 properties in 2007 ▪ 100,000 properties in 2008	performance Review action plan	Service
7	To achieve statutory BVPI targets for recycling and composting	Annual percentage of household waste being sent for recycling and composting.	Statutory targets for Barnsley are: ▪ 20% by 2007-2008; ▪ 30% by 2010-2011	Improve HWRCs/bring sites Increase number of recyclables collected from the kerbside Review MWMS Action Plan	BMBC Waste Management Service
8	To achieve BMBC's aspirational targets for recycling and composting	Annual percentage of household waste being sent for recycling and composting.	MWMS aspirational targets are: ▪ 33% by 2009-2010; ▪ 40% by 2012-2013 ▪ 45% by 2015-2016.	Improve HWRCs/bring sites Increase number of recyclables collected from the kerbside Review MWMS Action Plan	BMBC Waste Management Service
9	IVC to be operational by 2009	Progress in the procurement and development activities; ▪ Project design ▪ Tendering and contract negotiation ▪ Gain planning consent ▪ Construct the facility ▪ Gain regulatory consent from the Environment Agency.	IVC is operational by 2009	Increase officer resources (for procurement activities). Do not collect kitchen waste from the kerbside. Take material to an existing facility. Review the MWMS Action Plan	BMBC Waste Management Service

No.	Objective	Performance Indicator	Target	Corrective Actions (if target not achieved)	Responsibility
Residual Waste Management					
10	Residual waste treatment facility to be operational by 2012	Progress in the procurement and development activities; ▪ Partnership development ▪ Project Programme ▪ Project design and business case ▪ Tendering and contract negotiation Site Selection activities Gain planning consent	• Agreement on South Yorkshire Reference Project - February 2007 • Expression of Interest for PFI funding to DEFRA – February 2007 • Agree and advertise OJEC notice - May/June 2007 • Review Market Response to OJEC notice – November 2007 • Competitive Dialogue stage with market – 2008-09 • Appoint Contractor – 2009 • Identify preferred site and obtain site option 2007 • Purchase site in 2009 • Planning application in	Increase officer resources (for procurement activities). Strengthen partnership working Extend interim disposal/treatment contract. Send material to an existing residual treatment facility within the region. Full review of the MWMS	BMBC Waste Management Service Doncaster MBC Rotherham MBC

No.	Objective	Performance Indicator	Target	Corrective Actions (if target not achieved)	Responsibility
			2009		Contractor
		Construct the facility	• Gain planning consent in 2010 • Develop facility 2010-12		
		Gain regulatory consent from the Environment Agency	• Start dialogue with Environment Agency 2009-12 • Obtain regulatory consents by 2009		

APPENDIX C
MWMS RISK ASSESSMENT

Policy	Hazard	Potential Threats to cause the Hazard	Likelihood of occurrence of Hazard	Consequence of the Hazard	MWMS Mitigation Controls	Possible Contingency Plan
POLICY 1: Resources will be provided by BMBC to promote waste prevention and re-use through a sustained and coordinated campaign across all waste streams and material types	No resources are available within the Council to develop and promote the campaign.	▪ Lower than expected funding from Central Government. ▪ Priorities change within the Council.	L	▪ Household waste continues to rise year by year. ▪ Increase waste arisings mean it is more difficult to achieve BMBC's recycling/composting targets. ▪ LATS penalties are higher. ▪ Increased waste management costs. ▪ Larger residual waste management facilities are required (with increased environmental and economic impacts). ▪ Increased depletion of natural resources.	▪ Many waste reduction and re-use initiatives are already in operation. ▪ Reviews of the MWMS will monitor quantities of waste generated within the Borough and effectiveness of the new waste awareness campaigns. ▪ Monitoring of levels of participation in the initiatives.	
POLICY 2: BMBC will continue to provide recycling/composting services and facilities to the residents of Barnsley through kerbside collections, HWRCs and Bring Sites	No improvements made to existing services and facilities leading to no change in our recycling/composting performance and diverting biodegradable waste	▪ No householder participation within recycling/ composting schemes. ▪ No windrow composting facility available locally to take the green	L	▪ BMBC will not achieve its recycling/composting targets. ▪ Increased quantities of residual waste (including biodegradable) requiring	▪ One of MWMS aims is to make recycling/ composting convenient and second nature to the residents. ▪ Commitments to roll out the	

Policy	Hazard	Potential Threats to cause the Hazard	Likelihood of occurrence of Hazard	Consequence of the Hazard	MWMS Mitigation Controls	Possible Contingency Plan
	from landfill.	waste. ▪ Decrease funding to local authorities from Central Government. ▪ Priorities change within the Council.		disposal/treatment. ▪ Increased waste disposal costs and LATS penalties. ▪ MWMS is not implemented.	segregated weekly collection services to entire Borough. ▪ Commitment to add materials (kitchen waste and plastics) to the kerbside collections ▪ Maintain and improve the existing HWRCs and Bring Sites to provide additional recycling opportunities, ▪ Consultations with householders to ensure services are tailored to the needs of individuals.	
POLICY 3: By 2009, the segregated weekly collection service for household waste will be rolled out across the Borough	No or delayed roll out of segregated weekly collection service.	▪ No householder participation within the service. ▪ No windrow composting facility available locally to take the green waste.	**M**	▪ Collected materials have nowhere to be treated. ▪ Increased biodegradable waste going to landfill. ▪ Greater than expected LATS	▪ Pilot study of service already running in the Borough. ▪ A phased roll out of the service is planned. ▪ BMBC will consult	▪ The biodegradable waste fraction is combined with the residual waste stream. If this occurred, BMBC would need to make

Policy	Hazard	Potential Threats to cause the Hazard	Likelihood of occurrence of Hazard	Consequence of the Hazard	MWMS Mitigation Controls	Possible Contingency Plan
		▪ No political will to extend the service.		deficit. ▪ Increased financial burden on BMBC from LATS and landfill costs. ▪ BMBC will not achieve recycling/composting targets. ▪ No waste minimisation as a consequence of the service.	with householders prior to the roll out to tailor the service to their individual needs. ▪ Proposed consultation will involve aspects of waste prevention. ▪ BMBC actively working with local farmers to develop a series of composting sites and uses for the compost residue.	forward purchases of LATS.
POLICY 4: BMBC, potentially in partnership with neighbouring authorities, will provide an in-vessel composting facility to support the separate collection of organic materials and the processing and marketing of the final product.	No IVC facility in operation in 2009 to help reduce LATS deficit.	▪ No/little market interest from potential contractors. ▪ Difficulties identifying a suitable site. ▪ Planning delays. ▪ Delayed Authorisation from the State Veterinary Service. ▪ Delay gaining	**M**	▪ Collected materials have nowhere to be treated. ▪ Greater than expected LATS deficient. ▪ Increased biodegradable waste likely to go to landfill. ▪ Increased financial burden on BMBC from LATS and landfill costs. ▪ MWMS is not	▪ MWMS is a clear and well structured document based on sound waste forecasts to attract the market. ▪ Waste Management Sites DPD will allocate sites suitable for waste management. ▪ Planning application will	▪ The biodegradable waste fraction is combined with the residual waste stream. If this occurred, BMBC would need to make forward purchases of LATS. ▪ BMBC working in partnership with other local authorities,

Policy	Hazard	Potential Threats to cause the Hazard	Likelihood of occurrence of Hazard	Consequence of the Hazard	MWMS Mitigation Controls	Possible Contingency Plan
		approval from the Environment Agency. ▪ Construction delays. ▪ No market for compost residue.		implemented.	concur with the LDF policies ▪ Sufficient lead in times within the Action Plan to absorb any potential regulatory and construction issues. ▪ BMBC are actively looking for local markets for the compost residue.	would arrange for collected materials to be taken to an existing facility with spare capacity (increased transportation costs are likely as the facility will be further away).
POLICY 5: BMBC will continue to work with the recycling industry to support the Council's kerbside collection, HWRCs and Bring Sites and ensure an effective market for the collected dry recyclables and organic wastes.	Local market failure for collected recyclables and organic wastes.	▪ Recyclables have been poorly segregated by the householder/ Council and therefore rejected by the reprocessor. ▪ Decreased quantities collected compared to what has been promised to the market. ▪ No windrow composting facility	**M**	▪ Collected materials have nowhere to be treated. ▪ Biodegradable waste is likely to go to landfill. ▪ Greater than expected LATS deficit. ▪ Increased financial burden on BMBC from LATS and landfill costs. ▪ Recycling/composting targets will not be achieved.	▪ BMBC actively working with local farmers to develop a series of composting sites and uses for compost residue. ▪ Sufficient lead in times within the Action Plan to identify markets prior to the introduction of new kerbside collections (i.e. kitchen waste and plastic).	▪ The biodegradable waste fraction is combined with the residual waste stream. If this occurred, BMBC would need to make forward purchases of LATS. ▪ BMBC could arrange for collected materials to be sent reprocessors

Policy	Hazard	Potential Threats to cause the Hazard	Likelihood of occurrence of Hazard	Consequence of the Hazard	MWMS Mitigation Controls	Possible Contingency Plan
		available locally to take the green waste. ▪ Over supply to the local reprocessing industry from neighbouring authorities.		▪ Loss of income for the Authority from the collected recyclables. ▪ MWMS is not implemented.	▪ Commitments in the MWMS made to actively work with the local recycling industry in order to prevent market failure. ▪ Waste awareness campaigns provide advice householders on using the recycling/ composting services.	located further away from Barnsley (potentially working in Partnership with other local authorities)

Policy	Hazard	Potential Threats to cause the Hazard	Likelihood of occurrence of Hazard	Consequence of the Hazard	MWMS Mitigation Controls	Possible Contingency Plan
POLICY 6: BMBC working with local businesses and industry will explore opportunities for commercial waste recycling/composting.	No improvements made to existing services and facilities provided by BMBC to local businesses and therefore all commercial waste is sent for disposal. Commercial and industrial waste arisings continue to rise within the Borough.	▪ No/little interest from the local businesses. ▪ No resources made available by the Council to implement this policy. ▪ Recyclables have been poorly segregated by the businesses and therefore have to be treated as residual waste. ▪ Over supply of recyclables to the local reprocessing industry from neighbouring authorities.	**L**	▪ No improvement in recycling/composting performance of municipal waste. ▪ Loss of potential income for the Authority from the collected recyclables. ▪ Greater than expected LATS deficit. ▪ Increased biodegradable waste likely to go to landfill. ▪ Increased financial burden on BMBC from LATS and landfill costs. ▪ Increased depletion of natural resources.	▪ Commitment within MWMS to work with local business to encourage recycling/ composting.	▪ Partnership working with the Yorkshire and Humber Assembly, Environment Agency, neighbouring Authorities to examine ways to influence the commercial sector in terms of their waste management.
POLICY 7: BMBC will consider all management solutions for residual waste that take account of the following principles: ▪ Diversion of waste from landfill is beneficial. ▪ Energy recovery	No preferred residual waste management technological principles are adopted by BMBC leading to no/limited procurement interest from waste management contractors and potential funding	▪ No resources made available by the Council to implement and support this policy. ▪ No political will to implement the policy.	**M**	▪ Increased biodegradable waste going to landfill. ▪ Greater than expected LATS deficit. ▪ Increased environmental impacts associated	▪ Preferred technological principles are adopted based on the results of an independent BPEO assessment. ▪ MWMS states that alternative	▪ Potential to use existing waste treatment facilities within the sub-region (at present there is considerable uncertainty regarding availability and

Policy	Hazard	Potential Threats to cause the Hazard	Likelihood of occurrence of Hazard	Consequence of the Hazard	MWMS Mitigation Controls	Possible Contingency Plan
through thermal treatment is favourable. ▪ MBT technology has uncertainty of markets for RDF that needs to be overcome. ▪ Improvement of the recycling/composting performance is beneficial and can aid the diversion of biodegradable municipal waste, reducing the scale of the residual treatment facility. ▪ Utilisation of a 3rd party treatment facility is preferable if available locally.	bodies. BMBC remain reliant on landfill for its residual waste.	▪ Public reaction means that the Council fails to adopt the Policy. ▪ No market support for the policy.		with landfills. ▪ Increased financial burden on BMBC from LATS and landfill costs (£6 million a year). ▪ Recycling/recovery targets not achieved.	technologies may be appropriate to Barnsley in the future due to influences outside the BPEO assessment.	gate fees). ▪ BMBC would need to make forward purchases of LATS until the residual waste was diverted away from landfill.
Obtain planning permission for a new residual waste management facility within the Borough	Significant delays to the planning process or failure to obtain planning permission for the new residual waste management facilities.	▪ No political will to obtain planning permission. ▪ Significant public opposition against technology and site. ▪ Significant national opposition against	**H**	▪ No suitable site for the new residual waste management facility. ▪ No/little market interest from potential contractors due to no suitable site being available. ▪ Significant delays	▪ Development of the Waste Management Sites DPD. ▪ Time period allowed within Action Plan. ▪ Consultation Strategy.	▪ Potential to use existing waste management facilities within the sub-region until planning application has been obtained for a new local facility.

Policy	Hazard	Potential Threats to cause the Hazard	Likelihood of occurrence of Hazard	Consequence of the Hazard	MWMS Mitigation Controls	Possible Contingency Plan
		technology and site. ▪ The actual planning application is against planning policy. ▪ Delay gaining approval from the Environment Agency.		leading to; • Collected materials have nowhere to be treated. • Increased biodegradable waste going to landfill. • Greater than expected LATS deficit. • Increased financial burden on BMBC from LATS and landfill costs (£6 million a year).	▪ the MWMS. ▪ BMBC will consider all waste management technologies that take account of principles set out in Policy 7.	▪ BMBC would need to make forward purchases of LATS until the residual waste was diverted away from landfill.
POLICY 8: Waste Management Sites DPD document will be developed to allocate sites suitable for the treatment of municipal waste and to devise policies for all other waste streams.	No sites allocated for waste management purposes leading to difficulties gaining planning consent for any new waste management facilities.	▪ Site selection is not based on sound and robust decision-making criteria.	**L**	▪ No/little market interest from potential contractors due to no suitable sites being available. ▪ Significant planning delays leading to; • Collected materials have nowhere to be treated.	▪ Sufficient lead in times within the Action Plan to absorb any planning issues relating to the proposed new waste management infrastructure.	▪ Potential to use existing waste management facilities within the sub-region until planning application has been obtained for a new local facility.

Policy	Hazard	Potential Threats to cause the Hazard	Likelihood of occurrence of Hazard	Consequence of the Hazard	MWMS Mitigation Controls	Possible Contingency Plan
				• Increased biodegradable waste going to landfill. • Greater than expected LATS deficit. • Increased financial burden on BMBC from LATS and landfill costs (£6 million a year).		
POLICY 9: BMBC will continue to work alone and with neighbouring authorities to procure and deliver the preferred waste treatment technology for the region.	No procurement strategy to implement the MWMS.	▪ No resources made available by the Council to develop and project manage the procurement process.	**M**	▪ Collected materials sent to landfill. ▪ Greater than expected LATS deficit. ▪ Increased financial burden on BMBC from LATS and landfill costs (around £6 million a year). ▪ Recycling/composting targets are not achieved. ▪ MWMS is not implemented and waste is not managed in a	▪ MWMS clear and well structured based on a sound evidence base and transparent decision-making process to attract the market. ▪ Waste Management Sites DPD will allocate sites suitable for waste management. ▪ Sufficient lead in times within the Action Plan to absorb any	

Policy	Hazard	Potential Threats to cause the Hazard	Likelihood of occurrence of Hazard	Consequence of the Hazard	MWMS Mitigation Controls	Possible Contingency Plan
				sustainable way.	potential regulatory and construction issues.	
POLICY 10: **BMBC will continually monitor the progress of the implementation of the strategy using waste reduction and re-use targets, the statutory and aspirational recycling/composting targets and the actions outlined on the Action Plan.**	The Strategy will not progress in accordance with the Action Plan or be implemented.	▪ No or limited officer resources ▪ No financial resources ▪ No political will to implement Strategy	**M**	▪ Collected materials sent to landfill. ▪ Greater than expected LATS deficit. ▪ Increased financial burden on BMBC from LATS and landfill costs (around £6 million a year). ▪ Recycling/composting targets are not achieved. ▪ MWMS is not implemented and waste is not managed in a sustainable way.	▪ A clear Monitoring Framework has been developed. ▪ Two Council Services are involved in the monitoring.	▪ Rely on the Statutory Performance Monitoring.

Key – Likelihood of occurrence of the hazard

H	High impact and likely to occur
M	Moderate impact and may occur

L	Low impact and unlikely to occur