

# Waste

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## 1.1 Waste

### Policy Review

#### Waste Framework Directive (91/156/EEC)

The Waste Framework Directive (WFD) requires Member States of the EU to establish both a network of disposal facilities and competent authorities with responsibility for issuing waste management authorisations and licenses. Member States may also introduce regulations which specify which waste recovery operations and businesses are exempt from the licensing regimes and the conditions for those exemptions.

An important objective of the WFD is to ensure the recovery of waste or its disposal without endangering human health and the environment. Greater emphasis is also placed on the prevention, reduction, re-use and recycling of waste.

#### Objectives, Targets and Indicators

Article 4.

Member States shall take the necessary measures to ensure that waste is recovered or disposed of without endangering human health and without using processes or methods which could harm the environment, and in particular:

- Without risk to water, air, soil and plants and animals;
- Without causing a nuisance through noise or odours; and
- Without adversely affecting the countryside or places of special interest.

#### Council Directive 1999/31/EC on the Landfill of Waste

The Directive aims at reducing the amount of waste landfilled, to promote recycling and recovery and to establish high standards of landfill practice across the EU and, through the harmonisation of standards, to prevent the shipping of waste from one Country to another. The objective of the Directive is to prevent or reduce as far as possible negative effects on the environment from the landfilling of waste, by introducing stringent technical requirements for waste and landfills. The Directive also intends to prevent or reduce the adverse effects of the landfill of waste on the environment, in particular on surface water, groundwater, soil, air and human health. It defines the different categories of waste (municipal waste, hazardous waste, non-hazardous waste and inert waste) and applies to all landfills, defined as waste disposal sites for the deposit of waste onto or into land.

#### Objectives, Targets and Indicators

Reduction of the amount of biodegradable municipal waste sent to landfill to 75% of the total generated in 1995 by 2010, 50% by 2013 and 35% by 2020.

These targets have now been interpreted by DEFRA and issued as specific targets for each Waste Disposal Authority requiring a step-wise reduction year on year of BMW to landfill as introduced by the Landfill Allowance Trading Scheme.

#### Environment 2010: Our Future, Our Choice (EU Sixth Environment Action Programme)

The latest Environment Action Programme gives a strategic direction to the Commission's environmental policy over the next decade, as the Community prepares to expand its boundaries. The new programme identifies four environmental areas to be tackled for improvements:

- Climate Change;
- Nature and Biodiversity;

- Environment and Health and Quality of Life; and
- Natural Resources and Waste.

#### Objectives, Targets and Indicators

To ensure the consumption of renewable and non-renewable resources does not exceed the carrying capacity of the environment. To achieve a de-coupling of resource use from economic growth through significantly improved resource efficiency, dematerialization of the economy, and waste prevention

### PPS 10 – Planning for Sustainable Waste Management

This policy statement sets out the Government's policy to be taken into account by waste planning authorities and forms part of the national waste management plan for the UK and by local planning authorities in the preparation of local development documents.

This replaces Planning Policy Guidance Note 10: Planning and Waste Management (PPG10) published in 1999.

#### Objectives, Targets and Indicators

The RSS should include a concise strategy for waste management. The strategy for waste management should:

- look forward for a fifteen to twenty year period;
- comprise a distribution of waste tonnage requiring management, a pattern of waste management facilities of national, regional or sub-regional significance, and supporting policies.

Waste planning authorities should identify in DPDs sites and areas suitable for new or enhanced waste management facilities for the waste management needs of their areas.

- allocate sites to support the pattern of waste management facilities set out in the RSS in accordance with the broad locations identified in the RSS; and,
- allocate sites and areas suitable for new or enhanced waste management facilities to support the apportionment set out in the RSS.

### Planning for Sustainable Waste Management: Companion Guide to PPS10

This guide supports the implementation of PPS10 in land use planning.

The guide provides advice, ideas, examples of current practice and signposts that will be of relevance to planning authorities, to developers and to communities. Specifically, the guide aims to assist:

- regional planning bodies in the development of regional spatial strategies;
- planning authorities in the preparation of local development documents;
- planning authorities in the consideration of planning applications; and
- potential developers in understanding the requirements of the spatial planning system for waste management.

#### Objectives, Targets and Indicators

- sustainable waste management should enable sufficient opportunities for the provision of waste management facilities in appropriate locations. It should be supported by land allocations for new or enhanced waste management facilities.

- LDD will not generally prescribe the waste management techniques or technologies that will be used to deal with specific waste streams in the area. Rather, the types of waste management facility that would be appropriately located on the allocated site should be identified.

- Exceptions to this are likely to be site allocations to support the pattern of waste management facilities set out in the RSS and in the case of municipal waste, where the MWMS should provide a clear service development strategy requiring sites of a potentially more specific nature.

### Regional Spatial Strategy (RSS14) of the East of England (Draft Revision)

Bedfordshire now lies within the East of England region for planning purposes. RSS14 is based on the principles of the UK's Strategy for Sustainable Development and sets out a strategy to guide planning and development in the East of England to the year 2021. This includes the scale and distribution of provision for new housing and identifying priorities for the environment, transport, infrastructure, economic development, minerals and waste management. It aims to improve the quality of life and sets out proposals which will influence where people choose to work and live and how to move about the region. RSS14 is currently under review – the final RSS14 is due to be published in early summer 2007.

#### Objectives, Targets and Indicators

- Encourage waste minimisation
- determine how the principle of Best Practicable Environmental Option will be applied in the context of the hierarchy of waste management and the proximity principle
- ensure adequate provision of sites with sufficient capacity for the collection, storage, treatment, processing, recycling and disposal of all controlled wastes that are forecast to arise within the local authority area, and to make an appropriate provision for reducing waste imports for landfill.
- identify specific sites for such waste management facilities that are likely to be needed.
- provide for ongoing monitoring and review.

Promote sustainable waste management practices, and to make the most efficient use of landfill void, new landfill development in the Marston Vale will only be permitted where the waste to be deposited has been subjected to comprehensive pre-treatment.

The aim is to secure at least the following minimum levels of recovery:

- municipal waste – recovery of 40% at 2005, 50% at 2010 and 70% at 2015
- commercial and industrial waste – recovery of 66% at 2005, 75% at 2015.

After 2015 the import of waste from outside the region will be restricted to the landfill of residual waste that has been subject to the maximum practical level of recovery and treatment, and for which landfill is the only practical management option. Local authorities should plan for a progressive reduction from the levels of waste imports as at 31 March 2004 to an allowance of 30% by weight for the equivalent residues after 2015.

No allowance should be made for new non-landfill waste facilities dealing primarily with waste from outside the region unless there is a clear benefit to the region.

### The Secretary of State's Proposed Changes to the Draft Revision to the Regional Spatial Strategy for the East of England and Statement of Reasons

The document records the Secretary of State's decisions on the recommendations by the Panel who conducted the Examination in Public, and outlines the modified text of the East of England Plan incorporating the Secretary of State's Proposed Changes to be included in the East of England Plan.

#### Objectives, Targets and Indicators

- to ensure timely and adequate provision of the recovery and disposal facilities required the region's waste and for a reducing quantum of wastes imported;
- to minimise the impact of new development, particularly in the Key Centres of Development and Change, on regional waste management requirements;
- to minimise the environmental impact of waste management, including impacts arising from the movement of waste, and help secure the recovery and disposal of waste without endangering human health;
- to seek community support and participation in promoting responsible waste behaviour and approaches to management (maximising re-use, recycling and composting); and
- to recognise the particular locational needs of some types of waste management facility in determining planning applications and defining green belt boundaries.

Minimum levels of recovery:

- municipal waste – recovery of 50% at 2010 and 70% at 2015
  - commercial and industrial waste – recovery of 72% at 2010 and 75% at 2015
- and to eliminate the landfilling of untreated municipal and commercial waste in the region by 2021.

After 2015 provision for the management of imported waste from London should be restricted to the landfill of residual waste that has been subject to the maximum practical level of recovery and treatment, and for which landfill is the only practical option. Allowance should only be made for new non-landfill waste facilities dealing primarily with waste from outside where there is a clear benefit to the region.

Local development documents should include policies which identify the additional capacity required to manage their apportioned wastes. They should identify sites and areas suitable to accommodate the required facilities, including for the collection, sorting and storage of waste, and its treatment, recycling and disposal. They should identify sufficient landfill capacity to meet the anticipated need within the region.

To minimise impacts on growth area objectives for Bedfordshire, the use of potential landfill capacity in the Marston Vale should reduce over time. New landfill development in the Marston Vale should not compromise proposals for environmental regeneration and housing development, and should only be permitted where the waste to be landfilled has been subjected to comprehensive pre-treatment, such that the maximum practicable value has been recovered, and provision is consistent with Bedfordshire's waste apportionment.

Development should be designed and constructed to minimise the creation of waste, make maximum use of recycled materials, and facilitate the collection, separation, sorting, recycling and recovery of such waste as may arise from the completed development and from surrounding areas, where appropriate. Within major developments provision should be made for waste management facilities to enable the sustainable management of waste through innovative approaches to local waste reduction, recycling and management.

Waste disposal and collection authorities and private sector waste companies should take into account the relationship between waste minimisation, waste collection and recycling/composting, when devising and operating waste management strategies. Waste collection systems which aim to minimise waste at source should be adopted throughout the region, and separate collections of recyclable and compostable materials introduced. Waste disposal authorities should ensure that "bring sites" and household waste recycling sites are widely available. All collection and recycling / composting schemes should be supported by a strong waste minimisation message. The Regional Assembly, EEDA and other partners should work to develop markets for recycled and recovered materials and products, and to improve waste data quality.

### Waste Not, Want Not

The Strategy Unit (SU), formerly the Performance and Innovation Unit, was asked by the Prime Minister to carry out a review of Waste Strategy at the end of 2001 with a focus on municipal waste. Where appropriate this report highlights recommendations relevant to the more sustainable management of other wastes.

### Objectives, Targets and Indicators

The key success measures for the strategy in this report, if taken forward by government, will be:

- reducing the rate of household waste growth to 2% per annum by the end of 2006;
- 50% of households carrying out home composting by 2006;
- the roll out of kerbside recycling collections;
- a target of at least 35% of household waste being composted or recycled by 2010 and at least 45% of household waste being composted or recycled nationally by 2015;
- an absolute reduction in the amount of municipal waste going to landfill annually from 2007; and
- 30% of collection authorities to have tried incentive based schemes to encourage sound management of household waste by 2005/6.

### Waste Strategy 2007 for England and Wales

The Government's vision is of a waste collection and treatment infrastructure where:

- Increasing amounts of waste are separated by householders and other producers themselves for joint kerbside collection. Greater value is derived from unwanted products that can be reused;
- Valuable materials find ready markets as recyclate;
- Other wastes have electricity and heat recovered where appropriate;
- Better joining up between municipal and private sectors enables provision of local as well as regional facilities, with plant treating both merchant and municipal wastes wherever practicable; and
- Properly managed landfill (with capture and use of methane gas emitted) is available to take those wastes from which no useful value can be extracted economically from further treatment.

The Strategy sets out a number of new challenging targets for improved waste management in England and Wales. These are outlined below.

### Objectives, Targets and Indicators

Reducing the amount of household waste not re-used, recycled or composted from over 22.2 million tonnes in 2000 and 18.6 million tonnes in 2005 to 15.8 million tonnes in 2010 with an aspiration to reduce it to 14.3 million tonnes in 2015 and 12.2 million tonnes in 2020 – a reduction of 45% between 2000 and 2020;

Higher national targets for re-use, recycling and composting of household waste – at least 40% by 2010, 45% by 2015 and 50% by 2020;

Setting national targets for the recovery of municipal waste – 53% by 2010, 67% by 2015 and 75% by 2020.

Reducing the amount of commercial and industrial waste going to landfill by at least 20% by 2010 compared to 2004;

Recover value from 53% of municipal waste by 2010, 67% by 2015 and 75% by 2020;

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

### East of England Waste Management Strategy

This Strategy has been prepared in accordance with Government advice in PPG 10 (recently superseded by PPS10). This Strategy has the status of supplementary planning guidance (SPG) and will be a material consideration in the preparation of Waste Local Development Documents. The Strategy gives guidance and informs the private sector waste management companies, voluntary bodies and the public at large on the preferred approach to waste management – what is needed in terms of both practices and facilities.

### Objectives, Targets and Indicators

- to reduce the amount of waste being created.
- new facilities needed to deal with the waste will be brought on stream well before landfill capacity runs out. A range of facilities to handle and process waste will be required in the region.
- to become self-sufficient in matching the capacity of its facilities to the amount of waste it produces. Regional facilities may be appropriate for hazardous and other restricted wastes.
- create new markets for recycled and separated waste.
- waste Local Plans should identify sites for these new waste businesses to pro-actively encourage their establishment by reducing planning hurdles.

The aim is to secure the following minimum levels of recovery:

- Municipal Waste – recovery of 40% at 2005, 50% at 2010 and 70% at 2015.

- Commercial & Industrial Waste – recovery of 66% at 2005, 75% at 2015.

### Waste Strategy for Bedfordshire and Luton

This document outlines our strategy for dealing with waste in Bedfordshire and Luton up to the year 2020. The Minerals and Waste Local Plan and the Municipal Waste Management Strategy, both of which are statutory requirements, were developed to support the waste strategy.

#### Objectives, Targets and Indicators

- To reduce reliance on landfill to a practical minimum.
- To reduce annual imports of waste to Bedfordshire to a level of 0.5 million tonnes by the year 2010 and to make ongoing provision for disposal of pre-treated waste to a maximum level of 0.5 million tonnes / year.
- For local wastes, to end landfill of untreated waste by 2010 - prioritise materials recycling (including composting). Waste which cannot be dealt with this way will be processed for energy recovery.
- Prioritise initiatives to minimise waste at source, both in the public and private sectors.
- For local municipal wastes, to focus on systems which facilitate segregation of waste at source.
- To monitor the market for inert recycling and maintain a supply of recycling capacity sufficient to meet demand.

### Bedfordshire and Luton Municipal Waste Management Strategy

This document provides the detailed implementation plan for local municipal wastes and presents our detailed proposals for future waste services, including recycling, composting, other potential waste treatment technologies and setting out plans and policies for the period up to year 2020.

#### Objectives, Targets and Indicators

To consider waste in terms of resource management, with the emphasis on waste reduction and the recovery of resources (materials and energy) from waste.

The Borough and District councils are the statutory Waste Collection Authorities (WCAs). Bedfordshire County Council is the Waste Disposal Authority (WDA). Its main function is to provide centralised waste management facilities, to which the WCAs deliver their collected waste. Bedfordshire County Council is also the Waste Planning Authority.

### Managing Waste in New Developments: Supplementary Planning Document Bedfordshire and Luton Waste Local Plan 2005

This Supplementary Planning Document (SPD) provides guidance on reducing, recycling and recovering waste during demolition, construction and occupation of new developments. It aims to:

- To offer practical guidance to those involved in the development process to reduce, reuse and recycle waste.
- To influence the design of new development:-
  - to allow an efficient and effective waste management service to be provided.
  - to enable all occupiers to have the best opportunities to reduce, re-use and recycle waste.
- To improve skills in sustainable waste management by raising awareness and applying best practice.

#### Objectives, Targets and Indicators

Careful planning and design for waste management:

- Ensuring easy and effective storage and collection of waste - layout and design of buildings, external spaces and roads; and
- Reducing waste and maximising recycling and re-use during the construction of a development.

**Bedfordshire and Luton Minerals and Waste Local Plan**

It sets the detailed landuse policy framework for the extraction of minerals and management of waste.

**Objectives, Targets and Indicators**

- To identify the need, nature, scale and location of waste management sites, and promote the shift to more sustainable waste management practice;
- To balance the allocation of these sites with the environmental and public amenity constraints in the County;
- To ensure sensible and prudent use of the mineral and waste resources in the County;
- To encourage reduction in use of raw materials and greater recovery of waste products;
- To minimise the effects of minerals extraction and waste management on the environment; and
- To seek enhanced public and environmental benefits when considering site restoration and after use;
- To set out Development Control criteria to be applied when considering mineral and waste applications and restoration and aftercare proposals.

**Designing for Sustainability – Luton Borough Council Supplementary Planning Guidance**

This document sets out what the Borough Council expects it terms of sustainable design and energy conservation.

**Objectives, Targets and Indicators**

Use local and recycled building materials.  
Incorporate space for sorting of recycled materials from waste - use and allow composters and recycling bins.

**Bedford Borough Council Development Plan Document (DPD): Core Strategy and Rural Issues Plan (Submission version)**

The Local Development Framework is a series of documents which will gradually replace the Local Plan and deliver the spatial planning strategy for Bedford. These will set out the Council's policies for meeting the community's economic, environmental and social aims for the future where they affect the development and use of land. Preparation of the Local Development Framework will be a continual process with new documents being prepared at different stages to ensure that they are up-to-date.

The Core Strategy will set out the long term vision and overarching policies for the Borough. Consultation is taking place in connection with preparing the 'Core Strategy and Rural Issues Plan'. The DPD was submitted to the Secretary of State on 3 July 2006 and a six week consultation period followed. An independent Inspector will be appointed in May 2007 to consider all representations received in response to the consultation. It is expected that this DPD will be adopted in December 2007.

**Objectives, Targets and Indicators**

Follow a sustainable construction code such as that produced by the Building Research Establishment (BREEAM and EcoHomes) and achieve a rating of at least 'very good'; and,  
Utilise sustainable construction techniques.  
Incorporate facilities to minimise the use of water and waste.

**South Bedfordshire Local Plan (Review Deposit)**

The Local Plan was adopted in 2004 and provides comprehensive planning guidance for development in the area up to the year 2011. It develops the policies and general proposals of the Structure Plan and relates them to precise areas of land in the area. It sets out policies for environmental planning and management, in particular relating to conservation and improvement of the environment, efficient use of land and resources and the management of traffic.

**Objectives, Targets and Indicators**

To limit the use of natural, non-renewable resources and substitute use of renewable resources where possible.  
To reduce the production of waste requiring final disposal.  
To recycle waste products.

- 1.1.1 This section addresses baseline waste management of Bedfordshire and Luton.

**Background**

- 1.1.2 Over the last 15-20 years waste management has been changing from a system based on landfill disposal towards a system based on recycling and recovery. Bedfordshire has a legacy of clay working and worked-out pits, which has resulted in the County playing a major role in landfill of waste from South East England and Greater London. As a result of this, landfill in Bedfordshire is currently dominated by imported waste, in particular from Greater London, which currently accounts for some 75-85% of all waste landfilled in Bedfordshire. In accordance with the aim to minimise landfill, and the proximity principle (which requires waste to be treated as near as possible to its source), those areas currently exporting their waste to Bedfordshire will have to take action to reduce the dependence on landfill in Bedfordshire for waste disposal. The policy framework for this shift is set out in the Bedfordshire and Luton Waste Strategy 2001, which is broader in scope than many of the municipal waste strategies by other authorities, and covers the approach to all waste managed in the area: both local and imported; public and private sector.

**Waste Data**

- 1.1.3 It is difficult to acquire consistent and comprehensive data relating to waste management activities, particularly at the local level, although this situation is improving. The most recent sources of data for waste managed in Bedfordshire are:
- Study of existing waste facility capacity and future needs in the East of England (the "Waste Capacity Study"), produced by ERM consultants, and published by the East of England Regional Assembly in October 2005. Includes data for waste capacities at the end of 2004, waste handled at facilities in financial year 2002/3, and MSW data for local authorities in financial year 2003/4.
  - Strategic Waste Management Assessments, published by the Environment Agency. The main documents provide capacity and waste handled data for financial year 1998/99, with update reports giving data for 2000/01.

- The Waste Strategy for Bedfordshire and Luton, published by Bedfordshire County Council. Includes data from research for financial year 1998/99.
- WasteDataFlow, published by Defra. WasteDataFlow is a internet based system for municipal waste data reporting by UK local authorities to government. The system went live on 30 April 2004. The first estimates for England for Municipal Waste Management Statistics 2005/6 were published on 16 November 2006.

1.1.4 Together, these data sources provide the following information:

**Waste arising in Bedfordshire and Luton.**

1.1.5 The following figures are taken from the ERM Waste Capacity Study, and relate in the main to the financial year 2002/3 for C+I (Commercial and industrial) and C+D (construction and demolition) data and 2003/4 for MSW (municipal solid waste). NB: As the figures are taken from a variety of sources (each with its own caveats) over a number of years they should be taken as indicative and not relied upon in detail.

**Waste arising in Bedfordshire and Luton (ERM – 02/03 figs: 000’s tonnes)**

Waste type	Total arising	recycled	Other treatment / recovery / beneficial use	unknown	Landfill
MSW	338 (100%)	64 (20.3%)	0.4 (0.1%)	n/a	268 (79.4%)
C+I	629 (100%)	196 (31.2%)	23 (3.7%)	168 (26.7%)	243 (38.6%)
C+D	1650 (100%)	758 (45.9%)	619 (37.5%)	n/a	228 (13.8%)
Total	2617 (100%)	1022 (39.1%)	642.4 (24.5%)	168 (6.4%)	734 (28.3%)

Notes:

- MSW includes estimates for Luton (not included in ERM MSW totals): 108 kt arising (taken from Bedfordshire and Luton Waste Strategy projections), 19% recycling assumption (Defra Municipal Solid Waste Survey).
- Recycling includes composting. Permitted composting capacity in the County now stands at 101,000 tpa.
- MSW and C+I Other treatment / beneficial use includes energy recovery and other biological / physical / chemical treatments
- C+D other beneficial use = landfill engineering + quarry restoration (backfill) + exempt uses (e.g landscaping schemes)

Trends in locally arising wastes

1.1.6 Municipal solid waste

- The total recorded MSW arising for 2003/4 at 338,000 tonnes compares to some 290,000 tonnes recorded in 1998/9, which equates to a 3.1% annual (compound) growth rate. This compares to national average growth rates of 3-4%. Recent figures from Defra indicate that MSW arisings in Bedfordshire and Luton have fallen to 318,650 tonnes in 2005/06.
- According to figures from the Defra MSW survey, the MSW recycling rate in Bedfordshire (ex Luton) has risen from 6% in 1998/9 to 12% in 2003/3 and 17% in 2003/4. Latest figures from Bedfordshire County Council indicate around 29% of MSW waste arisings in 2005/6 was recycled. Luton has recorded 8% in 1998/8, 15% in 2002/3 and 19% in 2003/4, with latest outturns again being 25%.

#### 1.1.7 Commercial and industrial

- The recorded arising of 629,000 tonnes for 2002/3 appears to be a considerable increase from the 312,000 tonnes recorded for 1998/9 (BL Waste Strategy). However, the earlier figure was estimated from best available knowledge, whilst the latter has the benefit of subsequent survey work, including enhanced EA reporting, and is likely to be a more reliable figure. Earlier data collected by the South East Waste Regulation Advisory Committee (SEWRAC) is not directly comparable, but indicates a C+I range of 130-750,000 tonnes for years 1992-96.
- C+I recycling rates have generally been higher than those for MSW, which reflects a national trend. In 1998/9 C+I recycling was estimated to be in the order of 33%, whilst the 2002/3 figures indicate a rate of 31.2%. No discernable trend is evident over time.

#### 1.1.8 Construction and demolition

- The C+D figures indicate a large discrepancy between 1998/9 and 2002/3, which merits further investigation. In 1998/9 some 585,000 tonnes were estimated to arise in Bedfordshire and Luton, with around 72% recycled or otherwise beneficially used (for example in restoration of mineral sites by backfilling). In 2002/3 (ERM study), the C+D waste arising is reported at 1,650,000 tonnes, a more than three-fold increase over three years. Part of this may be due to increased reporting of C+D recycling on construction sites using mobile processing plant, but it seems unlikely that this could account for the full difference and the reported figures do not compare well with intuitive estimates of C+D activity from the Waste Planning Authorities in the area, which indicate a likely total estimated arising of around 1 million tonnes per year. The reported recovery rate for 2002/3 was around 83%, which does appear reasonable in relation to the previous rate, especially given the impacts of the landfill tax. Of the waste recovered somewhat more than half was recycled, with the rest being used for restoration of mineral workings and other landscaping schemes. It should be noted that accurate data on C+D wastes are notoriously hard to obtain, particularly at the local level.
- C+D waste is an important resource for restoration of voids created by mineral working. Notwithstanding the apparent increase in quantities of C+D waste apparent from the figures, anecdotal evidence, both in Bedfordshire and nationally, indicates that mineral companies face increasing difficulties in securing supplies of such restoration material.

Further difficulties in the use of inert wastes for restoration have arisen as a result of the landfill directive, which requires increased engineering of environmental protection (e.g. basal site lining) with attendant increase of operational cost.

- Inert waste could further be minimised and diverted from landfill and site restoration, given the strong policy pressure for recycling, for example by specifying secondary or recycled aggregates in Council projects such as road maintenance and supporting the use of the ICE Demolition protocol as part of the planning process. This would maximise the amount of material recycled as part of site redevelopments and reduce the pressure for primary aggregate resources.

#### 1.1.9 Imported Wastes

- The quantities of locally arising waste pale by comparison to the amount of waste imported to the County for landfill, notably in the Marston Vale area, where a number of large landfill sites (both operational and closed) are concentrated. In 1998/9 some 2,350,000 tonnes of MSW and C+I waste were imported for landfill. C+D imports are generally much lower (some 130,000 tonnes recorded in 1998/9) owing to the economics of transport and availability of alternative disposal / recovery routes. The ERM Waste Capacity Study does not include precise figures for all waste imports, but does report 1.5 million tonnes from Greater London in 2004/5. Site-specific information held by the Waste Planning Authorities indicates that total waste imports remain at around 2 million tonnes per year.
- There appears to be a slight reduction in waste imports between 1998/9 and 2004/5, but the impacts of imported waste are still by far the greatest in terms of overall waste management in the County, especially as landfill sites (operational, closed and potential) are concentrated in the Marston Vale area. If these levels of waste imports continue, then the impacts will be exacerbated as the Marston Vale area has now been designated as major housing growth zone under the Government's "Sustainable Communities" programme, and in particular the Milton Keynes – South Midlands Sub-Regional Strategy. The issue of imported wastes and their impact on the Growth Area is one of the major planning issues facing the County.

#### 1.1.10 Hazardous/special waste

- A number of European waste directives and associated legislation (EU and UK)<sup>1</sup> have radically changed the context of hazardous / special waste in recent years. The main outcomes of significance for this topic paper are:
  - The previous classifications of "special" and "difficult" wastes have been superseded by the new "hazardous" waste classification.
  - Hazardous wastes may now only be landfilled in specific hazardous waste landfill sites

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▪ <sup>1</sup> Notably the Landfill Directive and European Waste Catalogue – also Directives relating to waste electrical and electronic equipment, reduction of hazardous substances and end-of-life vehicles (among others)

- More types of waste are classified as hazardous.
- Previously, relatively large quantities of “special” and “difficult” wastes have been landfilled in Bedfordshire. In 1998/9, some 200,000 tonnes of such wastes were landfilled, of which only 20,000 tonnes originated within the County.
- With the advent of the EU Landfill Directive, all landfill sites have now been classified to accept exclusively hazardous, non-hazardous or inert wastes, with more onerous engineering and environmental controls required for all classes of site. The engineering requirements for hazardous waste landfills are particularly stringent, and as a result of the re-classification, there are now no hazardous waste landfill sites operational in the entire East of England region.
- One other emergent consequence of the Landfill Directive and reclassification of sites is an apparent large-scale reduction in reported arisings of contaminated soils and construction wastes (generally arising as a result of brownfield developments), which have hitherto accounted for some 40-45% of hazardous wastes. This is believed to be related to two main causes: firstly, more careful classification of wastes on-site (i.e. bulk consignments previously classed wholesale as special or difficult are now more carefully segregated); secondly, more effort in remedial treatment of contaminated materials on-site so as to bring them out of the hazardous class.
- Figures in the ERM Waste Capacity Study indicate that by 2002/3, hazardous waste arisings in the whole East England region had fallen to 337,000 tonnes (as compared to 200,000 tonnes in 1998/99 for Bedfordshire alone). No later figures are available, which is a highly significant data gap because the main Landfill Directive site reclassification did not occur until July 2004. Anecdotal evidence suggests that there has been a very significant reduction on hazardous waste since this event, but no firm evidence is as yet available.

## Future Waste Targets

- 1.1.11 The Secretary of State's Proposed Changes to the Draft Revision to the Regional Spatial Strategy for the East of England, state the following minimum levels of recovery:
- Municipal waste – recovery of 50% at 2010 and 70% at 2015
  - Commercial and industrial waste – recovery of 72% at 2010 and 75% at 2015; and
  - To eliminate the landfilling of untreated municipal and commercial waste in the region by 2021.
- 1.1.12 These targets are slightly different to those included in the Waste Strategy 2007:
- Recycling and composting of household waste – at least 40% by 2010, 45% by 2015 and 50% by 2020; and
  - Recovery of municipal waste – 53% by 2010, 67% by 2015 and 75% by 2020.
- 1.1.13 The existing targets the recycling of municipal waste in Bedfordshire and Luton fall below the recommended targets set out by the Secretary of state for the RSS of the East of England and the Waste Strategy 2007.

**Current Targets for Municipal Waste recycling in Beds and Luton.**

	Recorded Recycling Rate 1998/99 (%)	Recycling Target for 2003/04 (%)	Recycling Target for 2005/06 (%)
Bedford Borough Council	4	10	18
Mid Bedfordshire District Council	5	10	18
South Bedfordshire District Council	7	14	21
Bedfordshire (whole county)	6	12	18
Luton Borough Council (unitary Authority)	8	16	24

**Current waste facilities**

- 1.1.14 The following sites were granted planning permission between April 1<sup>st</sup> 2005 and March 31<sup>st</sup> 2006 (Bedfordshire Minerals and Waste Annual Monitoring Report 2005/06):
- Etonbury Farm – Composting of imported green waste plus pig manure and straw produced on the farm and recycling of topsoil and concrete;
  - Great Thickthorn Farm – Use of agricultural farmyard to shred and recycle wood;
  - Plot 2 Station Road Industrial Estate, Ampthill – Waste Transfer Station;
  - Plot 3 Station Road Industrial Estate, Ampthill – Waste Transfer Station;
  - Faldo Farm – On farm composting; and
  - Winsey House Farm – Change of use of former agricultural buildings to recycling plant.
- 1.1.15 This year Bedfordshire undertook a waste survey of the waste operators within their area, the results of which are shown below. Please note that this information has not been forthcoming from all the operators and so some information is unavailable.

Management Method	Capacity
Composting	101,000tpa*
Aggregates Recycling	563, 999tpa plus 1 site can have 4000 tonnes at any one time.*
Material Recycling Facility/Transfer Station	977, 298tpa plus 1 site can have 50 tonnes at any one time.*
Incineration	180,000tpa****
Woodchipping	5000tpa*
Landfill (Active)	4,533, 000** tonnes
Landfill ( Inert)	No information available***
Civic Amenity Sites	125,750tpa*

\* Capacity information gained from Planning Permissions, to identify the capacity for various waste sites within Bedfordshire

\*\* taken from WRG Supplemental Supporting Statement for Brogborough – August 2006

\*\*\* Unfortunately only one operator returned their figures for their inert landfill site, therefore we are unable to report this figure

\*\*\*\* Taken from the ERM Waste (source: ERM Waste Capacity Study table 2.7)<sup>2</sup> – no new incineration facilities were granted in 05/06

### Sustainable Waste Management

1.1.16 The increasing concern about the environmental impacts of landfilling has caused many to investigate alternatives to landfills. Increasingly, the integration of waste management planning and practices is occurring with an aim to making them more sustainable. Integrated or sustainable waste management attempts to segregate the various components of the waste stream and to manage those portions of the waste stream in an environmentally sound and economically efficient manner. Integrated waste management considers the following practices for waste management:

- Waste reduction - the design, manufacture, purchase, or use of materials (such as products and packaging) to reduce the amount or toxicity of trash generated;
- Recycling - materials are collected and used as raw materials for new products;
- Composting - a form of recycling, can play a key role in diverting organic wastes from disposal facilities;
- Energy from waste processes in specially designed facilities reduce the bulk of waste and provides the added benefit of energy recovery;
- Landfilling is, and will continue to be, a major component of waste management.

### Energy from Waste

1.1.17 Potential benefit may be gained from waste if heat and/or power can be recovered through its combustion (burning). There are two basic techniques for recovering energy from household waste in conjunction with combustion.

- The mass burn process involves waste being incinerated, with the heat released used to raise steam. This is then fed to district heating or used to power a turbine for electricity generation. Ferrous metals can be recovered for recycling from the residue. Residues amount to 20% of the original input and therefore require much less landfill space.
- The second system is a two stage 'refuse-derived fuel' process. Incoming waste is shredded and screened to remove the incombustible part, including metal for recycling. The products are a fuel fraction which can be burned in industrial boilers; either on site or at a distant location; and a reject fraction which must be landfilled.

1.1.18 Anaerobic Digestion is an additional method that creates energy from biodegradable waste without the use of a combustion process. This process converts the organic part of household waste, producing a 'biogas', for use as fuel, a liquid which can be used as a fertiliser and compost suitable for use as a soil conditioner. This technology is relatively

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▪ <sup>2</sup> “Study of existing waste facility capacity and future needs in the East of England” ERM for the East of England Regional Assembly, October 2005 (See [http://www.eera.gov.uk/Documents/About%20EERA/Policy/Planning%20and%20Transport/EERA%20Final%20Report\\_171005.pdf](http://www.eera.gov.uk/Documents/About%20EERA/Policy/Planning%20and%20Transport/EERA%20Final%20Report_171005.pdf))

unproven and on a small scale. The Government in its new Waste Strategy 2007 urges local authorities to assess whether anaerobic digestion can form a part of their waste strategies.

Flytipping

- 1.1.19 Flytipping is the illegal dumping of waste. It can vary in scale significantly from a bin bag of rubbish to large quantities of waste dumped from trucks. Fly-tipped waste may be found anywhere, such as roadsides, in lay-bys or on private land. A wide variety of wastes are fly-tipped. These include rubbish, large domestic items, such as fridges and mattresses, garden refuse, tyres and clinical waste. Large amounts of waste from construction, demolition and excavation activities are sometimes dumped. Fly-tipping poses a threat to humans and wildlife, damages our environment, and spoils our enjoyment of our towns and countryside.
- 1.1.20 Waste Performance Monitoring Sheets for 04/05 and 05/06 (Figure 1.6), supplied by Bedfordshire County Council, show that the incident of fly-tipping in the County has decreased over the last couple of years. Information for 2006/2007 cannot be released as yet as this data has not been audited and at present no data is available for Luton Borough Council.
- 1.1.21 Although, fly-tipping in Bedfordshire has decreased over the last couple of years, provision of an adequate network of waste management facilities are required to avoid fly-tipping.

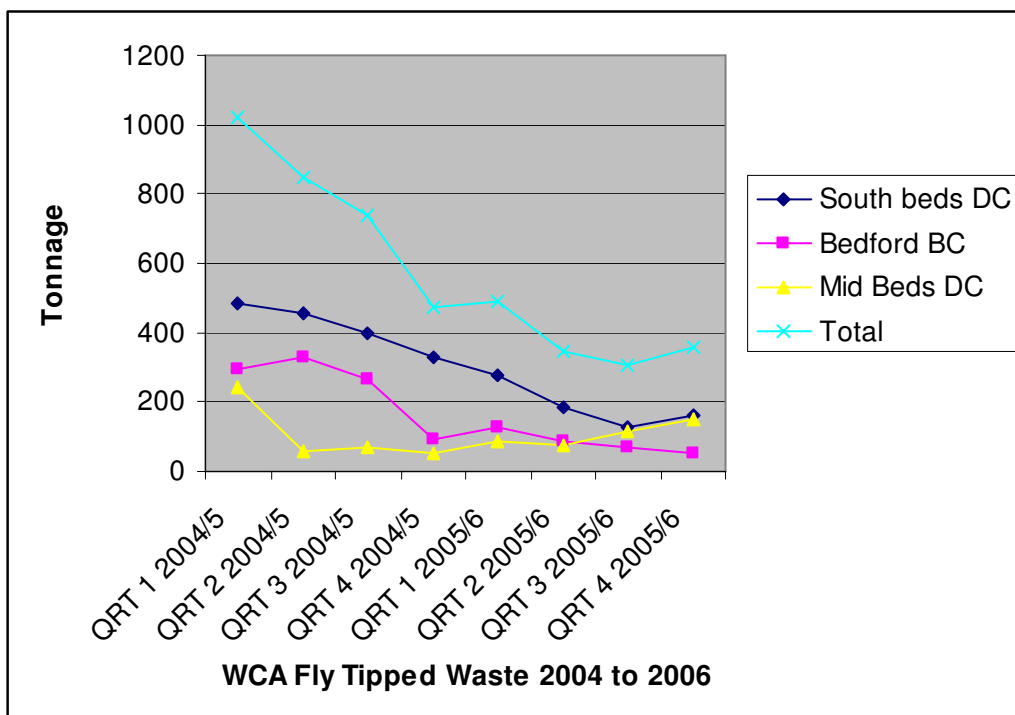


Figure 1.1: WCA Fly-Tipped Waste 2004 to 2006 (Source: BCC)

## Trends

- Landfill in Bedfordshire is currently dominated by imported waste, in particular from Greater London, which currently accounts for some 75-85% of all waste landfilled in Bedfordshire.
- There has been an increase in the generation of MSW between 1998/9 and 2003/4.
- There has been an annual increase in the MSW recycling rate in Bedfordshire (ex Luton) between 1998/9 and 2005/6. However, there is a need for increased recycling and recovery capacity in order to meet future targets, especially for municipal wastes
- There appears to be a considerable increase in recorded arising of C+I waste between 1998/9 and 2002/3.
- In 1998/9 C+I recycling was estimated to be in the order of 33%, whilst the 2002/3 figures indicate a rate of 31.2%. No discernable trend is evident over time.
- The C+D figures indicate a large discrepancy between 1998/9 and 2002/3, which merits further investigation. There appears to be a more than three-fold increase in C+D waste over three years. The reported recovery rate for 2002/3 was around 83%. Of the waste recovered somewhat more than half was recycled, with the rest being used for restoration of mineral workings and other landscaping schemes.
- Reducing availability of inert wastes for quarry restoration, plus increased technical difficulties in using backfill (landfill directive site engineering requirements)
- Opportunity to minimise recycled and secondary aggregates at source using the Demolition Protocol.
- There has been a large-scale reduction in reported arisings of contaminated soils and construction wastes (generally arising as a result of brownfield developments), which have hitherto accounted for some 40-45% of hazardous wastes.
- The incidences of fly-tipping in the County has decreased over the last couple of years.

## Issues Associated with Waste Management

- 1.1.22 There are a number of interesting challenges that the Waste DPD plan must deal with:
- The need for a progressive reduction in waste imports from London and the South East over the period to 2015, with a steady-state provision for landfill of post treatment residues thereafter.
  - The aim to provide greater provision of single waste streams - through separation at source or sorting;
  - The need to deal with the uncertainty regarding the future of hazardous waste management;
  - Household growth in the Milton Keynes South Midlands area is likely to increase the amount of waste that requires treatment and disposal. At minimum this is likely to lead to a requirement for a second HWRC to serve the Bedford area. The County Council will need to undertake more detailed investigations to identify the likely scale of such need; and

- The aim is to phase out landfill of untreated non-inert wastes entirely by 2021. Provision will need to be made within the plan area for management of forecast local waste arisings, including facilities required to achieve diversion from landfill. This has key implications on the Marston Vale. In order to minimise adverse impacts on Sustainable Communities Plan growth areas, the use of potential landfill capacity in the Marston Vale should reduce over time.

## Scoping Consultation

### Key Issues and Implications for Waste Planning

- There was discussion as to whether unitary status will affect waste disposal – perhaps this issue could be referred to in the waste scoping paper that is being produced at the moment.
- A business case for a waste to energy plant for municipal waste is being put together at the moment and there might be some scope for industrial waste to be dealt with. This should factor into any site considerations for the Waste DPD.
- The Waste DPD should consider the different options - centralised, large plants versus small plants. There is currently a confusion as DEFRA seem to be encouraging larger sites and DCLG are encouraging smaller plants
- Need to consider lifecycle (including embodied energy) effects of the options and issues related to throughput of different technologies etc.
- Think carefully about how to integrate waste minimisation in the plan even though it is not a key function of the plan. Need to use the plan to look at waste minimisation specifically related to packaging - make the links to SPD.
- The more household growth, the more you are pushed towards waste treatment and this could be a key consideration in the growth area.

### Comments on the Objectives for the SA

- "Appropriate facilities" is a bit vague in terms of an objective. Link the first objective to targets.
- Additional objective: maximise/optimize resource recovery.
- Should targets include "tonnes per head"?

## Relevant objectives for the SA

- 1.1.23 Taking into account all of the above information the following objectives and indicators have been chosen for the SA.

SA Objectives	Appraisal Questions. Does the plan...
<ul style="list-style-type: none"> <li>• Provide a network of facilities to deal with the waste requiring disposal and to meet the</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that the recycling and recovery infrastructure is adequate to meet targets.</li> </ul>

<p>regional recycling targets.</p> <ul style="list-style-type: none"> <li>• Reduce the quantity of waste produced per head in the county.</li> </ul>	<ul style="list-style-type: none"> <li>• Consider how future development is balanced against the capacity of the region to sustainably deal with the waste produced.</li> <li>• Encourage a reduction in the production of waste wherever possible and maximum recovery of resources.</li> </ul>
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**Sources of data**

- ERM waste capacity study (published by EERA October 2005) (see [www.eera.gov.uk](http://www.eera.gov.uk))
- Strategic Waste Management Assessments (EA);
- WasteDataFlow (Defra, 2006)
- [www.magic.gov.uk/website/magic/](http://www.magic.gov.uk/website/magic/) (GIS mapping data for Bedford)
- Bedfordshire & Luton Minerals and Waste Local Plan 2005
- Waste Strategy for Bedfordshire and Luton 2001
- Beds CC in house monitoring data
- [www.bedfordshire.gov.uk](http://www.bedfordshire.gov.uk)
- [www.luton.gov.uk](http://www.luton.gov.uk)
- <http://www.defra.gov.uk/environment/statistics/wastats/bulletin.htm>
- [http://www.ace.mmu.ac.uk/Resources/Fact\\_Sheets/Key\\_Stage\\_4/Climate\\_Change/27.html](http://www.ace.mmu.ac.uk/Resources/Fact_Sheets/Key_Stage_4/Climate_Change/27.html)

**Data Gaps**

- Waste data is not entirely reliable as comes from a variety of sources (each with its own caveats) over a number of years. This situation should improve as the WasteDataFlow internet based system continues to gather comparable information on waste year on year.
- The ERM Waste Capacity Study was undertaken in 2002/3 and relate in the main to the financial year 2002/3 for C+I (construction and industrial) and C+D (construction and demolition) data and 2003/4 for MSW (municipal solid waste). There are no later figures are available, which is a significant data gap because the main Landfill Directive site reclassification did not occur until July 2004.
- Fly-tipping data is not available for Luton Borough Council.