Waste

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.

PPG 10 – Planning and Waste Management
This guidance note provides advice about how the land-use planning system should contribute to sustainable waste management through the provision of the required waste management facilities in England and explains how this provision is regulated under the statutory planning and waste management systems.

Objectives, Targets and Indicators

Development Plans for waste should provide a clear guide to the waste management industry and to the public on the land-use policies of the WPA for managing waste in its area. The land use planning system should meet the following objectives:

- To provide a planning framework which enables adequate provision to be made for waste management facilities to meet the needs of society for the re-use, recovery and disposal of waste, taking account of the potential for waste minimisation and the particular needs in respect of special waste;
- To help meet the needs of business and encourage competitiveness;
- To encourage sensitive waste management practices in order to preserve or enhance the overall quality of the environment and avoid risks to human health;
- To have regard to the need to protect areas of designated landscape and nature conservation value from inappropriate development;
- To minimise adverse environmental impacts resulting from the handling, processing, transport and disposal of waste;
- To consider what new facilities may be needed, in the light of wastes forecast to arise;

  To ensure that opportunities for incorporating re-use/recycling facilities in new developments are properly considered and
- Adhere to the principles of:
  - Best Practicable Environmental Option.
  - Regional Self Sufficiency.
  - Proximity Principle.
  - Waste hierarchy.

Consultation on Planning Policy Statement 10: Planning for Sustainable Waste Management (2005). *New Final version will be reviewed before the SA Report is published.*

The consultation seeks views and comments on the draft of the new Planning Policy Statement (PPS) 10 *Planning for Sustainable Waste Management,* which together with an accompanying practice guide should, in due course, replace Planning Policy Guidance Note 10 (PPG10) *Planning and Waste Management,* published in 1999. In revising PPG10, the aim has been to focus on national policy and to provide clarity on what is required at regional and local levels to ensure that decisions are made at the most appropriate level and in a timely fashion that delivers sufficient opportunities for sustainable waste management. The statement considers such issues as moving waste up the hierarchy and ensuring communities take responsibility for their own waste. BPEO has been replaced by the statutory requirement for SEA.

Objectives, Targets and Indicators

Planning strategies should adhere to the following principles:

- Strategies should meet the identified needs of their area for waste management for all relevant waste streams;
- Waste management should be considered alongside other spatial planning concerns such as transport, housing, economic growth, natural resources and regeneration, recognising the positive contribution that waste management can make to the development of sustainable communities;

- Planned provision of new capacity and its spatial distribution should be based on clear policy objectives, which in turn should be based on robust analysis of data and information, and an appraisal of options;
- Indicators should be monitored and reported on in regional planning bodies' and waste planning authorities' annual monitoring reports; and
- Integrated sustainability appraisal should be applied so as to ensure that planning strategies support the Government's planning objectives for waste management set out in this PPS.

Bedfordshire and Luton Minerals and Waste Local Plan First Review

The Plan sets the detailed land use policy framework for the extraction of minerals and management of waste. This is expected to be superseded by the Minerals and Waste Development Framework.

Objectives, Targets and Indicators

- To encourage greater recovery of waste products.
- To encourage greater recycling, reuse and recovery of waste aggregate in the construction industry.

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

Background

1.1.2 Over the last 15 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.

1.1.4 Together, these data sources provide the following key 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 (construction and industrial) and C+D (construction and demolition) data and 2003/4 for MSW (municipal solid waste). NB: As the figures are taken form 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%.
- 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 24% for the 1st half of 2005/6. Luton has recorded 8% in 1998/8, 15% in 2002/3 and 19% in 2003/4, with latest outturns again indicating 24%.

1.1.7 Construction 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 constriction 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. Both these factors will make it increasingly difficult to restore mineral workings by infill.
- 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

1.1.10 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.

1.1.11 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.

Hazardous/special waste

1.1.12 A number of European waste directives and associated legislation (EU and UK)[1] have radically changed the context of hazardous / special waste in recent years. The main outcomes of significance for this topic paper are:

[1] 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)

- 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
- More types of waste are classified as hazardous.

1.1.13 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.

1.1.14 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.

1.1.15 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.

1.1.16 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

1.1.17 The national strategy for municipal wastes prescribes a set of targets. These targets are set for overall recovery rates (recycling/composting & energy recovery), with an additional target for materials recovery (recycling/composting only). The national municipal waste targets are shown below.

Targets for Municipal Waste

Year	Overall recovery *(including energy recovery)*	Materials recovery *(recycling/composting only)*
2005	40%	25%
2010	45%	30%
2015	67%	33%

Source: Waste Strategy 2000

1.1.18 For example, in 2010 the overall recovery of municipal waste must be 45% of which up to 15% can be from energy recovery. These targets for municipal wastes are made binding on local authorities via the Best Value regime. Under Best Value, these targets are broken down to derive individual local authority materials recycling targets. These targets are meant to be challenging but realistic for the councils to achieve over the short to medium term. These individual targets are set by the audit commission.

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

Best Value & Audit Commission Performance Indicators for 2001/2002

1.1.19 With the "do minimum" scenario, requirements from Best Value will mean that significant improvements in recovery and recycling will have to be made to achieve targets. Similar work in other councils should result in significant reductions in the total importation of waste to landfill. The issue of imported wastes is due to be considered in detail at the forthcoming Examination in Public for the East of England Plan, flowing which a clearer policy framework should emerge.

Current waste facilities

1.1.20 The following facilities Bedfordshire and Luton have planning permission as at Oct 05 (total capacity figures come from a number of sources and should not be regarded as definitive):

- 2 non-hazardous landfill sites, plus one "mothballed", with combined capacity sufficient for some 5.5 million tonnes of waste (end 2004: ERM waste capacity study)
- 6 inert landfill sites (quarries and landfills under restoration, landscaping scheme), with combined capacity sufficient for some 1.2 million tonnes of waste (end 2004: ERM waste capacity study)
- 6 general waste transfer stations, of which 5 have materials recovery facilities: total transfer capacity in the order of 750,000 tonnes per annum (tpa); materials recovery capacity in the order of 75,000 tpa
- 7 household waste recycling centres, with combined waste throughput capacity of around 100,000 tpa and recycling capacity of around 50,000 tpa

- 8 aggregate recycling sites, with a combined maximum throughput capacity of around 565,000 tpa (Beds CC monitoring data)
- 7 composting sites (open windrow), with combined capacity in the order of 70,000 tpa
- 2 woodchipping plant sites, with combined capacity in the region of 15,000 tpa
- 1 major hazardous waste incinerator (precise capacity unknown), dealing primarily with animal by-products
- 2 hazardous waste transfer facilities, with annual capacity in the region of 65,000 tpa
- 1 anaerobic digestion plant dealing with farm waste, with annual capacity of 20,000 tpa
- 2 leachate treatment plants (capacity unknown)

Sources of data

- ERM waste capacity study (published by EERA October 2005) (see www.eera.gov.uk)
- 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
- www.luton.gov.uk
- Trends
- Increased recycling of wastes
- Increased recovery of wastes
- Moderate reductions of imported municipal wastes
- Significant reductions in hazardous waste

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 (a) new EA data for 2002/3 should become available in near future) and (b) Beds CC will undertake waste survey in 2006.

Trends

- Large amounts of waste are imported into Bedfordshire. This issue is due to be considered in EiP for East of England Plan.
- Need for increased recycling and recovery capacity in order to meet future targets, especially for municipal wastes
- 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.

Implications for minerals planning and SA in Bedfordshire

Key issues from the policy context:

How the minerals local plan should address waste

1.1.21 The plan should take into account the waste reduction, recovery and recycling targets contained with the Council Directive 1999/31/EC on the Landfill of Waste and Waste Framework Directive, when considering waste from minerals developments. Alternative options need to be tested as part of the plan considering efficient resource use and use of recycled / secondary materials.

Relevant objectives for the SA

- Include facilities to cater for the recycling, reuse or recovery of unwanted aggregate.
- Identify and encourage the increased use of recycled waste aggregate in the construction industry.
- Reduce quantities and where unavoidable ensure waste is dealt in a way that contributes to sustainable development.
- Ensure future development is balanced against the capacity of the region to sustainably deal with the waste produced.
- Ensure waste management practices do not compromise quality of environment.

Key issues arising from the baseline review:

- Large amounts of hazardous waste are imported into Bedfordshire.
- Large amounts of municipal waste are imported into Bedfordshire therefore need to ensure that the recycling and recovery infrastructure is adequate to meet targets.
- There is an opportunity to minimise recycled and secondary aggregates at source using the Demolition Protocol.

Key issues arising from the scoping consultation:

Are these the key sustainability issues under this topic area? or are there others?

- Need to minimise waste generation within the County
- Importation of waste into the county should not continue
- Excessive production leading to the generation of waste

- The employment impacts of different methods of managing waste should be taken into account. For example, some methods are capital intensive and others are labour intensive and the latter might be more appropriate for areas where there is significant unemployment
- Land fill should not be an option for future use of these sites. Alternative waste strategies should be developed. Use of land for landfill is a poor use of a scarce resource. The sorting and reprocessing of waste materials in industrial areas is a more appropriate use of land and should not have detrimental impacts on neighbouring occupiers
- Highway safety implications of hazardous waste importation into County

What are the main implications of these issues for minerals and waste planning?

- Importation of hazardous waste? Requires appropriate site location. Site issues.
- No reason why municipal waste should be imported from elsewhere – other local authorities should 'consume their own smoke'
- New site required (Waste Development Plan?)
- No new waste site is likely to arise from new mineral production for foreseeable future – existing sites utilised where possible

What sustainability objectives do you think should be set for each of these topic areas?

- hazardous waste:
  - only imported if suitable facility
  - nationwide proximity issues
  - reduced as much as possible
- municipal waste:
  - is appropriate void available for this waste?
  - reduce imported waste
  - what is the lifetime for the site? (is it sustainable?)
- recycled and secondary aggregates:
  - what percentage of demolition waste can be recycled/re-used? (is this measurable?)