



Bedfordshire County Council and Luton Borough Council Minerals and Waste Local Development Framework

Waste Core Strategy and Waste Site Allocations Plan Sustainability Appraisal Scoping Report

ENVIRON UK LTD

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NON TECHNICAL SUMMARY

Purpose of this report

Bedfordshire County Council and Luton Borough Council have begun the preparation of the Bedfordshire and Luton joint Minerals and Waste Development Framework. This document will be produced in three phases: the documents relating to minerals planning (Minerals Development Plan Documents or DPDs); the documents relating to waste planning (Waste Development Plan Documents or DPDs); and the general environmental policies that will apply to both minerals and waste development. The Minerals and Waste Development Framework will eventually replace the Minerals and Waste Local Plan as the document used to determine waste and minerals planning applications.

An integral part of producing the Waste DPDs is the sustainability appraisal (SA) process. The aim of the SA process is to assess the overall environmental, economic and social impact of the DPDs objectives and policies and to ensure that all elements of the plans, contribute towards achieving sustainable development.

This document is the Sustainability Appraisal Scoping Report for the Waste DPDs. The SA of the Bedfordshire and Luton Waste DPDs is being carried out by ENVIRON, CAG Consultants (consultation) and MVA (transport). It will provide an independent assessment of the potential significant effects of the plan on environmental and sustainability issues. The scoping report has also been produced by ENVIRON, CAG Consultants and MVA.

Scoping forms the first stage of the appraisal process and consists of collection of baseline data, examination of what the sustainability issues are for the area and collection of information on other plans, policies and programmes that can have an influence on the production of the DPDs. This information is used to develop a sustainability appraisal framework. This framework consists of sustainability objectives and targets which are used as a yardstick to measure the achievement of the plan against. The framework forms the core of the sustainability appraisal of issues, options and potential waste sites that follows at a later stage in the preparation of the DPD.

The scoping process

The SA of the Waste DPDs is intended to be a process led by consultation and involvement of the public and key stakeholders. To achieve this, two consultation methods were utilised during the scoping phase:

- A facilitated scoping workshop involving a wide range of technical experts. This workshop explored the key sustainability issues for waste planning in Bedfordshire.

- A questionnaire, which allowed those who attended the workshop to make additional comments. All those stakeholders unable to attend the scoping workshop were also asked to complete the questionnaire.

To help consultees understand the large amounts of data available, data has been collected for the Scoping Report in the form of topic papers which gather together the following information for each issue:

- Policy context (review of other plans, policies, programmes and objectives);
- Baseline data review including sources of data, data gaps and trends; and
- Implications for waste planning and SA in Bedfordshire.

The topic papers are available in Appendix 2 under the following headings:

- Biodiversity, flora and fauna.
- Cultural heritage.
- Landscape.
- Air quality and noise.
- Climatic factors and energy.
- Water.
- Transport.
- Human health.
- Education and employment.
- Waste.
- Population.
- Soils and geology.

Comments received at the scoping workshop and through the questionnaire have been incorporated in the topic papers and the scoping report.

The scoping report summarises the information collected for each topic. Therefore, this information has not been repeated here. However, the table below, indicates some of the key issues for waste planning under each of the topics listed above.

Table NTS1: Sustainability Issues

SEA Topic	Key Issues Identified	Consultee Responses
Biodiversity, flora and fauna	<ul style="list-style-type: none"> There are no sites within the county designated as sites valued internationally for their wildlife value although there are sites in neighbouring counties. The effects on these sites in other counties will be kept under review. There are five Natural Areas, seven Wildlife Priority Areas, three National and twenty Local Nature Reserves and forty Sites of Special Scientific Interest in the county. The effects of waste management on designated or valued sites are important and these areas should be avoided where possible. However, biodiversity outside these areas and BAP targets are also important and it is often undesignated (but valuable) linking habitats that are vital. If waste management does impact upon biodiversity, then mitigation is required through site selection, timing, and consideration of alternatives. Compensation of habitat may also be required. 	<ul style="list-style-type: none"> Diversity doesn't have to be in a specially designated site for it to be important. Needs to be recognised that protected species occur outside designated sites. Issue needs to be raised as very small area of Bedford is designated. The plan and SA needs to look at what outcomes can have a positive effect in terms of contributions, wider environment etc. Developer contributions can be utilised for improving locally native flora and fauna (biodiversity). Litter is an important issue and needs to be referenced within the appropriate section Problems may arise for wildlife if sites are "overtidied".
Cultural heritage	<ul style="list-style-type: none"> Bedfordshire contains 85 conservation areas, 3000+ listed buildings and 22 registered historical parks and gardens. The County also has over 18,000 archaeological sites, and historic landscape features, buildings and structures. The Waste DPD should be committed to planning for the effective protection of the historic environment and archaeological remains through site selection. The long-term setting and character of an historic monument, archaeological landscape or listed building might be affected by waste management. Apart from visual aspects, this may detract from amenity uses resulting from the disruption of rights of way and access, increased noise and heavy traffic. 	<ul style="list-style-type: none"> The SA must consider the impacts on Conservation Areas, Listed Buildings, Parks and Gardens of historic importance (nationally listed and local ones). These effects should be monitored as the plan is implemented. Bedfordshire's heritage is distinctive, diverse and fascinating. Local and sometimes quite modest heritage is a crucial part of places people live and work in, value and enjoy. Traffic created by waste management facilities can also have significant impacts on cultural heritage.
Landscape	<ul style="list-style-type: none"> Bedfordshire is a small county with distinct and complex landscapes which are densely populated. Bedfordshire County Council has recently been undertaking a local assessment of landscape character. The Countywide Study identifies 12 distinct landscape types taking into account strength of landscape 	<ul style="list-style-type: none"> Impacts on the Forest of Marsden Vale need to be considered as this is an area of national designation for landscape improvement. Need to examine how waste management development can contribute positively to green infrastructure.

SEA Topic	Key Issues Identified	Consultee Responses
	<p>character, landscape condition and the overall strategy for managing the landscape.</p> <ul style="list-style-type: none"> • There have been many changes in the county inconsistent with landscape character due to development. Pressures on landscape character will increase due especially to the increase in houses in the Milton Keynes South Midlands growth area. • There are also Areas of Great Landscape Value (AGLV) defined by Bedfordshire County Council in the Chilterns, Upper Ouse Valley, Greensand Ridge and the Hyde area to the south of Luton. The current Minerals and Waste Local Plan (2005) policy states that the landscape quality of these areas will be safeguarded by refusing permission for development which would adversely affect the character of these areas. • Bedfordshire and Luton Green Infrastructure Consortium have developed a Strategic Green Infrastructure Plan which eleven broad areas and corridors. Spatial planning documents promoting a net gain in multi-functional green infrastructure that enhances landscape character, historic environment and biodiversity assets. 	
Air quality and noise	<ul style="list-style-type: none"> • There are 8 Air Quality Management Areas (AQMAs) in the county. Two of these have been designated with relation to mineral activities at Stewartby Brickworks and the rest are related to traffic. Whilst the presence of an AQMA does not necessarily preclude the construction of a waste management facility the potential for the facility to negatively impact on the AQMA must be considered. • All waste management and disposal activities (from large energy from waste plants to small scale civic amenity sites) can cause an increase in traffic, noise dust, odour and pollution as waste is transported, sorted and treated. 	<ul style="list-style-type: none"> • Some people felt that the plan should aim to maximise transportation of waste by alternatives to road to reduce pollution. Others felt this was impractical and promoting rail infrastructure to deal with waste would encourage other regions to use Bedfordshire’s facilities.
Human health	<ul style="list-style-type: none"> • Modern, appropriately located, well-run and well-regulated waste management facilities should pose little risk to human health. • The Government’s Waste Strategy 2007 states that the evidence is that waste management, has at most a minor effect on human health, particularly when compared with other health risks associated with day to day living. • Defra has undertaken a review on the research available on the health effects of management of municipal solid waste and similar 	<ul style="list-style-type: none"> • Consultees felt that the scoping report should include data on illnesses related to air pollution and that these should be monitored (e.g. that may be influenced by burning waste or the general smell from waste being stored). Unfortunately this data is not available due to the difficulties of separating cause and effect.

SEA Topic	Key Issues Identified	Consultee Responses
	wastes (Defra, 2004). The study found that for most of the municipal solid waste facilities studied, health effects in people living near waste management facilities were either generally not apparent, or the evidence was not consistent or convincing.	
Population and social inclusion	<ul style="list-style-type: none"> The population of the county is growing faster than the rate in the region and the country as a whole. Municipal waste arisings particularly are linked to where most people live. Given that the proximity principle requires waste to be treated as close to its point of origin as possible, the location of existing and future centres of population is critical when planning for future waste management facilities. 	<ul style="list-style-type: none"> There is considerable scope for increased education about household waste, the implications of choices and how key personal choice is on the relative local impacts and those further afield. Can the plan publicise this? The plan needs to consider the impacts of population increases in the south of county and these need to be monitored.
Water	<ul style="list-style-type: none"> The chemical and water quality of rivers in the county is generally good. In terms of flooding, areas at risk of flooding are chiefly those adjacent to, or within a few hundred metres of the Counties rivers. All waste management facilities can potentially have impacts on the water environment through the release of leachate (landfill sites and composting sites) or through the use and disposal of process / cooling water. 	<ul style="list-style-type: none"> Use and disposal of cooling water is an issue. However, energy from waste plants use very little water and do not discharge any emissions to water process and cooling. Need to encourage maximum reuse of "grey" water in any development proposals and incorporate sustainable drainage systems within new development to minimise flood risk elsewhere. Need to consider the effects on water boreholes for public use - especially on the chalk aquifer in the south of the county. Luton, for example, is dependent on much of its public water supply on public boreholes. The plan should monitor effects on public water supply and public boreholes in the south of the county in particular.
Transport	<ul style="list-style-type: none"> Many modern waste management facilities rely on a large throughput of waste based on large numbers of HGV movements. If poorly located, new waste management facilities can have a detrimental impact on the local road network and residential amenity, especially if HGVs are required to travel directly through sensitive residential areas. In transportation terms South Bedfordshire is well placed given the proximity of the M1 motorway and other strategic routes, and proposals exist for further network improvements over the next ten years. Bedford, particularly the south, east, west and north west, is also well located in terms of the strategic road network given its 	<ul style="list-style-type: none"> At the moment waste is transported to landfill but in the future the waste management focus will be primary (recycling) and secondary waste treatment (e.g. energy recovery) for dealing with Bedfordshire waste – the particular impacts of this on transport will require consideration. In order to reduce the effects of transport, there is a need to locate the waste management solution near the source of waste – the proximity principle. As there is a rail line which is already used for waste in the Marston Vale one of the key issues must be the capacity of this line, the possibility of increasing that capacity and using

SEA Topic	Key Issues Identified	Consultee Responses
	<p>proximity to the A6, A1, A421 and new road proposals.</p> <ul style="list-style-type: none"> • Some eastern parts of the county are also well served by the A1. • Much of the land north east of Bedford, together with some parts of Mid Bedfordshire, are poorly served by the existing strategic road network. These remote rural areas are unlikely to offer potentially suitable sites for new large-scale integrated waste management facilities. 	<p>it to serve new sites.</p> <ul style="list-style-type: none"> • The plan should not necessarily assume that major growth can be accommodated in the county. Do we need to consider the tipping point at which Bedfordshire stops accepting waste from other regions?
Waste	<ul style="list-style-type: none"> • Bedfordshire and Luton currently rely on landfill to dispose of their waste and the large amounts of municipal and hazardous waste it imports from mainly the South East and London. • Waste from Greater London currently accounts for some 75-85% of all waste landfilled in Bedfordshire. • The amount of both waste arising in Bedfordshire and treated in Bedfordshire generally has been rising. • However, Bedfordshire has performed impressively in terms of recycling, seeing recycling levels triple since 2000. • The county has a number of challenging recycling and composting targets it must meet. 	<ul style="list-style-type: none"> • 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.
Climate change	<ul style="list-style-type: none"> • Waste management techniques can have impacts on climate emissions. • Emissions from waste arise through incineration/heat treatment and landfill. • Heat treatment releases emissions to the atmosphere. • Landfill sites, release methane which is a much more potent greenhouse gas than carbon dioxide, trapping more infra-red radiation. • In terms of reducing climate emissions, reducing the amount of waste we produce and increasing recycling (which then also saves the energy from production of raw materials) is key. 	<ul style="list-style-type: none"> • It is important to recognise that although burning waste may not be considered strictly renewable energy, at least the waste has had a useful life first so it is preferable to the use of fossil fuels. • Government's energy policy is important – government is moving towards local energy distributions networks thus lending more weight to localised Combined Heat and Power (CHP) plants. • Can there be policy signals in LDFs to integrate CHP plants into growth areas or link CHP to certain developments. For example the new settlement in Mid Bedfordshire (WIXAMS) or the possible freshwater sanctuary, four miles south of Bedfordshire on the site of the Quest clay working (NIRAH). CHP from waste is slightly more difficult but is certainly not impossible.
Soils and geology	<ul style="list-style-type: none"> • There are groundwater bearing strata “at risk” or “likely to be at risk” in Luton and in parts of Bedfordshire. Soil and groundwater must be protected from damage by waste activities. Waste 	<ul style="list-style-type: none"> • Monitor effects on sites of geological importance (including RIGs and geological SSSIs)

SEA Topic	Key Issues Identified	Consultee Responses
	<ul style="list-style-type: none"> management can cause changes in soil condition. Certain waste management techniques can also be used to produce soil conditioner / compost which could improve the condition of soil without the need for peat. 	
Employment and education	<ul style="list-style-type: none"> The most important issue facing the waste management sector now is the pressure to recruit and retain experienced and skilled people from the UK labour market to satisfy skills deficiencies. New technologies are bringing with them a range of demands for new skills and upskilling of existing competences. This is particularly evident in areas that include the design, development, installation, operation and maintenance of process plant. The East of England is one of three regions (the others being the South West and the East Midlands) where by 2014 the employment opportunities are likely to increase the most. This is largely due to the likely increase in the numbers of recycling enterprises established over the next 10 years in response to the regional support given by the RDAs. 	<ul style="list-style-type: none"> The plan should consider grouping waste management facilities within one area. This could have potential benefits in terms of providing combined heat and power etc. Waste management facilities should be planned as part of all developments and there is a need to plan for this early. The waste / resources based economy should be maximised - re-use and minimisation of waste. The plan should consider development of new economics / business which can use waste (development of waste based economy). The waste management sector should be more green itself e.g. sustainable transport for people to get to waste industry jobs / green travel plans for waste facilities.

All of this information has been used to formulate the SA framework which is shown below.

Table NTS2: SA framework

SEA Topic	SA Objectives	SA Questions. Does the plan...
Biodiversity, flora and fauna	<ul style="list-style-type: none"> To protect and enhance sites designated for their ecological value where opportunities arise. To protect and enhance the wider biodiversity and other green infrastructure within the County. Ensure that waste sites do not affect habitat corridors. Where barriers to movement are created, alternative provision should be made. Maximise potential biodiversity value of existing waste sites. Maximise restoration opportunities for biodiversity at the end use of waste sites and contribute to realising local and national BAP targets. 	<ul style="list-style-type: none"> Include actions that directly or indirectly affect Natura 2000 sites, SSSIs or other designated sites including County Wildlife Sites? Include actions that will cause habitat loss, fragmentation or degradation? : Include actions that result in habitat creation or extension. Include actions that help to reach targets or compromise targets of BAPs? Include actions to ensure restoration to biodiversity is a priority where appropriate?
Cultural heritage	<ul style="list-style-type: none"> To identify important areas of archaeology or historic character and seek to avoid, preserve or enhance them. 	<ul style="list-style-type: none"> Seek to preserve and where relevant enhance sites of built and archaeological heritage? Aim to steer the impact of development (including the impact of traffic) away from archaeologically sensitive sites? Preserve, manage or enhance the historic environment character and opportunity areas?
Landscape	<ul style="list-style-type: none"> Ensure that plan policies avoid incremental and cumulative impact on sensitive landscape and townscape areas. Look for opportunities to enhance the existing landscape value of the area and to contribute to the wider green infrastructure initiatives through sensitive restoration programs. 	<ul style="list-style-type: none"> Enhance the landscape. Encourage suitable mitigation and restoration measures? Locate sites in sensitive landscape areas.
Air quality and noise	<ul style="list-style-type: none"> Safeguard air quality and reduce the number of people affected by noise from waste management sites. 	<ul style="list-style-type: none"> Change the amount of pollution caused by waste management? Encourage suitable mitigation measures? Avoid locations within close proximity to sensitive receptors where potential impacts cannot be adequately mitigated? Avoid the potential for the facility to negatively impact on the AQMA which would relate particularly to the transport of the waste?
Human health	<ul style="list-style-type: none"> Reduce the impact of the waste 	<ul style="list-style-type: none"> Cause a change in the number of

SEA Topic	SA Objectives	SA Questions. Does the plan...
	industry on people's health and quality of life.	people (either alone or in combination with other projects) directly affected by waste management (living in close proximity to a site or an access route) whose impact cannot be mitigated?
Population and social inclusion	<ul style="list-style-type: none"> Reduce the impact of the waste industry on people's quality of life and maximise the potential of the waste industry to address social inclusion. 	<ul style="list-style-type: none"> Improve the quality of where people live by providing community services?
Water	<ul style="list-style-type: none"> Minimise the risk of water pollution Reduce vulnerability to flooding To keep water consumption within local carrying capacity limits (taking account of climate change) 	<ul style="list-style-type: none"> Impact on Groundwater Source Protection Zones? Contribute to improving water quality? Contribute to flooding anywhere in the catchment? Cause changes to the availability of water in the area?
Transport	<ul style="list-style-type: none"> Reduce the mileage travelled by waste. Encourage a modal shift away from road freight travelling on local roads. 	<ul style="list-style-type: none"> Cause a change in traffic flows or the nature of traffic (an increase in HGVs for example) that affects communities or areas valued for their environmental importance? Identify sites which avoid placing reliance on local roads Include actions that would encourage a shift from road freight to other forms of freight? Include actions that change mileage travelled per tonne?
Waste	<ul style="list-style-type: none"> Provide a network of facilities to deal with the waste requiring disposal and to meet the regional recycling targets. Reduce the quantity of waste produced per head in the county. 	<ul style="list-style-type: none"> Ensure that the recycling and recovery infrastructure is adequate to meet targets. Consider how future development is balanced against the capacity of the region to sustainably deal with the waste produced. Encourage a reduction in the production of waste wherever possible and maximum recovery of resources.
Climate change	<ul style="list-style-type: none"> The Waste DPD should encourage development and best practice in renewables and energy efficiency and seek to provide impetus towards a low carbon economy, particularly in terms of providing CHP. 	<ul style="list-style-type: none"> Reduce the potential for green house gas emissions caused by waste management? Encourage the development of renewables and energy efficiency within the waste sector?
Soils and geology	<ul style="list-style-type: none"> Identify and encourage the increased use of recycled waste aggregate in the construction industry. 	<ul style="list-style-type: none"> Help to reduce the amount of new aggregate required in construction? Avoid damage to sensitive / valuable soils and geology?

SEA Topic	SA Objectives	SA Questions. Does the plan...
	<ul style="list-style-type: none"> To minimise the impact of waste management facilities on sensitive areas or those valuable for mineral deposits. 	
Employment and education	<ul style="list-style-type: none"> Support employment in the waste and resource management industry and associated industries and encourage synergies between waste management and other industries. 	<ul style="list-style-type: none"> Include actions that change the number of people directly employed in the waste industry? Provides opportunities for co-location of waste management facilities with other industries and consider impacts of facilities on existing/proposed employment areas?

At the next stage of the appraisal process, the issues, options and potential sites for waste management will be measured against the SA framework.

Getting involved in the SA process

We are seeking comments from the public and other stakeholders on the key issues raised as part of this report. **The document will be out for consultation from 4th July to 10th August 2007.** To aid responses to the scoping report we have posed the following questions throughout the document. However, consultees should not feel that they are unable to provide other comments. We will receive and consider all comments made.

Questions for consultees
<ul style="list-style-type: none"> Are any significant sustainability data missing or misrepresented?
<ul style="list-style-type: none"> Are there any additional problems, opportunities or issues that need to be considered in the development of the plan?
<ul style="list-style-type: none"> Do the SEA objectives provide a reasonable framework through which to address the likely significant environmental effects of the plan?
<ul style="list-style-type: none"> Are there additional methodologies that could be used within the SEA?
<ul style="list-style-type: none"> How would you or your organisation like more to be involved in the rest of the SEA process?

Comments should be sent to:

<p>Charlotte Morbey, Waste Planning Officer, Bedfordshire County Council, Minerals and Waste Planning, County Hall, Cauldwell Street, MK42 9AP</p> <p>Tel: (01234) 228282 Fax: (01234) 228656 charlotte.morbey@bedscc.gov.uk</p>

1 Introduction

Purpose and structure of this report

- 1.1 The current Bedfordshire and Luton Minerals and Waste Local Plan (MWLP) was adopted in January 2005. It is a joint plan covering the administrative areas of Bedfordshire and Luton, and presents policies for both minerals and waste planning in a single document. Both councils have now begun work on producing a joint Minerals and Waste Development Framework (MWDF) which will eventually replace the MWLP as the statutory development plan document governing waste and minerals development in the county.
- 1.2 The MWDF will be produced in distinct stages: the Minerals Development Plan Documents (DPDs), Waste DPDs and General Environment (Development Control) Documents. Work commenced on the Minerals DPDs (comprising a Minerals Core Strategy and Site Allocations Plan) in 2005 and the General Environment Chapter have been saved. They will be reviewed in full between 2009 and 2011. The councils are now commencing work on the Waste DPDs: a Waste Core Strategy and a Waste Site Allocations Plan which will be produced in parallel.
- 1.3 An integral part of preparing the Waste DPDs is the Sustainability Appraisal (SA) process. The aim of the SA process is to assess the overall environmental, economic and social impact of the DPDs objectives and policies and to ensure that all elements of the MWDF, including the two Waste DPDs, contribute towards achieving sustainable development.
- 1.4 This document is the Sustainability Appraisal Scoping Report for the Waste DPDs. Scoping forms the initial stage of the appraisal process and consists of collection of baseline data, sustainability issues and collection of information on other plans, policies and programmes that can have an influence on the production of the DPDs. This information is then used to formulate a SA framework, which is a set of sustainability objectives and targets that the DPDs will be measured against.
- 1.5 The structure of this report is as follows:
 - Section 1 comprises the introduction and outlines the key elements that comprise the scoping process.
 - Section 2 discusses the background and timetable of the Minerals and Waste Development Framework.
 - Section 3 outlines the methodology of the SA and consultation.
 - Section 4 discusses the format of the SA report.
 - Section 5 discusses the key issues found by the scoping process for each baseline topic.
 - Section 6 introduces the draft sustainability appraisal framework.
 - Section 7 describes the next stages of the SA.

What is Strategic Environmental Assessment and Sustainability Appraisal?

- 1.6 The Strategic Environmental Assessment (SEA) Directive (*Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment*) was adopted in July 2001 and became English law through *Statutory Instrument 2004 No. 1633: The Environmental Assessment of Plans and Programmes Regulations 2004*. These regulations require an SEA to be carried out on certain plans and programmes prepared by public authorities that are likely to have a significant effect upon the environment. This process is compulsory for a number of plans including Minerals and Waste Development Frameworks and Development Plan Documents. Therefore, Bedfordshire County Council and Luton Borough Council will be carrying out an environmental assessment under the Regulations. This is a formal screening determination under Paragraph 9 of the SEA Regulations referred to above.
- 1.7 In addition to the requirement to carry out a SEA, the Planning and Compulsory Purchase Act 2004 and Planning Policy Statement 12 make it an objective of MWDFs to contribute to the achievement of sustainable development through an integrative sustainability appraisal (SA) process. SA helps planning authorities to fulfil the objective of contributing to the achievement of sustainable development in preparing their plans, through a structured assessment of the objectives and strategies against key sustainability issues for the area. ODPM guidance on Sustainability Appraisal of Local Development Frameworks and Regional Spatial Strategies (ODPM, 2005) states that the SA is not a separate stage to the LDF process; SA is an integral part of the planning process and a key way to ensure that sustainability is integrated into the plan.
- 1.8 The Government accepts that although the requirements for SA and SEA are distinct, it is possible to satisfy both through a single appraisal process and has published guidance to assist authorities to do this (ODPM, 2005)¹. In accordance with this guidance a joint SA / SEA process (referred within this document as SA) will be followed for the Bedfordshire and Luton Minerals and Waste Development Framework: Waste Core Strategy and Site Allocation Development Plan Documents.

▪ ¹ ODPM (November 2005): *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*.

What is a scoping report?

- 1.9 SA has number of stages and these are shown in Table 1 in relation to the planning stages of a typical Waste Development Plan Document.

Table 1: Stages of the SA Process

Waste DPD Stages	SA / SEA Stages
<ul style="list-style-type: none"> Evidence gathering 	Stage A: Setting the context, establishing the baseline and deciding on the scope.
<ul style="list-style-type: none"> Prepare and consult on Issues and Options. 	Stage B: Developing and refining options and assessing the effects of the plan.
<ul style="list-style-type: none"> Prepare and consult on Preferred Options. 	Stage B: Developing and refining options and assessing the effects of the plan. Stage C: Documenting the appraisal process in the SA report (prepare SA report). Stage D: Consultation with the public and statutory bodies.
<ul style="list-style-type: none"> Prepare Development Plan Documents for submission to the Secretary of State. Independent Examination by Inspector. Receipt of Inspector's binding report and Adoption of plan. DPD entry into the Minerals and Waste Development Framework. 	Stage C: Documenting the Appraisal (prepare SA Statement).
<ul style="list-style-type: none"> DPD and MWDS monitoring reported in Annual Monitoring Report. 	Stage E: Monitor the effects of the plan on the environment/sustainability.

- 1.10 Scoping is the name given to Stage A of the SA process and is a way of focussing effort on the key issues in SA, and ensuring that the SA fulfils the requirements of all relevant stakeholders. Scoping has a number of stages. These stages and their purpose are outlined in Table 2. This is taken from ODPM (2005).

Table 2: Purpose of scoping stages

Scoping Stage	Purpose
Task A1: Identify other plans or programmes and sustainability objectives	To document how the plan is affected by outside factors and suggest ideas for how any constraints can be addressed.
Task A2: Collect baseline information	To provide an evidence base for sustainability issues, effects prediction and monitoring.
Task A3: Identify sustainability issues	To help focus the SA and streamline the subsequent stages, including baseline information analysis, setting of the SA Framework, prediction of effects and monitoring.
Task A4: Develop the SA framework	To provide a means by which the sustainability of the plan

Scoping Stage	Purpose
(SA objectives)	can be appraised.
Task A5: Produce scoping report and consult on the scope of the SA	To ensure that the overall objectives of the plan are in accordance with sustainability principles and provide a suitable framework for developing options. To consult with statutory bodies with social, environmental, or economic responsibilities to ensure the appraisal covers the key sustainability issues.

- 1.11 A scoping report gathers this information together and forms the basis of consultation with the statutory consultees (Natural England, English Heritage and the Environment Agency). Under the regulations governing SA it is compulsory to consult the statutory consultees and give them opportunity to comment on “the scope and level of detail of the assessment”. This is important because it gives an opportunity for consultees to comment on whether the assessment is focusing on the right issues. However, consultation with the statutory bodies is seen as a minimum and more widespread involvement of other groups is encouraged. Further information regarding the consultation that has progressed throughout the scoping process is outlined in section 3 of this report.
- 1.12 We are seeking comments from the public and other stakeholders on the key issues raised as part of this report. ***The document will be out for consultation from 4th July to 10th August 2007.*** To aid responses to the scoping report we have posed the following questions throughout the document. However, consultees should not feel that they are unable to provide other comments. We will receive and consider all comments made.

Questions for consultees
<ul style="list-style-type: none"> Are any significant sustainability data missing or misrepresented?
<ul style="list-style-type: none"> Are there any additional problems, opportunities or issues that need to be considered in the development of the plan?
<ul style="list-style-type: none"> Do the SEA objectives provide a reasonable framework through which to address the likely significant environmental effects of the plan?
<ul style="list-style-type: none"> Are there additional methodologies that could be used within the SEA?
<ul style="list-style-type: none"> How would you or your organisation like more to be involved in the rest of the SEA process?

- 1.13 Comments should be sent to:

<p>Charlotte Morbey, Waste Planning Officer, Bedfordshire County Council, Minerals and Waste Planning, County Hall, Cauldwell Street, MK42 9AP</p> <p>Tel: (01234) 228282 Fax: (01234) 228656 charlotte.morbey@bedscc.gov.uk</p>

2 Waste Planning in Bedfordshire and Luton

Introduction

- 2.1 In common with many areas of the country, the vast majority of waste treated in Bedfordshire and Luton is currently disposed of via landfill. This is a situation that must change and there is a waste planning and waste management framework in place that will guide the councils' planning on this matter. The key parts of this framework are:
- The government's Waste Strategy 2007;
 - Planning Policy Statement 10 (PPS10): Planning for Sustainable Waste Management (2005) (and the related companion guide);
 - East of England Regional Waste Management Strategy (2002) and the East of England Plan draft new policies on waste (September 2006);
 - EERA's Response to the Proposed Changes to the East of England Plan (March 2007);
 - Milton Keynes – South Midlands Sub-Regional (as part of the East of England Plan);
 - Bedfordshire and Luton Municipal Waste Management Strategy and Bedfordshire and Luton Minerals and Waste Local Plan (both adopted in 2005).
- 2.2 The key aspects of these documents and how they relate to waste planning in Bedfordshire and Luton are outlined below.

National policy

- 2.3 The Government's vision (as set out in the Waste Strategy, 2007) 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.
- 2.4 In order to achieve this, the government has set the following objectives:
- Decouple waste growth (in all sectors) from economic growth and put more emphasis on waste prevention and re-use;

- Meet and exceed the Landfill Directive diversion targets for biodegradable municipal waste in 2010, 2013 and 2020;
 - Increase diversion from landfill of non-municipal waste and secure better integration of treatment for municipal and non-municipal waste;
 - Secure the investment in infrastructure needed to divert waste from landfill and for the management of hazardous waste; and
 - Get the most environmental benefit from that investment, through increased recycling of resources and recovery of energy from residual waste using a mix of technologies.
- 2.5 The Waste Strategy 2007 includes higher targets than the 2000 strategy for:
- 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.
- 2.6 The Government will review the targets for 2015 and 2020 in the light of progress to 2010 and future forecasts, to see if they can be even more ambitious.
- 2.7 The original guiding principles of the 2000 version of the Government's Waste Strategy remain. These are
- The precautionary principle: Where the threat of serious or irreversible damage exists, and there is significant scientific uncertainty then actions and decisions should be taken with appropriate caution;
 - The proximity principle: Wastes should be dealt with as close to their source of origin as possible; and
 - The waste hierarchy: This gives a general guide to the order of priorities in waste management but is not intended to be prescriptive. The order of the hierarchy is reduction and waste minimisation; recovery of materials; recovery of energy; and then finally disposal.
- 2.8 PPS10 was published in 2005 and sets out a number of principles and actions for Waste DPDs. The document states that Local Authorities should:
- Drive waste management up the waste hierarchy; placing greater emphasis on encouraging reduction, reuse and recycling of waste, but also making provision for waste disposal;
 - Encourage communities to take greater ownership of their waste, whilst making provision for waste management facilities;
 - Deliver planning strategies that implement the national waste strategy; that are in line with European legislation and other legal controls;
 - Manage waste recovery and disposal without having a detrimental impact on human health and the environment;
 - Deliver waste management strategies that incorporate the interests and concerns of local communities and businesses, and encourage competitiveness;

- Have regard for protected areas of land e.g. green belts, when considering suitable locations for waste facilities; and
- Ensure the design and layout of new developments incorporate the principles of sustainable waste management.

Regional and Local Policy

- 2.9 The East of England Plan had its Examination in Public in 2006. The policies within the plan are derived from the Regional Waste Management Strategy. In September 2006 the East of England Regional Assembly suggested some new waste policies following the Examination in Public. This is due to the fact that a lot of information was not available at the time of the examination (a key example being the Study on the Apportionment of Waste). Key aspects of this document relate to waste targets and waste apportionment. The amount of municipal and commercial and industrial waste to be managed, in Bedfordshire and Luton are shown below.

2010/11	2015/16	2020/21
1,442 (236)	1,454 (115)	1,619 (115)

All figures are in thousands of tonnes and figures in brackets show maximum provision required to be made for net imports.

- 2.10 EERA's Response to the Proposed Changes to the East of England Plan (March 2007) sets out revised forecasting for Waste Arisings in Bedfordshire and Luton. The revised projections can be seen below.

Waste Type	2010/11	2015/16	2020/21
Beds and Luton MSW	438,000	456,000	474,000
Beds and Luton C&I	661,000	661,000	661,000
London Waste Apportionment	238,000	116,000	116,000
Total	1,377,000	1,233,000	1,251,000

- 2.11 The document also set the following targets:
- Municipal waste: recycling and recovery of 50% at 2010 and 70% at 2015.
 - Commercial and industrial waste: recycling and recovery of 72% at 2010 and 75% at 2015.
- 2.12 The Waste DPDs will need to take into account the strategic policy guidance contained within the East of England Plan (especially regarding landfill and growth area development).
- 2.13 In order to co-ordinate waste planning and management activities in the area, the Bedfordshire Authorities Waste Partnership has produced a Municipal Waste Management Strategy for Bedfordshire and Luton. This document, published in September 2005, stands as a platform to demonstrate the commitment of the Bedfordshire authorities to sustainable waste management and recycling. It sets out how the authorities intend to meet and/or exceed the long term target of recovering 67% of municipal waste by 2015 (the strategy

also sets short and medium term recycling and recovery targets) (please note that these targets may change with the implementation of new regional policy – see above). Although the Municipal Waste Management Strategy and the Waste DPD have a slightly different scope and purposes PPS10 makes it clear that they must both inform each other and aim to end landfill of untreated waste by the year 2021.

- 2.14 The Waste DPD will build on the Bedfordshire and Luton Minerals and Waste Local Plan (adopted in 2005). There are a number of key challenges moving on from this document which was a criteria based plan. The document set a number of key principles, however, which should be built upon as part of the Waste DPD development. These include reducing (and eventually reducing to 0%) landfilling of untreated waste, reducing waste imports from London and the South East and the need to meet recycling and recovery targets.

Key waste planning principles in Bedfordshire and Luton

- 2.15 Taking into account this framework, some of the key waste planning principles in Bedfordshire and Luton are likely to be (some are common principles and some are unique to Bedfordshire and Luton):

- The need to achieve county self-sufficiency in managing local wastes;
- 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. Achievement of these aims will be partly dependent on actions of the London and South East authorities. The Mayor's Draft Early Alterations to the London Plan were considered by an Examination in Public in June 2006. The Mayor has proposed that each borough will be allocated an apportionment comprising the waste arisings within the borough plus or minus an obligation to manage/treat waste from central London boroughs. This should go some way to reducing London's reliance on other areas. The implications of this and the South East Plan will need to be kept under review;
- The need to meet, as a minimum requirement, the provisions of the National Waste Strategy in terms of recycling and recovery targets and improve on the already impressive performance in the county which has seen a trebling of recycling since 2000;
- The need of a change of emphasis to resource management, rather than simple waste disposal;
- 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;
- The need to provide for 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 need 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.

The Bedfordshire and Luton Minerals and Waste Development Framework

- 2.16 The key element of the County Council's forward planning work for minerals and waste matters is the production of a county-wide minerals and waste development plan, which sets the framework for determination of planning applications. The most recent version of this is the Bedfordshire and Luton Minerals and Waste Local Plan (MWLP), which was adopted by Council in January 2005. This is a joint plan produced in partnership with Luton Borough Council, and it applies to the administrative areas of both authorities for the period to the end of year 2015. It is part of the statutory development plan, and must be taken into account by all authorities (including District Councils) in determination of planning applications.
- 2.17 The Government has now introduced comprehensive changes to the development planning system via the Planning and Compulsory Purchase Act 2004. Under the terms of this Act, the County Council is obliged to replace the adopted MWLP with a new-style plan, to be known as the "*Minerals and Waste Development Framework*" (MWDF).
- 2.18 The MWDF consists of a number of Minerals and Waste Development Plan Documents (DPDs) including:
- Minerals core strategy (this will set out the vision, objectives and policies for minerals in Bedfordshire and Luton) and the Minerals site allocation plan (this will identify any specific sites that are required under the minerals core strategy). Work commenced on this element of the MWDF in early 2005. A SA scoping report was produced in November 2005 and an appraisal of issues, options and potential sites was published in November 2006.
 - General Environment (Development Control) Documents. The General Environment Chapter of the Waste and Minerals Local Plan have been saved. They will be reviewed in full between 2009 and 2011.
 - Waste Core Strategy this will set out the vision, objectives and policies for waste planning in Bedfordshire and Luton) and the Waste site allocation plan (this will identify any specific sites that are required under the waste core strategy). It is these documents that will be subject to the SA reported in this plan.
- 2.19 The work on the Waste DPDs will proceed in line with an agreed project plan, the "*Minerals and Waste Development Scheme*". The Scheme for Bedfordshire and Luton was approved by Council on 21 March 2005 and agreed by the Government Office on 13 April 2005. It

formally came into effect on 25th April 2005. The MWDS has recently been revised and came into effect in May 2007

- 2.20 The timescale of the review is set out in the Minerals and Waste Development Scheme and has been reproduced in Table 3 (taken from May 2007 version).

Table 3: Timescale of the plan preparation

Stage	Waste core strategy	Waste site allocation plan
Evidence gathering	February 2006 – April 2007	February 2006 – April 2007
Issues consultation	May 2007 – June 2008	May 2007 – June 2008
Preferred options consultation	June 2008 – July 2008	June 2008 – July 2008
Submission	January 2009	January 2009
Examination	June 2009	December 2009
Receipt of Inspectors Report	October 2009	April 2010
Adoption	December 2009	June 2010

3 Methodology of the SA

Guidance on SA of waste plans

- 3.1 Planning Policy Statement 10 *Planning for Sustainable Waste Management* was published in 2005 and this guidance states that sustainability appraisal (incorporating strategic environmental assessment) should be applied so as to shape planning strategies that support the Government's planning objectives for waste management. However, there is no specific up to date guidance available on SEA and waste planning, the most recent being the guidance published by ODPM on waste management option development and appraisal (ODPM, 2002)². Although this guidance is out of date and is mainly based at regional level planning decisions it does have some valid principles within it.
- 3.2 Respondents to the government consultation on changes to the Waste Strategy 2000 also requested that further guidance was made available on how to undertake SEA for waste plans, both waste management plans and land use plans – and ensure that economic and social costs are properly reflected. In response, the government has now published a practice sheet on strategic environmental assessment and evaluation of waste options. This practice sheet is one of a set that supports the guidance on municipal waste management strategies³. Although it is not specifically geared towards land use plans the principles in it are helpful and will inform this SA. In addition to this specific guidance on SEA and waste planning the 2005 ODPM guidance will be used as a basis for the SA.

Preparation of the scoping report

- 3.3 The SA of the Bedfordshire and Luton MDF is being carried out by ENVIRON, CAG Consultants (consultation) and MVA (transport). It will provide an independent assessment of the potential significant effects of the plan on environmental and sustainability issues. The scoping report has also been produced by ENVIRON, CAG Consultants and MVA.
- 3.4 Scoping can be the most time consuming element of SA but it is vital as it sets a firm basis for the appraisal in terms of information gathering, understanding the local area and starting to build relationships with consultees and other stakeholders. An extensive scoping process has been completed for the Minerals DPD sustainability appraisal (see <http://www.vironcommunication.co.uk/MWDF-SA.htm>). This scoping process culminated in the production of fourteen topic papers on the following subjects:

▪ ² ODPM (2002): *Strategic Planning for Sustainable Waste Management: Guidance on Option Development and Appraisal*. <http://www.communities.gov.uk/index.asp?id=1145890>

▪ ³ Defra (2005): *Guidance on Municipal Waste Management Strategies. Information Sheet 4: Strategic environmental assessment and evaluation of options*. <http://www.defra.gov.uk/environment/waste/localauth/practice-guidance/pdf/infosheet04.pdf>

- Biodiversity, flora and fauna.
- Cultural heritage.
- Landscape.
- Land Use.
- Air quality and noise
- Climatic factors.
- Water.
- Soil and Geology.
- Population and social Inclusiveness.
- Economic growth of minerals and material assets.
- Employment and education.
- Human Health.
- Waste.
- Transport.

- 3.5 The scoping process of the Waste DPDs has taken the Minerals DPD sustainability appraisal as its basis. A technical audit has been undertaken which has examined:
- Whether there are further relevant policies, plans and programmes and sustainable development objectives that will need to be reviewed in order to provide an evidence base for sustainability issues, effects prediction and monitoring;
 - Whether there is further relevant social, environmental and economic baseline information which is needed to produce a characterisation of the area. This will draw on sources such as the annual waste survey that the councils carry out; and
 - Whether consideration of the particular effects of different waste technologies may entail further collection of data, further policy reviews (or indeed the removal of data or policies as irrelevant to waste) or specific considerations as to the selection of SA objectives.
- 3.6 This has led to revisions to the topic papers to ensure that they are up to date and of relevance to waste planning.

The approach to consultation

- 3.7 Two consultation methods were utilised during the scoping phase:
- A facilitated scoping workshop, to which a wide range of stakeholder organisations were invited. This workshop included small group and plenary work exploring the key sustainability issues for waste planning in Bedfordshire.
 - A scoping questionnaire, which allowed those who attended the workshop to make additional comments. All those stakeholders unable to attend the scoping workshop were also asked to complete the questionnaire.
- 3.8 Comments received at the scoping workshop and through the questionnaire have been incorporated in the topic papers and the scoping report. The list of people involved in the scoping consultation can be found in Appendix 1.

Scoping workshop

- 3.9 ENVIRON and CAG Consultants undertook some initial scoping of sustainability issues for waste planning in Bedfordshire and Luton prior to the scoping workshop, by reviewing a range of relevant strategy documents and other economic, social and environmental information about the area. This research identified key issues under 12 topic areas (see paragraph 3.4). Draft sustainability objectives and indicators were drafted for each topic area, for discussion at the workshop. The objectives will form the basis of the sustainability appraisal framework and will be further developed through the identification of indicators and targets, to allow measurement of progress against these objectives.
- 3.10 Following presentations about the Waste Development Plan Documents and the sustainability appraisal process, participants in the scoping workshop were split in to small groups to discuss the six most popular issues, voted for by the delegates: . Guided by a facilitator, participants were asked to discuss a series of questions:
- Are these the key sustainability issues under this topic area? Or are there others?
 - What are the main implications of these issues for waste planning in Bedfordshire and Luton?
 - Do you agree with the sustainability appraisal objectives chosen for this topic area?
 - Can you suggest any data sources for monitoring the impact of the plan on these issues?
- 3.11 The key findings from each group were presented to the wider group and discussed by the whole group within a brief plenary session.
- 3.12 The remaining topic areas were presented in tables on large sheets of paper. Participants were invited to answer the same four questions, and write their comments in the tables at the end of the consultation workshop.

Scoping questionnaire

- 3.13 The questionnaire asked respondents to identify the key issues relating to waste planning in the County in relation to the twelve topic areas discussed at the workshop (see paragraph 3.4).
- 3.14 In addition, respondents were asked whether there were any other kinds of issues that should be considered; whether they had any suggestions for objectives, indicators or targets for these topic areas; and whether they knew of any data sources or ongoing studies which could be used to monitor these issues.
- 3.15 Four completed questionnaires were received, from representatives of:
- The Wildlife Trust for Bedfordshire, Cambridgeshire, Northamptonshire and Peterborough;
 - The Transport Policy Team, Bedfordshire County Council
 - The Highways Agency; and
 - Government Office for the East of England.

4 The Format of the Scoping Report

Introduction

- 4.1 Data has been collected for the Scoping Report in the form of topic papers which gather together the following information for each issue:
- Policy context (review of other plans, policies, programmes and objectives);
 - Baseline data review including sources of data, data gaps and trends; and
 - Implications for waste planning and SA in Bedfordshire.
- 4.2 The topic papers are available in Appendix 2 under the following headings:
- Biodiversity, flora and fauna.
 - Cultural heritage.
 - Landscape.
 - Air quality and noise.
 - Climatic factors and energy.
 - Water.
 - Transport.
 - Human health.
 - Education and employment.
 - Waste.
 - Population.
 - Soils and geology.
- 4.3 Section 5 of this scoping report summarises the key issues arising from the policy context and baseline data review under each topic heading. The rest of this section explains the rationale behind each step of the data collection process.

Policy context

- 4.4 As identified in Table 2 the purpose of this stage is to document how the plan is affected by outside factors and suggest ideas for how constraints can be addressed. The SEA Regulations² (see Schedule 2) state that an Environmental Report should outline:
- The plan's relationship with other relevant plans and programmes; and
 - The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation. ODPM guidance (2005) extends this to include other sustainability objectives.
- 4.5 In order to fulfil this requirement, a review has been undertaken of other relevant plans, policies, programmes (PPPs) and objectives. The results can be found in each individual topic paper.

² HMSO (2004) The UK Environmental Assessment of Plans and Programmes Regulations 2004 (Statutory Instrument No. 1633)

Baseline data review

- 4.6 The SEA Regulations require an examination of the current state of the environment and the likely evolution of the environment without the implementation of the plan (“future baseline” or “without the plan scenario”). This has been done through a desk based study with the full results reported in the topic papers in Appendix 2.
- 4.7 Data gaps have been acknowledged, and where possible trends are provided. It is expected that further data will need be gathered as the assessment process progresses, and one of the aims of producing this Scoping Report is for the consultees to help fill known data gaps, as well as identify topics which may not have been addressed in a sufficient level of detail.

Issues associated with waste management

- 4.8 This section outlines how waste management can affect the particular issue discussed by the topic paper and draws on information specific to an appraisal of a waste related plan.

Questions for consultees

- Are any significant sustainability data missing or misrepresented?

Scoping consultation

- 4.9 This section outlines what consultees felt that the key issues were, what the implications might be for waste planning and presents the consultees’ comments on the draft SA objectives chosen for each subject.

Questions for consultees

- Are there any additional problems, opportunities or issues that need to be considered in the development of the plan?

5 Results of the Scoping Process

Biodiversity, Flora and Fauna

Key issues identified from the baseline and policy review

- 5.1 There are no sites within the county designated as European Sites such as Ramsar Sites, Special Protection Areas (SPA) or Special Areas of Conservation (SAC), although there are sites in neighbouring counties. An AA screening exercise⁴ undertaken for the Minerals DPD found significant effects on European sites are unlikely. In light of the conservation requirements of designated sites in other counties and the likely effects of the Waste DPD a similar conclusion can be drawn regarding the effects of the Waste DPD. This will be kept under review.
- 5.2 There are a number of designated sites in the county - five Natural Areas, seven Wildlife Priority Areas, three National and twenty Local Nature Reserves and forty Sites of Special Scientific Interest. National Nature Reserves and Sites of Special Scientific Interest are offered the highest level of protection and should be managed appropriately. There are also a number of un-designated wildlife sites that form a vital component of the overall network of wildlife and habitat features within the County, such as meadows, woodland and copses, hedgerows and trees.
- 5.3 All waste management activities can have an effect on biodiversity due to:
- Direct land take and associated habitat loss including fragmentation of habitats;
 - Changes in air quality, water quality, noise, vibration, light emissions, dust deposition as a result of construction and operation;
 - Changes in pattern of human activity and associated disturbance or damage;
 - Creation of barriers or other obstacles affecting the movement of animals;
 - Changes in habitat management;
 - Changes in soil conditions;
 - Changes in number of predators and/or prey; and
 - Introduction of new habitats and/or species.
- 5.4 The effects of waste management on designated or valued sites are important and these areas should be avoided where possible. However, biodiversity outside these areas and BAP targets are also important and it is often undesignated (but valuable) linking habitats that are vital. If waste management does impact upon biodiversity, then compensation measures and mitigation is required. Mitigation should be pro-active through the plan through site selection, timing, and consideration of alternatives.

▪ ⁴ Tweek Environmental Consultants (2007): *Appropriate Assessment Screening for the Bedfordshire and Luton Minerals Development Plan Documents*.

Appropriate Assessment

- 5.5 There are no sites within Bedfordshire and Luton designated as a European Site such as a Ramsar Site, Special Protection Area (SPA) or Special Area of Conservation (SAC), although there are sites in neighbouring counties. If the plan was likely to have an effect on such a site, an 'Appropriate Assessment' must be carried out. 'Appropriate Assessment (AA)' is required under the EU Habitats Directive (92/43/EEC) for any proposed plan or project which may have a significant effect on one or more European sites and which is not necessary for the management of those sites. The purpose of AA is to determine whether or not significant effects are likely and to suggest ways in which they could be avoided.
- 5.6 An Appropriate Assessment screening exercise was undertaken for the Minerals DPD which found significant effects on European sites are unlikely due to the fact that there are no European Sites within the County Boundary; that there are no European sites within close proximity to the County Boundary which are likely to be exposed to any significant effects and that in combination effects with other plans are not envisaged.
- 5.7 In light of the conservation requirements of designated sites in other counties and the nature of the effects of the Waste DPD a similar conclusion can be drawn regarding the effects of the Waste DPD on designated sites. This decision will be kept under review at the issues and options stage and preferred options stage and if it is felt there is a risk of significant effects, a formal appropriate assessment process will be initiated.

Consultees' response to key issues

- Diversity doesn't have to be in a specially designated site for it to be important. Needs to be recognised that protected species occur outside designated sites. Issue needs to be raised as very small area of Bedford is designated.
- Various data sets - Ancient woodland and Grassland (compiled by English Nature) as well as a national project for veteran trees could be referred to.
- Need to look at wider picture, green infrastructure, green corridors etc. Green infrastructure plan.
- Need to make sure that County Wildlife sites are referred to.
- Refer to modelling work commissioned by the Highways Agency to assess the level of growth proposed in the emerging Regional Spatial Strategy and the links between increased levels of congestion and the effects on biodiversity.
- Put a more balanced issues section forward as appears negative. Need to look at what outcomes can have a positive effect in terms of contributions, wider environment etc.
- Developer contributions can be utilised for improving locally native flora and fauna (biodiversity).
- Litter needs to be referenced within the appropriate section
- Problems may arise if sites are "overtied".

Cultural Heritage

Key issues identified from the baseline and policy review

- 5.8 Forty-eight Historic Environment Character Areas, covering the whole County, have been defined by the Bedfordshire County Council Heritage and Environment Service. These areas provide an integrated spatial framework for understanding and managing the County's historic environment assets – including the built heritage, archaeology and historic landscape. This project identifies character areas and opportunity areas. These should be taken into account when planning where waste management facilities should go.
- 5.9 Bedfordshire contains 85 conservation areas, 3000+ listed buildings and 22 registered historical parks and gardens. The County also has over 18,000 archaeological sites, and historic landscape features, buildings and structures. The Cultural Heritage character assessment project will examine these sites to assist in developing appropriate management. In relation to Luton, there are early monuments in the Borough and these include earthworks at Wauluds' Bank which date back to about 2500-2000 BC in the Neolithic period and Dray's Ditches to the Bronze and Iron Age times. They are related to the ancient route of Icknield Way which runs through the borough, and are protected as Scheduled Ancient Monuments. English Heritage has identified 2205 buildings and other features including burials, finds and other Archaeological features in Bedfordshire in its Pastscape database.
- 5.10 The Waste DPD should be committed to PPG 15 (Planning and the Historic Environment) and PPG 16 (Archaeology and Planning) objectives for the effective protection of the historic environment and archaeological remains through site selection. Waste management facilities and ancillary works can destroy artefacts and sites of cultural and archaeological heritage. Effects include:
- The general reduction in the 'legibility' of the archaeological landscape caused by the interruption of features that extend beyond the extraction area;
 - Subsidence or ground settlement on upstanding monuments and historic buildings;
 - Dust arising from workings can have a detrimental impact on historic buildings, especially if dust particles are chemically active;
- 5.11 The long-term setting and character of an historic monument, archaeological landscape or listed building might be affected by waste management. Apart from visual aspects, this may detract from amenity uses resulting from the disruption of rights of way and access, increased noise and heavy traffic.

Consultees' response to key issues

- 5.12 The SA must consider the impacts on Conservation Areas, Listed Buildings, Parks and Gardens of historic importance (nationally listed and local ones). These effects should be monitored as the plan is implemented.

- 5.13 Bedfordshire's heritage is distinctive, diverse and fascinating. The county is noteworthy for, amongst other things, its large country houses and their parks and estate villages, an industrial heritage of brick and engineering works, and straw hat production, the remains of Roman and earlier river valley settlements, and prehistoric boundaries. Iconic and internationally important sites include the Cardington Airship Hangars and Woburn Abbey. 'Community heritage' – such as 19th century terraced streets or model villages built for employees – are also important. Local and sometimes quite modest heritage is a crucial part of places people live and work in, value and enjoy.
- 5.14 Traffic created by waste management facilities can also have significant impacts on cultural heritage.

Landscape

Key issues identified from the baseline and policy review

- 5.15 Bedfordshire is a small county with distinct and complex landscapes which are densely populated. Bedfordshire County Council has recently been undertaking a local assessment of landscape character. The Countywide Study identifies 12 distinct landscape types taking into account strength of landscape character, landscape condition and the overall strategy for managing the landscape. These include:
- | | |
|-------------------------------|--------------------------------|
| Type 1 Clay Farmland | Type 7 Greensand Valley |
| Type 2 Woodland Wolds | Type 8 Clay Hills |
| Type 3 Limestone River Valley | Type 9 Chalk Escarpments |
| Type 4 Clay Valleys | Type 10 Rolling Chalk Farmland |
| Type 5 Clay Vales | Type 11 Chalk Dipslope |
| Type 6 Greensand Ridge | Type 12 Chalk Valleys |
- 5.16 There have been many changes in the county inconsistent with landscape character due to development. Pressures on landscape character will increase due especially to the increase in houses in the Milton Keynes South Midlands growth area.
- 5.17 There are also Areas of Great Landscape Value (AGLV) defined by Bedfordshire County Council in the Chilterns, Upper Ouse Valley, Greensand Ridge and the Hyde area to the south of Luton. The landscape quality of these areas will be safeguarded by refusing permission for development which would adversely affect the character of these areas. There are three separate areas of Areas of Outstanding Natural Beauty (ANOB) in Bedfordshire. These are located along the prehistoric track way of the Icknield Way with the towns of Luton & Dunstable located between the two larger areas. These areas are parts of the much larger Chiltern ANOB.
- 5.18 Bedfordshire and Luton Green Infrastructure Consortium have developed a Strategic Green Infrastructure Plan in order to establish a strategic green infrastructure framework, necessary to provide the foundations for sustainable communities across Bedfordshire and Luton in the period to 2021. The Strategic Green Infrastructure Network includes eleven broad areas and corridors and the framework recommends six strategic objectives for integration into Local Development Frameworks including promoting a net gain in green infrastructure provision and promoting multi-functional green infrastructure that enhances landscape character, historic environment and biodiversity assets.
- 5.19 Waste management (like other industrial development) can have the following effects on landscape character:
- Changes in the composition and extent of available views, as a result of changes to the landscape;
 - Changes in access to open space and the countryside;

- Mature landscapes and landscape features like hedgerows and hedgerow trees may be lost;
 - The rural character of the landscape may be eroded by the presence of industrial features - operational and tipping areas, stockpiles and screening mounds, processing plant and buildings; and
 - Local distinctiveness may be weakened by insensitive / unsympathetic restoration.
- 5.20 With good management, new landscape features can be created on restoration that contribute to the local landscape - ponds and wetlands, native woodlands, species rich grasslands, heathland, hedges and walls.

Consultees' response to key issues

- Include townscape character – (potential location of energy from waste plants within urban areas).
- Impacts on the Forest of Marsden Vale need to be considered as this is an area of national designation for landscape improvement.
- Need to link to the green infrastructure report with respect to opportunities for positive contribution.
- Suggestion to examine opportunities to link the SA to the landscape character assessment and recommendations, particularly with respect to the range of different prescriptions from protection to landscape enhancement.

Air quality and noise

Key issues identified from the baseline and policy review

- 5.21 Under the Environment Act 1995, local authorities are required to carry out an Air Quality Review and Assessment and set up Air Quality Management Areas (AQMAs) where national air quality objectives are unlikely to be met. There are eight Air Quality Management Areas located throughout Bedfordshire County and Luton Borough. Two of these AQMAs have been designated with relation to mineral activities at Stewartby Brickworks and the rest are related to traffic.
- 5.22 There are twenty six installations in Bedfordshire County and Luton registered under the Pollution Inventory for the Environment Agency in 2005 where pollution is monitored. Of these, the following are associated with waste management and disposal:
- WRG Waste Services landfill site on Woburn Road, Bedford;
 - Waste Recycling Group (Central) Limited landfill site on Mill Lane, Arlesey;
 - Veolia Environmental Services Plc waste treatment plant in Stewartby;
 - WRG Waste Services Marston Vale treatment plant in Stewartby;
 - WRG Waste Services landfill site in Stewartby.
- 5.23 All waste management and disposal activities (from large energy from waste plants to small scale civic amenity sites) can cause an increase in traffic, noise dust, odour and pollution as waste is transported, sorted and treated. A particular issue relates to the effects of waste management facilities on AQMAs. Whilst the presence of an AQMA does not necessarily preclude the construction of a waste management facility the potential for the facility to negatively impact on the AQMA must be considered. This would relate particularly to the transport of the waste.
- 5.24 One of the main impacts of waste management on pollution is from the transport of waste. The transportation of waste can be so significant because of the number of steps that may be needed to satisfactorily treat waste. Waste can go from the household (or business) to transfer and bulking facilities to primary treatment facilities (i.e. recycling, composting, heat treatment etc). The product (i.e. soils conditioner, compost etc) is then transport to markets and the residual waste is transported to landfill sites. All of these steps mean an increase in HGVs on the road network. If waste is transported by rail this also causes issues with noise and dust. Waste is not currently transported in Bedfordshire via rail but there could be a possibility of this happening in the future and these impacts should be considered. An additional issue in Bedfordshire is the transport of waste from London.

Consultees' response to key issues

- 5.25 Training drivers properly (in issues such as appropriate speeds to drive at, driving smoothly and avoiding idling the engine, keeping vehicles maintained and planning routes properly) is key in reducing the air pollution impacts from freight. As reported in the transport topic

paper, most people felt that the transport of local waste is likely to remain through road transport. It will be important to try and reduce the sustainability effects of this through various means. For example, through encouraging driver training.

- 5.26 As reported in the transport topic paper some people felt that the plan should aim to maximise transportation of waste by alternatives to road to reduce pollution. Others felt this was impractical and promoting rail infrastructure to deal with waste would encourage other regions to use Bedfordshire's facilities.
- 5.27 The objective within the LTP is to improve air quality in AQMAs. This target was produced before any of the AQ Action Plans within the County were finalised, and is likely to be reviewed. Within some urban areas, it is likely that AQMAs will be extended after the next round of monitoring (which is done on a continuous programme basis). Is there any prospect of linking this appraisal to the AQ Action Plans and to the LTP target so that the waste DPDs are kept up to date?

Climatic factors and energy

Key issues identified from the baseline and policy review

- 5.28 The main impacts of increasing atmospheric concentrations of CO₂ and Green house gas (GHG) emissions include warmer, wetter winters; hotter, drier summers; extreme rainfall events may happen twice as often by 2080; possible intensification of the urban heat island effect; and possible higher wind speeds.
- 5.29 Research has been undertaken by Entec⁵ on how climatic change could affect waste management. They found the following potential effects:
- Disruption to supporting infrastructure such as road and rail from increased flooding from surface water, groundwater and drainage systems. This could also affect some on site facilities such as weighbridges and gas and leachate collection systems.
 - Changes in site hydrology and temperature which in turn could affect waste management processes i.e. landfill degradation rates, leachate production and composition.
 - A change in the types and amount of flora and fauna on and around facilities.
 - Increased damage to site buildings from storms.
- 5.30 Waste management techniques in turn can have impacts on climate emissions. Emissions from waste arise through incineration/heat treatment and landfill. Heat treatment releases emissions to the atmosphere. In landfill sites, waste initially decomposes aerobically; the primary gas product is carbon dioxide. As the oxygen is used up, anaerobic micro-organisms predominate. These bacteria continue to produce carbon dioxide, but the process proceeds into second-stage anaerobic decomposition, where both methane and carbon dioxide are produced at approximately a 50-50 ratio. Methane is a much more potent greenhouse gas than carbon dioxide, trapping more infra-red radiation. In terms of reducing climate emissions, reducing the amount of waste we produce and increasing recycling (which then also saves the energy from production of raw materials) is key.

Consultees' response to key issues

- 5.31 The topic paper should refer to energy from waste rather than incineration.
- 5.32 It is important to recognise that although burning waste may not be considered strictly renewable energy, at least the waste has had a useful life first so it is preferable to the use of fossil fuels.
- 5.33 With regard to the point about climate change disrupting supporting infrastructure such as road and rail from increased flooding from surface water, groundwater and drainage systems; it should be recognised that site management and drainage should negate these.

▪ ⁵ Entec (2003): *Potential Impacts of Climate Change on Waste Management*. Report produced for the Environment Agency.

The SA team feel that it is important to recognise that site drainage must be designed to reflect future climate change and this is something the plan can influence for waste management sites.

- 5.34 Government's energy policy is important – government is moving towards local energy distributions networks thus lending more weight to localised Combined Heat and Power (CHP) plants. Can there be policy signals in LDFs to integrate CHP plants into growth areas or link CHP to certain developments. For example the new settlement in Mid Bedfordshire (WIXAMS) or the possible freshwater sanctuary, four miles south of Bedfordshire on the site of the Quest clay working (NIRAH). CHP from waste is slightly more difficult but is certainly not impossible.

Water

Key issues identified from the baseline and policy review

- 5.35 The chemical and water quality of rivers in the county is generally good. In terms of flooding, areas at risk of flooding are chiefly those adjacent to, or within a few hundred metres of the Counties rivers. Areas away from these rivers do not appear to be at risk. Only a small part of Bedfordshire lies within a groundwater Source Protection Zone, therefore this area need to be protected from potential impact. The water resource for much of Bedfordshire is under pressure from a variety of sources, in particular agriculture and urban development and the entire county has been designated a nitrate vulnerable zone.
- 5.36 All waste management facilities can potentially have impacts on the water environment through the release of leachate (landfill sites and composting sites) or through the use and disposal of process / cooling water. The plan should ensure that potential contaminated runoff from waste management sites and associated developments are considered, along with the impacts of waste developments on groundwater in their vicinity. The plan should have regard to PPS25, through ensuring waste operations do not increase flood risk in sensitive areas, and through ensuring waste operations are not threatened by flooding.

Consultees' response to key issues

- 5.37 Use and disposal of cooling water is an issue. However, energy from waste plants use very little water and do not discharge any emissions to water process and cooling.
- 5.38 Need to encourage maximum reuse of "grey" water in any development proposals and incorporate sustainable drainage systems within new development to minimise flood risk elsewhere.
- 5.39 The use of water in new developments should also be minimised. Minimise water use in new development.
- 5.40 Need to consider the effects on water boreholes for public use - especially on the chalk aquifer in the south of the county. Luton, for example, is dependent on much of its public water supply on public boreholes. The plan should monitor effects on public water supply and public boreholes in the south of the county in particular.

Transport

Key issues identified from the baseline and policy review

- 5.41 Bedfordshire as a whole is relatively well served by the strategic road network. However, the geographical coverage of the existing road network and the quality of these roads varies considerably across the county. It is recognised that many routes in Bedfordshire already suffer from congestion and that in the future significant improvements will need to be made to the strategic road infrastructure in order to accommodate the level of future anticipated growth outlined in the Milton Keynes South Midlands (MKSM) Strategy. Many freight lines are also operating near full capacity limiting the current potential for the expansion of non-passenger rail services.
- 5.42 Many modern waste management facilities rely on a large throughput of waste based on large numbers of HGV movements. There can be significant advantages gained by locating new waste management facilities as close as possible to where the waste arises (the proximity principle) and to co-locate different types of waste management facilities together on one site or in close proximity to each other.
- 5.43 If poorly located, new waste management facilities can have a detrimental impact on the local road network and residential amenity, especially if HGVs are required to travel directly through sensitive residential areas. Therefore, it is important that new waste facilities have good accessibility by road, ideally being located in close proximity to the strategic road network in order to make best use of the major road and motorway network rather than local roads.
- 5.44 In transportation terms South Bedfordshire is well placed given the proximity of the M1 motorway and other strategic routes, and proposals exist for further network improvements over the next ten years. Bedford, particularly the south, east, west and north west, is also well located in terms of the strategic road network given its proximity to the A6, A1, A421 and new road proposals. Some eastern parts of the county are also well served by the A1. However, much of the land north east of Bedford, together with some parts of Mid Bedfordshire, are poorly served by the existing strategic road network. These remote rural areas are unlikely to offer potentially suitable sites for new large-scale integrated waste management facilities.

Consultees' response to key issues

- 5.45 At the moment waste is transported to landfill but in the future the waste management focus will be primary (recycling) and secondary waste treatment (e.g. energy recovery) for dealing with Bedfordshire waste – the particular impacts of this on transport will require consideration.
- 5.46 In order to reduce the effects of transport, there is a need to locate the waste management solution near the source of waste – the proximity principle.

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- 5.47 Most people felt that the transport of local waste is likely to remain through road transport. It will be important to try and reduce the sustainability effects of this through various means. For example, could the plan publicise information on fuel efficiency; promote construction management strategies to reduce the effects of construction of new facilities. Can links be made to the Council's Asset Management Plan regarding the impact of heavy vehicles on condition of roads?
- 5.48 The Government Office felt that the key issues document is very good at discussing the road network and its problems, but does not really mention the rail network. As there is a rail line which is already used for waste in the Marston Vale one of the key issues must be the capacity of this line, the possibility of increasing that capacity and using it to serve new sites, the conflict between the line's designation as a Community Rail Service, and the possibility of its role as a key link in the East West rail corridor which could see an increase in passenger services.
- 5.49 Modelling work commissioned by the Highways Agency to assess the level of growth proposed in the emerging Regional Spatial Strategy indicates that, unless traffic is managed, sections of the trunk road network in the County may experience increased levels of congestion, leading to increased noise and deterioration in air quality and have an effect on biodiversity etc.
- 5.50 Objective for topics commented above should include measures and target to reduce traffic, particularly HGV.
- 5.51 Fuel prices will affect the economics of transporting waste and this cost will be borne by the consumer/tax payer.
- 5.52 Some consultees felt that it was worthwhile thinking about other modes e.g. canal network, although others felt this was impractical and promoting rail infrastructure to deal with waste would encourage other regions to use Bedfordshire's facilities.
- 5.53 It is important to consider that there are no new schemes on the trunk road network which will help to accommodate waste movements. It is about managing congestion.
- 5.54 The plan should not necessarily assume that major growth can be accommodated in the county.
- 5.55 Do we need to consider the tipping point at which Bedfordshire stops accepting waste from other regions?

Human Health

Key issues identified from the baseline and policy review

- 5.56 The percentage of people residing in Bedfordshire with good health is high (72.54%) in relation to the East of England Region (70.35%) and England and Wales (68.55%). Of the percentage of the population not of good health, 14.29% are classified as having a limiting long-term illness, of which 10.19% are of working age. These percentages are both lower than those for the East of England region, 16.21% and 11.40%, as well as for England and Wales, 18.23% and 13.56%.
- 5.57 Modern, appropriately located, well-run and well-regulated waste management facilities operated in line with current pollution control techniques and standards should pose little risk to human health. The Waste Strategy 2007 reiterates this stating that the evidence is that waste management, has at most a minor effect on human health, particularly when compared with other health risks associated with day to day living. Defra has undertaken a review on the research available on the health effects of management of municipal solid waste and similar wastes (Defra, 2004). The study found that for most of the municipal solid waste facilities studied, health effects in people living near waste management facilities were either generally not apparent, or the evidence was not consistent or convincing.

Consultees' response to key issues

- 5.58 Some consultees disagreed with the assertion that incineration may have a greater effect on health than landfill.
- 5.59 Consultees felt that the scoping report should include data on illnesses related to air pollution and that these should be monitored (e.g. that may be influenced by burning waste or the general smell from waste being stored). The most relevant data available are those included in the 2004 Defra report and these have been included in the topic paper.

Education and Employment

Key issues identified from the baseline and policy review

- 5.60 Of the economically active population in Bedfordshire 46.14% are in full-time employment and in Luton this figure is 42.53%. In comparison, this figure for the East of England region is (42.61%) and for England and Wales is (40.55%). Of the population aged between 16 and 74 in Bedfordshire, 24.98% have no qualifications and 19.87% have a level 4/5⁶. In Luton, 31.30% have no qualifications and 15.03% have a level 4/5. 19.76% of the population of England and Wales has no qualifications.
- 5.61 The organisation “Energy & Utility Skills” (EU Skills) has recently completed a study which examines current employment in the waste management sector and future labour market needs. The most important issue facing the waste management sector now is the pressure to recruit and retain experienced and skilled people from the UK labour market to satisfy skills deficiencies. New technologies are bringing with them a range of demands for new skills and upskilling of existing competences. This is particularly evident in areas that include the design, development, installation, operation and maintenance of process plant. The East of England is one of three regions (the others being the South West and the East Midlands) where by 2014 the employment opportunities are likely to increase the most. This is largely due to the likely increase in the numbers of recycling enterprises established over the next 10 years in response to the regional support given by the RDAs.
- 5.62 In terms of waste education a useful area to analyse is public perception of waste management. Bedfordshire County Council has been engaged in a research project called BEAR (The Bedfordshire Energy and Recycling Project). As part of this project, consultation was carried out with people regarding their perception of waste and waste management.
- 5.63 Key issues raised as part of this consultation were:
- In terms of the way that Bedfordshire deals with its waste in the future, almost half of respondents felt that the county should do more than the minimum necessary and over a third felt that the county should be aiming to be the best (even if this was at significant cost);
 - The majority of people felt that the community need to be educated regarding minimisation of waste;
 - Bedfordshire should not choose the cheapest option. The option that will serve the county best over the next 10-20 years should be chosen;

▪ ⁶ First Degree, higher Degree, NVQ 4 and 5, HNC, HND, Qualified Teacher Status, Qualified medical doctor, qualified dentist, qualified nurse, Midwife, Health Visitor

- Over 50% of people support the principle of using non recyclable material to generate heat and power. Almost a third more people ranked their support for this as 4 out of 5 (5 being greatly support and 1 being don't support); and
- People are concerned about the capacity of landfill and the importation of waste from other areas. However, people are aware that there will always be some demand for landfilling of residual waste.

Consultees' response to key issues

- 5.64 The plan should consider the effect on employment and the economy not just employment in the waste industry. This relates to issues such as the impact of waste facilities on the amenity of areas and effect on other businesses such as sensitive industries (e.g. the food industry). Perceptions as well as actual impacts are important. These conflicts need to be examined within the plan.
- 5.65 The plan should consider grouping waste management facilities within one area. This could have potential benefits in terms of providing combined heat and power etc.
- 5.66 Waste management facilities should be planned as part of all developments and there is a need to plan for this early.
- 5.67 The waste / resources based economy should be maximised - re-use and minimisation of waste. The plan should consider development of new economics / business which can use waste (development of waste based economy).
- 5.68 It is important to maximise the role of universities / colleges in waste education and research and engagement with schools and the public sector in general is important, i.e. the BEAR project (the Bedfordshire Energy and Recycling Project), the Business Environmental Training Initiative 'BETI' project and ESF funding and social enterprises such as the project run by NOAH enterprises which collects and refurbishes furniture and white goods. Look at the role of universities and colleges in up-skilling.
- 5.69 We should look at the positive aspects of international exportation of waste e.g. fridges, computers to Africa.
- 5.70 Look at the role of the waste management industries and social enterprises in providing opportunities for people to get back in work.
- 5.71 The waste management sector should be more green itself e.g. sustainable transport for people to get to waste industry jobs / green travel plans for waste facilities.

Waste

Key issues identified from the baseline and policy review

- 5.72 Bedfordshire and Luton currently rely on landfill to dispose of their waste and the large amounts of municipal and hazardous waste it imports from mainly the South East and London. Waste from Greater London currently accounts for some 75-85% of all waste landfilled in Bedfordshire. The amount of both waste arising in Bedfordshire and treated in Bedfordshire generally has been rising. However, Bedfordshire has performed impressively in terms of recycling, seeing recycling levels triple since 2000.
- 5.73 The policy framework at the national level has recently been updated with the publication of the Waste Strategy 2007 which includes higher targets than the 2000 strategy for:
- 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.
- 5.74 According to the East of England Plan, the amount of municipal and commercial and industrial waste to be managed, in Bedfordshire and Luton in future years are.

2010/11	2015/16	2020/21
1,442 (236)	1,454 (115)	1,619 (115)

All figures are in thousands of tonnes and figures in brackets show maximum provision required to be made for net imports.

- 5.75 EERA's Response to the Proposed Changes to the East of England Plan (March 2007) sets out revised forecasting for Waste Arisings in Bedfordshire and Luton. The revised projections can be seen below.

Waste Type	2010/11	2015/16	2020/21
Beds and Luton MSW	438,000	456,000	474,000
Beds and Luton C&I	661,000	661,000	661,000
London Waste Apportionment	238,000	116,000	116,000
Total	1,377,000	1,233,000	1,251,000

- 5.76 The plan also sets the following targets:
- Municipal waste: recycling and recovery of 50% at 2010 and 70% at 2015.
 - Commercial and industrial waste: recycling and recovery of 72% at 2010 and 75% at 2015.
- 5.77 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.

Consultees' response to key issues

- 5.78 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.
- 5.79 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.
- 5.80 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
- 5.81 Need to consider lifecycle (including embodied energy) effects of the options and issues related to throughput of different technologies etc.
- 5.82 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.
- 5.83 The more household growth, the more you are pushed towards waste treatment and this could be a key consideration in the growth area.

Population

Key issues identified from the baseline and policy review

- 5.84 The resident population of Bedfordshire is recorded as 381,572⁷ with the highest population recorded for Bedford. The population of Luton is recorded as 184,371¹ which comprises 3.42% of the total resident population for the region of East of England. The percentage change in the population for Bedfordshire and Luton since 1991 is higher than the regional rate of growth. According to data from Bedfordshire County Council and Luton Borough Council, the population of Bedfordshire is expected to continue to grow by about 6% over the next decade reaching a total of 605,900 in 2011 and then 649,000 by 2021.
- 5.85 Municipal waste arisings particularly are linked to where most people live. Given that the proximity principle requires waste to be treated as close to its point of origin as possible, the location of existing and future centres of population is critical when planning for future waste management facilities.

Consultees' response to key issues

- 5.86 Population diversity can impact on success of such initiatives as waste diversion and recycling (e.g. there are over 80 languages in regular use in Luton. Any information raising and education on waste issues needs to bear this in mind. This is not a direct issue for the plan to bear in mind as it does not have direct influence over waste awareness issues.
- 5.87 There is considerable scope for increased education about household waste, the implications of choices and how key personal choice is on the relative local impacts and those further afield. Can the plan publicise this?
- 5.88 The plan needs to consider the impacts of population increases in the south of county and these need to be monitored.

▪ ⁷ 2001 Census

Soils and Geology

Key issues identified from the baseline and policy review

- 5.89 There are groundwater bearing strata “at risk” or “likely to be at risk” in Luton and in parts of Bedfordshire. Soil and groundwater must be protected from damage by waste activities. Waste management can cause changes in soil condition.
- 5.90 Certain waste management techniques can also be used to produce soil conditioner / compost which could improve the condition of soil without the need for peat.
- 5.91 Construction and Demolition Waste (C & D data are difficult to obtain due to the fact that a large proportion of it is re-used on site so doesn’t enter the conventional waste stream. The ODPM (2004) Survey of Arisings and Use of Construction, Demolition and Excavation Waste as Aggregate in England in 2003 set out regional data which showed that the majority of the C & D Arisings was either recovered or used for beneficial purposes, with only 14% going to landfill (presumably because it was contaminated).
- 5.92 A study was undertaken in the region by ERM (2005) which discusses the net arisings of Construction and Demolition Waste at a regional level. This report makes the assumption that the growth rate for this waste stream will remain relatively constant over time. This assumption reflects, in part, the impact of the landfill tax and the Aggregates Levy.

Consultees’ response to key issues

- 5.93 Monitor effects on sites of geological importance (including RIGGs and geological SSSIs)

6 Assessing the Effects of the Plan

Introduction

6.1 As identified in Table 2 the purpose of this stage is to provide a means by which the sustainability of the plan can be appraised. This is done through the design of a SA framework. The SA Framework provides a way in which sustainability effects can be described, analysed and compared. It is central to the SA process. An SA Framework consists of objectives which may be expressed in the form of targets, the achievement of which should be measurable using identified indicators. The sustainability objectives are distinct from the objectives of the plan, though they may in some cases overlap with them. The SA framework has been taken from that developed for use in the SA of the Minerals DPDS but has been amended to make them more suitable for a waste SA. The selection of specific indicators within the SA framework has come from:

- Objectives which were suggested by the review of other plans, programmes, policies and objectives and the baseline review and topic papers;
- Objectives which were suggested by consultees at the scoping event held in May 2007;
- A review of SA objectives and indicators suggested in waste specific SA guidance; and
- Relevant criteria which were used in the Bedfordshire Energy and Recycling Project Site Identification and Appraisal. These criteria are:
 - Proximity to primary centres of population and waste arising;
 - Proximity to major future growth areas;
 - Relationship with existing pattern of municipal waste management facilities;
 - Potential access to the strategic road network;
 - Potential impact on significant planning and environmental designations;
 - Planning risk – community acceptability.

6.2 The SA topics cover a wide range of sustainability issues and it is important to note that at this point in the SA process no topics listed under the SEA regulations have been scoped out i.e. removed from consideration. This may happen as the assessment progresses and the plan becomes more developed, depending on what the plan includes. It is also important to note that these objectives and indicators are a first draft and may be modified as a result of changing baseline information and the SA consultation process.

SA Framework

6.3 The SA framework is shown in Table 5. Many objectives were suggested through the consultation and document review. Not all of these have been included. Some have been rationalised and others have been modified / left out in order to provide a relatively succinct and practical set of SA objectives.

Table 4: SA framework

SEA Topic	SA Objectives	SA Questions. Does the plan...
Biodiversity, flora and fauna	<ul style="list-style-type: none"> To protect and enhance sites designated for their ecological value where opportunities arise. To protect and enhance the wider biodiversity and other green infrastructure within the County. Ensure that waste sites do not affect habitat corridors. Where barriers to movement are created, alternative provision should be made. Maximise potential biodiversity value of existing waste sites. Maximise restoration opportunities for biodiversity at the end use of waste sites and contribute to realising local and national BAP targets. 	<ul style="list-style-type: none"> Include actions that directly or indirectly affect Natura 2000 sites, SSSIs or other designated sites including County Wildlife Sites? Include actions that will cause habitat loss, fragmentation or degradation? : Include actions that result in habitat creation or extension. Include actions that help to reach targets or compromise targets of BAPs? Include actions to ensure restoration to biodiversity is a priority where appropriate?
Cultural heritage	<ul style="list-style-type: none"> To identify important areas of archaeology or historic character and seek to avoid, preserve or enhance them. 	<ul style="list-style-type: none"> Seek to preserve and where relevant enhance sites of built and archaeological heritage? Aim to steer the impact of development (including the impact of traffic) away from archaeologically sensitive sites? Preserve, manage or enhance the historic environment character and opportunity areas?
Landscape	<ul style="list-style-type: none"> Ensure that plan policies avoid incremental and cumulative impact on sensitive landscape and townscape areas. Look for opportunities to enhance the existing landscape value of the area and to contribute to the wider green infrastructure initiatives through sensitive restoration programs. 	<ul style="list-style-type: none"> Enhance the landscape. Encourage suitable mitigation and restoration measures? Locate sites in sensitive landscape areas.
Air quality and noise	<ul style="list-style-type: none"> Safeguard air quality and reduce the number of people affected by noise from waste management sites. 	<ul style="list-style-type: none"> Change the amount of pollution caused by waste management? Encourage suitable mitigation measures? Avoid locations within close proximity to sensitive receptors where potential impacts cannot be adequately mitigated? Avoid the potential for the facility to negatively impact on the AQMA which would relate particularly to the transport of the waste?
Human health	<ul style="list-style-type: none"> Reduce the impact of the waste industry on people's health and quality of life. 	<ul style="list-style-type: none"> Cause a change in the number of people (either alone or in combination with other projects) directly affected by waste

		management (living in close proximity to a site or an access route) whose impact cannot be mitigated?
Population and social inclusion	<ul style="list-style-type: none"> Reduce the impact of the waste industry on people's quality of life and maximise the potential of the waste industry to address social inclusion. 	<ul style="list-style-type: none"> Improve the quality of where people live by providing community services?
Water	<ul style="list-style-type: none"> Minimise the risk of water pollution Reduce vulnerability to flooding To keep water consumption within local carrying capacity limits (taking account of climate change) 	<ul style="list-style-type: none"> Impact on Groundwater Source Protection Zones? Contribute to improving water quality? Contribute to flooding anywhere in the catchment? Cause changes to the availability of water in the area?
Transport	<ul style="list-style-type: none"> Reduce the mileage travelled by waste. Encourage a modal shift away from road freight travelling on local roads. 	<ul style="list-style-type: none"> Cause a change in traffic flows or the nature of traffic (an increase in HGVs for example) that affects communities or areas valued for their environmental importance? Identify sites which avoid placing reliance on local roads Include actions that would encourage a shift from road freight to other forms of freight? Include actions that change mileage travelled per tonne?
Waste	<ul style="list-style-type: none"> Provide a network of facilities to deal with the waste requiring disposal and to meet the regional recycling targets. Reduce the quantity of waste produced per head in the county. 	<ul style="list-style-type: none"> Ensure that the recycling and recovery infrastructure is adequate to meet targets. Consider how future development is balanced against the capacity of the region to sustainably deal with the waste produced. Encourage a reduction in the production of waste wherever possible and maximum recovery of resources.
Climate change	<ul style="list-style-type: none"> The Waste DPD should encourage development and best practice in renewables and energy efficiency and seek to provide impetus towards a low carbon economy, particularly in terms of providing CHP. 	<ul style="list-style-type: none"> Reduce the potential for green house gas emissions caused by waste management? Encourage the development of renewables and energy efficiency within the waste sector?
Soils and geology	<ul style="list-style-type: none"> Identify and encourage the increased use of recycled waste aggregate in the construction industry. To minimise the impact of waste management facilities on sensitive areas or those valuable for mineral deposits. 	<ul style="list-style-type: none"> Help to reduce the amount of new aggregate required in construction? Avoid damage to sensitive / valuable soils and geology?

Employment and education

- Support employment in the waste and resource management industry and associated industries and encourage synergies between waste management and other industries.
- Include actions that change the number of people directly employed in the waste industry?
- Provides opportunities for co-location of waste management facilities with other industries and consider impacts of facilities on existing/proposed employment areas?

Questions for consultees

- Do the SEA objectives provide a reasonable framework through which to address the likely significant environmental effects of the plan?

7 Next steps in the Appraisal Process

Introduction

- 7.1 The next stage of the SA is the assessment of issues, options and potential sites for waste management. This section of the Scoping Report outlines how this stage of the SA will be carried out focusing on the methodology of the assessment and how it will be reported.

Appraisal of issues and options

- 7.2 Matrices will be used to identify the sustainability effects of the issues, options and sites. These matrices will be designed to help identify the potential impacts of the plan on each SA topic (guided by the appraisal questions). Two separate matrices will be designed for the appraisal of the issues and options and the appraisal of sites. The matrix for the assessment of the issues and options will be a relatively simple matrix which will allow for a discussion and comparison of each of the options. A summary of the issues raised during consultation will also be provided which will provide additional information and will be used to guide the assessment team in their deliberations. The simplicity of the matrix is designed to reflect the fact that strategic options should (and in many cases can only be, due a lack of spatial expression) be assessed in broad terms.

Appraisal of potential sites

- 7.3 The matrix for the assessment of the sites is more detailed in recognition of the fact that more detailed information is available on which to base a fuller assessment. In addition, it is anticipated that by undertaking a more detailed assessment of sites at this stage it will save Bedfordshire County Council and Luton Borough Council time at the preferred options stage. The matrix provides for a summary of the impact to include information on nature and spatial extent of the impact, probability, duration, frequency and reversibility. Space is also provided which can be used to record the significance of the effect over the following timescales.
- Short term during site development;
 - medium term during site working; and
 - long term after final site restoration.
- 7.4 As sites are proposed they will be mapped on the Bedfordshire County Council Geographic Information System (GIS). Environmental constraints maps are also currently being prepared. As well as using consultation responses to guide the assessment, spatial information will be used as part of the assessment to guide the SA team in terms of the locations of key constraints.

Proposed format of Sustainability Appraisal Report

A preliminary list of contents for the SA Report has been drawn up based upon the issues identified during the scoping exercise and with regard to the requirements of The Planning and Compulsory Purchase Act (2004) and The Environmental Assessment of Plans and Programmes Regulations, 2004. The contents list is presented in Table 5.

Table 5: Anticipated Contents of the SA Report

Section of SA Report	Contents
Summary and outcomes	Non-technical summary What difference has the process made? How to comment on the report
Appraisal Methodology	Approach adopted for the SA When the SA was carried out Who carried out the SA? Who was consulted, when and how?
Background	Purpose of the SA and the SA Report Plan objectives and outline of contents Compliance with the SEA Directive/ Regulations
Sustainability objectives, baseline and context	Links to other strategies, plans and programmes and sustainability objectives Description of the baseline characteristics and the predicted future baseline Difficulties and limitation of baseline data The SA Framework, including objectives, targets and indicators Main social, environmental and economic issues and problems identified
Plan issues and options	Main strategic options considered and how they were identified Comparison of the social, environmental and economic effects of the options How social, environmental and economic issues were considered in choosing the preferred options Other options considered, and why these were rejected Proposed mitigation measures
Plan Policies	Significant social, environmental and economic effects of the preferred policies How social, environmental and economic problems were considered in developing the policies Proposed mitigation measures Uncertainties and risks
Implementation	Links to other tiers of plans and programmes and the project level considerations (e.g. Environmental Impact Assessment, and/ or design guidance, etc) Proposals for monitoring

Questions for consultees

- Are there additional methodologies that could be used within the SEA?
- How would you or your organisation like more to be involved in the rest of the SEA process?

Appendix 1: Organisations consulted at the scoping stage

Stakeholders

- A list of key stakeholders was drawn up for the purposes of the scoping consultation, all of whom were invited to the workshop. The list consisted of:
 - representatives from various departments of Bedfordshire County Council;
 - representatives from various departments of Luton Borough Council;
 - representatives from Bedford Borough Council, Mid-Bedfordshire District Council and South Bedfordshire District Council;
 - representatives from the following statutory and other public agencies
 - English Heritage
 - Natural England
 - The Environment Agency
 - Government Office for the East of England
 - The Highways Agency
 - The East of England Development Agency
 - The East of England Regional Assembly
 - Bedfordshire Heartlands Primary Care Trust;
 - the chairs of the five Local Strategic Partnerships in Bedfordshire;
 - representatives of the Environmental Services Association, Chartered Institute of Waste Management, British Aggregates Association and Quarry Products Association; and
 - representatives of the following non-governmental organisations
 - Bedfordshire & Luton Friends of the Earth
 - Council for the Protection of Rural England
 - Bedfordshire Wildlife Trust
 - Bedfordshire Rural Communities Charity
 - Royal Society for the Protection of Birds.

Scoping workshop

- The following people attended the scoping workshop on Thursday 17th May 2007.
- Robert Asquith, WRG Ltd.
- David Atkinson, Luton Borough Council.
- Colin Bambury, Highways Agency.
- Stella Baylis, Natural England.

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- David Bevan, Bedfordshire County Council.
 - Donald Bowler, Luton Borough Council.
 - Andrew Brown, Bedfordshire County Council.
 - John Comont, Bedfordshire County Council.
 - Simon Deards, Bedfordshire County Council.
 - Benjamin Finlayson, Bedfordshire County Council.
 - Adam Ireland, Environment Agency.
 - Laurie Jackson, Wildlife Trust.
 - Sarah Leeming, University of Bedfordshire.
 - Melanie MacLeod, Bedfordshire County Council.
 - Andrew Marsh, Bedfordshire County Council.
 - Charlotte Morbey, Bedfordshire County Council.
 - Karen Oellermann, South Beds Local Strategic Partnership.
 - Basil Quinn, South Bedfordshire District Council.
 - Roy Romans, Bedfordshire County Council.
 - Cllr John Scott, Bedfordshire County Council.
 - Anita Taylor, Bedfordshire County Council.
 - Martin Tidy, Bedford Borough Council.
 - Martin Towlson, Council for the Protection of Rural England.
 - Paul Vann, Bedfordshire County Council.
 - Mick Wright, Luton Borough Council.

Questionnaires

4 completed questionnaires were received, from representatives of:

- The Wildlife Trust for Bedfordshire, Cambridgeshire, Northamptonshire and Peterborough;
- Bedfordshire County Council transport officer;
- The Highways Agency; and
- Government Office for the East of England.

Appendix 2: Topic papers

(Please see separate document for the full set of Topic Papers)