



Sustainability appraisal of the Bedfordshire & Luton Waste Development Plan Documents

Report of Scoping Consultation

ENVIRON®

June 2007

Bedfordshire County Council Report of Scoping Consultation

A report by **CAG Consultants** as part of the ENVIRON / CAG / MWH consortium

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Contents

Contents	3
Introduction	4
Aim of the consultation	4
Consultation methods	4
Stakeholders	4
Scoping workshop	5
Questionnaire	7
Findings	8
Biodiversity, flora and fauna	8
Cultural heritage	10
Landscape	12
Air quality and noise	13
Water	14
Population and social inclusion	15
Human Health	16
Education and Employment	18
Transport	19
Waste	21
Climatic factors	23
Soils and geology	24

Introduction

Aim of the consultation

Consultation has been conducted as part of the scoping phase for the sustainability appraisal of the Bedfordshire & Luton Waste Development Plan Documents (DPDs). The aim of the consultation was to allow a wide range of organisations to contribute to the scoping of the key sustainability issues for waste planning in Bedfordshire. This scoping work will then inform the development of the sustainability appraisal framework.

Consultation methods

Two consultation methods were utilised during the scoping phase:

1. 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.
2. 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.

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

- East of England Development Agency
 - 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 17 May 2007:

- Robert Asquith, WRG Ltd
- David Atkinson, Luton Borough Council
- Colin Bambury, Highways Agency
- Stella Baylis, Natural England
- 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

The workshop was facilitated by CAG Consultants and Environ.

Environ 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. 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 accompanied by indicators and targets, to allow measurement of progress against these objectives.

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?

The key findings from each group were presented to the wider group and discussed by the whole group within a brief plenary session.

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.

Questionnaire

The questionnaire asked respondents to identify the key issues relating to waste planning in the County in relation to the following subject areas:

- biodiversity, flora and fauna
- cultural heritage
- landscape
- air quality and noise
- water
- population and social inclusion
- human health
- education and employment
- transport
- waste (reuse, recycling etc)
- climatic factors and energy
- soils and geology

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.

Four completed questionnaires were received, from representatives of:

- The Wildlife Trust for Bedfordshire, Cambridgeshire, Northamptonshire and Peterborough;
- The Highways Agency;
- Bedfordshire County Council (Transport Strategy); and
- Government Office for the East of England.

Findings

This section summarises the findings from the scoping workshop and questionnaire. They are presented in tabular form, with a table for each topic area identified in the desk-based scoping work.

Biodiversity, flora and fauna

Key issues identified through desk-based scoping: 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 exercise¹ 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.

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.

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.

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.

¹ Treweek Environmental Consultants (2007): *Appropriate Assessment Screening for the Bedfordshire and Luton Minerals Development Plan Documents*.

<p>Draft SA Objectives</p> <ul style="list-style-type: none"> • To protect and where appropriate enhance sites designated for their ecological value. • To protect and enhance the wider biodiversity of the County. • Maximise potential biodiversity value of existing waste sites. • Ensure restoration to biodiversity end use for waste sites and contributes to realising local and national BAP targets. 	<p>Draft SA Indicators. Does the plan...</p> <ul style="list-style-type: none"> • Include actions that directly or indirectly affect Natura 2000 sites, SSSIs or other designated sites? • Include actions that will cause habitat loss or fragmentation? • Include actions that help to reach targets or compromise targets of BAPs? • Include actions to ensure restoration to biodiversity is a priority where appropriate?
<p>are these the key sustainability issues under this topic area? or are there others?</p> <ul style="list-style-type: none"> • Biodiversity doesn't have to be in a specially designated site for it to be important. Needs to be recognition that protected species occur outside designated sites. • This issue needs to be raised as a very small area of Bedford is designated. • Need to look at the wider picture - green infrastructure, green corridors etc. Refer to the Green Infrastructure plan. • County Wildlife Sites should also be included. These are the most important sites apart from the statutory designations, and are designated following detailed habitat surveys. • The issue of litter needs to be addressed somewhere. • 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. 	<p>what are the main implications of these issues for minerals and waste planning?</p> <ul style="list-style-type: none"> • The issues need to be presented in a more balanced fashion as they currently appear too negative. Developer contributions can be utilised for improving <u>locally native</u> flora and fauna • Problems may arise if sites are "overtied". • The Water Framework Directive could bring benefits.
<p>do you agree with the sustainability objectives and indicators chosen?</p> <ul style="list-style-type: none"> • "where appropriate" may need to be included, although there is a danger that this could result in nothing being done. • Alternative wording - "To protect and enhance sites designated for their ecological value where opportunities arise." • Include an objective that looks to enhance biodiversity e.g. use of waste as manure. • Include "wider biodiversity and other green infrastructure." Add: Ensure that waste sites do not affect habitat corridors. Where barriers to movement are created, alternative provision should be made. • May need to consider impacts further afield than just Bedfordshire. 	<p>Can you suggest any data sources for monitoring the impact of the plan on these issues?</p> <ul style="list-style-type: none"> • There are various data sets on ancient woodland and grassland (compiled by English Nature). They are not comprehensive at the moment but they are being developed.

<ul style="list-style-type: none"> • Re draft indicator 2: Include actions that result in habitat creation or extension. • Does the plan mention pollution, emissions (active and passive) and human activities associated with waste. • Re draft indicator 2: Include 'degradation'. • Everything in the bullet points on front page somehow need to be included within the indicators. • County Wildlife Sites should be mentioned specifically in Objective 2. 	
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Cultural heritage

<p>Key issues identified through desk-based scoping: 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.</p> <p>Bedfordshire contains 150 Scheduled Ancient Monuments. The County Council has 20 Scheduled Ancient Monuments on its land and 130 are on private land. 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.</p> <p>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:</p> <ul style="list-style-type: none"> • 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; • The long-term setting and character of an historic monument, archaeological landscape or listed building might be affected by the extraction. 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. 	
<p>Draft SA Objectives</p> <ul style="list-style-type: none"> • To identify important areas of archaeology or historic character and seek to avoid, preserve or enhance them 	<p>Draft SA Indicators. Does the plan...</p> <ul style="list-style-type: none"> • Seek to preserve and where relevant enhance sites built and archaeological heritage? • Aim to steer development away from archaeologically sensitive sites? • Preserve, manage or enhance the historic environment character and opportunity area?

<p>are these the key sustainability issues under this topic area? or are there others?</p> <ul style="list-style-type: none"> • Bedfordshire and Luton contain 152 Scheduled Ancient Monuments, 3,300 listed buildings, 21 registered historic parks and gardens, and 91 conservation areas. Many other significant parts of the historic environment are not designated. The County Historic Environment Record covers over 18,000 known archaeological sites, historic landscape features, and historic buildings and structures. • Bedfordshire’s heritage is distinctive, diverse and fascinating. Historic building materials, ranging from brick and stone to timber-framing, show its variety. 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. • Traffic created by waste management facilities can also have significant impacts on cultural heritage. • Potential effects of waste management facilities: <ul style="list-style-type: none"> • Whole or partial loss of heritage assets and impacts on their character, appearance, interest and settings, and on wider context and character. • Impact on the amenity uses of heritage assets resulting from the disruption of rights of way and access, increased noise • Impact on opportunities to enhance and improve the amenity value of heritage assets including as part of Green Infrastructure Plans and Historic Environment Character Assessments. 	<p>what are the main implications of these issues for minerals and waste planning?</p>
<p>do you agree with the sustainability objectives and indicators chosen?</p> <ul style="list-style-type: none"> • They need to reflect the additional issues identified above. 	<p>can you suggest any data sources for monitoring the impact of the plan on these issues?</p> <ul style="list-style-type: none"> • Need to monitor effects on Conservation Areas, listed buildings, parks and gardens of historic importance (nationally and locally). • Detailed Historic Environment Character

	Assessment of the County currently underway, which will influence development and other changes.
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Landscape

<p>Key issues identified through desk-based scoping: 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:</p> <table border="0"> <tr> <td>Type 1 Clay Farmland</td> <td>Type 7 Greensand Valley</td> </tr> <tr> <td>Type 2 Woodland Wolds</td> <td>Type 8 Clay Hills</td> </tr> <tr> <td>Type 3 Limestone River Valley</td> <td>Type 9 Chalk Escarpments</td> </tr> <tr> <td>Type 4 Clay Valleys</td> <td>Type 10 Rolling Chalk Farmland</td> </tr> <tr> <td>Type 5 Clay Vales</td> <td>Type 11 Chalk Dipslope</td> </tr> <tr> <td>Type 6 Greensand Ridge</td> <td>Type 12 Chalk Valleys</td> </tr> </table>		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
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<p>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.</p> <p>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.</p> <p>Waste management (like other industrial development) can have the following effects on landscape character:</p> <ul style="list-style-type: none"> • 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; • Local distinctiveness may be weakened by insensitive / unsympathetic restoration; • 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. 													
<p>Draft SA Objectives</p> <ul style="list-style-type: none"> • Ensure that plan policies avoid incremental and cumulative impact on sensitive landscape areas. • Look for opportunities to enhance the existing landscape value of the area through sensitive restoration programs. 	<p>Draft SA Indicators. Does the plan...</p> <ul style="list-style-type: none"> • Enhance the landscape? • Encourage suitable mitigation measures? • Locate sites in sensitive landscape areas? 												
<p>are these the key sustainability issues under this topic area? or are there others?</p> <ul style="list-style-type: none"> • Need to include townscape character e.g. impacts of incinerators within urban areas • Impacts on the Forest of Marston Vale 	<p>what are the main implications of these issues for minerals and waste planning?</p> <ul style="list-style-type: none"> • The approach needs to be based more on landscape character; focus more on methodology than type. 												

<p>need to be included - an area designated for landscape improvement (need to check green infrastructure report to clarify).</p> <ul style="list-style-type: none"> • Need to link to green infrastructure report with respect to opportunities for positive contribution. • Include more detail on landscape character assessment and recommendations - range of different prescriptions from protection to landscape enhancement. 	
<p>do you agree with the sustainability objectives and indicators chosen?</p> <ul style="list-style-type: none"> • Include provision of an adequate network of waste management facilities to avoid flytipping. • Include protection and enhancement of designated landscapes. Link into the Landscape Character Assessment methodology to identify landscape creation opportunities and contributions to green infrastructure. 	<p>can you suggest any data sources for monitoring the impact of the plan on these issues?</p> <ul style="list-style-type: none"> • Guideline document being produced looking at transport impacts on AONB (contact Steve Roderick/Colin White) • District level information on monitoring of fly tipping incidents. • Landscape Character Assessments for general direction of change.

Air quality and noise

Key issues identified through desk-based scoping:

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.

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.

All waste management and disposal activities (from mass burn incineration 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.

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.

<p>Draft SA Objectives</p> <ul style="list-style-type: none"> Safeguard air quality and reduce the number of people affected by noise from waste management sites. 	<p>Draft SA Indicators. Does the plan...</p> <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 location which will have a negative impact on local amenity? Avoid the potential for the facility to negatively impact on an AQMA which would relate particularly to the transport of the waste?
<p>are these the key sustainability issues under this topic area? or are there others?</p> <ul style="list-style-type: none"> Sheffield Energy from Waste plant is an AQMA. 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. There are only six AQMAs in the County: <ul style="list-style-type: none"> Great Barford (NO2) High Street (NO2) Prebend Street (NO2) Stewartby (SO2) Dunstable A5 / A505 (NO2) M1 (NO2) 	<p>what are the main implications of these issues for minerals and waste planning?</p>
<p>do you agree with the sustainability objectives and indicators chosen?</p> <ul style="list-style-type: none"> Could link to driver / operator training. Include maximisation of transportation of waste by alternatives to road to reduce pollution (e.g. canal and rail - reactivate sidings at Sindon for example.) Could link to objectives and targets in the Local Transport Plans and Air Quality Action Plans. 	<p>can you suggest any data sources for monitoring the impact of the plan on these issues?</p> <ul style="list-style-type: none"> Likely info and data from Local Transport Plan Monitoring. Congestion strategy (Beds CC) definitely likely through Urban Traffic Management to be generating considerable relevant data sources. (David Bowie, Traffic Manager, Beds CC, 01234 228719) The Borough and District Councils monitor air quality – the Environmental Health Officers will be the relevant contacts

Water

Key issues identified through desk-based scoping: 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



<p>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.</p> <p>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.</p>	
<p>Draft SA Objectives</p> <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). 	<p>Draft SA Indicators. Does the plan...</p> <ul style="list-style-type: none"> • Impact on Groundwater Source Protection Zones? • Contribute to improving water quality? • Contribute to flooding? • Cause changes to the availability of water in the area?
<p>are these the key sustainability issues under this topic area? or are there others?</p> <ul style="list-style-type: none"> • Energy from Waste plants use very little water and do not discharge any emissions to water process and cooling. • 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. 	<p>what are the main implications of these issues for minerals and waste planning?</p> <ul style="list-style-type: none"> • Need for maximum reuse of "grey" water in any development proposals. • Need to incorporate SUDS within new development to minimise flood risk elsewhere. • Need to minimise water use in new development. Increase H2O efficiency.
<p>do you agree with the sustainability objectives and indicators chosen?</p> <ul style="list-style-type: none"> • Draft objective 2: Through PPS25 guidance, new sites will not be allowed to be liable to flooding • Draft indicator 3: include 'does the plan contribute to the reduction / minimisation of flooding elsewhere?' • Need to monitor effects on public water supply and public boreholes in the south of the county in particular. 	<p>can you suggest any data sources for monitoring the impact of the plan on these issues?</p>

Population and social inclusion

<p>Key issues identified through desk-based scoping: The resident population of Bedfordshire is recorded as 381,572² 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.</p> <p>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</p>

² 2001 Census

location of existing and future centres of population is critical when planning for future waste management facilities.	
<p>Draft SA Objectives</p> <ul style="list-style-type: none"> • Reduce the impact of the waste industry on people's quality of life. 	<p>Draft SA Indicators. Does the plan...</p> <ul style="list-style-type: none"> • Cause a change in the number of people directly affected by waste management (living in close proximity to a waste management site or an access route) whose impact cannot be mitigated? • Cause a cumulative impact on communities • Improve the quality of where people live
<p>are these the key sustainability issues under this topic area? or are there others?</p> <ul style="list-style-type: none"> • Population diversity can impact on success of such initiatives as waste diversion and recycling (e.g. over 80 languages in regular use in Luton). Need to ensure that awareness and education on waste issues is inclusive. • Considerable scope for increased education about household waste, the implications of choices etc and how key personal choice affects the relative local impacts and those further afield. • Need to fully consider rising population e.g. influx from Eastern Europe and large housing growth in south of county. 	<p>what are the main implications of these issues for minerals and waste planning?</p>
<p>do you agree with the sustainability objectives and indicators chosen?</p> <ul style="list-style-type: none"> • Include: "Reduce the impact of the waste industry on people's quality of life" - can often be linked to perception. • Add: "Maximise the potential of the waste industry to address social inclusion" (e.g. social enterprises, helping people into employment etc) • Need to monitor impacts from population increase and immigration. 	<p>can you suggest any data sources for monitoring the impact of the plan on these issues?</p>

Human Health

<p>Key issues identified through desk-based scoping: 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%.</p> <p>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. 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</p>

<p>management facilities were either generally not apparent, or the evidence was not consistent or convincing.</p>	
<p>Draft SA Objectives</p> <ul style="list-style-type: none"> • Reduce the impact of the waste industry on people's health and quality of life. 	<p>Draft SA Indicators. Does the plan...</p> <ul style="list-style-type: none"> • Cause a change in the number of people directly affected by waste management (living in close proximity to a site or an access route) whose impact cannot be mitigated? • Cause a cumulative impact on certain communities?
<p>are these the key sustainability issues under this topic area? or are there others?</p> <ul style="list-style-type: none"> • What is the basis of the claim that there is an indication that incineration may have a greater effect on health than landfill per tonne of waste processed. Is this uncontested? • Need to get data on illnesses related to air pollution (e.g. that may be influenced by burning waste or the general smell from waste being stored). 	<p>what are the main implications of these issues for minerals and waste planning?</p>
<p>do you agree with the sustainability objectives and indicators chosen?</p> <ul style="list-style-type: none"> • Need to include monitoring of illnesses caused by waste issues (or linked to them). 	<p>can you suggest any data sources for monitoring the impact of the plan on these issues?</p>

Education and Employment

Key issues identified through desk-based scoping: Of the economically active population in Bedfordshire 46.14% is in full-time employment and in Luton this figure is 42.53%. 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 4/5³. 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.

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.

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.

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;
- 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);
- 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.

<p>Draft SA Objectives</p> <ul style="list-style-type: none"> • Support employment in the waste industry. 	<p>Draft SA Indicators. Does the plan...</p> <ul style="list-style-type: none"> • Include actions that change the number of people directly employed in the waste industry?
<p>are these the key sustainability issues under this topic area? or are there others?</p> <ul style="list-style-type: none"> • Need to consider employment in other related industries and possible effects. • Consider businesses that may be sensitive e.g. food industry • Need to consider potential impacts of waste facilities on attraction / amenity of 	<p>what are the main implications of these issues for minerals and waste planning?</p> <ul style="list-style-type: none"> • Need to plan waste management facilities as part of new development. • Effects of waste facilities and wider economic impact of exporting waste on other businesses - potential conflict with attracting businesses/people in growth areas. • Consider development of new economics /

³ First Degree, higher Degree, NVQ 4 and 5, HNC, HND, Qualified Teacher Status, Qualified medical doctor, qualified dentist, qualified nurse, Midwife, Health Visitor

<p>areas, particularly in growth areas.</p> <ul style="list-style-type: none"> • Should the Plan seek to group waste management facilities within one area? Cambridgeshire have looked at it and produced supplementary planning guidance. • Need to address perceptions as well as 'real' impacts. • Need to consider re-use and minimisation of waste. • Need to consider role of universities / colleges in developing skills for waste management. • Need to address education & awareness raising: <ul style="list-style-type: none"> • engagement with schools and public sector in general • getting people involved in projects e.g. BEAR • Environmental training for business 'BETTY' projects, ESF Funding • Need to consider economic cycle of international exportation of waste e.g. fridges, computers to Africa and explore both positives and negatives of exporting our waste pollution. • Need to consider the role of the waste industry in bringing people into employment. • Need to consider social enterprises, e.g. NOAH project. 	<p>business which can use waste (development of waste based economy).</p> <ul style="list-style-type: none"> • Role of universities and colleges in up-skilling. • Role of waste management industries and social enterprises in providing opportunities for people to get back in work. • Awareness raising - involvement of people in projects. • Greening the waste management sector e.g. travel plans. • Sustainable transport for people to get to waste industry jobs / green travel plans for waste facilities. • Potential use of Combined Heat and Power (CHP) in business parks/estates.
<p>do you agree with the sustainability objectives and indicators chosen?</p> <ul style="list-style-type: none"> • Add consideration of wider economy more generally to avoid damaging competitiveness/ job growth. • Add consideration of wider development of waste management industry e.g. waste recovery businesses. • Include development of skills, research, education e.g. Kingsland Skills institute, vocational training. • Include consideration of building in waste management facilities into (commercial) property (promoted through supplementary planning guidance). 	<p>can you suggest any data sources for monitoring the impact of the plan on these issues?</p> <ul style="list-style-type: none"> • Annual Business Enquiry / Annual Population Survey - for numbers employed in waste. • Chambers of Commerce. • Bedford & Luton Economic Partners. • Learning and Skills Council. • Chartered Institute of Waste Management. • Number of social enterprises being set up to handle waste from WEEE Directive.

Transport

Key issues identified through desk-based scoping: 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.

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.

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.

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.

<p>Draft SA Objectives</p> <ul style="list-style-type: none"> • Reduce the mileage travelled by waste. • Reduce nuisance caused to communities by waste transport. • Encourage a modal shift away from road freight. 	<p>Draft SA Indicators. Does the plan...</p> <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 rail freight? • Include actions that change mileage travelled per tonne?
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<p>are these the key sustainability issues under this topic area? or are there others?</p> <ul style="list-style-type: none"> • No real mention of 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 Line, where there is a desire to reduce costs by reducing the maintenance to be more commensurate with its local role, and the possibility of its role as a key link in the East West rail corridor which could see an increase in passenger services. • Projections will affect number of years that waste will be transported to landfill. • The focus will be primary (recycling) and secondary waste treatment (e.g. combustion, plastics, ash, landfill) for dealing with Bedfordshire waste. 	<p>what are the main implications of these issues for minerals and waste planning?</p>
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<ul style="list-style-type: none"> • Need to consider international export of waste. • Fuel prices will affect economics of transporting waste. • Local waste management will mean transport will focus on HGV (rather than road to rail). • Think about other transport modes, e.g. canal network (new canal proposed between Bedford and Milton Keynes). • 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. Impact of sites on the strategic highway network will need to be taken into consideration. • The summary of key issues seems to assume that growth can be accommodated. • Is there a tipping point at which Beds stops accepting waste? • Need to locate waste treatment near source. 	
<p>do you agree with the sustainability objectives and indicators chosen?</p> <ul style="list-style-type: none"> • Practicality of rail for transport of waste in Bedfordshire was questioned; if you encourage rail, then may encourage importation of waste. Local waste will inevitably travel by road. Similarly, use of canals questioned because of speed and volumes involved. • Others suggested specific target for percentage of waste and minerals transported by rail. • Objective 1 potentially conflicts with Objective 2 - the quickest route may be through a community. • Increased cost of routing strategy will be borne by industry/consumer. • Objective 1 should include 'particularly HGV traffic'. 	<p>can you suggest any data sources for monitoring the impact of the plan on these issues?</p> <ul style="list-style-type: none"> • Environment Agency data on waste transfers - for regions not within regions. • Country has models for all traffic flows (separated for HGVs). • Highways Agency. • Freight Strategy - draft is available. • Freight best practice project (run by DfE). • Congestion strategy - very early stages. • Freight Strategy looking at construction and decommissioning of any sites (inc. waste management) and their impacts on transport. • Construction Management strategies - used to manage transport flows. • Asset Management Plan - impact of heavy vehicles on condition of roads.

Waste

Key issues identified through desk-based scoping:

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.



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

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.

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.

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.

Draft SA Objectives

- Provide the appropriate facilities to deal with the waste requiring disposal and to meet the regional recycling targets.
- Reduce the quantity of waste produced in the county.

Draft SA Indicators. Does the plan...

- Ensure that the recycling and recovery infrastructure is adequate to meet targets?
- Identify and encourage the increased use of recycled waste aggregate in the construction industry?
- 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?

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

- Will unitary status affect waste disposal?

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

- Need to consider the different options -



<ul style="list-style-type: none"> • A business case for a waste to energy plant for municipal waste is being put together at the moment. There might be some scope for industrial waste being dealt with. • Need to consider the lifecycle (including embodied energy) effects of the options. 	<p>centralised, large plants versus small plants. DEFRA pushing larger sites and DCLG looking at smaller plants.</p> <ul style="list-style-type: none"> • Need to think carefully about how to integrate waste minimisation in to the plan. • The more household growth, the more the plan will be pushed towards waste treatment. • Need to use the plan to look at waste minimisation specifically related to packaging.
<p>do you agree with the sustainability objectives and indicators chosen?</p> <ul style="list-style-type: none"> • "Appropriate facilities" is a bit vague in terms of an objective. Need for a more explicitly link to the targets. • Possible additional objective: maximise/optimize resource recovery. • Should targets include "tonnes per head"? 	<p>can you suggest any data sources for monitoring the impact of the plan on these issues?</p> <ul style="list-style-type: none"> • It is difficult to get commercial figures. • Environment Agency data.

Climatic factors

<p>Key issues identified through desk-based scoping: 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.</p> <p>Research has been undertaken by Entec⁴ on how climatic change could affect waste management. They found the following potential effects:</p> <ul style="list-style-type: none"> • 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. • An change in the types and amount of flora and fauna on and around facilities. • Increased damage to site buildings from storms. <p>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.</p>

⁴ Entec (2003): *Potential Impacts of Climate Change on Waste Management*. Report produced for the Environment Agency.

<p>Draft SA Objectives</p> <ul style="list-style-type: none"> • The Waste DPDs should encourage development and innovation in renewables and energy efficiency and seek to provide impetus towards a low carbon economy. • The Waste DPDs should encourage a reduction in motorised trips, particularly HGV traffic. • Move the treatment of waste further up the waste hierarchy. 	<p>Draft SA Indicators. Does the plan...</p> <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?
<p>are these the key sustainability issues under this topic area? or are there others?</p> <ul style="list-style-type: none"> • Should refer to Energy from Waste rather than incineration. • Pyrolysis uses more energy than it generates. • It is important to recognise that burning waste (at least the waste that has had a useful life) may not be renewable but may still be lower in carbon than fossil fuels. • First bullet point (Entec): recognise that this is a longer term impact (site management / drainage should negate these). • Need to consider energy policy - government moving towards local distributions networks. Does this mean that larger plants are not needed? • 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. Waste Plan should seek to reduce traffic associated with waste disposal and recycling. 	<p>what are the main implications of these issues for minerals and waste planning?</p> <ul style="list-style-type: none"> • Could the plan link CHP to certain developments, e.g. WIXAMS, NIRAH • Can there be policy signals in Local Development Frameworks to integrate CHP plants into growth areas? • CHP from waste is slightly more difficult but certainly not impossible.
<p>do you agree with the sustainability objectives and indicators chosen?</p> <ul style="list-style-type: none"> • Final objective - can we split recovery and treatment into different levels of energy efficiency? • 'Best practice' would be a better term than 'innovation'. 	<p>can you suggest any data sources for monitoring the impact of the plan on these issues?</p> <ul style="list-style-type: none"> • There is a Friends of the Earth report on the CO2 implications of different waste treatments.

Soils and geology

<p>Key issues identified through desk-based scoping 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.</p> <p>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.</p>

<p>There are discrepancies in data relating to construction and demolition waste with figures suggesting that in 1998/9 585,000 tonnes of construction and demolition waste were estimated to arise in Bedfordshire and Luton, with around 72% recycled or otherwise beneficially used (for example in restoration of mineral sites by backfilling). Other figures suggest that in 2002/3, the C+D waste arising is reported at 1,650,000 tonnes, a more than three-fold increase over three years. Estimates from Waste Planning Authorities in the area indicate a likely total estimated arising of around 1 million tonnes per year with a reported recovery rate for 2002/3 of around 83%. Of the waste recovered more than half was recycled, with the rest being used for restoration of mineral workings and other landscaping schemes. Inert waste could further be minimised and diverted from landfill and site restoration, given the strong policy pressure for recycling, for example by specifying secondary or recycled aggregates in Council projects such as road maintenance and supporting the use of the ICE Demolition protocol as part of the planning process. This would maximise the amount of material recycled as part of site redevelopments and reduce the pressure for primary aggregate resources.</p>	
<p>Draft SA Objectives</p> <ul style="list-style-type: none"> • To minimise the impact of waste management facilities on sensitive areas or those valuable for mineral deposits. • Increase recycling and reuse of construction materials. 	<p>Draft SA Indicators. Does the plan...</p> <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?
<p>are these the key sustainability issues under this topic area? or are there others?</p> <ul style="list-style-type: none"> • It is important not to forget RIGGS (Geological sites) and potential impacts on them. • Need to avoid releasing 'trapped' pollution and contamination within the ground through siting new waste management sites. 	<p>what are the main implications of these issues for minerals and waste planning?</p>
<p>do you agree with the sustainability objectives and indicators chosen?</p>	<p>can you suggest any data sources for monitoring the impact of the plan on these issues?</p> <ul style="list-style-type: none"> • Monitor effects on sites of geological importance. • Monitor effects on releasing trapped ground contaminants. On the 'origin, path, receptor' principle.