

**Hertfordshire
Waste Development Framework**

Development Policies
Development Plan Document
Preferred Options

**SUSTAINABILITY APPRAISAL
REPORT**

**Prepared for
Hertfordshire County Council
by
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NON-TECHNICAL SUMMARY

What is the purpose of Sustainability Appraisal?

1. When preparing the Hertfordshire Waste Development Framework (WDF), Hertfordshire County Council (HCC) is required by law to carry out a Sustainability Appraisal and a Strategic Environmental Assessment (SEA) of some of the components of the WDF. This includes the Waste Development Policies Development Plan Document (DPD), which is the subject of this report. The Government recommends that these two requirements are met through one integrated process, which in Hertfordshire has been termed Sustainability Appraisal (or SA), with the aim of achieving the goal of sustainable development.
2. The purpose of the SA was to assist HCC in preparing the Waste Development Policies DPD by identifying the key sustainability issues facing the county, to predict what would be the likely effects of the Development Policies on these issues, and to put forward recommendations to improve it. The aim was to ensure that the Waste Development Policies DPD has as many positive effects as possible, and that any negative effects are avoided when the policies in the Waste Development Policies DPD are turned into development on the ground.

What is in the Waste Development Policies DPD?

3. This SA Report concerns the Waste Development Policies DPD. The Core Strategy DPD for Hertfordshire's WDF sets out the broad vision for waste management planning in Hertfordshire and seeks to ensure sufficient opportunities for the provision of waste management facilities in appropriate locations including for waste disposal. The Waste Development Policies DPD sets out the key policies that aim to ensure that development accords with the spatial vision and objectives of the Waste Core Strategy and are in line with the East of England Regional Spatial Strategy and national planning policy. The DPD is being prepared taking into account Hertfordshire's Municipal Waste Management Strategy (MWMS)¹ and will look forward primarily for the period to 2020, but with a view to providing the basis for a longer term spatial strategy that complements the MWMS to 2024.
4. Hertfordshire's Vision for waste management is:

“By 2021 the Hertfordshire community will be waste conscious and aware, and the County Council and its partners will lead the country in its adoption, promotion and implementation of the waste hierarchy. Members of the general community, industry, local councils and the County Council alike place significant emphasis on waste reduction, reuse and recycling, with waste disposal to landfill minimised. A mix of established and newer emerging technologies are being embraced to ensure that Hertfordshire effectively manages its own waste within its own borders.”

¹ Hertfordshire Waste Strategy – A Joint Municipal Waste Management Strategy for Hertfordshire 2002 – 2024. Waste Aware Hertfordshire Partnership.

Waste management facilities will be sized and located sensibly, so that they reduce the impact of road transport and meet the needs of communities, business and the environment. As the Key Centres for Development and Change are the focus for future growth in Hertfordshire, sufficient waste management facilities will be located as close as practicable to these centres to ensure new communities deal with their own waste.”

5. The Development Policies DPD contains eleven objectives for the delivery of the Vision for waste management in Hertfordshire:

- To promote the provision of facilities which drive waste management further up the waste hierarchy;
- To encourage the implementation of the waste hierarchy in the design and construction of new development, i.e. reduce, reuse, recycle, with disposal of waste as a last resort;
- To facilitate the provision of sufficient waste management facilities in appropriate locations within Hertfordshire, to accommodate the equivalent of the County’s own arisings without harm to the environment and human health;
- To recognise that waste management generates employment and is part of the infrastructure which supports business in general;
- To locate waste recycling, handling and reduction facilities as close as practicable to the origin of waste;
- To engage the wider community to take responsibility for their own waste, engage them in the waste management debate and delivery of this strategy;
- To facilitate the increased use of recycled waste materials in Hertfordshire (for example as aggregate);
- To facilitate a shift away from road transport as the principal means of transporting waste, to water and rail transport;
- To minimise the impact of waste management development on the natural and built environment;
- To maximise the recovery of value (including energy) from waste; and
- To work with all authorities in the county to encourage integrated spatial planning, which takes account of waste issues.

6. Development Control is the process which regulates the development and use of land. It involves consideration of planning applications, the monitoring of development as it takes place and enforcement action where breaches of planning permission have occurred. In line with this, the Waste Development Policies DPD sets out policies that define the circumstances in which planning permission will, or will not be granted. The preferred options for delivering the development policies cover:

- Transport & Traffic
- Rural Roads
- Environmental Effects, Protection & Mitigation
- Operational Matters
- Landfill & Landraise
- Facility Requirements

- Enforcement

How has the Sustainability Appraisal been carried out?

7. The SA was undertaken independently by Land Use Consultants (LUC). Appointed in August 2005, LUC has provided advice to HCC throughout the preparation of the Waste Development Framework.
8. To date, the SA has comprised two main phases of work:

Phase 1: Deciding the scope of the SA

9. In 2003-2004, the consultants decided what the SA should cover by reviewing a wide range of policy documents (including Government policies) and other plans and programmes (such as the draft East of England Plan and the Waste Strategy 2000), and by examining data and information to help identify what the key sustainability issues are in Hertfordshire. Particular reference was made to the existing Waste Local Plan, the adopted Structure Plan for Hertfordshire and the Quality of Life reports for the County.
10. This resulted in a Scoping Report, which was issued for consultation in July 2004 alongside a document setting out the issues and options for waste management in Hertfordshire. The Scoping Report presented the outputs of the scoping phase of the SA and development of the SA Framework (a set of sustainability objectives and criteria) against which the various components of the Waste Development Policies DPD have been appraised. The Scoping Report also included a commentary of the sustainability strengths and weaknesses of the various options being considered in the preparation of the Waste Development Policies DPD. No responses regarding the Scoping Report (and thus the scope of the SA) were received. The Scoping Report was revised in light of new legislation and Government Guidance to ensure it met the UK Government requirements for sustainability appraisal. An updated Scoping Report was then published in June 2005.

Phase 2: SA of the Preferred Options Development Policies DPD

11. Having taken on board consultation responses on options for waste management development in Hertfordshire, and the findings of the Scoping Report, HCC began to prepare the Report on the “Preferred Options” for the Waste Development Policies DPD, which are those options that HCC considered to be the right ones to help deliver the Waste Development Policies. The Preferred Options were then appraised against the SA Objectives.
12. This SA Report sets out the findings of the appraisal of the Preferred Options contained in the Preferred Options Waste Development Policies DPD. Each of the Preferred Options was appraised against the SA Headline Objectives and decision-making criteria, and the likely effects were predicted and assessed.

What are the key sustainability issues facing Hertfordshire?

13. Hertfordshire has a rich variety of character, both urban and rural, providing a high quality environment for those who live and work in the County. Apart

from existing development pressures experienced by Hertfordshire, due primarily to its proximity to London, development in Hertfordshire will be influenced by the Government's Sustainable Communities Plan (2003). The plan seeks to accommodate 2000, 000 homes in the period up to 2021, in four growth areas. One of these (the London-Standstead-Cambridge growth area) includes the Hertfordshire districts & boroughs of Broxbourne, East Hertfordshire, North Hertfordshire and East Hertfordshire.

14. Globally, climate change is the most significant threat and opportunity facing us all. The Living with Climate Change in the East of England Study² notes that the two 'climate change regions' which Hertfordshire straddles (the Northern & Southern Heartland) are distinguished by the predicted impacts on water resources as a result of climate change. The Southern Heartland will be under immense pressure for water resources as a result of development pressures and climate change.
15. There is a high demand for housing in Hertfordshire, which will have a direct impact on waste management. More housing is likely to mean more waste is produced unless decisive action is taken to reuse, recycle, compost and recover more value from waste.
16. There is insufficient landfill capacity to meet the current and future municipal and solid waste disposal needs of the county. There is a need to develop alternative forms of waste management and increase levels of waste recovery. Implementing a waste strategy which will help to meet Government targets will inevitably put pressure on land resources in the County.
17. Finally, land is at a premium in Hertfordshire. Much of it is too environmentally important to be developed, and the land that may be available will be the subject of competing claims for other uses.

What are Hertfordshire's sustainability objectives?

18. The review of other policies, plans and programmes, and the identification of sustainability issues during Phase I of the SA, provided the basis for a set of sustainability objectives to be developed by LUC, in collaboration with stakeholders. The sustainability objectives have been the main tool at each stage of the SA and are comprised of seven Headline Objectives:

| Hertfordshire's Sustainability Headline Objectives | |
|---|--|
| 1. | To protect and enhance the quality of the natural and historic environment. |
| 2. | To achieve and promote sustainable land use, construction, design and transport in Hertfordshire. |
| 3. | To reduce contributions to climate change. |
| 4. | To provide for sustainable resource management. |
| 5. | To maximise the potential economic benefits of waste management to a sustainable economy in Hertfordshire. |
| 6. | To contribute to the improved health and amenity of local communities in |

² *Living with climate change in the East of England. Summary Report, 2002.*

| |
|--|
| Hertfordshire. |
| 7. To maximise community participation and access to services and facilities in Hertfordshire. |

19. Each headline objective was supported by a set of more detailed questions (or decision making criteria) that were used to decide whether the Development Policies DPD would be more likely to achieve the headline objective. The SA headline objectives and supporting criteria proved to be a very useful tool for determining the sustainability strengths and weaknesses of the Development Policies DPD, and making recommendations for improvements.

How did the Sustainability Appraisal influence what the Waste Development Policies DPD says?

20. HCC took account of the recommendations made in the Scoping Reports and meetings with LUC when developing the Preferred Options for the Development Policies DPD.

What are the sustainability effects of the Waste Development Policies DPD Preferred Options likely to be?

21. There is much to welcome in the Development Policies Preferred Options. A ‘traffic light’ summary of the likely sustainability effects is set out in **Table I**. Where:
- The overall effects of the Development Policies DPD are considered to be positive against an SA objective, these are shown in **green**;
 - The overall effects of the Development Policies DPD are considered to be a mixture of positive and negative against an SA objective, these are shown in **amber**; and
 - The overall effects of the Development Policies DPD are considered to be negative against an SA objective, these are shown in **red**.
 - Those Development Policies that are not expected to have an effect on an SA objective have not been shaded.

Table I Sustainability effects of the Waste Development Policies DPD (Preferred Options)

| Sustainability Objective | How is Hertfordshire likely to change if the Waste Development Policies DPD Objectives and Proposed Policies are implemented (in combination with predicted growth in waste arising over the plan period)? | How does this compare with the likely evolution of Hertfordshire without implementation of the Waste Development Policies DPD Preferred Options? | Is the Sustainability Objective likely to be achieved? |
|---|---|---|---|
| 1. To protect and enhance the quality of the natural and historic environment | Overall, the preferred option policies have the potential to adequately protect and enhance the quality of the natural and historic environment in Hertfordshire, primarily through proposed policies that aim to restrict certain polluting and disturbing activities and require the assessment of impacts and appropriate mitigation measures. Although the predicted increase in waste arisings could lead to some adverse effects on the quality of the natural and historic environment, such as those that arise from landfill and landraise, light pollution, visual impacts from the transportation of waste, and poorly designed waste management facilities, the implementation of the preferred options policies could help to control these impacts. Breaches in planning control that could have an adverse impact on the environment can be remedied through policies that promote Council enforcement powers. | Without implementation of the Waste Development Policies DPD, the potential adverse effects that can result from waste management development would be greater. There is the potential for more landfill and landraise and for increases in traffic to lead to unacceptable environmental impacts. Existing policies from Hertfordshire's Waste Local Plan, aim to protect and enhance the quality of the natural and historic environment, but these need updating to reflect new development pressures. | Despite the potential for adverse environmental effects from waste management development, the Development Policies should ensure that these developments are undertaken in a sustainable manner to protect and enhance the quality of the natural and historic environment. However, the policies may need to be strengthened to achieve adequate protection of soil and geology from new development, dark skies from light pollution and the landscape from visual impacts of increased traffic. |
| 2. To achieve and promote sustainable land use, construction, design and transport in Hertfordshire | There is unlikely to be much of an effect on sustainable land use, construction, design and transport in Hertfordshire as the majority of the Development Policies do not relate to this objective. Sustainable construction practices could be promoted as they are included in the supporting text for WDP 5. The Core Strategy and Site Allocations DPDs contained within the WDF address these issues in greater detail than the Development | It is unlikely that sustainable land use, construction, design and transport in Hertfordshire would be significantly different without the implementation of the Waste Development Policies DPD, because many of the policies within the DPD are not related to the SA objective and are unlikely to result in significant negative or positive effects. Other statutory requirements, guidance and | It is unlikely that the objective will be achieved or fail due to this DPD because many of the policies within the Waste Development Policies DPD are not related to the SA objective and none yield significant negative or positive effects. |

| Sustainability Objective | How is Hertfordshire likely to change if the Waste Development Policies DPD Objectives and Proposed Policies are implemented (in combination with predicted growth in waste arising over the plan period)? | How does this compare with the likely evolution of Hertfordshire without implementation of the Waste Development Policies DPD Preferred Options? | Is the Sustainability Objective likely to be achieved? |
|--|--|---|---|
| | Policies DPD and thus provide greater potential for changes to sustainable land use, construction, design and transport in Hertfordshire. | DPDs within the WDP should address positive effects on sustainable land use, construction, design and transport. | |
| 3. To reduce contributions to climate change. | Hertfordshire's contributions to climate change could increase as the Development Policies do not seek to control or reduce the amount of traffic associated with waste management facilities development and do not promote alternative, less polluting means for transporting waste. However other DPDs within the WDF include policies to promote sustainable transport and promote reuse and recycling to reduce the amount of waste to be transported and therefore reduce emissions. Overall, however the Development Policies would help to reduce contributions to climate change to some extent by limiting traffic on rural roads, limiting air pollution, utilising landfill gas and controlling detrimental effects that contribute to the causes of climate change. | It is likely that the evolution of Hertfordshire with and without the DPD would result in similar effects with an increase in contributions to climate change. | Although the Waste Development Policies DPD does not adequately reduce the amount of waste related traffic, overall, the policies contained within the Waste Development Policies DPD should help to address contributions to climate change and achieve this objective to some extent. |
| 4. To provide for sustainable resource management. | Several of the Development Policies are likely to provide for sustainable resource management to some extent through protection of the best and most versatile agricultural land and through promoting the pre-treatment of landfill/landraise waste to reduce the demand for additional resources and reduce the adverse effects on natural resources. In addition, the policies contained within the Waste Development Policies DPD could have minor positive effects on the | It is likely that even without implementation of the DPD, sustainable resource management would be promoted through existing policies, however the Waste Development Policies DPD provides an opportunity for policies to be updated to take account of the most recent development issues and practices. The effects on water consumption, agricultural land and minerals reserves that would result from the pressures of | It is possible for some of the policies contained within the Waste Development Policies DPD to provide for sustainable management for some resources – particularly agricultural land and minimising production of by-products. |

| Sustainability Objective | How is Hertfordshire likely to change if the Waste Development Policies DPD Objectives and Proposed Policies are implemented (in combination with predicted growth in waste arising over the plan period)? | How does this compare with the likely evolution of Hertfordshire without implementation of the Waste Development Policies DPD Preferred Options? | Is the Sustainability Objective likely to be achieved? |
|---|---|---|--|
| | efficient use of groundwater and the protection of air, soil and water quality. However water use is likely to increase, particularly as a result of the implementation of waste pre-treatment. | increased development and waste arisings could be greater without implementation of the DPD. | |
| 5. To maximise the potential economic benefits of waste management to a sustainable economy in Hertfordshire. | There is likely to be little effect on this objective through the implementation of the Waste Development Policies DPD as the policies within this document either do not relate to the SA objective, or have an indirect relation that would have neither significant positive or negative effects. Issues relating to this SA objective are addressed within the Waste Core Strategy DPD. | Given that most of the policies contained within the Waste Development Policies DPD do not relate to this SA objective and would have no impact, it is likely that there would be no significant effects if the Waste Development Policies DPD was not implemented, providing that statutory requirements (e.g. Design and Access Statements), implementation of the Hertfordshire Waste Core Strategy, and Hertfordshire's 'Building Futures' guidance address waste management facility development issues. | The majority of the policies contained within the Waste Development Policies DPD do not relate to this SA objective no significant negative or positive effects of the policies were identified. Therefore, the SA objective would not be achieved because it is not relevant to the Waste Develop Policies DPD. However, implementation of the Waste Core Strategy would help to achieve this SA objective. |
| 6. To contribute to the improved health and amenity of local communities in Hertfordshire. | The Waste Development Policies DPD is likely to contribute to the improvement of health and amenity by ensuring proposals minimise adverse impacts that can arise from waste management development by for example, placing buffer zones around dwellings/sensitive land uses, enhancing Public Rights of Way and access, and requiring hazardous waste facilities to address security and additional risk to human health. The Development Policies have no provision for the control of waste related crime, which could have negative effects for human health and amenity, although this issue is also affected by factors outside the remit of the | If the Waste Development Policies DPD and the Waste Core Strategy DPD were not implemented, the current practice of exporting waste outside of the County would be likely to continue. This could result in fewer impacts on health and amenity within Hertfordshire itself. However, as national policy requires Hertfordshire to work towards self-sufficiency in waste management, the effects of new waste management development could be worse without the implementation of the Waste Development Policies DPD as it aims to reduce the effects of waste facilities on | It is likely that the Waste Development Policies DPD would help to achieve the SA objective by ensuring that waste management facilities are developed in a manner which takes into account human health and amenity. Certain aspects of this objective, such as waste related crime may not be affected by the DPD policies but are likely to be addressed through other mechanisms outside the WDF. |

| Sustainability Objective | How is Hertfordshire likely to change if the Waste Development Policies DPD Objectives and Proposed Policies are implemented (in combination with predicted growth in waste arising over the plan period)? | How does this compare with the likely evolution of Hertfordshire without implementation of the Waste Development Policies DPD Preferred Options? | Is the Sustainability Objective likely to be achieved? |
|--|--|--|---|
| | planning system. | human health and amenity. | |
| 7. To maximise community participation and access to services and facilities in Hertfordshire. | None of the policies contained within the Waste Development Policies DPD relate to this SA objective and would have no impact. | As none of the Development Policies relate to this SA objective, current trends of progress in terms of provision of accessible facilities and raising awareness about waste issues in the community are likely to continue. | The Waste Development Policies DPD will have no significant effect on its own, but the Core Strategy will undoubtedly contribute to improving community participation in the waste management process and debate. |

What alternatives were considered during preparation of the Waste Development Policies DPD Preferred Options?

22. Alternatives for the Waste Development Policies DPD were mainly considered at the Issues and Options stage of the WDF preparation, in December 2003. In some instances, other policy considerations (e.g. PPSs, and policies in the Draft East of England Plan) pre-determine which policy approach needs to be adopted, effectively ruling out some options. The views of stakeholders, who took part in the earlier Informal Stakeholder Consultation Event during October 2003, were also taken into account. The advantages and disadvantages of the broad options were set out in the Draft SA Scoping Report and were published for consultation in July 2004 alongside consultation on the Waste Issues and Options Paper. Note that the Issues and Options Paper covered issues relating to all three DPDs to be prepared in the WDF, and not just the Core Strategy.

What could be done to make the Waste Development Policies DPD even better?

23. A number of recommendations for amendments/additions to the preferred options have been made during this phase (Phase 2) of the sustainability appraisal. These were mainly suggestions for strengthening the Preferred Options, for example through defining certain terms like 'local environment', and through including Hertfordshire's Biodiversity Action Plan species and habitats in a list of important environmental assets. Some final recommendations relating to the existing overlap between Waste Development Policies 2 and 3 have been made.

How will the sustainability effects of the Waste Development Policies DPD be monitored?

24. Monitoring of the Waste Development Policies DPD will be focussed on:
- The significant sustainability effects that may give rise to irreversible damage (with a view to identifying trends before such damage is caused), and;
 - The significant effects where there is uncertainty in the SA and where monitoring would enable preventative or mitigation measures to be taken.
25. It will be conducted as part of an overall approach to monitoring the sustainability effects of the WDF as a whole, and should be incorporated within other monitoring requirements for the WDF (i.e. the Annual Monitoring Report). A table is included within the full SA Report, which summarises the significant effects to be monitored for Hertfordshire's Waste Development Policies DPD and the suggested indicators or datasets that may be able to provide an indication of the extent of those effects.
26. A number of the suggested indicators were drawn from the framework currently being established by the Council for their Annual Monitoring Report for the whole WDF. The SA team is aware that many datasets may not be available for monitoring some of the sustainability effects of the Waste Development Policies DPD, thus all of the monitoring proposals in the SA Report are suggestions only. In addition, as stated in the SA Guidance, the data used for monitoring in many cases will be

provided by outside bodies. Information collected by other organisations (e.g. the Environment Agency, English Heritage, waste management industry) can also be used as a source of indicators. It is therefore recommended that the County Council work with statutory environmental consultees and other stakeholders to agree the relevant sustainability effects to be monitored and to obtain information that is appropriate, up to date and reliable. It should be noted that the sustainability effects to be monitored may need to be revised at subsequent stages of Waste Development Policies DPD preparation, in response to consultation comments and revisions to the DPD.

What are the next steps in the preparation of the Waste Development Policies DPD and its Sustainability Appraisal?

27. Hertfordshire County Council is seeking views on this SA Report during the statutory six-week pre-submission public participation stage of the Waste Development Policies DPD process. This consultation is designed to comply with the Statement of Community Involvement and requirements of the SEA Directive. Consultation responses will be taken on board and the Preferred Options revised if necessary.
28. The County Council will then refine the policy wording for the Waste Development Policies DPD and undertake a further stage of public consultation on the policies proposed. This consultation will provide an opportunity for stakeholders to comment on the Waste Development Policies DPD prior to submission of the DPD for Examination. A further SA will be undertaken at this stage, the findings of which will be presented in an updated SA Report which will be published alongside consultation on the Development Policies. The Waste Development Policies DPD and revised SA Report will then be submitted to the Secretary of State for Examination.

Where can I find out more about the Sustainability Appraisal?

29. More information about the SA can be found in the SA Report which follows.

Land Use Consultants
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GLOSSARY OF ACRONYMS USED IN THE SA REPORT

| | |
|---------|---|
| AQMA | Air Quality Management Area |
| BAP | Biodiversity Action Plan |
| CA | Countryside Agency |
| CPRE | Campaign to Protect Rural England |
| DCLG | Department of Communities and Local Government |
| DEFRA | Department of Environment, Food and Rural Affairs |
| DETR | Department for Environment, Transport and the Regions |
| DPD | Development Plan Document |
| EA | Environment Agency |
| EH | English Heritage |
| EN | English Nature |
| GO East | Government Office for the East of England |
| GOL | Government Office London |
| HAP | Habitat Action Plan |
| HCC | Hertfordshire County Council |
| LDD | Local Development Document |
| LNR | Local Nature Reserve |
| LUC | Land Use Consultants |
| MAFF | Ministry of Agriculture, Fisheries & Food |
| MBT | Mechanical Biological Treatment |
| MWMS | Municipal Waste Management Strategy |
| NE | Natural England |
| NNR | National Nature Reserve |
| ODPM | Office of the Deputy Prime Minister |

| | |
|------|---|
| PCPA | Planning and Compulsory Purchase Act |
| PPG | Planning Policy Guidance |
| PPS | Planning Policy Statement |
| RDF | Regional Development Framework |
| RIGS | Regionally Important Geological and Geomorphological Site |
| RPG | Regional Planning Guidance |
| RSS | Regional Spatial Strategy |
| SA | Sustainability Appraisal |
| SAC | Special Area of Conservation |
| SAM | Scheduled Ancient Monument |
| SAP | Species Action Plan |
| SEA | Strategic Environmental Assessment |
| SPA | Special Protection Area |
| SPD | Supplementary Planning Document |
| SSSI | Site of Special Scientific Interest |
| WDF | Waste Development Framework |

I. INTRODUCTION

- 1.1. This Sustainability Appraisal (SA) Report has been prepared to provide key stakeholders and members of the public with information on the process and the findings of the Sustainability Appraisal undertaken in preparing the Preferred Options of the Hertfordshire Waste Development Policies Development Plan Document (DPD). In particular, this report documents the likely significant sustainability implications of implementing the Hertfordshire Waste Development Policies DPD. It has been prepared by Land Use Consultants (LUC) on behalf of Hertfordshire County Council (HCC).
- 1.2. The Hertfordshire Waste Development Policies DPD will form a component of the emerging Waste Development Framework (WDF) for the County and is being prepared in accordance with the Government's new Planning and Compulsory Purchase Act 2004 (PCPA). The WDF will be made up of a series of Development Plan Documents and Supplementary Planning Documents (SPDs) and will eventually supersede the Hertfordshire Waste Local Plan³ (WLP) which was adopted in January 1999 and has been saved for a period of 3 years.
- 1.3. Sustainability Appraisals will be undertaken during the preparation of each of the DPDs and SPDs making up the WDF in line with the PCPA. These SAs will also need to be undertaken in accordance with the requirements of European Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment' (known as the Strategic Environmental Assessment, or SEA Directive).

PURPOSE OF THE SUSTAINABILITY APPRAISAL

- 1.4. The purpose of sustainability appraisal is to promote sustainable development by integrating sustainability considerations into the preparation and adoption of plans.
- 1.5. The objective of strategic environmental assessment, as defined in Article 1 of the SEA Directive is *'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans...with a view to promoting sustainable development'*.
- 1.6. The 2005 Office of the Deputy Prime Minister (ODPM) guidance on sustainability appraisal⁴ ("SA Guidance") explains the difference between environmental assessments required under the SEA Directive and sustainability appraisal of development plans as required by the UK Government. There are many parallels but also some differences, and the guidance clearly shows how assessment to comply with the SEA Directive can be integrated with current practice on sustainability appraisal. Simply put, sustainability appraisal includes a wider range of considerations, extending to social and economic impacts of plans, whereas SEA is more focussed on environmental impacts. The SA guidance describes how it is possible to satisfy both

³ Hertfordshire Waste Local Plan. Hertfordshire County Council, January 1999.

⁴ Sustainability Appraisal of Regional Spatial Strategies and Local Development Frameworks. Guidance for Regional Planning Bodies and Local Planning Authorities. Office of the Deputy Prime Minister, November 2005.

requirements through a single appraisal process undertaking a joint SA/SEA (hereafter referred to as SA).⁵

- 1.7. A key output of the SA process is a Sustainability Appraisal Report which describes what elements of the Waste Development Policies DPD have been appraised and how, and the likely significant sustainability effects of implementation of the Waste Development Policies DPD.

BACKGROUND

- 1.8. Land Use Consultants (LUC) was appointed by Hertfordshire County Council in August 2005 to undertake the SA of the Waste Development Framework comprising three component DPDs, that is:
- the Core Strategy DPD;
 - the Site Allocation Policies and Proposals DPD; and
 - the Waste Development Policies DPD.
- 1.9. In June 2004, LUC published a Scoping Report⁶ for the SA of the three DPDs listed above, for consultation alongside the Waste Development Framework Issues and Options Paper⁷. The Scoping Report presented the outputs of the scoping phase of the SA, which involved collection of baseline information, review of relevant plans, identification of significant sustainability issues for the Waste Development Framework, and development of the SA Framework (a set of sustainability objectives and criteria) against which the various components of the Waste DPDs have been appraised. The Scoping Report also included a commentary of the sustainability strengths and weaknesses of the various options being considered in the preparation of the Waste Development Policies DPD. No responses regarding the Scoping Report (and thus the scope of the SEA/SA) were received from the statutory consultees or from any other stakeholders and the public, though an Informal Stakeholder Consultation Event was held in October 2003 and the comments received were taken into account in the preparation of the final Scoping Report published in July 2005.
- 1.10. Hertfordshire County Council appointed Levett-Therivel and Treweek Environmental Consultants to undertake an Appropriate Assessment Screening of the Waste DPDs in 2006. Appropriate Assessment (AA) of plans is required by European Directive 92/43/EEC (otherwise known as the Habitats Directive) and tests whether a plan is likely to have a significant effect on any site of European importance for nature conservation. This AA Screening⁸ (hereafter referred to as the initial AA

⁵ From this point on, references to the Sustainability Appraisal (SA) shall be taken as meaning the SA incorporating SEA.

⁶ *Hertfordshire Waste Local Plan Review – Strategic Environmental Assessment/Sustainability Appraisal Draft Scoping Report*. Prepared for Hertfordshire County Council by Land Use Consultants, June 2005.

⁷ *Hertfordshire Waste DPD Issues and Options Paper*. Hertfordshire County Council, September 2004.

⁸ *Appropriate Assessment Screening for the Hertfordshire Waste Development Plan Documents: Draft report for consultation*. Prepared for Hertfordshire County Council by Levett-Therivel Sustainability Consultants and Treweek Environmental Consultants, December 2006.

Screening) examined the Waste Development Framework objectives set out in the Waste Development Framework Issues and Options Paper as well as 20 sites identified in a waste facilities Site Selection Study undertaken for the Council.

- 1.11. Following completion of the initial AA Screening, the Council appointed LUC to prepare an AA Screening Report Addendum⁹ to the initial AA Screening Report to test whether the Core Strategy Preferred Options are likely to have a significant effect on any European nature conservation site. Further stages of the AA will be undertaken for the Preferred Options for the Site Allocations DPD, as these include specific sites that have been identified as potentially suitable for allocation for waste management uses.

AIM AND STRUCTURE OF THE REPORT

- 1.12. This SA report has been produced for the Preferred Options Waste Development Policies DPD, and is being published for consultation at the same time as the DPD to provide the public and statutory bodies with an opportunity to express their opinions on the SA Report and to use it as a reference point in commenting on the DPD.
- 1.13. The Sustainability Appraisal of the Waste Development Policies DPD has been undertaken in line with the Government's SA guidance, and seeks to meet the requirements of both the Planning and Compulsory Purchase Act 2004 and the SEA Directive (European Directive 2001/42/EC). This SA Report includes the required elements of an 'Environmental Report' (the output required by the SEA Directive) and **Table I.1** below sign-posts the relevant sections of the SA Report that are considered to meet the SEA Directive requirements.
- 1.14. This SA Report sets out the process and findings of the Sustainability Appraisal of the Waste Development Policies DPD. In doing this, account has been taken of the previous work conducted as part of the SA Scoping Report described above as well as SA work for the Core Strategy DPD. Much of the contextual material in this SA Report has been drawn from the Scoping Report and Core Strategy SA Report and stakeholder feedback received.
- 1.15. Separate SA Reports will be produced for the other two DPDs in the Hertfordshire Waste Development Framework. While this SA report and the SA report for the Waste Site Allocation Policies and Proposals DPD are on the preferred options versions, please note that LUC has already undertaken an SA of the Preferred Options version of the Waste Core Strategy DPD¹⁰ and is now undertaking an SA of the Submission Version of the Waste Core Strategy DPD. The latter will also be published at the same time as the SA Reports for the Development Policies DPD and Site Allocations DPD.
- 1.16. It should be noted that due to the iterative nature of SA, the baseline data are constantly being reviewed and the relevant chapters in each SA Report have and will be updated with any new information that becomes available.

⁹ *Waste Core Strategy Preferred Options Appropriate Assessment Screening Report Addendum – Draft for consultation.* Prepared for Hertfordshire County Council by Land Use Consultants, April 2007.

¹⁰ *Hertfordshire Waste Development Framework. Preferred Options for the Core Strategy Development Plan Document. Sustainability Appraisal Report.* Prepared for Hertfordshire County Council by Land Use Consultants, May 2007.

1.17. This chapter provides the background to the SA of the Waste Development Policies DPD. The remainder of this report is structured into the following chapters:

Chapter 2 – Hertfordshire Waste Development Framework, provides background to the WDF and a summary of the main components of the Waste Development Policies DPD.

Chapter 3 – Appraisal Methodology, describes the SA process, the approach used and the specific SA tasks undertaken.

Chapter 4 – Sustainability Requirements of Relevant Plans, discusses the WDF's relationship with other relevant plans, policy guidance and strategies, and highlights the key sustainability objectives influencing the Waste Development Policies DPD.

Chapter 5 – Hertfordshire's sustainability framework, describes the development of the SA objectives for assessing the WDF.

Chapter 6 – Sustainability context for Waste Development in Hertfordshire, characterises Hertfordshire in terms of sustainability issues relating to waste development, identified from the baseline information gathered.

Chapter 7 – Sustainability Appraisal of the Waste Development Policies DPD sets out the main findings from the appraisal of the preferred options for the Waste Development Policies. It draws conclusions from the findings of the appraisals and makes some final recommendations for the Waste Development Policies to maximise the benefits of the DPD and minimise any adverse effects.

Chapter 8 – Conclusions and Implementation, summarises the conclusions from the SA and discusses challenges for implementing the policies in the DPD.

Chapter 9 – Monitoring, makes recommendations regarding the approach to monitoring the sustainability effects of implementing the Waste Development Policies DPD.

Table I.1 Summary of the requirements of the SEA Directive and where these have been addressed in this SA Report

| SEA Directive Requirements | Where covered in SA Report |
|--|--|
| Preparation of an environmental report in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and geographical scope of the plan or programme, are identified, described and evaluated. The information to be given is (Art. 5 and Annex I): | |
| a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes; | Chapter 2 |
| b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme; | Chapter 6 |
| c) The environmental characteristics of areas likely to be significantly affected; | Chapter 6 |
| d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC.; | Chapter 6 |
| e) The environmental protection, objectives, established at international, Community or national 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; | Chapter 4, Appendix 3 |
| f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects); | Chapters 7 & 8 Appendix 4 |
| g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme; | Chapter 7 Appendix 4 |
| h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information; | Chapter 3, Appendix 2 |
| i) a description of measures envisaged concerning monitoring in accordance with Art. 10; | Chapter 9 |
| j) a non-technical summary of the information provided under the above headings | Non-technical Summary |
| The report shall include the information that may reasonably be required taking into account current knowledge and methods of assessment, the contents and level of detail in the plan or programme, its stage in the decision-making process and the extent to which certain matters are more appropriately assessed at different levels in that process to avoid duplication of the assessment (Art. 5.2) | Chapters 3 & 7 |
| Consultation: | |
| <ul style="list-style-type: none"> authorities with environmental responsibility, when deciding on the scope and level of detail of the information which must be included in the environmental report (Art. 5.4) | Scoping Report June 2004 Appendix 1 |
| <ul style="list-style-type: none"> authorities with environmental responsibility and the public, shall be given an early and effective opportunity within appropriate time frames to express their opinion on the draft plan or programme and the accompanying environmental report before the adoption of the plan or programme (Art. 6.1, 6.2) | Consultation on the Preferred Options SA Report May 2007, and consultation on this SA Report |
| <ul style="list-style-type: none"> other EU Member States, where the implementation of the plan or programme is likely to have significant effects on the environment of that country (Art. 7). | Not applicable |
| Taking the environmental report and the results of the consultations into account in decision-making (Art. 8) | To be addressed at a later date |
| Provision of information on the decision: | To be addressed at a later date |
| When the plan or programme is adopted, the public and any countries consulted under Art.7 must be informed and the following made available to those so informed: | |
| <ul style="list-style-type: none"> the plan or programme as adopted | |
| <ul style="list-style-type: none"> a statement summarising how environmental considerations have been integrated into the plan or programme and how the environmental report of Article 5, the opinions expressed pursuant to Article 6 and the results of consultations entered into pursuant to Art. 7 have been taken into account in accordance with Art. 8, and the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and | |
| <ul style="list-style-type: none"> the measures decided concerning monitoring (Art. 9) | |
| Monitoring of the significant environmental effects of the plan's or programme's implementation (Art. 10) | Chapter 9 |

HOW TO COMMENT ON THE REPORT

- 1.18. This Sustainability Appraisal Report is being published for consultation alongside the Waste Development Policies DPD for the period from 3rd January to XX February 2008. This consultation is to provide the public and statutory environmental bodies¹¹ with an opportunity to express their opinions on the SA Report and to use it as a reference point in commenting on the Waste Development Policies DPD. Please send your comments to:

County Development Unit
Environment Department
County Hall
Pegs Lane
Herts SG13 8DN

Email: cdu@hertscc.gov.uk

Fax: 01992 556 202

¹¹ The statutory environmental bodies that are required to be consulted on the SA are the Countryside Agency, English Nature (now combined into Natural England), English Heritage and the Environment Agency.

2. HERTFORDSHIRE WASTE DEVELOPMENT PLAN FRAMEWORK – WASTE DEVELOPMENT POLICIES DEVELOPMENT PLAN DOCUMENT

THE WASTE DEVELOPMENT FRAMEWORK

- 2.1. Hertfordshire County Council adopted its existing Waste Local Plan 1995-2005 in January 1999. The Planning and Compulsory Purchase Act 2004 now requires the County to develop a Waste Development Framework setting out the planning policies for waste in the County. The Waste Development Framework will consist of:
- Development Plan Documents (DPDs), which form part of the statutory Development Plan for the County together with the Regional Spatial Strategy for the East of England.
 - Supplementary Planning Documents (SPDs) which expand on policies set out in a DPD or provide additional detail.
 - The Waste Development Scheme, which is a public statement of the County's programme for production of Local Development Documents (LDDs) (including DPDs and SPDs).
 - The Statement of Community Involvement, which sets out the County's policy for involving the community in the preparation and revision of LDDs and planning applications.
 - The Annual Monitoring Report.
- 2.2. Under the Planning and Compulsory Purchase Act 2004, the statutory Development Plan for Hertfordshire will consist of the Regional Spatial Strategy (RSS) for the East of England and the Development Plan Documents (DPDs) prepared by Hertfordshire County Council as part of the Waste Development Framework, as well as any Development Plan Documents prepared by the District Councils within Hertfordshire (including Broxbourne, Dacorum, East Hertfordshire, Hertsmere, North Hertfordshire, St Albans, Stevenage, Three Rivers, Watford, and Welwyn Hatfield). This Development Plan will set out the policies against which planning applications will be considered.
- 2.3. The RSS for the East of England is currently being prepared by the East of England Regional Assembly. As well as forming part of the Development Plan for Hertfordshire, the RSS for the East of England provides a spatial framework to inform the preparation of Hertfordshire's DPDs, and any SPDs which may be prepared by the County. The County is currently in the process of preparing three DPDs, these are:
- the Waste Core Strategy DPD;
 - the Waste Site Allocation Policies and Proposals DPD; and

- the Waste Development Policies DPD.
- 2.4. This SA Report examines the sustainability implications of implementing the Waste Development Policies DPD. Separate SA Reports have been prepared for the Site Allocation Policies and Proposals DPD and the Waste Core Strategy DPD.

THE WASTE DEVELOPMENT POLICIES DEVELOPMENT PLAN DOCUMENT

- 2.5. The Waste Core Strategy DPD for Hertfordshire’s WDF sets out the broad vision for waste management planning in Hertfordshire and seeks to ensure sufficient opportunities for the provision of waste management facilities in appropriate locations including for waste disposal. It provides strategic objectives for the county, a spatial strategy, core policies and a monitoring and implementation framework. The Waste Development Policies DPD sets out the key policies that aim to ensure that development accords with the spatial vision and objectives of the Waste Core Strategy.
- 2.6. Waste management facilities can have varying impacts on both the natural environment and surrounding development areas and, as such, policies need to be developed which reflect the need to protect these environments and areas from permanent and/or significant adverse effects. Development Control is the process which regulates the development and use of land. It involves consideration of planning applications, the monitoring of development as it takes place and enforcement action where breaches of planning permission have occurred. In line with this, the Waste Development Policies DPD sets out a limited number of generic policies that define clearly the circumstances in which planning permission will, or will not be granted. The preferred options for delivering the development policies are outlined below in **Figure 2.1**.

Figure 2.1 Hertfordshire’s Waste Development Policies DPD Preferred Options Policies

| |
|---|
| <p>WDP 1 Transport and Traffic: Seeks to ensure that waste related development will only be permitted when:</p> <ul style="list-style-type: none"> • the provision for vehicle movements within the site • vehicle movements to the site • conditions of the local highway network <p>are such that the traffic movements generated would not have unacceptable impacts on highway safety, the effective operation of the road network, residential amenity or the local environment. It also requires detailed transport appraisals as part of the application.</p> <p>WDP 1a Rural Roads: Outlines the factors that will be taken into account when assessing waste development proposals which are likely to give rise to changes in the amount or type of traffic on rural roads.</p> <p>WDP 2 Environmental Effects, Protection and Mitigation: Seeks to ensure that any environmental effects associated with waste management proposals are avoided, minimised or adequately compensated for.</p> <p>WDP 3 Operational Matters: Seeks to ensure that waste management takes place in an organised manner whilst minimising any adverse environmental effects.</p> |
|---|

WDP 4 Landfill and Landraise: Seeks to ensure that landfill and landraise are a final option for the treatment of residual waste and requires that proposals for landfill and landraise must give regard to environmental and landscape impacts.

WDP 5 Facility Requirements: Outlines the manner in which any building associated with waste management developments should be constructed.

WDP 6 Enforcement: Sets out the Councils commitment to its enforcement powers to remedy breaches of planning condition and development occurring without planning permission.

- 2.7. The policies contained within the Waste Development Policies DPD are set out in line with the Waste Core Strategy DPD and also the East of England RSS (hereafter referred to as the Draft East of England Plan). The DPD is being prepared taking into account Hertfordshire's Municipal Waste Management Strategy (MWMS)¹² and will look forward primarily for the period to 2020, but with a view to providing the basis for a longer term spatial strategy that complements the MWMS to 2024.

¹² Hertfordshire Waste Strategy – A Joint Municipal Waste Management Strategy for Hertfordshire 2002 – 2024. Waste Aware Hertfordshire Partnership.

3. APPRAISAL METHODOLOGY

OVERVIEW OF SUSTAINABILITY APPRAISAL AND THE SEA DIRECTIVE

- 3.1. The purpose of Sustainability Appraisal is to promote sustainable development through contributing to the integration of social, environmental and economic considerations into the preparation and adoption of plans. It should be viewed as an integral part of good plan making involving ongoing iterations to identify and report on the significant effects of the emerging plan and the extent to which sustainable development is likely to be achieved. Under the Planning and Compulsory Purchase Act 2004, Sustainability Appraisal is mandatory for Regional Spatial Strategies (RSSs), Development Plan Documents (DPDs) and Supplementary Planning Documents (SPDs).
- 3.2. When preparing DPDs and SPDs, planning authorities must also conduct an environmental assessment in accordance with the SEA Directive¹³. The objective of the Directive¹⁴ is *'to provide for a high level of protection of the environment and contribute to the integration of environmental considerations into the preparation and adoption of plans...with a view to promoting sustainable development'*.
- 3.3. The Government's approach is to incorporate the requirements of the SEA Directive into the wider SA process that considers economic and social as well as environmental effects. To this end, the ODPM guidance on Sustainability Appraisal¹⁵ sets out a combined Sustainability Appraisal and Strategic Environmental Assessment process referred to in this document as 'Sustainability Appraisal' (SA).

STAGES AND TASKS IN SUSTAINABILITY APPRAISAL

- 3.4. The ODPM's (now Communities and Local Government) SA guidance introduces the SA process and explains how to carry out SA as an integral part of the plan-making process. **Table 3.1** sets out the main stages of the plan-making process and shows how these link to the SA process.

¹³ *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*. ODPM, September 2005.

¹⁴ European Parliament and Council of the European Union (2001). *Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment*.

¹⁵ *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents*. ODPM, September 2005.

Table 3.1 Corresponding stages in plan-making and SA

| |
|--|
| DPD Step 1: Pre-production - Evidence Gathering |
| SA stages and tasks |
| <p>Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope</p> <ul style="list-style-type: none"> • A1: Identifying other relevant policies, plans and programmes, and sustainability objectives • A2: Collecting baseline information • A3: Identifying sustainability issues and problems • A4: Developing the SA Framework • A5: Consulting on the scope of the SA |
| DPD Step 2: Production |
| SA stages and tasks |
| <p>Stage B: Developing and refining options and assessing effects</p> <ul style="list-style-type: none"> • B1: Testing the DPD objectives against the SA Framework • B2: Developing the DPD options • B3: Predicting the effects of the DPD • B4: Evaluating the effects of the DPD • B5: Considering ways of mitigating adverse effects and maximising beneficial effects • B6: Proposing measures to monitor the significant effects of implementing the DPDs |
| <p>Stage C: Preparing the Sustainability Appraisal Report</p> <ul style="list-style-type: none"> • C1: Preparing the SA Report |
| <p>Stage D: Consulting on the Preferred Options of the DPD and the Sustainability Appraisal Report</p> <ul style="list-style-type: none"> • D1: Public participation on the preferred option of the DPD and the SA Report • D2(i): Appraising significant changes |
| DPD Step 3: Examination |
| SA stages and tasks |
| <ul style="list-style-type: none"> • D2(ii): Appraising significant changes resulting from representations |
| DPD Step 4 & 5: Adoption and Monitoring |
| SA stages and tasks |
| <ul style="list-style-type: none"> • D3: Making decisions and providing information |
| <p>Stage E: Monitoring the significant effects of implementing the DPD</p> <ul style="list-style-type: none"> • E1: Finalising aims and methods for monitoring • E2: Responding to adverse effects |

STAGE A: SETTING THE CONTEXT AND OBJECTIVES, ESTABLISHING THE BASELINE AND DECIDING ON THE SCOPE

- 3.5. LUC was appointed by Hertfordshire County Council in July 2003 to undertake the initial stages of the SEA/SA in order to prepare a Scoping Report to be published alongside the Council's Issues and Options Report.
- 3.6. The preparation of the Scoping Report involved the following main tasks:
 - Review of plans, programmes, strategies and studies.
 - Collection of baseline information and characterisation of Hertfordshire County.
 - Identification of key sustainability issues and problems in Hertfordshire.
 - Development of an SA Framework.
 - Consideration of broad options.
 - Description of the SA methodology proposed.
 - Consultation with the four SEA Consultation Bodies (i.e. the Countryside Agency, English Heritage, English Nature, Environment Agency) and other stakeholders.
- 3.7. An Informal Stakeholder Consultation Event was held in October 2003, hosted by the County Council, to discuss the SA objectives and sustainability issues and problems for Hertfordshire. A full report of the event was circulated to stakeholders in November 2003 (see **Appendix I**).
- 3.8. The Draft SA Scoping Report was published in July 2004, and consulted on alongside the Issues and Options Report from 11 October to 26 November 2004. No responses regarding the Scoping Report (and thus the scope of the SEA/SA) were received from the statutory consultees or from any other stakeholders and the public.
- 3.9. Following publication of the Draft Scoping Report, the Planning and Compulsory Purchase Act came into force, and the ODPM SA Guidance was published. Hertfordshire County Council asked LUC to review the Draft Scoping Report to ensure it meets the UK Government requirements for sustainability appraisal.
- 3.10. The final SA Scoping Report was published in June 2005 and took into account the Government's new guidance as well as the outcomes of the Informal Stakeholder Consultation Event, particularly with regard to updating the SA Framework.

STAGE B: DEVELOPING AND REFINING OPTIONS AND ASSESSING EFFECTS

Issues and Options stage

- 3.11. LUC met with the Council's waste planning officers in December 2003 to develop a range of broad options (or 'alternatives') for key WDF issues. The SEA Directive

requires “reasonable alternatives” to be taken into account, and so not every possible alternative needs to be considered. In some instances, other policy considerations (e.g. PPSs, and policies in the Draft East of England Plan) pre-determine which policy approach needs to be adopted, effectively ruling out some options.

- 3.12. In formulating the options for the WDF, the views of stakeholders who took part in the earlier Informal Stakeholder Consultation Event during October 2003, were taken into account. The Government’s draft SA Guidance was also used to guide the process of developing and assessing the broad options considered. The advantages and disadvantages of the broad options were set out in the Draft SA Scoping Report and were published for consultation in July 2004 alongside consultation on the Waste Issues and Options Paper (see **Appendix 2** for a summary of the SA method and findings). Note that the Issues and Options Paper covered issues relating to all three DPDs to be prepared in the WDF, and not just the Core Strategy.

Preferred Options stage

- 3.13. As part of the SA of the Development Policies DPD, each of the proposed policies Preferred Options were appraised against the SA Headline Objectives and decision-making criteria, and the sustainability implications and likely effects were predicted and assessed. The findings and recommendations for improving the Development Policies have been set out in **Appendix 4**.

STAGE C: PREPARING THE SUSTAINABILITY APPRAISAL REPORT

- 3.14. This SA Report details the process undertaken to date in conducting the SA of the Hertfordshire Waste Development Policies DPD (Preferred Options) as well as setting out the findings of the appraisal.

STAGE D: CONSULTATION ON THE WASTE DEVELOPMENT POLICIES DPD (PREFERRED OPTIONS) AND THIS SA REPORT

- 3.15. Hertfordshire County Council is seeking views on this SA Report during the statutory six-week pre-submission public participation stage of the Waste Development Policies DPD process. This consultation is designed to comply with the Statement of Community Involvement and requirements of the SEA Directive. Consultation responses will be taken on board and the Preferred Options revised if necessary.
- 3.16. The County Council will then refine the policy wording for the Waste Development Policies DPD and undertake a further stage of public consultation on the policies proposed. This consultation will provide an opportunity for stakeholders to comment on the Waste Development Policies DPD prior to submission of the DPD for Examination. A further SA will be undertaken at this stage, the findings of which will be presented in an updated SA Report which will be published alongside consultation on the Development Policies. The Waste Development Policies DPD

and revised SA Report will then be submitted to the Secretary of State for Examination.

STAGE E: MONITORING IMPLEMENTATION OF THE DPD

- 3.17. This SA Report sets out recommendations for monitoring the social, environmental and economic effects of implementing the Waste Development Policies DPD. These monitoring proposals should be considered within the context of the broader monitoring framework for the WDF and the Hertfordshire County Council Annual Monitoring Report.

4. SUSTAINABILITY REQUIREMENTS OF RELEVANT PLANS

4.1. Annex I of the SEA Directive requires:

- (a) *“an outline of the...relationship with other relevant plans or programmes”*; and
- (e) *“the environmental protection objectives established at international, Community or Member State level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation”*.

4.2. This task was undertaken during the scoping stage and therefore covers the whole WDF. The first stage of this task involved identifying which plans and programmes are relevant to the WDF. In addition to the international and national level plans and programmes referred to in the SEA Directive, LUC also identified regional and local plans and strategies (in accordance with Appendix 5 of the SA Guidance).

RELATIONSHIP WITH OTHER RELEVANT PLANS OR PROGRAMMES

4.3. The WDF is influenced by, and should have regard to, the relevant plans at international, national, regional and local levels. The key international plans and programmes that are of relevance to the WDF are:

- The World Summit on Sustainable Development, Johannesburg (2002)
- Kyoto Protocol and the UN Framework Convention on Climate Change (1992)
- Bern Convention on Conservation of European Wildlife and Natural Habitats (1979)
- Bonn Convention on Conservation of Migratory Species (1979)
- Ramsar Convention on Wetlands of International importance, especially waterfowl habitat (1971)

4.4. The European Commission produced the 5th Action Plan “Towards Sustainability” in March 1992. To carry forward its commitment to the formulation of environmental and sustainability policy, the European Union has produced a number of Directives. The key EU Directives that influence the WDF are:

- Waste Framework Directive (75/442/EEC as amended by Directive 91/156/EEC)
- Landfill Directive (1999/31/EC)
- Hazardous Waste Directive (91/689/EEC)
- Water Framework Directive (2000/60/EC)
- Directive concerning the protection of waters against pollution caused by nitrates from agricultural sources (Nitrates Directive) (91/676/EEC)

- Air Quality Framework Directive (96/62/EC)
 - Directive to Promote Electricity from Renewable Energy (2001/77/EC)
 - Conservation of Natural Habitats and Wild Fauna and Flora Directive (92/43/EC) (The Habitats Directive)
 - Directive on Conservation of Wild Birds (79/409/EEC)
- 4.5. There are also a large number of national, regional and local plans that the WDF should have regard to, in particular, Planning Policy Guidance and Statements, regional strategies, and other plans produced by the County Council and District Councils in Hertfordshire.
- 4.6. Most of the plans provide contextual policies and targets such as anticipated housing requirements or targets for improving air quality, as well as procedural guidance for preparing the WDF. The regional and local level plans identify the priorities for Hertfordshire in terms of community aspirations, environmental protection or economic goals.

SUSTAINABILITY OBJECTIVES OF RELEVANT PLANS

- 4.7. National policy, in particular Planning Policy Statement 10¹⁶ (PPS 10) for waste, provided the key influence for the preparation of the Waste Development Policies DPD. PPS 10 places a strong onus on local planning authorities to deliver waste transfer, treatment and recovery facilities in order to divert waste from landfill. As well as aiming to implement the waste hierarchy, PPS 10 also seeks to increase community involvement in the waste management process, protect Green Belts while recognising the need for waste facilities, and ensure sustainable waste management through layout and design, amongst other objectives. These objectives have also been taken into consideration in the development of the Waste Development Policies DPD.
- 4.8. To fulfil requirement (e) in Annex I of the SEA Directive, those plans considered to be relevant to the WDF were reviewed to identify the main purpose of the plan, any environmental or sustainability objectives and targets it contains, and how the SA will ensure that they have been taken into account in the preparation of the WDF and the Waste Development Policies DPD. The full review of relevant plans is provided in **Appendix 3**. In addition, the sustainability objectives identified in the relevant plans were referred to when developing in the SA framework (see next chapter).

¹⁶ *Planning Policy Statement 10: Planning for Sustainable Waste Management*. ODPM, July 2005.

5. HERTFORDSHIRE'S SUSTAINABILITY FRAMEWORK

DEVELOPMENT OF SA OBJECTIVES

5.1. Development of SEA/SA objectives is a recognised way in which environmental and sustainability effects can be described, analysed and compared. LUC drafted a set of SEA/SA objectives for the WLP Review, drawing on the review of relevant plans previously undertaken. Particular consideration was given to the objectives from the East of England Regional Sustainable Development Framework¹⁷, and sustainability criteria developed in the Hertfordshire County Council Sustainability Appraisal Guidance.

Stakeholder Consultation

5.2. The draft SEA/SA objectives were discussed with stakeholders at the October 2003 Informal Stakeholder Consultation Event hosted by Hertfordshire County Council. A full report¹⁸ of the event, which also discussed the issues for the WLP Review, was circulated to stakeholders in November 2003 (see **Appendix I**).

5.3. The discussion of the draft SEA/SA objectives with stakeholders was structured around the Government's four themes for sustainable development¹⁹:

- Effective protection of the environment;
- Prudent use of natural resources;
- Maintenance of high and stable levels of economic growth and employment; and
- Social progress which meets the needs of everyone.

5.4. Stakeholders were divided into four groups to discuss SEA/SA objectives under each of the four themes above. The groups were shown the SEA/SA objectives that LUC had drafted and asked to discuss whether the objectives were:

- (i) necessary;
- (ii) suitably worded;
- (iii) relevant to the WLP; and
- (iv) sufficiently local (i.e. relevant to Hertfordshire).

5.5. The groups were then asked to try and prioritise the objectives within their sustainable development theme, to see if any of the objectives were considered to be

¹⁷ *A Sustainable Development Framework for the East of England*. East of England Regional Assembly, October 2001.

¹⁸ *Strategic Environmental Assessment/Sustainability Appraisal of Hertfordshire Waste Local Plan Review - Report of Stakeholder Workshop 24 October 2003*. Prepared by LUC for Hertfordshire County Council, November 2003.

¹⁹ *A Better Quality of Life – A strategy for sustainable development for the United Kingdom*. DETR, 1999.

particularly important in terms of achieving a sustainable WLP, or in terms of Hertfordshire. Those objectives could then be given more weight when the appraisal of draft policies and proposals in the WLP Review is undertaken later in the SEA/SA process.

- 5.6. The need for most of the objectives was generally accepted by stakeholders, and some additional objectives were suggested regarding the 'disadvantageness' of locating waste management facilities in deprived areas, and environmental crime. Specific wording changes were captured, where stakeholders felt that certain words or phrases were too vague or unrealistic. The key outcome from the SEA/SA sessions at the stakeholder event was a revised set of objectives. Further comments on the objectives were received after circulation of the workshop report.
- 5.7. Most of the groups felt that the objectives within their sustainable development theme were all of equal importance and should not be prioritised, one group did attempt to prioritise their objectives, but there was then debate among the wider group regarding their prioritisation order, and it was decided that none of the SEA/SA objectives should be given more weight than others.

Securing the Future – the revised UK Sustainable Development Strategy

- 5.8. Following development of Hertfordshire's original SEA/SA objectives, the Government updated the UK sustainable development strategy²⁰. The 2005 Strategy builds on the four sustainable development aims that were used to structure the SEA/SA objectives for the Hertfordshire WDF²¹ appraisal. It sets out a new 'purpose', which has stronger international and societal dimensions and shows how Government will integrate the four sustainable development aims and evolve sustainable development policy. The Government wishes to develop the four aims in the 1999 Strategy, not depart from them, thus it is still considered relevant to have drafted the SEA/SA objectives under the four aims above.
- 5.9. The 2005 Strategy also sets out five shared UK principles that will be used to achieve the sustainable development 'purpose':
 - Living within environmental limits.
 - Ensuring a strong healthy and just society.
 - Achieving a sustainable economy.
 - Promoting good governance.
 - Using sound science responsibly.
- 5.10. The 2005 Sustainable Development Strategy then sets out four agreed priorities for immediate action, shared across the UK:

²⁰ *Securing the Future - The UK Government Sustainable Development Strategy*. Cm 6467, March 2005.

²¹ Following introduction of the Planning & Compulsory Purchase Act, the WLP review became the process for preparing Hertfordshire's first WDF.

- Sustainable consumption and production.
- Climate change and energy.
- Natural resource protection and environmental enhancement.
- Sustainable communities.

5.11. It is also considered that the shared principles and priorities are adequately covered by the SEA/SA objectives.

New structure of SA Framework

- 5.12. Appendix 9 of the SA Guidance states that *“Planning authorities may also choose to include more detailed decision making criteria and related indicators in their SA framework. Detailed decision making criteria can help to ensure that all the key issues to be considered in the SA are incorporated in the SA Framework... Planning authorities are however encouraged to ensure that the number of objectives is manageable.”* Figure 22 in Appendix 9 sets out example sustainability objectives, sub-objectives and indicators for use in a typical SA Framework. In order to ensure the SEA/SA objectives for the Hertfordshire WDP are in line with the SA Guidance, LUC decided to re-structure the Hertfordshire SEA/SA objectives into ‘Headline’ Objectives and decision-making criteria (see **Table 5.1**). This two-tier structure attempts to streamline the sustainability framework into a smaller number of headline objectives, within which the various decision-making criteria are considered. It is important to note that the content and wording of the objectives agreed by stakeholders and consulted on in the July 2004 Scoping Report was not changed in the restructuring of the framework (they have all become the second tier of decision making criteria).
- 5.13. This style of appraisal framework has been used in the SEA/SA of the East of England Regional Spatial Strategy, and it is considered important for the Hertfordshire sustainability appraisal framework to correspond with this. The revised Hertfordshire SEA/SA Headline Objectives and criteria address many of the same topics and issues as the SA Framework for the Regional Spatial Strategy. However, there are some differences in emphasis as some issues at the regional level are not as relevant at the county level, and some of the Hertfordshire SEA/SA objectives are specific to waste.

Table 5.1 Hertfordshire’s Sustainability Appraisal Framework

| Headline Objective | Decision making criteria (i.e. Will the WDP option/policy/proposal...?) |
|---|---|
| 1. To protect and enhance the quality of the natural and historic environment. | 1a. Protect Hertfordshire’s Biodiversity Action Plan species and habitats and seek opportunities for enhancement? |
| | 1b. Avoid adverse impact on air, ground and surface water, geology, and soil quality? |
| | 1c. Protect and maintain Hertfordshire’s most valuable assets such as landscapes of natural beauty, historic built heritage, and greenspaces? |
| | 1d. Protect dark skies from light pollution, and promote low energy and less invasive lighting sources, considering the balance between safety and environmental impact? |
| | 1e. Guard against the loss of woodlands, trees, hedgerows and grassland and create or re-create habitats that ensure sustainable and linked species population? |
| 2. To achieve and promote sustainable land use, construction, design and transport in Hertfordshire. | 2a. Reduce reliance on road freight movements and seek to increase the efficient use of rail and water where appropriate? |
| | 2b. Improve efficiency in land use through the re-use of previously developed land and existing buildings? |
| | 2c. Promote sustainable construction practices (e.g. minimising construction and demolition waste, re-using demolition and excavation materials, using recycled and local materials, materials with low embodied energy and timber from sustainable sources)? |
| 3. To reduce contributions to climate change. | 3a. Reduce demand for energy and increase the proportion of energy generated and consumed in Hertfordshire from renewable sources? |
| | 3b. Address the causes of climate change through reducing greenhouse gas emissions and adaptation/mitigation measures (e.g. tree planting)? |
| 4. To provide for sustainable resource management. | 4a. Reduce demand for water and increase the efficient use of ground and surface water resources? |
| | 4b. Develop and promote local water recycling initiatives for development and buildings, and encourage rainwater harvesting to reduce new development water needs? |
| | 4c. Reduce contamination and safeguard soil quality and quantity and minimise the loss of best and most versatile agricultural land? |
| | 4d. Safeguard reserves of exploitable minerals from sterilisation by waste management-related development? |
| | 4e. Minimise production of by-products or wastes, and then promote reuse, recycling, composting, alternative treatment options and energy recovery before resorting to landfill? |
| 5. To maximise the potential economic benefits of waste management to a sustainable economy in Hertfordshire. | 5a. Utilise waste as an asset to provide a source of raw materials and some increase in employment levels? |
| | 5b. Foster joint working and partnerships within and between public and private sectors in Hertfordshire and the East of England region, with a view to better local investment in alternatives to landfill and developing markets for waste materials? |
| | 5c. Promote best practice in industry through local waste minimisation clubs and other business fora, and to encourage the extension of producer responsibility initiatives? |
| | 5d. Encourage the purchase and use of recycled products and green procurement by public authorities and businesses? |
| 6. To contribute to the improved health and amenity | 6a. Protect and enhance recreation opportunities for all, including access to the countryside? |

| Headline Objective | Decision making criteria (i.e. Will the WDP option/policy/proposal...?) |
|--|--|
| of local communities in Hertfordshire. | 6b. Protect the health and amenity of local residents/communities (e.g. from the impacts of noise, dust, odour, light and traffic)? |
| | 6c. Achieve an equitable distribution of waste management facilities within Hertfordshire? |
| | 6d. Reduce the incidence of crime associated with waste (e.g. fly-tipping and illegal dumping of large volumes of waste)? |
| 7. To maximise community participation and access to services and facilities in Hertfordshire. | 7a. Involve all sections of the community in waste planning decision making and local action, by promoting waste awareness education programmes in schools and the community, and to ensure the public understand the importance of the waste management industry? |
| | 7b. Promote easily accessible recycling systems for all members of the community, and to ensure clear and understandable signage and language is used? |

COVERAGE OF SEA TOPICS

- 5.14. The SEA Directive requires in Annex I (f) that information is provided on the likely significant effects on a number of environmental topics. **Table 5.2** sets out the “SEA topics” and shows that they are all covered by at least one of the draft SA headline objectives for the Waste Development Framework, although many of the SEA topics are cross-cutting issues that will be covered by a number of the headline objectives. Coverage of the SEA topics by the SA objectives ensures that each of the topics will be addressed in the SAs of the Waste DPDs.

Table 5.2 Coverage of SEA topics by SA Headline Objectives for the Hertfordshire Waste Development Framework

| SEA topic | Covered by SA Headline Objective |
|-------------------|----------------------------------|
| Biodiversity | 1 |
| Population | 7 |
| Human Health | 6 |
| Fauna | 1 |
| Flora | 1 |
| Soil | 1 and 4 |
| Water | 1 and 4 |
| Air | 1 and 2 |
| Climatic Factors | 3 |
| Material Assets | 2, 4 and 5 |
| Cultural Heritage | 1 |
| Landscape | 1 |

6. SUSTAINABILITY CONTEXT FOR WASTE DEVELOPMENT IN HERTFORDSHIRE

- 6.1. The requirement of the SEA Directive Annex I is to provide information on:
- (b) *the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan;*
 - (c) *the environmental characteristics of areas likely to be significantly affected;*
 - (d) *any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC [the ‘Birds Directive’] and 92/43/EEC [the ‘Habitats Directive’].*
- 6.2. As part of undertaking a joint SA/SEA, the requirement for ‘baseline information’ has been extended from just addressing the environmental baseline, to also include the relevant aspects of the social and economic current state, likely evolution, characteristics and problems in Hertfordshire. The requirements of Annex I (b)-(d) overlap somewhat, so the baseline information section included below, attempts to address all of them.
- 6.3. At the Scoping stage, in order to identify the ‘relevant’ aspects of the current situation, LUC used the draft SA objectives as a starting point to focus the collection of baseline information. The Scoping Report includes the series of questions prepared for each SA objective that the collection of baseline information aimed to address.

SUSTAINABILITY CONTEXT

- 6.4. The requirement to identify the environmental and sustainability characteristics of the areas likely to be significantly affected by the Waste Development Policies DPD (requirement (c) in Annex I of the SEA Directive) is discussed in the final section. Information for Hertfordshire has been discussed under the headings of the SA headline objectives, although it is recognised that many issues are cross-cutting and do not fit neatly into just one of the topics. The aim is not to present all issues relevant to the character of Hertfordshire, but to draw out those that are particularly significant and relevant to the preparation of the Waste Development Policies DPD, and the SA process.
- 6.5. In order to fulfil requirement (b) in Annex I of the SEA Directive, each section below begins by stating which SA objective is being addressed and discusses the baseline situation with respect to the potential influence the Waste Development Framework has on each SA objective. A summary of the relevant existing policy (i.e. in the current Structure Plan and Waste Local Plan for Hertfordshire) is provided in a box under various of the baseline sub-headings in order to be able to assess the likely evolution of the baseline situation without implementation of the Waste Development Framework. Requirement (d) in Annex I (i.e. to identify existing environmental problems) is addressed within the text under each SA headline

objective, and where any environmental, social or economic problems of particular importance exist, in the summary table of key sustainability issues (i.e. **Table 6.1**).

DATA SOURCES AND GAPS

- 6.6. Much of the baseline information collected has been taken from Hertfordshire County's website and publications. Where other sources have been used, they are referred to in the text.
- 6.7. Collection of baseline data is often problematic, and where difficulty was experienced this has been noted in the following sections.
- 6.8. Baseline information was originally collected in the preparation of the Scoping Report in 2004. This has since been updated during the SA of the Core Strategy Preferred Options and the consultation responses received, and more recent Hertfordshire publications.

CURRENT STATE OF THE ENVIRONMENT AND ITS LIKELY EVOLUTION WITHOUT THE WASTE DEVELOPMENT FRAMEWORK

General overview of the Hertfordshire Waste Development Framework area

- 6.9. The Hertfordshire Waste Development Framework area covers Hertfordshire County. The southern edge of the county is only 20km from London, and as such is in the hinterland of the city. Hertfordshire has a distinctive mix of medium sized urban settlements interspersed with many smaller villages²², with good transport connections.
- 6.10. Approximately 64% of the land area of Hertfordshire is used for agriculture, 7% is wooded, and urban built up areas and transport cover the remaining 29%. The WDF area contains a wide diversity of landscapes and habitats, including some of national and international importance. The geology of Hertfordshire ranges from the clay of the London Basin to extensive chalklands, which forms the Chiltern Hills in the north-west, and is the major factor determining the County's topography and its soils. Glacial clays and gravels overlie much of the north-east of Hertfordshire, and river gravels occupy the Vale of St Albans and many of the river valleys.
- 6.11. The WDF area contains three internationally designated sites of conservation importance, including one Special Protection Area and Ramsar site and two Special Areas of Conservation; one National Nature Reserve and 41 Sites of Special Scientific Interest.
- 6.12. Hertfordshire's economy is characterised by three key features: the relative importance of a small number of large firms (1% of companies employ 30% of employees); the large number of micro-firms; and the importance of higher order functions such as headquarters and research and development facilities²².

²² *Hertfordshire Structure Plan Review 1991-2011*. Hertfordshire County Council. 1998.

Hertfordshire has a high proportion of employment in medium/high tech manufacturing firms and high tech services²³.

SA objective I: To protect and enhance the quality of the natural and historic environment

- 6.13. The following SA criteria are addressed under this objective.
- Ia. Protect Hertfordshire's Biodiversity Action Plan species and habitats and seek opportunities for enhancement.
 - Ib. Avoid adverse impact on air, ground and surface water, geology, and soil quality.
 - Ic. Protect and maintain Hertfordshire's most valuable assets such as landscapes of natural beauty, historic built heritage, and greenspaces.
 - Id. Protect dark skies from light pollution, and promote low energy and less invasive lighting sources, considering the balance between safety and environmental impact.
 - Ie. Guard against the loss of woodlands, trees, hedgerows and grassland and create or re-create habitats that ensure sustainable and linked species population.

Biodiversity

- 6.14. Waste operations can have both negative and positive effects on biodiversity. Operations may be located and designed to avoid impacts on protected species and sites, and priority habitats and species. In addition, the restoration of sites provides good opportunities to create valued habitats.
- 6.15. Hertfordshire has three sites of international importance: the Lea Valley Special Protection Area (SPA) and Ramsar site, Chilterns Beechwoods Special Area of Conservation (SAC) and Wormley-Hoddesdonpark Woods SAC. Broxbourne Wood (which forms part of Wormley-Hoddesdonpark Woods SAC) is Hertfordshire's only National Nature Reserve. There are also 43 Sites of Special Scientific Interest (SSSIs) (a national designation), 22 Local Nature Reserves, 34 HMWT Nature Reserves, 11 Woodland Trust sites and 1 Butterfly Conservation site. In 2006, a total of 1,984 Wildlife Sites had been identified in Hertfordshire. While the number of these sites has increased relative to 2003 figures, the overall area identified declined from 10.6% to 10%.
- 6.16. There are four main Natural Areas in Hertfordshire which form distinct geographical areas in terms of their wildlife and habitats, these are: the Chilterns, London Basin, East Anglian Plain and East Anglian Chalk, and a small part of the West Anglian Plain at the northernmost tip of the county. The range of Natural Areas reflects the variety of habitats present in the county.

²³ Hertfordshire Quality of Life Report 2006

- 6.17. Specific animal and plant species have been well surveyed and monitored in Hertfordshire over the past 10 years. The Quality of Life Report 2006 uses wildlife and habitat indicators to reflect current trends in the biodiversity resource, and along with “The State of Biodiversity in Hertfordshire 1992-2002”, summarises the most important of the survey and monitoring projects, including:
- More than a fifth of native flora is declining (influencing factors include past agricultural intensification, direct habitat loss, drainage, nutrient enrichment from fertilisers, increase in deer browsing, salting of roads, physical disturbance, climate change).
 - Water vole populations are still widespread despite declines of up to 70% across the county since 1989. Although they do appear to be absent from several major river catchments, water vole can still be found on the River Chess, River Mimram, River Purwell and parts of the Lea Valley.
 - The otter population has been re-established and, despite still being small and several road-kills occurring, it appears to be relatively stable.
 - Similarly, badgers appear to be maintaining if not expanding their populations, despite pressure from development and roads.
 - Overall, the total number of bats increased until 2001 but now there appears to be a steady decline back to 1998 levels (based on 2005 data).
 - Generally, wetland birds, farmland birds, and characteristic urban species in the county have slightly increased in number (2002-2003), contrary to national and regional trends which show continued to decline. However, population trends can fluctuate markedly, and continued long-term monitoring is essential. The next national BTO Atlas of Breeding Birds, which is a comprehensive survey of each county will be produced in 2008-2012, and will provide more detailed trends and comparisons with the previous survey 1988-1992.
 - Butterfly populations can fluctuate markedly in the short term due to weather conditions and site management and may not necessarily reflect longer-term trends. Overall, the picture looks hopeful for some butterflies, particularly those whose range has extended, but their future remains in a delicate balance. Climate change may provide opportunities for many species and sightings of the *Silver-washed Fritillary* were confirmed in the county for the first time since 1985. However, the loss of wildflower meadows, heathland, woodland rides or clearings and lack of suitable management will impede the survival of other butterflies.
- 6.18. The annual monitoring of indicator species within Hertfordshire provides an indicator of any change to habitats that is reported in The Quality of Life Report. To establish the results that are solely attributable to waste management facilities, further study would be required in addition to the Quality of Life Report studies. However, landtake for new facilities will result in the loss of habitats and factors such as air, noise, light and water pollution will affect the species and habitats in close proximity to waste management facilities. The application of mitigation measures to protect habitats is determined through the planning process.

- 6.19. Habitats and species within Hertfordshire are likely to be affected in a number of different ways by climate change. Some will be impacted through direct loss, for example from flooding, whilst others will be affected indirectly by temperature increases and changes in water availability²⁴.

Air quality

- 6.20. Due to the nature of the operations involved, waste sites and transport can potentially have negative effects on air quality. Through the location, design and methods used at waste sites, their impact on air quality can be minimised.
- 6.21. The main air quality impacts of the waste industry are the generation of landfill gas and the emission of gases and particulates through the transport of waste and machinery on site. In addition to potential effects on local amenity (dust, odour, noise etc.), the emissions from waste sites, particularly landfill sites and incinerators, can contribute to climate change.
- 6.22. The Hertfordshire and Bedfordshire Air Pollution Monitoring Network has been in operation since the beginning of 1999. All 13 district and borough councils in the two counties, plus the unitary authority of Luton, contribute resources for the coordinated database of air pollution, which records data from continuous monitoring sites. The Annual Report 2006 from the Hertfordshire and Bedfordshire Air Pollution Monitoring Network reports the following trends from the monitoring sites:
- Many urban sites show a slight downward trend in mean nitrogen dioxide concentrations. Although from 2004 to 2005, a rising nitrogen dioxide trend was identified at several roadside sites.
 - There was a slight increase in particulate matter from 2004 to 2005, but the St Albans and Three Rivers sites remained at similar levels to those in 2004.
 - While there has been significant variation in running annual mean ozone at most sites since the network began, there is no overall upward or downward trend. Ozone was quite stable in 2005, with levels similar to those of 2004.
 - Running annual mean particulate trends at all continuous monitoring sites show similar variation, with a very slight downward trend.
 - Carbon monoxide levels continued in a downward trend.
 - Sulphur dioxide concentrations in Hertfordshire and Bedfordshire are very low in most areas and show little change over the period that the network has been in existence.

²⁴ *Living with Climate Change in the East of England: Stage 1 Interim guidance on spatial issues*. Prepared for Hertfordshire County Council on behalf of the East of England Regional Assembly and East of England Sustainable Development Round Table by LUC in association with CAG Consultants and SQW Limited, 2003.

- The largest pollution event of 2005 occurred at the end of the year with the fire at the Buncefield oil depot. This event did not become a major air pollution incident.

Water quality

- 6.23. The Quality of Life Report 2006 summarises the results from the Environment Agency assessment of Hertfordshire river quality for 2005, which show that chemical river quality has deteriorated; 61.2% of river length in Hertfordshire is now achieving 'very good' or 'good' quality compared with 67.2% in 2004 and 77.8% in 2003. However, in 1998, only 33% of river length achieved 'very good' or 'good' status. Whilst 7.5% of river length was classified as 'poor' in 2005, compared with 2.7% in 2003, still no rivers are classified as 'bad'.
- 6.24. Typical emissions data on existing incineration plant and data on certain potential future technologies such as gasification/pyrolysis are set out in Hertfordshire's Joint Municipal Waste Management Strategy. However, the Waste Management Unit (WMU) at HCC do not have any data on emissions from Hertfordshire landfill sites and other waste recycling and transfer operations. WMU monitor landfill gas and water quality at the former Smallford and Hadham Towers landfill sites, to check for gas migration and associated impacts on the surrounding vegetation, groundwater etc.

Geology

- 6.25. The geology of the county is the major factor determining its topography (the hills and valleys) and its soils. These, together with the climate, determine the natural vegetation and habitats which support the range of species and influence farming practices. The combination of all these results in the distinctive landscape of each part of the county.
- 6.26. The solid geology of Hertfordshire is relatively simple, being largely Chalk of the Cretaceous period, overlain in the south and east by London Clay. In the far north and north-west of the county are small areas of Gault Clay. Throughout much of the county, the superficial deposits which overlay the solid geology complicate the picture. These include the Clay-with-flints of much of west Hertfordshire, including the Chilterns dip slope; the boulder clay of central and east Hertfordshire; and the gravels of the Vale of St Albans and the river valleys²⁵.
- 6.27. Hertfordshire has few, if any natural rock exposures and geologists have to rely heavily on permanent man-made exposures such as pits, quarries, road cuttings and temporary excavations, such as gas pipelines, to provide evidence of the county's geological history. Natural England's 'Nature on the Map'²⁶ shows that Hertfordshire contains 6 'geological' SSSIs (Hillcollins Pit, Downfield Pit (Westmill), Castle Lime Works Quarry, Moor Mill Quarry West, Little Heath and Westward Quarry), and 2 'geological places to visit' Waterend Swallow Holes and Hill End Pit. The 1997 'Hertfordshire Geological Strategy' aims to prepare a series of action plans each with

²⁵ A 50 year vision for the wildlife and natural habitats of Hertfordshire, 1998.

²⁶ www.natureonthemap.org.uk

long-term aims and targets. These will guide work on identifying, protecting, restoring and re-creating, landforms and rock exposures including key localities such as Sites of Special Scientific Interest (SSSIs), Local Nature Reserves (LNRs) and Regionally Important Geological Sites (RIGS).

- 6.28. The main ways in which waste management could have an impact on Hertfordshire's geology are through the development of waste management facilities on sites of geological interest, or the use of mineral voids for landfill. Developing facilities on sites of geological interest or using mineral voids for landfill could limit the opportunities for accessing geological features, for educational or for future extraction purposes.

Landscapes of natural beauty

- 6.29. Volume 1 of the Landscape Strategy for Hertfordshire was prepared by the Landscape Section of Hertfordshire County Council and published in September 1997. It was based on work undertaken by the Countryside Commission and English Nature, and drew on local understanding to identify a regional pattern of landscape character for the county. It was adopted as Supplementary Planning Guidance to the Structure Plan in 1998. The Landscape Strategy identifies six landscape regions in Hertfordshire:

- Chilterns
- Central River Valleys
- South Herts Plateau
- East Herts Plateau
- North Herts Ridge
- Northern Vale Salients

- 6.30. Information on the landscape character areas of Hertfordshire is being developed by the County Council and certain District Councils in line with national guidance on landscape character assessment (District level assessments). The current published coverage is 67% of rural Hertfordshire, with all the remaining rural areas in an advanced draft stage. The main information required to understand the character of rural areas and thus the impacts of spatial and thematic policies on this key attribute can be found in the detail of the landscape character statements available on the HertsDirect site and North Hertfordshire website. The County Council's Landscape Department advised that for urban areas there is little available in a standardised format, and there is currently little recognised data on the condition of character areas (although there is some emerging work).

- 6.31. The Chiltern Hills, a chalk area extending into west and north-western Hertfordshire, are of national landscape importance and were designated an Area of Outstanding Natural Beauty by Central Government in 1964, with minor boundary changes confirmed in 1990. The designation affords the area special status in the control of development, and the approved Hertfordshire Structure Plan policy 2 gives prime

consideration to the preservation of the area's natural beauty, with priorities set out for the resolution of conflicting interests.

- 6.32. The Council's Landscape Department is conducting an informal survey on the Hertsdirect website of favourite landscapes in Hertfordshire, by asking people to email them about the area of landscape in Hertfordshire that they most value. The survey was primed by the results of a project undertaken by the Hertfordshire Society at the County Show, 2003, and to date, 22 areas have been listed on the website.
- 6.33. Waste management has county-wide impacts on landscape condition and locally can affect character and designated sites. In turn this can affect how areas are valued.

Historic built heritage and greenspaces

- 6.34. Cultural heritage is very important to the modern day world as it offers a means to understand ancient communities including their health and diet, religious and ritual practices, and also the origins and development of our present social and political structures. The long term affects of humans actions can also be investigated through investigation into past and present changes.
- 6.35. Hertfordshire is particularly rich in archaeological remains. The combination of good soils, favorable climate and adequate supplies of water, made it a favoured area for settlement from the end of the last Ice Age, approximately 12,000 years ago. The assessment of archaeological relics suggests that the County has been home to the Romans, the Anglo-Saxons and the Normans. The Anglo-Saxons built the town of Herts as a fortress and was the frontier in the struggle against the Danes, and the Normans left their mark in the form of a series of castles such as those at Hertford, Bishop's Stortford and Berkhamsted.
- 6.36. Hertfordshire's built heritage is characterised by an eclectic mix of local buildings. The area itself has little local building stone and historically, building material and techniques were borrowed from the surrounding areas of East Anglia, the Midlands and London. The 'Hertfordshire Spike' is probably the most distinctive local building form. It is a slender spire which can be seen on the top of many of the county's churches.
- 6.37. The extent of the cultural assets of the County is reflected in the number of scheduled ancient monuments (SAMs), listed buildings and registered parks and gardens. There are around 107 SAMs spread evenly throughout the county, although there is a greater concentration around some historic towns in the north such as St Albans and along communications routes such as the Lee Valley. There area also a number of Listed Buildings spread throughout the County with higher concentrations in historic towns such as Hertford and St Albans. There are 110 Grade I, 472 Grade II* and 7,477 Grade II listed buildings. There are also 45 parks and gardens of special historic interest as listed by English Heritage. These include two Grade I, nine Grade II* and 34 Grade II parks and gardens.
- 6.38. Over the years, many great architects have worked in the County and, as a result, there are a large number of country houses with parks and gardens designed by

Capability Brown. The County is also home to the grand estates of Hatfield House, built in 1608, and Knebworth House. Hertfordshire's built heritage includes a number of important early examples of Arts and Crafts style buildings. This includes the early phases of the building of the two garden cities at Letchworth and Welwyn. These towns set environmental standards in housing design and layout for the twentieth century. Architectural styles from the 1950's and 1960's can also be found in the County. This style of housing came about after the Second World War when Hertfordshire received the first of the New Towns at Stevenage, followed by Hemel Hempstead and Hatfield.

- 6.39. Hertfordshire also has a significant amount of valued greenspace. As well as numerous parks and gardens, the Chilterns lies to the west of the County made up of 4000 acres of commons and woodlands. In the east, the 23mile long Lee Valley Park follows the course of the River Lea from Ware to London's East End. This park has been developed as an area for recreation, sport and entertainment.
- 6.40. Waste management could have an impact on Hertfordshire's cultural heritage and greenspaces through the development of waste management facilities on or near archaeological sites, through loss or fragmentation of greenspace, or affecting the setting of listed buildings or conservation areas.

Woodlands, trees, hedgerows and grasslands

- 6.41. It has been estimated that 45% of ancient, semi-natural woodland has been lost since 1920, although there do not appear to have been significant losses within the last ten years. New roads such as the A41 have significantly increased fragmentation within the area of the Chilterns, although new woodland planting within the Community Forest has increased tree cover locally. By 2001 the Hertfordshire Orchard Initiative had recorded up to 6,000 orchards on old maps since the 1880s, but 58% of them have now been lost. Although around 2,500 orchards remain, most are in poor condition and remain unproductive. Another recent study of Veteran Trees has recorded over 2,000 trees, and recording work continues.
- 6.42. Hertfordshire Biological Records Centre (HBRC) has undertaken a Habitat Survey jointly with the Herts and Middlesex Wildlife Trust. A set of coloured Habitat Maps have been completed for the county, and the HBRC has been able to assess the extent of wildlife sites in the county. A total of 1,984 sites have been identified as achieving the criteria set for wildlife site status.
- 6.43. Using all ecological data available, sites were assessed to identify sites of at least district importance. These are known as County Wildlife Sites and are regarded as being of critical natural capital (assets whose loss or damage would produce significant and irreversible changes for the worse). This designation can assist the local authorities in the planning process and many districts have incorporated the wildlife sites in their Local Plans.
- 6.44. The Hertfordshire Structure Plan (1998) seeks to safeguard habitats of importance to wildlife, stating that: 'critical assets will be given protection from development or other proposals which would cause loss, permanent damage or significant and

irreversible change to those particular characteristics and features that define their special quality'.

- 6.45. Ancient woodlands are sites which have been wooded since at least 1600 A.D. The Oak-Hornbeam woodlands of Hertfordshire are particularly important. Since 1940 ancient woodlands have declined by 44% and now only cover 2% of Hertfordshire's landscape. Such woodlands not only form important features in the landscape, but they provide valuable wildlife habitats containing many familiar and attractive species such as bluebell and primrose, as well as uncommon or more elusive species such as the badger and hawfinch.
- 6.46. HBRC has also established the Veteran Tree Survey which seeks the aid of the public to locate and record the existence of as many of Hertfordshire's veteran trees as possible. They have set up a database of all trees, with as much detail as possible for each tree or group of trees, including associated wildlife or historic associations, and to use the information to promote their future management and conservation.
- 6.47. Access to open spaces and the protection of the green belt is important to Hertfordshire residents. They would like to safeguard green field sites and make sure inappropriate developments are avoided.

Existing policy (Hertfordshire Waste Local Plan (WLP) 1995-2005, Hertfordshire Structure Plan 1991-2011, Draft East of England Plan²⁷) relevant to potential impacts of waste development on the quality of the natural and built environment.

WLP Policy 35 provides for the protection and enhancement of **nature conservation**, including international, national and regional and local sites. Waste Policy 46 requires that all applications for waste disposal are accompanied by detailed proposals for restoration, aftercare and afteruse. In addition Waste Policy 13 requires proposals for new waste facilities outside identified areas of search to demonstrate that impacts on local or natural environments are minimised. Structure Plan Policy 38 provides protection for a range of important environmental assets including SACs, SPAs, Ramsar sites, SSSIs, BAP habitats and species and species protected by law. Draft East of England Plan Policies ENV1 and ENV3 provide protection for internationally and nationally designated nature conservation sites, as well as promoting a number of enhancement measures such as expansion of wildlife corridors, biodiversity conservation/enhancement areas and safeguarded areas for habitat restoration/re-establishment. Policy WMI aims to minimise the environmental effects of waste management. Each of the existing plans include proposals for development which may impact on biodiversity. For example, Waste Policy 12 identifies a range of areas of search for sites for permanent waste facilities for the re-use, recovery, transfer and recycling of waste which could impact on biodiversity.

²⁷ Reference to the draft East of England Plan includes the March 2007 proposed changes.

WLP Policies 1 and 3 aim to ensure that pollution (including pollution affecting **air quality**) is considered when identifying sites and areas of search. Policy 57 of the Structure Plan states that development proposals which would be likely to result in or significantly contribute to unacceptable levels of pollution will not be permitted. Policy 55 states that disposal of waste will not be permitted where it would have adverse effects on the environment, including air pollution. Policy SS3 of the draft East of England Plan aims to ensure that development in or adjoining urban areas will be located where there are no adverse effects on air quality. Policy ENV 7 'Air Quality' is specifically designed to improve air quality and minimise and mitigate adverse effects on air quality from development in the region.

Policy 41 of the WLP states that planning permission will not be granted for waste management facilities under conditions likely to cause an adverse impact on the quantity and quality of or disturbance to or obstruction of **surface or groundwater resources**. It states that developers will have to demonstrate that developments will not have an adverse effect on the water environment. Policy 1 of the Structure Plan aims to ensure development is consistent with the aims of sustainable development. This includes ensuring development avoids pollution in all its forms, in particular pollution of ground and surface water resources. Policy 39 of the Structure Plan also states that development will need to take account of the need to protect and where possible enhance water resources in Hertfordshire, including ground water and water quality. Policy ENV 9 of the East of England Plan aims to ensure that new development will be located, designed and its implementation planned in such a way to allow for sustainable provision of water supply and enable timely investment in sewage treatment and discharge systems to maintain the required standard of water quality.

Waste Policy 2 of the WLP states that it must be demonstrated that there is a need for facilities which outweighs, *inter alia*, any environmental interest which may be affected (taken to include **geodiversity**), and that the environmental policies throughout the plan must be adhered to. Policy 38 of the Structure Plan states that 'critical capital' and other important environmental assets as listed below (this includes regionally important geological and/or geomorphological sites (RIGS)) will be given protection from development or other proposals which would cause loss, permanent damage or significant and irreversible change to those particular characteristics and features that define their special quality. Their protection and enhancement where possible will also be sought. Policy ENV3 of the draft East of England Plan includes a requirement to identify and safeguard regionally important geological and/or geomorphological sites (RIGS) and promoting the expansion of the number of sites receiving active conservation management.

Policy 33 of the WLP states that the impact of all applications for waste management facilities on the **landscape** will be considered, and planning permission may be refused on the grounds of significant landscape intrusion and loss of important landscapes. Policy 36 of the WLP also aims to ensure permission is not granted for proposals which include the demolition of listed buildings, and where other **historic features** may be affected, it must be demonstrated that the most important features are retained where necessary and appropriate mitigation is proposed. Policy 38 of the Structure Plan aims to protect, and promote the maintenance and enhancement of a number of features including identified landscapes of high historic value, including Registered Parks and Gardens of Special Historical Interest, listed buildings, conservation areas, Scheduled Ancient Monuments and Areas of Outstanding Natural Beauty.

There are a number of other policies throughout the Structure Plan which include reference to minimising the impact of development on designated and non-designated landscapes and ensuring appropriate mitigation through landscaping schemes where appropriate. Policy ENV

2 of the plan ensures the highest protection for nationally designated landscapes, and states that local development documents should recognise and enhance local countryside character and landscapes and that development should avoid, minimise and mitigate any adverse impacts on the landscape. Policy ENVI of the draft East of England Plan aims to identify and protect **green infrastructure** in the region.

Waste Policy 1 aims to include pollution as a criterion when considering applications for waste management facilities and Waste Policy 33 considers the visual impact of facilities during operation, but **light pollution** is not specifically addressed through the Waste Local Plan. Policy 57 of the Structure Plan states that development proposals which would be likely to result in or significantly contribute to unacceptable levels of pollution will not be permitted. Light pollution is referenced in Box 9.1 of the East of England Plan.

Waste Policy 43 includes reference to considering the impacts of facilities and waste transportation on road verges and hedges. Policy 46 of the Structure Plan considers the protection and enhancement of woodland in towns. Policy 41 of the Structure Plan aims to maintain and enhance **tree and hedge** cover in the region. Policy ENV4 of the East of England Plan concerns the protection and maintenance of **woodlands** in the region, including aims to increase woodland cover.

Likely evolution without the Waste Development Framework

The hierarchy of existing spatial plans incorporate a range of policies designed to protect the quality of the natural and built environment. However, Hertfordshire is under significant development pressure. Evidence suggests that this development pressure, including pressure arising from demand for new waste management facilities to manage increases in waste arisings, is leading to a range of cumulative impacts on biodiversity, water quality and availability, air quality, tranquillity and dark skies as well as potential impacts on landscape character and cultural heritage and soil quality. These trends are likely to continue under current planning policy.

SA objective 2: To achieve and promote sustainable land use, construction, design and transport in Hertfordshire.

- 6.48. The following SA criteria are addressed under this objective.
- 2a. Reduce reliance on road freight movements and seek to increase the efficient use of rail and water where appropriate.
 - 2b. Improve efficiency in land use through the re-use of previously developed land and existing buildings.
 - 2c. Promote sustainable construction practices (e.g. minimising construction and demolition waste, re-using demolition and excavation materials, using recycled and local materials, materials with low embodied energy and timber from sustainable sources).

Waste transport

- 6.49. National policy is aiming to reduce the length and number of motorised journeys and to encourage alternative more sustainable forms of transport, including walking and cycling, and public transport.
- 6.50. In 2005, vehicles on roads in Hertfordshire travelled 30.21 million kilometres per day, a decrease on 2004 levels. Car ownership in Hertfordshire is one of the highest in the Country, with over 80% of residents having access to a car, compared with 74% nationally.
- 6.51. Since 1995, traffic on all roads in the county has risen by 2%, compared with 16% nationally. Currently, the County experiences almost double the national average traffic flow on its motorway, trunk and local A roads networks.
- 6.52. The County Council's Local Transport Plan promotes sustainable distribution through a strategy which seeks to minimise the impact of road traffic and particularly heavy goods traffic in rural areas, while ensuring that any opportunities that may arise for rail and water freight can be taken up. However, the alternatives of rail and water freight are limited. Navigable waterways are limited to two routes, and whilst the rail network is more extensive, the routes are already under severe capacity problems from expanding passenger services.
- 6.53. Hertfordshire has a good network of rail services on what are predominantly north-south radial routes centred on London. The county's four principal rail corridors are West Anglia, East Coast Main Line, Midland Main Line and West Coast Main Line.
- 6.54. WMU have data on the journeys made from Household Waste Recycling Centres to disposal and recycling sites. Currently this does not extend to mileage information, as it is limited to the number of trips and the site locations.
- 6.55. District Council waste movements to Hertfordshire County Council disposal and recycling facilities are complex and difficult to quantify as the collection round patterns are not known to the County Council. District Council waste collection is however very significant and may account for over 75% of the total household waste transport distances.
- 6.56. The impact of any waste management facility should be assessed in the preparation of the Site Allocation Policies and Proposals DPD as part of the site selection process. Current data is historical and does not provide a means of identifying the impact from new waste management facilities within Hertfordshire.

Land use efficiency

- 6.57. The recent land availability report identifies that land classified for use class B1-B2/B8 is suitable for siting waste management facilities. The data obtained from Herts Prosperity and Environment Information Management Unit (EIMU) indicates a reduction within these land use classes, but there is limited data to show the present land/buildings available for use.
- 6.58. Mineral workings in the County have led to some relatively large areas of previously restored-land becoming degraded, while poor management of some urban land has

led to derelict and unused areas of land in need of rehabilitation. It is difficult to find figures for the amount of previously developed land available in Hertfordshire.

Sustainable construction

- 6.59. The Hertfordshire Sustainable Development Guide is for developers, local authority planners and the wider community and promotes best practice in sustainable planning, design and construction. It sets out aims and detailed guidance for the three categories: sustainable communities, economic vitality and healthy environments including e.g. making efficient use of land, buildings and materials, dealing with resources more sustainably, supplying and using energy sustainably, and reducing pollution. The Guide includes a section on good site appraisal including assessing the attributes of a site and the way it relates to its surrounding, which should inform the planning and design of a development. The final section of the Guide provides a checklist for development control officers to enable them to make a rapid assessment of the sustainability of a development application.
- 6.60. Information on construction and demolition (C&D) waste is very hard to obtain, particularly at geographically detailed level. A DCLG commissioned report on C&D waste arisings in 2005 estimated that around 11.5 million tonnes of waste are produced in the East of England per year. Of this, an estimated 52% is recycled, 12% used in quarry restoration, 8% in landfill capping, 4% in landfill engineering, 15% was disposed of at exempt sites and 9% disposed of to landfill.

Existing policy (Hertfordshire Waste Local Plan (WLP) 1995-2005, Hertfordshire Structure Plan 1991-2011, Draft East of England Plan) relevant to potential impacts of waste development sustainable land use, construction, design and transport

The WLP aims to facilitate a shift away from the **transportation of waste** by road. This is implemented through Waste Policies 1, 11 and 43, which aim to ensure that consideration is given to existing transport infrastructure when siting facilities, that the amount of waste transported and the distance travelled is reduced, and that rail and water transportation is preferred. The Structure Plan also aims to reduce the amount of freight transported by road. Policy 22 aims to ensure appropriate use of roads within the existing hierarchy in particular for freight. Policy 30 supports the creation and use of rail and water freight depots in Hertfordshire. There are several policies within the draft East of England Plan referring to the sustainable transportation of freight, such as Policy T1 which aims to reduce the transport intensity of freight. T3 supports the development of strategic rail and water freight interchanges.

Policies 3, 7 & 9 of the WLP advocate **sustainable design and construction practices** in terms of considering the amount of waste produced through construction, the amount of waste which is re-used on site and elsewhere, and the use of waste in other construction projects (such as roads). Waste Policy 2 states that proposals must meet the planning and environmental criteria outlined in the WLP, including design. Policy 55 of the Structure Plan supports the re-use of construction waste, especially where this is achieved on site. Policy 2 aims to ensure that the design of development is consistent with achieving sustainable development. Safety and the impact of design on landscape impacts is considered through Policies 28 and 43. Policy SS16 of the draft East of England Plan promotes sustainable construction in general and Policy ENV 8 promotes energy efficiency during construction. Policy TG4/SE4 promote quality design and the 'Carbon Dioxide Emissions and Renewable Energy' chapter contains a number of policies advocating sustainable construction and design.

Hertfordshire's Structure Plan makes several references to the use of **Previously Developed Land**, but it is not specifically referred to through policy. Policy SS3 in the draft East of England Plan promotes the use of Previously Developed Land adjoining urban areas, and Policy SS4 states that 60% of development in the region will need to be undertaken on Previously Developed Land or buildings.

Likely evolution without the Waste Development Framework

The hierarchy of existing spatial plans are consistent with national policy on sustainable land use, construction, design and transportation. All of the plans contain policies aimed at reducing the amount of freight transported by road, and advocate the use of rail and water as a means of transportation. Sustainable design and construction practices are also promoted through the policies, particularly in the regional plan. However, the use of Previously Developed Land is only specifically referenced at the regional level.

Without implementation of WDF sustainable land use, construction, design and transportation would still be advocated through existing policy. Policies which could be promoted more in the future include the use of Previously Developed Land for waste facilities and energy efficiency in order to achieve a greater level of development of brownfield land and increased energy efficiency. However, continued pressure for growth is likely to lead to further increases in road-based transport, including waste related transport.

SA objective 3: To reduce contributions to climate change.

6.61. The following SA criteria are addressed under this objective.

- 3a. Reduce demand for energy and increase the proportion of energy generated and consumed in Hertfordshire from renewable sources.
- 3b. Address the causes of climate change through reducing greenhouse gas emissions and adaptation/mitigation measures (e.g. tree planting).

Energy efficiency and renewable energy

- 6.62. The Quality of Life Report 2006 states that domestic energy efficiency measures are being encouraged in Hertfordshire; these include hot water cylinders, cavity wall and loft insulation, improved heating controls and draught proofing.
- 6.63. Wind, wave, tidal and solar power are clean, renewable forms of energy capable of replacing fossil fuels, but in 2002 only 3% of electricity in the UK was produced using renewable energy.
- 6.64. A target for renewable energy is presented in banked RPG14 of 3% of the energy generated in Hertfordshire. Additionally, the East of England Sustainable Development Round Table proposed a renewable energy target of 153GWh by 2010, which equates to the energy used by approximately 7,000 homes. The County Council engaged consultants to produce a report in 2005 on the potential for achieving this target. This report concluded that while the county has the technical potential to meet the target, for many technologies developers are constrained by financial implications, and that planning policy is key to encouraging adoption. Given the number of new dwellings proposed in the County, and the revised Building Regulations, great opportunities exist for energy and CO₂ reduction in new homes. The Hertfordshire Quality of Life Report 2006 states that planning officers in the County are currently in the process of developing supportive policies for these.
- 6.65. Renewable energy generated in Hertfordshire up to October 2006 included 0.225GWh from onshore wind, 4GWh from landfill gas and 1.48GWh from sewage gas.

Greenhouse gas emissions

- 6.66. Climate change is one of the greatest environmental threats facing the world. Climatic extremes in the UK, evidenced by floods, droughts and storms in recent years show all too clearly how vulnerable we are to climate extremes. The main greenhouse gas responsible for climate change is carbon dioxide (CO₂) which is released when fossil fuels are burnt. The waste industry has the potential to contribute to climate change via the emission of greenhouse gases generated by the use of energy in processes and transportation involved in the industries. In addition, a large amount of methane is produced by landfill sites, generated by the breakdown of biodegradable waste.
- 6.67. The County's total CO₂ emissions in 2004 were 8.5million tonnes, of which 36% was from road transport. Average domestic emissions per capita were 2.6 tonnes, equal to the regional average.
- 6.68. Hertfordshire has been working to cut carbon emissions via a range of activities, including awareness raising, including policies to reduce car use, and reducing waste and encouraging recycling.

Climate change adaptation

- 6.69. The County Council led the steering group on behalf of the East of England Region for the study "Living with Climate Change in the East of England" published in 2003.

The study looks at how climate change will affect the East of England region over the next century, highlighting particular concerns for Hertfordshire, such as likely increases in flooding, pressure on water resources, subsidence and more pollution. It explains how local authorities, businesses, health services and utilities could be affected and offers guidance on how to plan ahead in order to adapt to climate change.

6.70. It states that the impact of climate change is likely to be marginal on waste collection, disposal and recycling, but sets out suggested actions for minimising health and pollution risks associated with waste and waste management facilities resulting from climate change impacts:

- Ensure waste contractors take into account the impact of general warming in the design and management of waste and civic amenity sites, with particular reference to putrescible materials and vermin control. This could be addressed by the Environment Agency through Waste Management Licences.
- Consider the need for more frequent collections of some kinds of wastes and more frequent street cleansing.
- Ensure waste contractors consider the increased risk of flooding within EIAs for new waste management facilities, especially landfill sites.
- Ensure allocation of sites for waste management facilities in Waste Development Plans take account of flood risk.
- Existing waste management sites should, where appropriate, incorporate flood risk management to prevent pollution.

Existing policy (Hertfordshire Waste Local Plan (WLP) 1995-2005, Hertfordshire Structure Plan 1991-2011, Draft East of England Plan) relevant to potential impacts of waste development on reducing contributions to climate change

Waste Policy 1 aims to ensure developments **conserve energy resources**. The WLP contains significant discussion on waste to energy facilities, and Policy 19 provides criteria for the development of waste to energy facilities. Policy 20 encourages proposals for energy recovery. Policies 22 and 27 also encourage the generation of energy from waste. The vision for the Structure Plan, its 'Land Use Planning Objectives', and Policy 1 refer to the efficient use of energy and the generation of energy from renewables. Policy 54 is specifically aimed at encouraging the generation of energy from renewable sources. Policy 55 includes the aim to recover energy from waste which is a form of renewable energy. Policy ENV 8 in the draft East of England Plan aims specifically to help the region towards energy self-sufficiency, to meet renewable energy targets and to improve efficiency of energy use. Policies T1 and T3 promote the sustainable transportation of freight.

One of the WLP's aims is to mitigate the impacts of greenhouse gases, while Waste Policy 13 advocates the use of the proximity principle which should minimise emissions associated with waste transport. The sustainability aims of the Structure Plan include the aim to mitigate the possible causes and effects of climate change. Policy 30 aims to reduce the amount of freight transported by road, therefore reducing greenhouse gas emissions. Policy SS1 of the draft East of England Plan includes aims to promote adaptation to climate change.

Likely evolution without the Waste Development Framework

The existing spatial plans recognise the contribution that development can make to climate change in terms of contributing to its causes and mitigating and adapting to its effects. All of the existing plans contain policies which encourage energy efficiency from development and the promotion of energy from renewable sources, including waste. As the existing plans also aim to reduce the use of the road as the transportation of waste, they are encouraging a reduction in greenhouse gas emissions.

However, even if development is made more energy efficient and less waste is produced by people and businesses, energy demand overall is still likely to increase due to population increases and development in all forms. This would lead to continued increases in greenhouse gas emissions, although measures to minimise these are likely to be implemented.

SA objective 4: To provide for sustainable resource management.

6.71. The following SA criteria are addressed under this objective.

- 4a. Reduce demand for water and increase the efficient use of ground and surface water resources.
- 4b. Develop and promote local water recycling initiatives for development and buildings, and encourage rainwater harvesting to reduce new development water needs.
- 4c. Reduce contamination and safeguard soil quality and quantity and minimise the loss of best and most versatile agricultural land.
- 4d. Safeguard reserves of exploitable minerals from sterilisation by waste management-related development.
- 4e. Minimise production of by-products or wastes, and then promote reuse, recycling, composting, alternative treatment options and energy recovery before resorting to landfill.

Efficient use of water

- 6.72. Three Valleys Water Company covers 95% of Hertfordshire, plus Luton and small parts of Essex and Greater London. The average volume of water Three Valleys Water pumped into their supply area during 2005/06 was 872 million litres per day.
- 6.73. The average household per capita consumption of water in Hertfordshire during 2005/06 was 160 litres per head per day, above the national average.

- 6.74. In the Thames region summer surface water throughout the region is now fully committed and, generally, no further unconstrained consumptive use can be licensed. Parts of the Lee catchment are suffering from unsustainable abstraction. Further winter surface water resources are generally available, however, the Lee catchment also suffers from unsustainable abstraction in terms of winter surface water availability. Groundwater resources across the region are now at or approaching full utilisation. In the Colne catchment, water abstraction for washing sand and gravel is cited as a major source of abstraction. In years of low rainfall, abstraction will have a greater impact on river flow than may be evident in years of average rainfall.

Water recycling and harvesting

- 6.75. Three Rivers Water Authority promote the use of water recycling at domestic levels through the purchase of Water Butts. There are no countywide initiatives at present.
- 6.76. New Waste Management facilities could be encouraged to incorporate rainwater recycling/ harvesting into design.
- 6.77. Supplementary Planning Guidance could be prepared for waste management to provide detailed guidance on standards and best practice for waste management operations against which the County Council could assess the operational elements of applications for planning permission.

Agricultural land

- 6.78. Sixty per cent of the total land area of Hertfordshire is in agricultural use. Much of this land is of at least average, MAFF grade 3, quality, with significant areas of grade 2 land mainly in the north and east of the County.

Safeguarding minerals

- 6.79. Sand and gravel are the major minerals worked in Hertfordshire and is mostly used by the construction industry. Sand and gravel deposits are found in most parts of the county although they are concentrated in that part south of a line between Bishops Stortford in the east and Hemel Hempstead in the west (often referred to as the sand and gravel belt). Chalk and brick clay are the other types of naturally occurring worked minerals, although the scale of working is relatively small. Chalk is mainly quarried at a small number of sites to the north and west of the sand and gravel belt. The only brick clay extraction occurs at a site in the west of the county.
- 6.80. From 10 June 2003 'National and Regional Guidelines for Aggregate Provision in England 2001-2006' replaced Annex A of MPG6. Mineral Planning Authorities in the East of England region are expected to make provision for 256 million tonnes of sand and gravel from local land won sources over the Plan period (2002-2016). In November 2003 the Regional Planning Panel of the East of England Region gave final endorsement to subregional apportionment including a requirement in Hertfordshire for an annual call on reserves of land won sand and gravel of 1.99 million tones.
- 6.81. There are three identified preferred areas set out in Minerals Policy 3 of the Hertfordshire Minerals Local Plan which are estimated to contribute between 21 to 25 million tonnes of sand and gravel over the fourteen years of the Plan period.

Minerals Policy 5 seeks to avoid mineral sterilisation by encouraging mineral extraction prior to other development taking place where any significant mineral resource would otherwise be sterilised, or where despoiled land would be improved following restoration.

- 6.82. An application for siting a waste management facility within Hertfordshire would be assessed under the current Minerals Policies – in particular Minerals Policy 3 (applicable to Sterilisation of Minerals) The location of waste management facilities are likely to be sited in proximity to active minerals sites or former sites. The Minerals Local Plan Proposals Map shows the sand and gravel belt, and the Preferred Areas and Specific Sites.

Waste minimisation and management

- 6.83. There is growing awareness that society needs to reduce the amount of waste it generates by using materials more efficiently, and improve the management of waste that is produced, in order to achieve sustainable living. In line with the widely adopted waste hierarchy, best practice for waste management is to reduce, re-use, recycle and recover, and only then should disposal (or storage) in landfill be considered.
- 6.84. The Quality of Life Report 2006 states that in 2005/06 the total amount of waste produced in Hertfordshire was approximately 2 million tonnes, about a quarter of which was household waste. Around 61% of the household waste produced in Hertfordshire in 2002/03 was disposed of in landfill sites but these sites are running out of space and fewer are being created. The latest calculations show that Hertfordshire will run out of landfill space by 2008. More than 375,000 tonnes of Hertfordshire's household waste was disposed of outside the county, at facilities in Bedfordshire, Cambridgeshire, Essex and North London.
- 6.85. From 2004/05 to 2005/06, the level of waste produced grew by 2.3%, but this was a slower rate of growth than the 2.8% from the previous year. Assuming a growth rate of 2.5% per annum in Municipal Waste by 2024 the total Municipal Waste will double as detailed by Envirospinal in the Hertfordshire Waste Strategy 2002-2024.
- 6.86. The achievement of the County Council's targets for re-use, recovery and recycling of waste require not only provision for source separation and storage in housing, retail and commercial premises, but also specific Waste Management facilities, which include:
- inert waste recycling
 - green waste composting
 - mixed waste composting
 - skip waste recycling
 - industrial and commercial waste recycling
 - materials recycling facilities for household and other wastes

- industrial reprocessing
- 6.87. In 2005/06, 178,228 tonnes of municipal waste was recycled or composted, raising the rate to 33.2% from the 26.7% in 2004/05. This is above the County's recycling target of 30% by 2005/06.
- 6.88. Hertfordshire's County, District and Borough Councils are working together on waste reduction and recycling schemes. This joint working was formalised on 14 April 1997 when all the eleven councils of Hertfordshire signed up to the aims and objectives of 'WasteAware'. The WasteAware campaign aims to make residents aware of the waste management issues, problems and actions they can take to reduce the amount of waste sent for disposal including:
- Hertfordshire residents are encouraged to compost kitchen and garden waste at home through the offer to buy 2 subsidised composters. This has been promoted in Herts Direct, through selected garden centres, the WasteAware website and a leaflet delivered to every household in 2004-05. There is also an information leaflet on composting and waste reduction available.
 - Parents are encouraged to choose re-usable nappies through a £40 cashback scheme for the purchase or laundering of re-usable nappies. A guide has also been produced and is available at a number of health centres, council offices and Herts libraries.
 - Recycled products such as pens, rulers and pencils are used in promotional and educational work to reinforce the message that recycled items can be attractive and functional.
 - The WasteAware website – www.wasteaware.org.uk is the one stop shop for information on recycling points, strategy, materials and news.
 - An education pack is currently being developed and will be distributed to Herts schools in the Autumn term.
 - Eyecatching posters have been applied to the 3 sides of the containers used at the County's nineteen Household Waste Recycling Centres (HWRCs). These designs were used in newspaper, bus back, cinema still and adbike advertising in March 2004.
 - WasteAware is also part of the regional 'Slim Your Bin' campaign which has a programme of on and off air activities in conjunction with Anglia Action and the Slim Your Bin roadshow.
- 6.89. To ensure that efforts on waste reduction are maintained, the Hertfordshire Waste Partnership has undertaken a review of the County's Waste Strategy, which was the subject of full-scale public consultation from January to March 2007.

Existing policy (Hertfordshire Waste Local Plan (WLP) 1995-2005, Hertfordshire Structure Plan 1991-2011, Draft East of England Plan) relevant to potential impacts of waste development on sustainable resource management

Policy 1 of the Structure Plan aims for sustainable development, which includes conservation of resources, particularly **best and most versatile agricultural**. Policy 40 specifically prevents the use of best and most versatile agricultural land for development not associated with agriculture or forestry. The draft East of England Plan includes policy ENV6 on agriculture, land and soils, which encourages the sustainable use of soil and water resources, and Policy ENV9 specifically aims to use water resources sustainably.

Policy 52 of the Hertfordshire Structure Plan aims to **safeguard mineral resources** from sterilisation due to inappropriate development.

The WLP includes a number of policies which address sustainable use of natural resources, including WLP Policy 6, which states that the council would strongly support any development which would **minimise waste**; WLP Policy 7 which supports the reuse of construction waste; WLP Policy 8, which states that the Council will have regard to the use of recycled materials in development and WLP Policy 9 which encourages the provision of recycling facilities at construction and demolition sites. WLP Policy 10 encourages proposals for source separation and storage facilities for residential, industrial and commercial developments. WLP Policy 11 states that the council will consider the provision of waste and recycling facilities in proposals for major development. WLP Policy 18 seeks to safeguard appropriate land for the reuse, recovery, recycling and transfer of waste. Policy 55 of the Hertfordshire Structure Plan directly supports the concept of sustainable resource management by encouraging development of facilities which will promote movement up the waste hierarchy. The Draft East of England Plan also includes policy ENV10 which encourages waste minimisation.

Likely evolution without the Waste Development Framework

A number of policies at both the local and regional level seek to promote sustainable use of resources including water and protection of agricultural land and mineral resources. As such, it is likely that sustainable use of natural resources would be promoted even without implementation of the WDF. Similarly, a variety of policies in the draft East of England Plan, the Structure Plan and the WLP promote waste minimisation and the movement up the waste hierarchy, and therefore this would also be promoted even without the WDF. However, development pressure will continue to lead to increases in water consumption, impacts on agricultural land, potential sterilization of minerals reserves and increases in waste arising which will require treatment and disposal.

SA objective 5: To maximise the potential economic benefits of waste management to a sustainable economy in Hertfordshire.

6.90. The following SA criteria are addressed under this objective.

- 5a. Utilise waste as an asset to provide a source of raw materials and some increase in employment levels.

- 5b. Foster joint working and partnerships within and between public and private sectors in Hertfordshire and the East of England region, with a view to better local investment in alternatives to landfill and developing markets for waste materials.
- 5c. Promote best practice in industry through local waste minimisation clubs and other business fora, and to encourage the extension of producer responsibility initiatives.
- 5d. Encourage the purchase and use of recycled products and green procurement by public authorities and businesses.

Waste as a raw material

- 6.91. There is currently no investment from UK based companies in Hertfordshire that are of significant financial importance. The most significant investment is by Onyx. The lack of inward investment is partly due to the affluence within Hertfordshire and the county is not an area of 'Assistance Funding' from the Government.
- 6.92. Employment levels provide a good indication of economic strength and social inclusion. There was a slight increase in long term unemployed from 2005 to 2006, to an overall County figure of 1.7%, which is below both regional and national figures.
- 6.93. 2005 was an exceptionally bad year for UK growth, with National Gross Value Added (GVA) rising by only 1.9%. Hertfordshire's GVA rose by only 1.3%, which is a significant deterioration on the 3.6% reported in 2004.
- 6.94. The mean household income for Hertfordshire in 2006 was £32,014. The Hertfordshire figure is the highest in the East of England, which no doubt reflects the fact that 25% of its workforce works in London.
- 6.95. Hertfordshire's close proximity to London, strong communications links, highly skilled workforce and good quality of life have attracted a wide range of employers to the economy.
- 6.96. Figures for employment within the waste management industry increased in 2002 for recycling, refuse disposal and the wholesale of waste and scrap. The figures for the recycling sector have increased annually from 2000-2002 and stand at 170. There is a noticeable increase in the employee sector for retail from second-hand goods in stores (i.e. charity shops, Furniture Link etc.) with a rise from 263 to 417 in 2002.
- 6.97. There is no available information for Hertfordshire, and an additional study may be required.

Joint working and partnerships within and between public and private sectors

- 6.98. The ten District and Borough Councils in partnership with the County Council signed up on 1 October 1998 to work together on formulating a joint municipal waste strategy for the new millennium. The Hertfordshire Waste Partnership also recently published its Municipal Waste Management Strategy.

- 6.99. The Hertfordshire Waste Partnership continued their commitment to the WasteAware campaign by agreeing a terms of reference for the WasteAware working group at the 5th July 2004 meeting.

Best practice waste management

- 6.100. Posters promoting recycling will eventually be displayed all in Hertfordshire's 19 household waste sites in a move to raise awareness of the waste problems facing the county and to encourage local people to do their bit.
- 6.101. District Councils have Economic Development Officers who provide a central point for information i.e. produce a Commercial Register of available sites, provide a link between businesses and encourage good practice.
- 6.102. The Waste Management Unit at the County Council does not know of any examples of best practice waste management.

Use of recycled products and green procurement

- 6.103. Businesses can use large quantities of materials and therefore produce lots of waste, whether it be through manufacturing or just because many people work in one office building. Some businesses can also have a lot of influence over others, for example when buying stock or employing contractors, so they have the opportunity to promote good practice.
- 6.104. The Hertfordshire Public Sector Pledge was established to encourage those public sector agencies that want to demonstrate their commitment to the environment to become signatories to the Hertfordshire Environmental Pledge. It includes a commitment to green procurement (the selection of products and services that minimise environmental impacts) in the carrying out of its statutory duties and asks each Public Sector signatory to the pledge to publicly report annually on its action and improvements.

Existing policy (Hertfordshire Waste Local Plan (WLP) 1995-2005, Hertfordshire Structure Plan 1991-2011, Draft East of England Plan) relevant to potential impacts of waste development on maximising the potential economic benefits of waste management

The key principles for waste management set out in the draft East of England Plan include **viewing waste as a resource**, but this is not reflected explicitly in the policies of the Structure Plan or WLP.

Likely evolution without the Waste Development Framework

There is very little mention of maximising the economic benefits of the waste management industry in any existing policy. However, as waste arisings continue to grow, opportunities for employment in the sector are also likely to increase, although this growth may be marginal.

SA objective 6: To contribute to the improved health and amenity of local communities in Hertfordshire.

6.105. The following SA criteria are addressed under this objective.

- 6a. Protect and enhance recreation opportunities for all, including access to the countryside.
- 6b. Protect the health and amenity of local residents/communities (e.g. from the impacts of noise, dust, odour, light and traffic).
- 6c. Achieve an equitable distribution of waste management facilities within Hertfordshire.
- 6d. Reduce the incidence of crime associated with waste (e.g. fly-tipping and illegal dumping of large volumes of waste).

Recreation

- 6.106. Leisure and recreation cover a wide range of activities, from informal activities, such as walking and cycling, to organised sports such as football and cricket. These activities can benefit the local economy and improve the health and well being of the population. Country parks, in particular, provide opportunities for a range of informal recreational pursuits and for nature conservation. Minerals and waste operations have potential to affect areas with recreation values through their operations, including the transport of waste, and enhancing recreation opportunities through restoration of waste sites.
- 6.107. Open space is valuable for sport and recreation, amenity, education, nature, conservation, townscape and therefore sense of well-being. The wide range of settlement in Hertfordshire contains a range of planned and unplanned urban space.
- 6.108. Hertfordshire has many walking routes including the 11 mile Ver Colne Valley walk which links St. Albans and Watford. The Alban Way and the Nicky Line are open to cyclists and walkers. The Ayot Greenway and Cole Green Way which follow disused railway tracks are open to walkers, horse riders and cyclists. Hertfordshire also has many golf courses, such as those at St. Albans, Welwyn Garden City and Stevenage. Stanborough Park at Welwyn Garden City incorporates a nature reserve and facilities for windsurfing, canoeing and angling.
- 6.109. Hertfordshire also has sports and recreation facilities with modern leisure complexes in most large towns. The county has two major football clubs at Watford and Stevenage and Saracens Rugby Club, also at Watford.
- 6.110. The proximity of waste management sites may lead to visual and amenity impacts on adjacent recreational uses e.g. golf courses/Rights of Way/ sports field unless they are well designed and operated. The existing Waste Local Plan contains many policies regarding siting and operation of facilities. There may also be opportunities associated with restoring sites to recreational use after waste management use.

Health and amenity

- 6.111. Waste operations can have a range of effects on local amenity. Operations (including transport) may produce dust which can be both a nuisance and a hazard, and may be associated with odour problems. Waste operations may also generate noise, be visually obtrusive, and affect landscape values and may impact on water quality. However, it is difficult to establish the extent to which existing minerals and waste operations and facilities are, or are not, impacting on local environmental quality.
- 6.112. The Waste Management Unit does receive complaints about facilities, but these are often not substantiated. Mitigation and enforcement via conditions on planning permissions require monitoring. Monitoring of facilities only commenced in 2004, and is quantitative measures of impacts, and is not a true indicator of resident/community dissatisfaction throughout the county.

Environmental justice

- 6.113. Hertfordshire has extremely limited landfill capacity and as a result exports the majority of waste for disposal to counties outside the region. As such, impacts are currently displaced to areas outside the county.
- 6.114. There are 19 Household Waste Recycling Centres throughout Hertfordshire. These are provided by Hertfordshire County Council to enable residents of Hertfordshire to recycle as much as possible of their waste.
- 6.115. Current or former quarries and other sites within Hertfordshire currently process recycled aggregates.

Crime

- 6.116. Fly tipping is when people dump waste illegally. As well as creating an eyesore, it often harms the environment in other ways too.
- 6.117. Starting in April 2004, Fly capture is the new web-based database for England and Wales which will help local authorities and the Environment Agency tackle fly tipping. It is one of a number of fly-tip busting measures that are being introduced to meet the requirements of the Anti-Social Behaviour Act 2003.
- 6.118. Fly capture is managed by the Environment Agency on behalf of the Department for the Environment Food and Rural Affairs (Defra), and not only provides much more than just a database – it is a strategic tool that will help authorities to improve intelligence on fly-tipping and focus resources on fly-tip hot spots. All contributors to Fly capture will be able to access standard reports and compare figures at local, regional and national level.
- 6.119. During 2002, fly tipping accounted for 14% of all serious pollution incidents dealt with by the Environment Agency, which lead to 207 successful prosecutions (under section 33 of the Environment Protection Act). These resulted in ten conditional discharges, average fines of just over £2,000 (total fines £423,674) and seven community service orders.

- 6.120. The most common types of fly-tipped waste include tyres, waste from building and demolition work and households and gardens. Illegal dumping of hazardous wastes such as oil, asbestos sheeting or drummed chemicals also happens. It is a criminal offence and can incur fines of up to £20,000 in Magistrates' Courts, unlimited fines in higher courts, a community service order or even a prison sentence.

Existing policy (Hertfordshire Waste Local Plan (WLP) 1995-2005, Hertfordshire Structure Plan 1991-2011, Draft East of England Plan) relevant to potential impacts of waste development on contributing to the improved health and amenity of communities in Hertfordshire

Policy WLP 39 states that impacts on **recreation and rights of way** will be taken into account when considering waste management proposals. The Structure Plan includes a number of policies on protecting recreational amenity, including Policy 46 which protects open space in towns and Policy 47 which protects recreational facilities. Policy C5 of the draft East of England Plan specifically aims to ensure access to recreational sites and facilities.

Policy 40 of the WLP states that development will not be allowed unless it can be shown that no significant **noise intrusion** will take place, and WLP Policy 43 aims to minimise the **effects of traffic** on local communities by only permitting waste development which would transport waste by rail, water or primary roads, and requiring traffic impacts studies. The Structure Plan addresses the problem of nuisances to health and amenity by stating that development which would be likely to be sensitive to noise, light and other types of pollution will be resisted where such conditions exist or are likely to exist in the future.

Likely evolution without the Waste Development Framework

Existing policies generally aim to protect recreation and residential amenity, particularly from the impacts of traffic. Continued growth in waste arisings could lead to impacts on recreation and amenity. These would most likely be associated with waste transport if existing trends for export of waste outside the county continue. However, the risk of impacts on the health and amenity of communities in receiving authorities are also likely to increase.

As none of the existing policies address the issue of the equitable distribution of waste facilities, waste management facilities could be distributed unevenly across the county in the future, leading to inequitable cumulative impacts on some local communities.

Crime associated with waste is not mentioned in existing policies. However, this is likely to be addressed through other policy mechanisms, such as the Municipal Waste Management Strategy, as well as environmental protection regulations and Environment Agency policies.

SA objective 7: To maximise community participation and access to services and facilities in Hertfordshire.

- 6.121. The following SA criteria are addressed under this objective.

- 7a. Involve all sections of the community in waste planning decision making and local action, by promoting waste awareness education programmes in schools and the community, and to ensure the public understand the importance of the waste management industry.

- 7b. Promote easily accessible recycling systems for all members of the community, and to ensure clear and understandable signage and language is used.

Community participation

- 6.122. The residents of Hertfordshire were consulted in the formulation of the Joint Municipal Waste Management Strategy in 2002 and 2007. Some groups and individuals attend/receive papers for the six monthly meetings of the Hertfordshire Waste Partnership. Some district councils have consulted their residents in the formulation and roll out of their kerbside collection schemes.
- 6.123. The County Council's Waste Management Unit invites feedback and suggestions via the WasteAware website. Doorstepping campaigns raise the profile of waste through media activities in addition to the face to face conversations taking place with residents.
- 6.124. The County Council's Waste Management Unit considers that a greater understanding of the waste issues facing Hertfordshire is likely to encourage residents to reduce, reuse and recycle the amount of waste they produce. This will enable Hertfordshire to meet the targets set by Government and will avoid the fines which might result if targets are not met.
- 6.125. Challenge Waste! is an education programme being developed by Groundwork Hertfordshire in partnership with the Hertfordshire Waste Aware partnership, Welwyn Hatfield District Council and SQ Environmental Trust. The Bureau for Environmental Education and Training has been commissioned to prepare two education packs.
- 6.126. The Hertfordshire Waste Aware campaign (www.wasteaware.org.uk), made further progress in raising awareness of the significant waste management issues that must be faced in Hertfordshire, through the promotion of the principles of the waste hierarchy, reduce, reuse, recycle and recover.

Accessibility

- 6.127. In 2005/06, the waste produced in Hertfordshire totalled approximately 2 million tonnes; approximately a quarter of this was household waste. While this was 2.3% more than the previous year, the rate of increase was slower than the 2.8% the previous year. In 2005/06, 33.2% of household waste produced was recycled, and the total amount recycled grew to 178,000 tonnes. This is 3.2% above the County's statutory target.
- 6.128. The County Council's Home Composting Sponsorship Scheme has encouraged many residents to purchase composting units at a reduced cost, with the result that 75,000 of Hertfordshire's 427,000 households have purchased units.
- 6.129. Around 180,000 extra homes across Hertfordshire benefit from new or expanded kerbside schemes, which collect organic waste and dry recyclables such as glass.

- 6.130. The County Council provides the 19 Household Waste Recycling Centres which are located in the main towns of Hertfordshire. Bring Bank facilities are organised by the District Councils and vary throughout Hertfordshire. In 2005/6 the County Council recycled 49% of the waste received at its 19 Household Waste Sites, including material that is collected from bring banks.

Existing policy (Hertfordshire Waste Local Plan (WLP) 1995-2005, Hertfordshire Structure Plan 1991-2011, Draft East of England Plan) relevant to potential impacts of waste development on maximising community participation and access to services and facilities in Hertfordshire

One of the aims of the WLP is to 'engage the community in the waste debate'. Waste Policy 13 advocates the use of the proximity principle, which should include accessible facilities for the public. One of the Structure Plan's 'aims for sustainability' is to increase community involvement though there are no specific policies for achieving this in the Structure Plan. Box 2.9 of the Draft East of England Plan outlines the 'key principles for waste management' in the region. These include 'enlisting community support and participation'. However, there are not policies promoting this within the regional plan.

Likely evolution without the Waste Development Framework

The existing plans recognise the importance of community engagement in sustainable waste management and sustainable development generally. However, none of the existing policies include specific reference to community engagement or the provision of accessible local facilities. Baseline evidence suggests that progress is being made in terms of the provision of accessible facilities and raising awareness about waste issues in the community. This is likely to be the result of wider waste promotional activity, particularly associated with Hertfordshire's WasteAware programme, rather than being due to policies within existing spatial plans.

KEY SUSTAINABILITY ISSUES FOR HERTFORDSHIRE'S DEVELOPMENT PLAN DOCUMENTS

- 6.131. Collation of existing environmental and sustainability data has helped to identify the sustainability issues that are facing Hertfordshire and therefore helps to establish the sustainability context for the appraisal of the Waste Development Policies DPD. The key sustainability issues in Hertfordshire are summarised in **Table 6.1** below, along with implications for the Waste Development Framework.

Table 6.1 Key sustainability issues for waste management in Hertfordshire

| Sustainability Issue | Implications for the WDF |
|--|--|
| Hertfordshire has a rich variety of character, both urban and rural, providing a high quality environment for those who live and work in the County | The WDF must ensure that adequate protection is afforded to Hertfordshire's high quality environment, and protection and enhancement encouraged where possible. New waste management facilities must be carefully located and employ best practice measures to avoid adverse impacts (e.g. impacts on air quality). Best practice measures must equally be employed in waste transport if impacts are to be avoided or at least minimised. |
| Apart from existing development pressures experienced by Hertfordshire, due primarily to its proximity to London, development in Hertfordshire will be influenced by the Government's Sustainable Communities Plan ²⁸ (2003). The plan seeks to accommodate 2000, 000 homes in the period up to 2021, in four growth areas. One of these (the London-Standstead-Cambridge growth area) includes the Hertfordshire districts & boroughs of Broxbourne, East Hertfordshire, North Hertfordshire and East Hertfordshire. | Housing and employment growth is likely to lead to increases in waste arisings. The WDF will need to incorporate measures to minimise waste generation to minimise growth in demand for waste transport, treatment and disposal. |
| Globally, climate change is the most significant threat and opportunity facing us all. The Living with Climate Change in the East of England Study ²⁹ notes that the two 'climate change regions' which Herts straddles (the Northern & Southern Heartland) are distinguished by the predicted impacts on water resources as a result of climate change. The Southern Heartland will be under | Responsible waste management, particularly in relation to landfill gas emissions and transportation, can make an important contribution to a strategy addressing the adverse effects of climate change. The WDF should seek to minimise greenhouse gas emissions and promote improvements in energy efficiency through: <ul style="list-style-type: none"> • Implementing the waste hierarchy and therefore reducing the amount of waste |

²⁸ *Sustainable Communities: Building for the Future*. ODPM, February 2003.

²⁹ *Living with climate change in the East of England*. Summary Report, 2002.

| | |
|---|--|
| <p>immense pressure for water resources as a result of development pressures and climate change.</p> | <p>going to landfill.</p> <ul style="list-style-type: none"> • Include measures to improve the self-sufficiency of the county in terms of waste management. • Encouraging the use of alternatives to the transportation of waste by road. • Implementing the proximity principle and therefore the distance waste has to be transported from source to management facility. • Encouraging community participation in the waste management process to raise awareness of the impacts of waste management on climate change. • Encouraging use of low carbon renewable energy sources and technologies. |
| <p>There is a high demand for housing in Hertfordshire, which will have a direct impact on waste management. More housing will inevitably mean more waste unless decisive action is taken to move waste management up the waste hierarchy.</p> | <p>The WDF must ensure that waste is dealt with further up the waste hierarchy to minimise the amount of waste requiring management.</p> |
| <p>There is insufficient landfill capacity to meet the current and future municipal and solid waste disposal needs of the county. There is a need to develop alternative forms of waste management and increase levels of waste recovery.</p> | <p>The WDF should include measures to encourage the development of alternatives to landfill and implement the waste hierarchy to reduce the amount of waste requiring processing.</p> |
| <p>Implementing a waste strategy which will help to meet Government targets will inevitably put pressure on land resources in the County. Land is at a premium in Hertfordshire. Much of it is too environmentally important to be developed, and the land that may be available will be the subject of competing claims for other uses.</p> | <p>The WDF should encourage movement of waste up the waste hierarchy as well as promoting best practice in siting and use of technologies to minimise the impacts of waste facilities and transport. The WDF should also encourage the use of Previously Developed Land (PDL) before greenfield land where this meets other sustainability criteria (such as light, air & noise pollution or visual intrusion for residents, and the disturbance of biodiversity on PDL).</p> |

7. APPRAISAL OF THE WASTE DEVELOPMENT POLICIES DPD

- 7.1. The Hertfordshire Waste Development Framework Development Policies DPD (Preferred Options) was appraised against the seven SA Headline Objectives and 25 'Decision-making Criteria' in the SA Framework as set out in **Chapter 5**. The full appraisal matrices of the Waste Development Policies can be found in **Appendix 4**. This Chapter sets out the main findings of the sustainability appraisal.

APPRAISAL OF THE PROPOSED WASTE DEVELOPMENT POLICIES

- 7.2. The proposed policies contained within the Waste Development Policies DPD (labelled "WDP" Policies I and Ia to 6) were appraised against the SA objectives to determine the likely significant effects of implementing these policies. A summary of the findings of this appraisal is set out below, described in terms of assessment against two baseline scenarios, these are:
- i) *The likely significant effects of the policies contained within the Waste Development Policies DPD relative to the current state of the environment* - This commentary covers the significant changes which may occur in Hertfordshire's social, economic and natural environment, and in some cases more globally, as a result of implementation of the proposed Waste Development Policies, relative to the state of that environment today.
 - ii) *The likely significant effects of the policies contained within the Waste Development Policies DPD relative to the likely evolution of Hertfordshire without implementation of the Core Strategy Policies* - This commentary is designed to highlight that without implementation of the policies contained within the Waste Development Policies DPD, Hertfordshire's environment will continue to change. This commentary highlights in what ways implementation of the proposed Waste Development Policies will lead to different outcomes for the County in the future..
- 7.3. Finally a comment on whether or not the County is likely to achieve the SA Headline Objectives through implementation of the Waste Development Policies DPD is provided. Any recommendations considered necessary for improving the ability of the Waste Development Policies DPD to achieve the SA objectives have been made at the end of this chapter.
- 7.4. Describing the significant effects of the policies contained within the Waste Development Policies DPD against baseline scenario (ii) is a particularly challenging task. The future of the County will be influenced by a range of factors including trends, market forces and the degree to which various existing plans and programmes are effectively implemented. Assumptions must be made when establishing this baseline. For example, it may be assumed that existing trends, such as declines in biodiversity, will continue despite policies designed to prevent them (normally due to development pressure). However, it is difficult to establish with certainty what this future scenario would be. Despite these challenges, analysis

against this second baseline enables us to put the likely significant effects of the Waste Development Policies DPD in context. It recognises that there are likely to be significant effects, both positive and negative, whether or not the policies contained within the Waste Development Policies DPD are implemented.

- 7.5. The full appraisal of the proposed Waste Development Policies can be found in Appendix 4. For the reasons given above, the baseline used in undertaking the appraisal documented in this appendix is the current state of the environment.

Assumptions and factors taken into account during the SA

- 7.6. Sustainability Appraisal inevitably relies on an element of subjective judgement. In each case, in predicting and assessing the sustainability effects of the proposed Waste Development Policies DPD we have drawn on our analysis of the baseline situation (i.e. the current state of the environment), the characteristics of Hertfordshire and the sustainability issues faced in the County (see **Chapter 6**), the findings from the Scoping Report, plus professional experience. Explanation and justifications for our assessment have been provided in the matrices set out in **Appendix 4**.
- 7.7. The SA has assumed when predicting potential effects, that the proposed Waste Development Policies will be implemented and followed by developers during the design and submission of proposals for planning permission; by officers in the Councils during decision making on planning proposals; and during subsequent development of waste management facilities. However, the SA team recognises that there is a risk of the proposed Waste Development Policies not being successfully implemented with every development.
- 7.8. Annex II of the SEA Directive sets out criteria for determining the likely significance of effects. These criteria relate to:
- The characteristics of the plan or programme.
 - The characteristics of the effects and of the area likely to be affected.
- 7.9. In determining the significance of the effects of the proposed Waste Development Policies, it is important to bear in mind its relationship with the other documents that together comprise the development plan for waste planning in Hertfordshire. These include the East of England Plan (currently in draft form) and the other Local Development Documents, such as the Site Allocation Policies and Proposals DPD and the Waste Core Strategy DPD. In addition, it will also be important to take into account national planning policy (i.e. PPSs and PPGs) as listed in **Chapter 4**.
- 7.10. Despite this, the likely effects of the proposed Waste Development Policies need to be determined in order that their significance can be assessed. This inevitably requires a series of judgements to be made. Taking into account these uncertainties, our appraisal has attempted to differentiate between significant effects and other more minor effects through the use of symbols. The dividing line in making such a decision is often quite small. Where we have used either ++ or -- to distinguish significant effects from more minor effects (+ or -), this is because, in our judgement, the effect of proposed Waste Development Policies in relation to the SA objective will be of such magnitude that it will have a noticeable and measurable effect

compared with other factors that may influence the achievement of that objective. This judgement has been made taking into account the sustainability issues and characteristics of the Hertfordshire area.

SA Objective 1: To protect and enhance the quality of the natural and historic environment

Likely significant effects relative to the current state of the environment

- 7.11. Overall, the proposed policies contained within the Waste Development Policies DPD would adequately protect and enhance the quality of the natural and historic environment. This would primarily be achieved through restricting certain polluting and disturbing activities and requiring assessment of impacts and appropriate mitigation measures within waste development proposals (WDP 2 and WDP 3). The policies would also help to control the adverse environmental effects of additional traffic and transport that would be associated with new waste management facilities development (WDP 1 and WDP 1a). Landfill and landraise are promoted as a final option for waste management (WDP 4) and the design of waste management facilities is required to be in keeping with the surrounding setting (WDP 5). The Council has powers of enforcement to remedy breaches of planning control where appropriate ensuring further protection of the environment (WDP 6).
- 7.12. The natural and historic environment as outlined in SA objective 1 includes biodiversity, air, ground and surface water and soil quality, landscapes and cultural heritage, dark skies and woodlands, trees, hedgerows and grasslands. The policies contained within the Waste Development Policies DPD could have both significant positive and negative effects on these assets as follows:
- Biodiversity: WDP 3 states that waste management development will only be permitted where it avoids, minimises or compensates for impacts on biodiversity and could therefore have a significant positive effect on protecting biodiversity.
 - Air, ground and surface water and soil quality: WDP 2 states that waste management development will only be permitted where it avoids, minimises or compensates for impact relating to the water environment and air quality. This would have a significant positive effect on protecting air and ground and water surface quality. In addition, WDP 3 states that waste management development will only be permitted where it avoids, minimises or compensates for impacts relating to air and water pollution, drainage and flooding. Landfill and landraise have the potential for leachate to contaminate groundwater. WDP 4 should help to reduce the potential for groundwater contamination by requiring pre-treatment of waste to reduce its biodegradable content. Therefore, these policies should have a significant positive effect on the SA objective. However, WDP 2 and WDP 3 contain no direct reference to protecting soil quality and geology which means the policies could also have a significant negative effect on the soil and geology aspects of the SA objective.
 - Landscapes and cultural heritage: WDP 1 and WDP 1a aim to control the impacts of increased traffic associated with waste management facility development including impacts on the 'local environment'. Although the 'local environment'

could include landscapes and cultural heritage, the policies do not contain any specific definition of the local environment. Without specific inclusion of landscapes and cultural heritage, the policies could have a significant negative effect on protecting Hertfordshire's landscape and cultural heritage from adverse effects of waste related traffic. However, WDP 2 states that proposals for waste management facilities will only be permitted where they avoid, minimise or compensate for impacts relating to the historic environment and archaeology and landscape. This should ensure that these assets are adequately protected and therefore WDP 2 could have a significant positive effect on landscape and cultural heritage.

- Protection of dark skies from light pollution: WDP 1a could adequately control light pollution on rural roads by ensuring the protection of the 'local environment'. This would ensure that light pollution from waste related traffic in rural areas is reduced and could have a significant positive effect on protecting dark skies. In addition, WDP 3 maintains that development must avoid, minimise or mitigate impacts relating to light proximity, which would have a significant positive effect on protecting dark skies from light pollution. However, in relation to the environmental effects of the facilities, WDP 2, does not contain any reference to controlling light pollution. This would have a significant negative effect. Additionally, if the 'local environment' does not include dark skies, WDP 1a could have a significant negative effect on the SA objective.
- Protection of woodlands, trees, hedgerows and grasslands: WDP 1a requires that developers must contribute to improvements in local roads including contributing to landscaping. This could help to create habitat, recreate habitat and link habitats and have a significant positive effect. Additionally WDP 2 states that proposals for waste management facilities will only be permitted where they avoid, minimise or compensate for impacts relating to the protection of woodland trees and hedges. WDP 3 states that proposals for waste management facilities will only be permitted where they avoid, minimise or compensate for impacts relating to nature conservation and biodiversity. It also requires that canopy spread of trees is not encroached upon and encourages the enhancement of existing woodland, trees and hedges through improved management plans. This could have a significant positive effect on the SA objective.

Likely significant effects relative to the likely evolution without the Waste Development Policies DPD

- 7.13. As outlined above there are a number of potential adverse effects associated with waste management facility development. However, without the implementation of the Waste Development Policies DPD, the effects would be greater. Whilst, it is recognised that there are existing policies within the Hertfordshire Waste Local Plan which set out to protect and enhance the quality of the natural and historic environment, these policies need updating to reflect new development pressures. Without the Waste Development Policies DPD, there could be more development of landfill and landraise sites which do not maximise pre-treatment of waste, unacceptable increased traffic which would impact on the road network and unacceptable environmental impacts.

Is SA Objective 1 likely to be achieved?

- 7.14. Waste management facilities, particularly landfill and landraise sites, could have significant impacts on the quality of the natural and built environment. However, in general, the Development Policies should ensure that these developments are undertaken in a sustainable manner and ensure that landraise and landfill are a last option only for residual waste (after pre-treatment). The policies may not achieve adequate protection of soil and geology from new development, dark skies from light pollution and the landscape from visual impacts of increased traffic. Recommendations for improving the policies in relation to this SA objective are listed at the end of this chapter.

SA Objective 2: To achieve and promote sustainable land use, construction, design and transport in Hertfordshire

Likely significant effects relative to the current state of the environment

- 7.15. Many of the policies contained within the Waste Development Policies DPD do not relate to sustainable land use, construction, design and transport in Hertfordshire. They would therefore have no impact on the SA objective. However, of the policies that are relevant, none would yield either significant positive or negative effects. The introductory text to WDP 5 states that sustainable construction methods will play a key role in the overall waste management facility proposal. Although not directly contained within the policy, this should help to promote sustainable construction practices. Efficient use of land is addressed in the Core Strategy and Site Allocations DPDs. Criteria for sustainable construction practices are primarily contained within Waste Core Strategy Policy 6 – although these mostly seek to minimise waste and make use of recycled and secondary materials and do not address wider resource efficiency.

Likely significant effects relative to the likely evolution without the Waste Development Policies DPD

- 7.16. Without the implementation of the Waste Development Policies DPD, it is unlikely that the situation would be significantly different. This is because many of the policies within the Waste Development Policies DPD are not related to the SA objective and are unlikely to result in significant negative or positive effects. Positive effects on sustainable land use, construction, design and transport should already be addressed by other statutory requirements (e.g. Design and Access Statements), by implementation of the Hertfordshire Waste Core Strategy (Policy 6), and by guidance for developers on how to make development in Hertfordshire as sustainable as possible ('Building Futures: A Hertfordshire guide to promoting sustainability in development'³⁰, is a web-based document currently being prepared by all ten District Councils in the County, with Hertfordshire County Council).

Is SA Objective 2 likely to be achieved?

- 7.17. As outlined above, many of the policies within the Waste Development Policies DPD are not related to the SA objective and none yield significant negative or positive

³⁰ The waste module can be viewed on the website www.hertslink.org/buildingfutures.

effects therefore it is unlikely that the policy will be achieved or failed due to this DPD. However, issues of sustainable land use, construction, design are adequately addressed within other DPDs in the WDF such as the Waste Core Strategy and the requirements and guidance described above.

SA Objective 3: To reduce contributions to climate change

Likely significant effects relative to the current state of the environment

- 7.18. In general, policies contained within the Waste Development Policies DPD would have a minor positive effect on climate change. This is achieved through limiting traffic on rural roads, limiting air pollution, utilising landfill gas and controlling detrimental effects that contribute to the causes of climate change. The Council also has the power to remedy any breaches of planning control and planning conditions which would help to ensure that development is progressing in a sustainable manner. However, the policies do not seek to control or reduce the amount of traffic associated with waste management facilities development and do not promote alternative, less polluting means for transporting waste. This could have a significant negative effect on climate change. However, it is recognised that there is a limit to what the Development Policies can do to address climate change, and policies in the Core Strategy DPD already promote sustainable transport (WCS Policy 7) and WCS Policy 6 promotes the reuse and recycling of demolition and construction material have the potential to minimise these increases in emissions by reducing demand for transportation of waste by road freight.

Likely significant effects relative to the likely evolution without the Waste Development Policies DPD

- 7.19. Although the implementation of the policies contained within the Waste Development Policies DPD could lead to a significant negative effect on climate change through the increase in waste transportation, it is likely that these effects would continue to occur without the DPD as well.

Is SA Objective 3 likely to be achieved?

- 7.20. Although the Waste Development Policies DPD does not adequately reduce the amount of waste related traffic, overall, the policies contained within the Waste Development Policies DPD should help to minimise contributions to climate change.

SA Objective 4: To provide for sustainable resource management

Likely significant effects relative to the current state of the environment

- 7.21. Many of the policies contained within the Waste Development Policies DPD do not relate to this SA objective and, therefore, would have no effect. However, WDP 2 states that proposals for waste management facilities must not result in permanent loss of the best and most versatile agricultural land unless there is an overriding need to do so. Agricultural land is a valued resource within the economic and environmental sectors and therefore its protection is very important. The policy would therefore have a significant positive effect on the SA objective. The supporting text to WDP 3 seeks to ensure that negative impacts on air, water, soil etc. are

minimised, however, soil is not referred to within the policy, and thus it could have a significant negative effect on this component of the SA objective.

- 7.22. In relation to landfill and landraise, WDP 4 states that details of pre-treatment or sorting of waste either on site or off site to reduce its biodegradable content must be provided. This would have a significant positive effect on the SA objective by ensuring that materials are recycled where possible, reducing the demand for additional resources and reducing the adverse effects of landfill and landraise on natural resources. As well as these significant effects, the policies contained within the Waste Development Policies DPD could have minor positive effects on the efficient use of groundwater through ensuring that developments do not have a negative quantitative impact on the water environment. However, treatment of waste as promoted by WDP 4 could also lead to increased demand for the use of water and have a negative effect on the SA objective.

Likely significant effects relative to the likely evolution without the Waste Development Policies DPD

- 7.23. Due to existing policies at the local and regional level it is likely that sustainable use of natural resources would be promoted even without implementation of the Waste Development Policies DPD. However, development pressure will continue to lead to increases in water consumption, impacts on agricultural land, potential sterilisation of minerals reserves and increases in waste arising which will require treatment and disposal.

Is SA Objective 4 likely to be achieved?

- 7.24. It is possible for some of the policies contained within the Waste Development Policies DPD to provide for sustainable management for some resources – particularly agricultural land and minimising production of by-products. However, many of the policies are not related to the SA objective and therefore would have no effect on this SA objective.

SA Objective 5: To maximise the potential economic benefits of waste management to a sustainable economy in Hertfordshire

Likely significant effects relative to the current state of the environment

- 7.25. The majority of the policies contained within the Waste Development Policies DPD do not relate to this SA objective and therefore would not have any impact. In addition, of the policies that indirectly relate to the SA objective (WDP 1 and WDP 4), neither would have significant positive or negative effects on the SA objective. Issues relating to this SA objective are addressed within the Waste Core Strategy DPD.

Likely significant effects relative to the likely evolution without the Waste Development Policies DPD

- 7.26. Given that most of the policies contained within the Waste Development Policies DPD do not relate to this SA objective and would have no impact, it is likely that

there would be no significant effects if the Waste Development Policies DPD was not implemented.

Is SA Objective 5 likely to be achieved?

- 7.27. The majority of the policies contained within the Waste Development Policies DPD do not relate to this SA objective. In addition, there are no significant negative or positive effects of the policies. Therefore, the SA objective would not be achieved because it is not relevant to the Waste Develop Policies DPD. However, implementation of the Waste Core Strategy would help to achieve this SA objective.

SA Objective 6: To contribute to the improved health and amenity of local communities in Hertfordshire

Likely significant effects relative to the current state of the environment

- 7.28. Overall, the policies contained within the Waste Development Policies DPD will have a mixture of positive and negative effects on the SA objective. In particular, WDP 2 states that proposals for waste management must demonstrate that they will avoid, minimise and compensate for impacts on human health. The policy therefore could have a significant positive effect on improving the health and amenity of local communities in Hertfordshire with respect to waste development.
- 7.29. WDP 3 requires buffer zones to be placed around dwellings to ensure waste development proposals are sufficiently distant from sensitive land-uses in order to help reduce their potential effects. The buffer zone should help to protect the health and amenity of residents and communities. Applications for hazardous waste facilities are also required by WDP 3 to address security and additional risk to human health. In addition, WDP 3 states that proposals for waste management facilities must demonstrate that they do not adversely effect Public Rights of Way and must enhance Public Rights of Way and public access. Recreation and access to the countryside is very important for contributing to the improved health of local communities and the policy therefore could have a significant positive effect on improving the health and amenity of local communities in Hertfordshire.
- 7.30. However, crime associated with waste e.g. fly tipping and illegal dumping could undermine the health and amenity of local communities. WDP 2, which aims to control environmental effects and WDP 3, which aims to manage the operation of waste facilities have no provision for the control of waste related crime. This would therefore have a significant negative effect on the SA objective. It is recognised however, that there is a limit to how much any of the DPDs within the Waste Development Framework can help to prevent waste related crime, as this will be influenced more by factors outside the remit of the planning system (e.g. landfill charges, household waste collection and recycling systems etc.).

Likely significant effects relative to the likely evolution without the Waste Development Policies DPD

- 7.31. Existing trends of exporting waste outside the County would be likely to occur without the implementation of the Waste Development Policies DPD and the Waste Core Strategy DPD, thus, there may actually be less impacts on health and amenity

within Hertfordshire itself. However, Hertfordshire County is required under national policy and legislation to manage more of its waste within the County, therefore, impacts of new waste development could be worse without the implementation of the Waste Development Policies DPD as it aims to reduce the effects of waste facilities on human health and amenity.

Is SA Objective 6 likely to be achieved?

- 7.32. The Waste Development Policies themselves will not directly improve local health and amenity. However, by ensuring that waste management facilities are developed in a manner which takes into account buffer zones around sensitive areas and dwellings and ensuring that proposals will avoid, minimise and compensate for impacts on human health and protect Public Rights of Way it is likely that the Waste Development Policies DPD would help to achieve the SA objective. There could still be some impacts associated with waste related crime which could adversely affect the health and amenity of local residents and communities. However, these are likely to be addressed through other mechanisms outside the WDF (e.g. the Municipal Waste Management Strategies and environmental protection regulations enforced by the Environment Agency).

SA Objective 7: To maximise community participation and access to services and facilities in Hertfordshire

Likely significant effects relative to the current state of the environment

- 7.33. All of the policies contained within the Waste Development Policies DPD do not relate to this SA objective and therefore would have no impact.

Likely significant effects relative to the likely evolution without the Waste Development Policies DPD

- 7.34. Given that none of the policies contained within the Waste Development Policies DPD relate to this SA objective current trends of progress in terms of provision of accessible facilities and raising awareness about waste issues in the community are likely to continue because the progress likely to be the result of wider waste promotional activity, particularly associated with Hertfordshire's WasteAware programme, rather than being due to policies within existing spatial plans.

Is SA Objective 7 likely to be achieved?

- 7.35. The SA objective would not be achieved through the Waste Development Policies DPD because the policies are not relevant to the SA objective. However, there are other policies within the WDF that relate to the SA objective and address the issues of community participation and access to services. Core Strategy Policy 1, which seeks to move waste management up the waste hierarchy (WCS Policy 1) will indirectly require community awareness raising, participation and improved access to recycling and reuse facilities if waste management targets are to be achieved and viable reuse and recycling facilities are to be delivered. WCS Policy 2 states specifically that priority will be given to proposals that include community involvement.

RECOMMENDATIONS TO MAXIMISE BENEFITS AND MINIMISE ADVERSE EFFECTS

7.36. The SA matrices presented in **Appendix 4** identify some recommendations that may help to improve the compatibility of the policies contained within the Waste Development Policies DPD and the SA Headline Objectives and criteria. These recommendations are presented below. In addition, the SA team noted a lot of overlap between the environmental protection criteria contained in WDP 2 and WDP 3. Suggested revisions to both policies to improve the clarity of requirements and address the sustainability recommendations made below are set out in the grey boxes at the end of this chapter.

WDP 1: Traffic and Transport

7.37. It is recommended that:

- The word 'or' be replaced with 'and' at the end of the first sentence to clarify meaning and interpretation of the policy as follows 'traffic impacts likely to be generated would not have an unacceptable impact upon highway safety, the effective operation of the road network, residential amenity and the local environment.'
- In the supporting text for the policy, 'highway improvements' and 'traffic management' are explained.
- 'Local environment' is defined in the supporting text and should refer to Hertfordshire's Biodiversity Action Plan species and habitats, air, ground and surface water, geology, soil quality, landscapes of natural beauty, countryside, historic built heritage, greenspaces, woodlands, trees, hedgerows and grassland.
- The supporting text includes requirement for the transport appraisal to include a feasibility statement for the use of alternative transportation modes other than road freight.
- The supporting text includes criteria that where possible, any infrastructure developments (i.e. road upgrades) will use sustainable construction practices.
- 'Unacceptable impact' is defined in the supporting text.

WDP 1a: Rural Roads

7.38. It is recommended that:

- As with WDP 1, 'local environment' is defined in the supporting text and should refer to Hertfordshire's Biodiversity Action Plan species and habitats, air, ground and surface water, geology, soil quality, landscapes of natural beauty, countryside, historic built heritage, greenspaces, woodlands, trees, hedgerows and grassland.
- The conditions accompanying the planning permission requiring certain works to be carried out include requirements to use sustainable construction practices.

WDP 2: Environmental Effects, protection and Mitigation

7.39. It is recommended that:

- Hertfordshire's Biodiversity Action Plan species and habitats should be included in the list of important environmental assets within the supporting text to this policy.

WDP 3: Operational matters

7.40. It is recommended that:

- Protection of soil quality should be included in either the policy or supporting text.

WDP 4: Landfill and Landraise

7.41. It is recommended that:

- The policy ensures that restoration work returns the site to a state that is of equal or greater environmental value than the previous land use.

WDP 5: Facility Requirements

7.42. It is recommended that:

- The policy specifically refers to sustainable design and construction methods in order to cover other issues rather than just efficient water and energy use.
- The policy includes provisions for the inclusion of good and innovative design.

WDP 6: Enforcement

7.43. No SA recommendations considered necessary.

RECOMMENDATIONS FOR SPECIFIC REVISIONS TO WDP 2 AND WDP 3

Policy 2 – Environmental Effects, Protection & Mitigation

- 7.44. Specific revisions to the supporting text and policy text are shown below as ~~strikethrough~~ for deletions and underlined for additions to the text.

Suggested revisions to introductory text for WDP 2:

- 4.16 The purpose of the Waste Development Plan is to balance the need for Waste Management facilities with the potential impacts those facilities may have on the environment. The following policies will be used in determining planning applications to assess possible environmental effects on the environmental receptors listed. Hertfordshire's important environmental assets are defined in the supporting text below Policy 2.
- 4.17 The proposed policy intention stated below has built upon the Current Waste Plan approach which included a number of policies that balanced the need for waste management facilities with environmental protection.

Suggested revisions to policy text for WDP 2:

Proposed Policy to Deliver Preferred Option

WDP2 - Environmental Effects, Protection & Mitigation

Proposals for Waste Management development will be permitted where it can be demonstrated that the proposal avoids, minimises or adequately compensates for impacts relating to the following:

- **Agricultural Land**
- ~~Historic Heritage & Archaeology~~
- ~~Nature Conservation & Biodiversity~~
- ~~Impact on Landscape, Townscape & Local Amenity~~
- ~~Sites with Local, National and International Designations~~
- Hertfordshire's Important Environmental Assets
- ~~Impact on Water Environment, Soil & Air Quality~~
- ~~Risk of Flooding~~
- ~~Protection of Woodland, Trees & Hedges~~
- ~~Impact on Human Health~~
- **Any Other Site or Facility Specific Environmental Issues**

Proposals for waste management development will be accompanied, where necessary, by assessments of the impacts on the issues above. Specifically proposals will:

- I. Not result in the permanent loss in quality or extent of the best and most versatile agricultural land unless there is an overriding need for the development, and either sufficient land in lower grades is unavailable, or available lower grade land has an environmental value which outweighs the agricultural considerations;
- II. Include proposed ~~als~~ measures for mitigation, where appropriate, that will provide for the maintenance and enhancement of ~~critical capital or other~~ Hertfordshire's important environmental assets. Such proposals will also be required where temporary loss of an asset would occur;
- III. Include measures to minimise visual intrusion and any adverse impact on the local landscape and countryside;
- IV. Not have a negative quantitative and/or qualitative impact on the soil or water environment, including main rivers, ordinary water courses and groundwater resources, unless appropriate measures can be imposed to mitigate harmful effects;
- V. Demonstrate that no significant degradation of air (particularly from dust and emissions) shall occur;
- VI. Not increase the risk of flooding or have a material negative impact on the storage or flow capacity of the floodplain, ~~unless the risk or impact can be obviated~~³¹;
- VII. Not result in the net reduction in either the quantity or quality of woodland, trees or hedges, whether directly or indirectly. ~~Where quantity or quality is lost, redress in at least equivalent measures will be sought, with species to be agreed with the waste planning authority, so as to recreate a suitable landscape and habitat. At appropriate locations the County Council will seek to double the quantity of trees lost due to the development~~
- VIII. Demonstrate that no significant noise or light intrusion will arise from the development, and include measures to minimise adverse impact on human health and amenity.

³¹ It is unclear what this means and how it would be achieved.

Suggested revisions to supporting text for WDP 2:

4.21 Hertfordshire has a diversity of environmental assets, which are set out in more detail in Appendix C. It has a rich variety of character – both rural and urban – providing a high quality environment for those who live and work in the county. It also has a rich cultural heritage, with numerous historic towns and villages and other important historic assets throughout the county. There are a variety of habitats present in the county and two main river catchments pass through the county: the Colne in the west and Upper Lee in the east, with several others overlapping at the fringes of the county, such as the Thames Valley in the far west.

4.22 For the purposes of this document important environmental assets are defined as:

- I. The Chilterns Area of Outstanding Natural Beauty;
- II. Special Areas of Conservation, Special Protection Areas, National Nature Reserves, Ramsar Sites and Sites of Special Scientific Interest;
- III. Local Nature Reserves, Wildlife Sites, ecological features of Wildlife Site quality and Prime Biodiversity Areas;
- IV. Identified landscapes of high historic value, including Registered Parks and Gardens of Special Historical Interest;
- V. Regionally Important Geological/Geomorphological Sites (RIGS);
- VI. Species of fauna and flora protected by law or identified in the UK or Hertfordshire Biodiversity Action Plan as in need of particular conservation action;
- VII. Hedgerows of ecological or historical importance;
- VIII. Scheduled Ancient Monuments and other archaeological remains of both national and more local importance, and their setting;
- IX. Listed buildings and their settings and other buildings of architectural, archaeological or historic merit;
- X. Conservation Areas;
- XI. Unregistered historic parks and gardens, and their setting, local greenspaces;
- XII. Sites with historic associations.

Policy 2 – Environmental Effects, Protection & Mitigation

- 7.45. Specific revisions to the supporting text and policy text are shown below as ~~strikethrough~~ for deletions and underlined for additions to the text.

Suggested revisions to introductory text for WDP 3:

- 4.26 This policy has been formulated to ensure that waste management takes place in an organised manner, whilst minimising any adverse environmental effects such as noise, water and air pollution ~~and water quality~~, flooding risk ~~visual impact and loss of rights of way~~ etc.

Suggested revisions to policy text for WDP 3:

Proposed Policy to Deliver Preferred Option

WDP3 – Operational Matters

Proposals for Waste Management development in Hertfordshire will be permitted where it can be demonstrated that the proposal avoids, minimises or adequately compensates for impacts relating to the following:

- * ~~Air & Water Pollution~~**
- * ~~Contaminated Land~~**
- * ~~Drainage & Flooding~~**
- * ~~Landscape and Visual Aspects~~**
- * ~~Noise & Light Proximity~~**
- * ~~Sensitive Land Uses~~**
- * ~~Surrounding Amenity~~**
- * ~~Nature Conservation & Biodiversity~~**

Proposals for waste management development will be accompanied, where necessary, by assessments of the impacts on the issues above listed in WDP2. Specifically proposals will:

- I ~~Include measures to minimise visual intrusion and any adverse impact on the local landscape;~~**
- II ~~Ensure that the canopy spread of all periphery or other retained trees (including isolated mature trees within hedgerows) are not encroached within at least 10 metres of the proposal or within three metres from the canopy spread of hedgerows;~~**
- I Incorporate an appropriately defined buffer zone in order to safeguard sensitive land-uses. The following matters will be taken into account**

when delineating the buffer zone at the application stage of development:

1. Natural and manmade features, which may reduce the impact of the Development, for example landscape features, roads, railway lines etc;
2. The direction of the prevailing wind; and
3. The proximity of the proposed development to sensitive land-uses such as dwellings.

- ~~II — Demonstrate that no significant noise intrusion will arise from the development;~~
- ~~III — Demonstrate that no significant degradation of the air or water quality or quantity — with respect to both groundwater and surface water will occur;~~
- II Include appropriate buffer zones adjacent to open channel watercourses to ensure the ecology and integrity of the watercourse and river corridor is protected.
- III Where appropriate, provide opportunities to contribute to the delivery of the national, regional and local Biodiversity Action Plan targets.
- IV Where appropriate enhance existing woodland, trees and hedges through improved management. Furthermore development proposals must ensure the appropriate management of both retained vegetation cover such as trees and hedgerows, and new planting over the long-term. Where quantity or quality of existing woodland, trees and hedges is lost, redress in at least equivalent measures will be sought, with species to be agreed with the waste planning authority, so as to recreate a suitable landscape and habitat. At appropriate locations the County Council will seek to double the quantity of trees lost due to the development. Finally, development proposals must ensure that the canopy spread of all periphery or other retained trees (including isolated mature trees within hedgerows) are not encroached within at least 10 metres of the proposal or within three metres from the canopy spread of hedgerows;
- V Ensure that public Rights of Way are not adversely affected or, where this is not possible, that good quality, safe and convenient alternative provision is made or suitable replacement of Rights of Way is secured. The use of Rights of Way to obtain vehicle access to a site will not be permitted unless it can be clearly demonstrated that the safety of Rights of Way users can be adequately protected. Proposals should enhance the public Rights of Way network through the creation of new Rights of Way and/or open space, or the improvement of public access;
- VI Include proposals for involving the local community, including site specific liaison meetings.

- VII Applications for hazardous waste facilities should address issues of security and additional risks to human health and the environment.**
- X ~~Where appropriate, provide opportunities to contribute to the delivery of the national, regional and local Biodiversity Action Plan targets.~~**
- XI ~~Applications for hazardous waste facilities should address issues of security and additional risks to human health and the environment.~~**

Suggested revisions to supporting text for WDP 3:

4.28 The quality of the environment plays a key role in both maintaining and enhancing quality of life and contributing to the wider economic development in the County. The justification for this policy is to ensure that when locating facilities the primary aim is to minimise impacts before considering the management or mitigation of them. This policy ~~seeks to~~ defines specific operational measures that proposals for waste management should include to ensure that negative impacts on air, water, soil etc are minimised, ~~ensure~~ protection of Hertfordshire's most valuable and natural assets is achieved and to reduce impacts of pollution on local health and amenity.

8. CONCLUSIONS AND IMPLEMENTATION

CONCLUSIONS

- 8.1. There is much to commend in the Waste Development Policies DPD (Preferred Options), which has clearly been prepared with sustainability principles in mind. In managing waste related development proposals, the Waste Development Policies DPD will help to protect Hertfordshire's local environmental assets and encourage development that is appropriate to its setting. The DPD also promotes enforcement of policies within the WDF which should help to ensure that development is progressed in a sustainable manner.
- 8.2. A number of negative effects were identified during the SA, which mainly relate to effects of waste management facilities development on soil quality and geology, the impacts of increase waste related traffic on landscape and climate change and waste related crime. The severity of these impacts will depend very much on the exact location of the proposed development and the type of development proposed.

IMPLEMENTATION

- 8.3. We have inevitably had to make assumptions in coming to judgements of the potential sustainability effects of policies contained within the Waste Development Policies DPD. Our assumption with respect to effects, cumulative or otherwise, is on the basis of the intention of the Waste Development Policies DPD i.e. what it is trying to achieve. However, the Waste Development Policies DPD will also be considered alongside the Waste Core Strategy and Site Allocations DPDs, and any other Local Development Documents prepared by the Council, such as SPDs. Past experience suggests that, when considering development proposals, there will often be tensions when applying different policies, and deciding where weight should apply. Despite the best intentions of the planning authority, it may not always be possible to deliver development that meets all policy criteria and good practice guidance, and difficult choices will often have to be made.
- 8.4. The major challenge, therefore, will be in putting into practice what appears to be a positive Waste Development Policies DPD. Implementation will be the key to success of the DPD and raises some key issues:
 - A strong commitment is required to ensure that development delivers the positive benefits identified. If not, then positive effects could easily change into negative effects, for example by allowing development that could lead to unacceptable environmental impacts, increase the impacts of waste related traffic, fail to limit the amount of waste going to landfill and landraise and fail to enforce planning control and planning conditions. There are policies contained within the Waste development Policies DPD that aim to protect environmental assets, reduce the impacts of waste related traffic, limit the amount of waste going to landfill and landraise and enforce planning control and planning conditions. These will need to be applied with rigour if development is to be sustainable.

- There is a need to co-ordinate the delivery of the Core Strategy, Site Allocations and Waste Development Policies DPDs and Hertfordshire's Municipal Waste Strategy as a package of policies to ensure that synergies between economic, social and environmental objectives are maximised e.g. co-locating waste management facilities to reduce transport and land take, maximising the re-use of construction and demolition materials to avoid the use of primary aggregates, implementing best practice waste management and transport technologies and linking with improvements to the quality of the natural and built environment.

9. MONITORING

PROPOSALS FOR MONITORING

- 9.1. The SEA Directive requires that “member states shall monitor the *significant environmental effects of the implementation of plans or programmes... in order, inter alia, to identify at an early stage, unforeseen adverse effects, and be able to undertake appropriate remedial action*” (Article 10.1) and that the environmental report should provide information on “a description of the measures envisaged concerning monitoring” (Annex I (i)). The ODPM’s SA Guidance states that monitoring proposals should be designed to provide information that can be used to highlight specific issues and significant effects, and which could help decision-making. This represents Task E1 in the ODPM’s SA Guidance.
- 9.2. The ODPM’s SA Guidance states that it is not necessary to monitor everything. Instead, monitoring should be focussed on the significant sustainability effects that may give rise to irreversible damage (with a view to identifying trends before such damage is caused) and the significant effects where there is uncertainty in the SA and where monitoring would enable preventative or mitigation measures to be taken. The monitoring measures proposed in this SA Report therefore focus on the predicted significant effects only.
- 9.3. As discussed in **Chapter 7**, the proposed Waste Development Policies could have the following significant effects:

Significant positive effects:

- Protection of Hertfordshire’s biodiversity.
- Avoidance of adverse impacts on air, ground and surface water quality.
- Protection and maintenance of Hertfordshire’s landscapes and historic built heritage and greenspaces.
- Protection of dark skies from light pollution.
- Protection of woodlands, trees, hedgerows and grassland.
- Protection of the best and most versatile agricultural land.
- Minimisation of by-products or waste.
- Protection and enhancement of recreation and access to the countryside.
- Protection of the health and amenity of local communities.

Significant negative effects:

- Insufficient protection of soil quality and geology.

- Insufficient protection and maintenance of Hertfordshire’s landscapes and historic built heritage and greenspaces.
 - Insufficient protection of dark skies from light pollution.
 - Contribution to the causes of climate change.
- 9.4. The policies contained within the Waste Development Policies DPD will be delivered in the context of the WDF as a whole, and the wider policy framework which sits alongside the planning system. This means that implementation of the Waste Development Policies DPD will be influenced by how well it is reflected in the other DPDs forming part of the WDF, and by the degree to which these are successfully implemented. For this reason, monitoring the sustainability effects of implementing the Waste Development Policies DPD should be conducted as part of an overall approach to monitoring the sustainability effects of the whole WDF, as well as taking account of broader social, economic and environmental trends. This approach is based on the ODPM’s Good Practice Guidance on monitoring Local Development Frameworks³².
- 9.5. The Council is required under the Planning and Compulsory Purchase Act to prepare an Annual Monitoring Report (AMR) to assess the extent to which policies in each DPD are being implemented. The Waste Development Policies DPD sets out a framework for the AMR, and identifies some targets and draft indicators that will be used to monitor the policies of the Waste Development Policies DPD. In addition, the framework for the AMR in the Core Strategy DPD (Submission version) contains some targets and indicators that would also be relevant to monitoring the potential effects of the Waste Development Policies DPD.
- 9.6. **Table 9.1** sets out suggested measures for monitoring the significant sustainability effects of implementing the Waste Development Policies DPD, as listed above. A number of the indicators have been drawn from the AMR framework currently being established by the Council (shown as underlined in Table 9.1). Note that the indicators proposed in Table 9.1 are included as suggestions at this stage, as it is recognised that many datasets may not be available for monitoring some of the sustainability effects of the Waste Development Policies DPD. In addition, as stated in the SA Guidance, the data used for monitoring in many cases will be provided by outside bodies. Information collected by other organisations (e.g. the Environment Agency) can also be used as a source of indicators. It is therefore recommended that the County Council continue the dialogue with statutory environmental consultees and other stakeholders commenced as part of the SA process and WDF preparation, and work with them to agree the relevant sustainability effects to be monitored and to obtain information that is appropriate, up to date and reliable. It should be noted that the sustainability effects to be monitored may need to be revised at subsequent stages of Waste Development Policies DPD preparation, in response to consultation comments and revisions to the DPD.

³² *Local Development Framework Monitoring: A Good Practice Guide*. The Office of the Deputy Prime Minister 2004.

Table 9.1 SA monitoring recommendations for the Hertfordshire Waste Development Policies

| What needs to be monitored? | Suggested indicators (or sources for indicators) |
|--|---|
| Impacts on biodiversity, in particular on SPAs, SACs, Ramsar sites and Hertfordshire's Biodiversity Action Plan Species and Habitats | Indicators from Hertfordshire Biodiversity Action Plans Damage/loss to Natura 2000 sites (Habitats Directive) Condition of SSSIs and other designated sites (<i>Data may be obtainable from Natural England</i>) <u>Number of planning permissions granted contrary to local designation policy</u> |
| Impacts on air quality and the causes of climate change | <u>Are permitted proposals matching appropriate criteria i.e. no unacceptable adverse environmental impacts?</u> |
| Impacts on ground and surface water quality | Quality of Life Indicator 28 ³³ : The percentage of river length assessed as a) good biological quality; and b) good chemical quality. (<i>Data may be obtainable from Environment Agency, which may help to provide background trends for water quality in Hertfordshire</i>) Number of pollution incidents recorded by the EA in relation to licensed waste sites. (<i>Data should be obtainable from Environment Agency</i>) |
| Impacts on cultural heritage | Heritage buildings 'at risk' (<i>Data may be obtainable from English Heritage</i>) Countryside Quality Counts ³⁴ indicators (<i>These indicators relate to Joint Character Areas, and should help to provide background trends for understanding how cultural heritage, landscape and countryside is improving or declining within Hertfordshire, but would not necessarily relate directly to impacts from the Waste DPDs</i>) |
| Impacts on landscape and greenspaces | Countryside Quality Counts indicators (<i>as above</i>) <u>Are permitted proposals matching appropriate criteria i.e. adequate landscaping and screening?</u> |
| Impacts on woodlands trees, hedgerows and grassland | <u>Are permitted proposals matching appropriate criteria i.e. siting, scale, minimised impact, adequate landscaping and screening?</u> |
| Impacts on agricultural land | <u>Are permitted proposals matching appropriate criteria i.e.</u> |

³³ *Local quality of life indicators – supporting local communities to become sustainable. A guide to local monitoring to complement the indicators in the UK Government Sustainable Development Strategy. Audit Commission, August 2005. <http://www.audit-commission.gov.uk/Products/NATIONAL-REPORT/0D488A03-8C16-46fb-A454-7936FB5D5589/QofL2005.pdf>*

³⁴ <http://www.cqc.org.uk/results.html>. Countryside Quality Counts focuses on the Joint Character Areas (JCAs) of England. The study has determined whether the scale and direction of change suggests that their character has been maintained or enhanced, or alternatively whether current changes suggest that an area remains neglected, or is continuing to transform.

| What needs to be monitored? | Suggested indicators (or sources for indicators) |
|--|--|
| | <u>no unacceptable adverse environmental impacts?</u> |
| Impacts on soil quality and geology | <u>Are permitted proposals matching appropriate criteria i.e. no unacceptable adverse environmental impacts?</u> |
| Impacts on recreation or countryside | Countryside Quality Counts indicators (<i>as above</i>) Extent of public rights of way |
| Impacts on dark skies | <u>Are permitted proposals matching appropriate criteria i.e. no unacceptable adverse environmental impacts?</u> <i>(Data may be available in future from tranquility mapping for Campaign for the Protection of Rural England)</i> |
| Health and amenity impacts due to traffic from waste development | Number of complaints in relation to HGV impacts for specific waste sites <i>(Data may be obtainable from Environment Agency or Local Authorities)</i> |

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