



Dacorum Development Plan Documents

Strategic Environmental Assessment and Sustainability Appraisal Scoping Report

by Julian Wooderson (Halcrow), Rob Gardner & Stefan Laeger (C4S)

UNPUBLISHED PROJECT REPORT

Centre for Sustainability at TRL Limited



Halcrow Group Limited



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Dacorum Development Plan Documents

Strategic Environmental Assessment and Sustainability Appraisal Scoping Report

Version: Final

by Julian Wooderson (Halcrow), Rob Gardner, & Stefan Laeger (C4S)

Client: Dacorum Borough Council

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Abbreviations

AONB	Area of Outstanding Natural Beauty
AQMA	Air Quality Management Area
BAP	Biodiversity Action Plan
BC	Borough Council
BVPI	Best Value Performance Indicator
CO	Carbon monoxide
CO ₂	Carbon dioxide
DEFRA	Department for the Environment, Food and Rural Affairs
DPD	Development Plan Document
EC	European Commission
EU	European Union
GIS	Geographical Information System
GHG	Greenhouse gas
LA	Local Authority
LDD	Local Development Document
LDF	Local Development Framework
LNR	Local Nature Reserve
LTP	Local Transport Plan
MAGIC	Multi-Agency Geographic Information for the Countryside
MPG	Minerals Planning Guidance
NNR	National Nature Reserve
NO _x	Nitrogen oxide
ODPM	Office of the Deputy Prime Minister
PM ₁₀	Particulate matter at less than 10 microns diameter
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
PSA	Public Service Agreement
RSS	Regional Spatial Strategy
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SO ₂	Sulphur dioxide
SPA	Special Protection Area
SPD	Supplementary Planning Document
SSSI	Site of Special Scientific Interest
VAT	Value Added Tax

Non-Technical Summary

The Planning and Compulsory Purchase Act (2004) requires sustainability Appraisals (SAs) to be carried out on Development Plan Documents (DPD), and Supplementary Planning Documents (SPDs). In addition, the Environmental Assessment of Plans and Programmes Regulations (2004) require Strategic Environmental Assessments (SEA) for a wide range of plans and programmes, including Local Development Frameworks (LDF).

SAs and SEAs aim to help make planning more sustainable and provide for a high level of protection of the environment. It is possible to satisfy the requirements of both pieces of legislation through a single appraisal process; an approach which is taken here. Dacorum's emerging core strategy and its other development plan documents, form part of its LDF and must be subject to both sustainability appraisal and strategic environmental assessment. The new LDF will provide a long-term vision for development in Dacorum.

The aim of scoping is to ensure that the SA/SEA process focuses effort and resources on the significant issues. It also provides an early opportunity for other parties to provide comment. This scoping report consists of two documents; the main report and the supporting appendix. The main report provides information on the SA/SEA and DPD development process to date; specifically the establishment of the baseline for the assessment, the problems and opportunities in Dacorum, and the setting of SA/SEA objectives. The remainder of the report sets out the methodology to be used for the next stages of the SA/SEA process. The appendix contains supporting tables that may be of interest to consultees but that are not fundamental to understanding and commenting on the report.

The main sustainability issues that are considered to be relevant in Dacorum are illustrated below.

Air Quality	Pollution levels have decreased in the past and are projected to do so
Biodiversity	The Borough has 8 Sites of Special Scientific Interest (SSSIs), and three Local Nature Reserves (LNRs)
Climatic Factors	Domestic energy efficiency has improved and fossil fuel and electricity consumption has decreased
Cultural Heritage	There are 26 Scheduled Ancient Monuments and over 1000 Listed Buildings in the Borough
Landscape/Townscape	Dacorum is situated in two Landscape Character Areas, "Chilterns" and "Bedfordshire and Cambridgeshire Claylands"
Material Assets	The amount of household waste recycled has increased between 2001 and 2004
Population	Dacorum's population has been growing
Water	Chemical water quality has improved, the Nitrate concentrations remain below the average for East of England, however the biological water quality has declined Pressures on water resources is increasing
Housing	A small proportion of housing is unfit for living in
Crime	Violent offences (per 1000) have fallen since the previous year
Health Care & Education	The population is ageing 73% of which classified their health as being good

**Economy &
Employment**

Over 80% of working age people are in employment

The abridged SA/SEA objectives developed for Dacorum's DPDs are summarised below. These objectives will be used to assess the environmental, social and economic implications:

1. To protect and enhance biodiversity
2. Maintain/enhance water quality and limit water consumption
3. Ensure new developments do not increase flood risk
4. Minimise the loss of valuable soils
5. Reduce the emissions of CO₂ and other greenhouse gases
6. Ensure development is 'climate change proof'
7. Achieve good air quality, especially in urban areas
8. Maximise the use of previously developed land
9. To use natural resources efficiently
10. To maintain and enhance historic and cultural assets
11. Conserve and enhance the landscape and townscape
12. Encourage healthy lifestyles
13. To deliver more sustainable patterns of development
14. Promote equity & address social exclusion
15. Ensure that everyone has access to good quality housing that meets their needs
16. Enhance community identity and participation
17. Reduce both crime and fear of crime
18. Achieve sustainable levels of prosperity and growth
19. Promote wider prosperity and fairer access to services
20. Revitalise town centres

The SEA Regulations require that the four statutory environmental bodies (English Nature, Environment Agency, English Heritage and Countryside Agency) are consulted at the scoping stage to help ensure all significant environmental issues have been identified.

This Scoping Report is also available to a wider group of stakeholders to ensure a range of views and interests are incorporated. Specific questions have been asked in each section of the Scoping Report to aid responses; these are summarised below.

Questions for consultees

Q1: Do you think the LDF might impact on Natura 2000 sites? If so, on which sites and what might be the likely impacts?

Q2: Are there any other policies, plans or programmes (PPPs) that contain environmental protection objectives or identify issues that are not covered by this list of PPPs?

Q3: Are there any other issues or information related to the topics covered in section 2.3 that are relevant to Dacorum's DPDs and should be included?

Q4: Are there any other problems, opportunities or issues that are relevant to Dacorum's development plan documents and have not been covered?

Q5: Are there any further interrelationships between topics that have not been identified?

Q6: Where do you see the main issues in the area and which topics do you want to see addressed with priority within the SA/SEA?

Q7: Do the SA/SEA objectives, criteria and assessment indicators provide a reasonable framework through which the likely significant environmental effects of the DPDs can be assessed?

Q8: Are there any other indicators which are relevant to the DPDs?

Q9: Are there any other potential conflicts between the proposed SA/SEA objectives and the core strategy objectives that have not been identified in the compatibility assessment?

Q10: How could potential conflicts be addressed?

Q11: How would your organisation like to be involved in the rest of this SA/SEA process?

Q12: Do you believe that the significant impacts of the DPDs can be identified using this approach?

Q13: Are there other/additional methodologies that could be used to identify the significant impacts of the DPDs?

This Scoping Report and the results of stakeholder consultations will feed through into the next stages of the assessment process; and thereby help to determine local issues and opportunities and how these could be addressed in Dacorum's DPDs.

The written output of the next stages of the SA/SEA process will be draft Sustainability Appraisal/Environmental Report to accompany the draft core strategy. Both documents will undergo public consultation which will take place in autumn 2006.

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1 Introduction

1.1 Background to Strategic Environmental Assessment/Sustainability Appraisal

New regulations require planning authorities to replace their local plans with local development frameworks (LDF). Dacorum's core strategy and its other development plan documents, form part of its LDF and must be subject to both Sustainability Appraisal and Strategic Environmental Assessment under the Planning and Compulsory Purchase Act (2004) and The Environmental Assessment of Plans and Programmes Regulations (2004) which implement European Directive 2001/42/EC, known as the Strategic Environmental Assessment (SEA) Directive.

Both the SA and the SEA processes help planning authorities to fulfil the objective of contributing to the achievement of sustainable development in preparing their plans through a structured assessment of the objectives and core strategies against key sustainability issues.

Although the requirement to carry out both an SA and SEA is mandatory, it is possible to satisfy the requirements of both pieces of legislation through a single appraisal process. Government guidance for undertaking SEA¹ and for SA of Development Plan Documents² in particular details how the SA and SEA should be integrated into one process. The final output of the process is a combined Sustainability Appraisal/Environmental Report which will be published alongside the plan. This report will be referred to as the SA/Environmental Report.

1.1.1 Purpose of this Scoping Report

The SEA regulations require that the consultation bodies³ shall be consulted when deciding on the scope and level of detail of the information that must be included in the Environmental Report – this being the main written output from the SA/SEA process. The consultation does not have to be in the form of a published Scoping Report. For this project a Scoping Report is considered the appropriate method of presenting the results of the initial stages of the SA/SEA process. It also will assist in helping to identify the issues relevant to stakeholders.

The Scoping Report will be made available to others than those required by statute, so that the subsequent assessment can take account of issues raised from a wider spectrum of consultees. This will be particularly important when looking at the social and economic issues which fall outside the remits of the environmental bodies.

1.1.2 Background to the Project

This SA/SEA is being carried out as part of a joint project commissioned by the four Hertfordshire local authorities situated in the south west of the county – Dacorum District Council, St Albans City and District Council, Three Rivers District Council, and Watford Borough Council. The Centre for Sustainability (C4S) at TRL Ltd and their project partners Halcrow Group Ltd have been appointed to undertake this project.

By joining together in this way the four authorities aim to make the project more efficient by utilising a common appraisal methodology; although authority specific issues will also be addressed.

¹ "A Practical Guide to the Strategy Environmental Assessment Directive" (ODPM, 2005)

² Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents (ODPM, 2005)

³ English Nature, Environment Agency, Countryside Agency and English Heritage

1.2 Dacorum Local Development Framework

The LDF is the emerging development plan for Dacorum. LDFs are the new form of spatial development plan introduced by the Government’s planning reforms in the Planning and Compulsory Purchase Act (2004). The LDF will replace the adopted Dacorum Local Plan 2004. The LDF will set out the strategy for the way in which land is used and will guide new development in the District for the period up to 2021. The LDF will consist of a portfolio of documents. Central to this portfolio is the Core Strategy, which sets out the overall vision for future development in the District and is the basis for later Local Development Documents, including the Site Allocations Development Plan Document (DPD). In addition to these statutory DPDs there will be a series of non-statutory Supplementary Planning Documents (SPDs), setting out more detailed guidance at a more specific level.

The next written output will be the draft core strategy which will be accompanied by the draft Sustainability Appraisal/Environmental Report. Both documents will undergo public consultation which will take place in autumn 2006.

1.3 SEA/SA Methodology

Figure 1 illustrates the relationship between the DPD and the SA/SEA process.

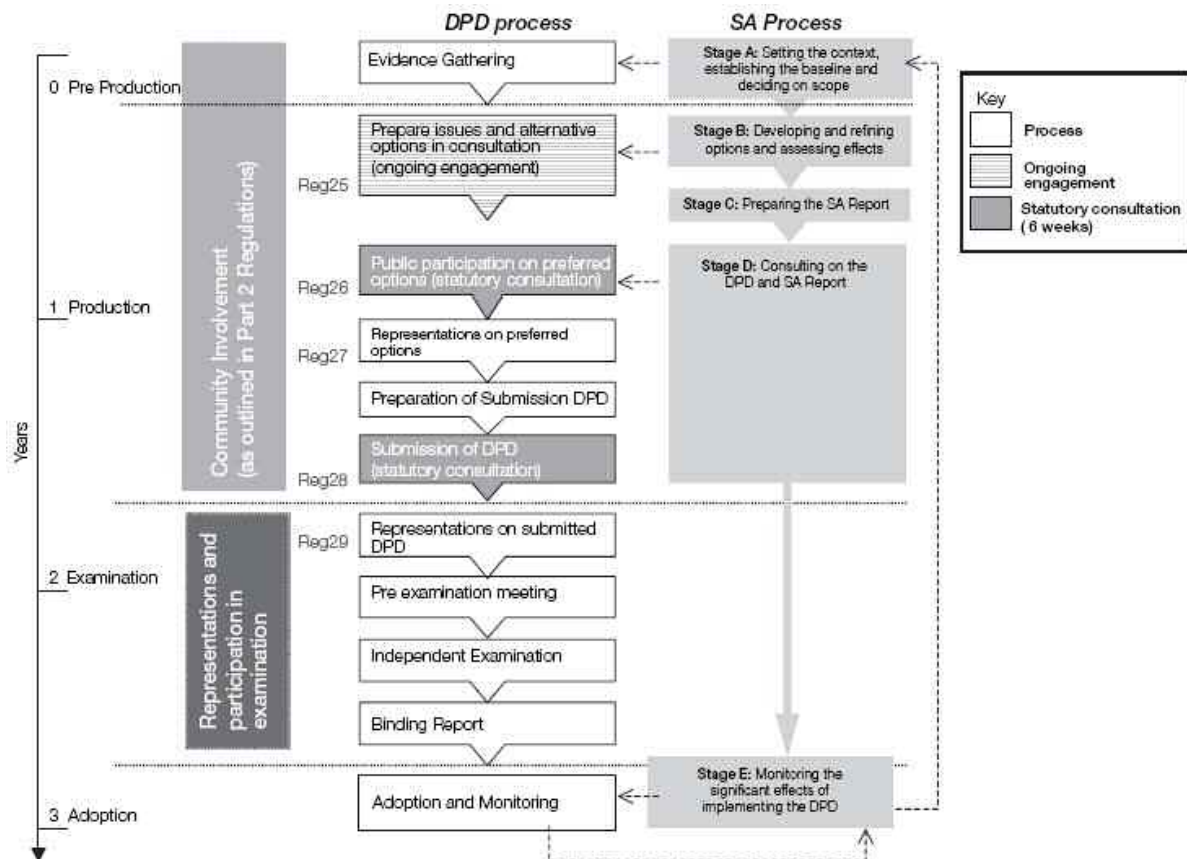


Figure 1: DPD and SA process (source: ODPM).

The key stages are as follows:

- Setting the context and establishing the baseline;
- Devising draft SEA/SA objectives, criteria and indicators;
- Developing an appraisal framework to appraise the Development options against the main criteria and indicators;

- Preparing a Scoping Report and undertake consultation;
- Appraisal of the alternative development options' effect on the SEA/SA objectives and selection of the preferred option;
- Undertaking consultation of the SA/Environmental Report;
- Revision of the SA/SEA, taking into account changes to the development options and the results of consultation; and,
- Publication of a SEA Statement, describing how the SEA influenced the plan making process.

1.4 Screening for Appropriate Assessment

An issue that must be addressed is whether the plan or its proposals (either alone or in combination with other plans and projects) would be likely to significantly affect Natura 2000 sites. These are sites that are designated by the EC Directive on the Conservation of Wild Birds 79/409/EEC 1979 and the EC Directive on the Conservation of Natural Habitats of Wild Fauna and Flora 92/43/EC 1992. If a site is affected by development resulting from the plan in combination with other plans and programmes an 'appropriate assessment' under The Conservation (Habitat, & c.) Regulations 1994 will be required. Dacorum contains one Natura 2000 designated site- the Chiltern Beechwoods. The potential impacts of the implementation of the DPDs on the Chiltern Beechwoods will be assessed in subsequent SEA/SA stages.

Consultation question

Q1: Do you think the LDF might impact on Natura 2000 sites? If so what might be the likely impacts?

1.5 Geographical and Temporal Scope

The spatial scope for the assessment is the borough of Dacorum. However where potential impacts have been identified that could affect the environment in neighbouring authorities (i.e. within Watford, St Albans, Three Rivers, Chiltern, Aylesbury Vale and South Beds) these will also be assessed for their significance.

The SEA/SA will examine three temporal scales:

- Short term effects: effects expected in the next 1-5 years;
- Medium term effects: effects expected in the next 5-10 years; and
- Long term effects: effects expected in the next 10+years.

1.6 Structure of the Scoping Report

The ultimate reference material used in the preparation of this report is the SEA Directive⁴. Annex 1 of the Directive requires consideration of the following factors which are addressed in this report: as part of Stage A of the SEA/SA.

- a) An outline of the contents and main objectives of the plan or programme that is being appraised and the relationship with other relevant plans or programmes;
- b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;
- c) The environmental characteristics of areas likely to be affected;
- d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular importance such as areas pursuant to Directives 79/409/EEC and 92/43/EEC.
- e) The environmental protection objectives, established at international, community or member state level, which are relevant to any areas of a particular environmental importance, such as areas designated pursuant to directives 79/409/EEC and 92/43/EEC.

The report is structured in the following sections:

Chapter 1: Sets out the context and purpose of the SEA/SA, considering the legal requirement for SEA/SA.

Chapter 2: Outlines the relationship between other relevant plans and programmes and presents the environmental baseline in Dacorum, including current trends

Chapter 3: Presents the environmental and sustainability issues and opportunities that have been identified during the review.

Chapter 4: Presents the proposed SEA/SA Objectives and framework that will be utilised in the subsequent assessment processes.

Chapter 5: Outlines a proposed methodology for the remaining steps of the SEA/SA

Chapter 6: Provides a summary of the questions for consultees that have been posed during the rest of the scoping report.

⁴ Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment.

2 Environmental & Sustainability Planning Context

2.1 Introduction

This stage involves:

- Examining the relationship of the development plan documents with other plans and programmes, to ensure that all relevant environmental protection objectives are identified and that potential conflicts can be addressed within the plan making process;
- Assembling data on the current and future state of the environment (baseline) related to all environmental and sustainability topics which may be affected by the plan. The analysis of data can later be used for establishing the effects of the development plan documents; and
- Identifying present and future environmental problems and opportunities in order that development plan documents can address these issues as far as possible.

The full review of other plans and programmes is presented in Appendix A of this report. Rather than producing a summary of all the documents at each level (national, regional, county and local), the summary is split into key topics. Section 2.2 provides an overall summary of this review, whilst the relationships of the other plans to the assessment topics are discussed through section 2.3.

The baseline review stage requires the collection and processing of large amounts of raw data. This data is presented under the individual topic headings throughout section 2.3 below.

2.2 Summary of Review of other Plans and Programmes

Together, plans can be constraints (i.e. set formal limitations, policy contexts, requirements) or can be sources of useful background information as part of evidence gathering. These act together in a hierarchy where a sequence of precedence is established in a nesting, or tiering of plans. A review of other relevant policy documents is required to establish environmental objectives that they contain, and this stage allows opportunities and synergies to be identified, as well as potential conflicts between aims, objectives or detailed policies. The review also highlights sustainability drivers between plans to be identified.

Table 1 below lists all reviewed policies, plans and programmes. Those which influence specific topics of the LDF are summarised under the different topic headings (2.3 to 2.14) whereas plans of overarching importance are summarised below.

Table 1: List of reviewed other relevant policies, plans and programmes.

Reviewed other relevant policies, plans and programmes
International
Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat (1971) Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979) Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979) The Convention on Biological Diversity, Rio de Janeiro (1992) Kyoto Protocol on Climate Change (1997) The UN Millennium Declaration and Millennium Development Goals (2002) World Summit on Sustainable Development - Earth Summit (2002)
European
EU Directive on the Conservation of Wild Birds (79/409/EEC) EU Waste Framework Directive (91/156/EEC) EU Nitrates Directive (91/676/EEC) EU Habitats Directive (92/43/EEC) EU Directive on Ambient Air Quality and Management (1996/62/EC) European Spatial Development Perspective (1999) EU Waste to Landfill Directive (99/31/EC) EU Directive Establishing a Framework for the Community Action in the Field of Water Policy (2000/60/EC) – The Water Framework Directive European Commission White Paper on the European Transport Policy (EC, 2001) EU Sustainable Development Strategy (2001) Åarhus Convention (2001) EU Directive to promote Electricity from Renewable Energy (2001/77/EC) Environment 2010: Our Future, Our Choice - EU Sixth Environment Action Programme (2002) EU Directive for the Promotion of Bio-fuels for Transport (2003/30/EC)
National
PPS1 - Delivering Sustainable Development PPG 2 – Green Belts PPG 3 – Housing PPG 4 – Industrial, Commercial Development and Small Firms PPS 6 – Town Centres and Retail Developments PPS 7 – Sustainable Development in Rural Areas PPG 8 - Telecommunications PPS 9 – Biodiversity and Geological Conservation PPS 10 – Sustainable Waste Management PPS 12 – Local Development Frameworks PPG 13 – Transport PPG 14 – Development on Unstable Land PPG 15 – Planning and the Historic Environment PPG 16 – Archaeology and Planning PPG 17 – Planning for Open Space, Sport, and Recreation PPG 21 – Tourism PPS 22 – Renewable Energy PPS 23 – Planning and Pollution Control PPG 24 – Planning and Noise PPG 25 – Development and Flood Risk Wildlife and Countryside Act 1981 (as amended) UK Biodiversity Action Plan - UK BAP (1994) England Forestry Strategy (1999) UK Air Quality Strategy (2000) Countryside and Rights of Way Act – CRoW (2000) Government Urban White Paper: Our Towns, Our Cities, the Future. Delivering an urban renaissance (2000) UK Waste Strategy (2000) Government Rural White Paper: Our Countryside, the Future – A Deal for Rural England (2000) Climate Change: The UK Programme (2001) The Historic Environment: A Force for Our Future (2001)

<p>UK Fuel Poverty Strategy (2001) 'Working with the Grain of Nature': A Biodiversity Strategy for England (2002) Our Energy Future - Creating a Low Carbon Economy' - UK white paper on energy (2003) The Future of Transport – UK white paper on transport (2004) UK Climate Change Programme Review: Consultation (2004) England Rural Strategy (2004) Choosing Health: Making Healthier Choices Easier - Health White Paper (2004) Securing the Future – UK Government Sustainable Development Strategy (2005)</p>
<p>Regional – East of England</p> <p>Sustainable Development Framework for the East of England (2001) Sustainable Communities: Building for the Future - Communities Plan (2003) Our Environment, Our Future – The Regional Environmental Strategy for the East of England (2003) East of England Plan (currently under examination in public (EiP) from 1st November 2005 to 3rd March 2006; final RSS will be published in March 2007) Regional Transport Strategy for the East of England (draft published in 2004 as part of the East of England Plan) Regional Social Strategy: A strategy to achieve a fair and inclusive society in the East of England (launched in May 2004) A Shared Vision: The regional economic strategy of the East of England (formally released on 1 December 2004) The London Plan (2004) South East Plan (2005) Sustainable Futures: The Integrated Regional Strategy for the East of England (2005) Revised Regional Housing Strategy for the East of England 2005-2010 (2005) Creating Sustainable Communities in the East of England (2005) Towns and Cities – Strategy and Action Plan: Urban Renaissance in the East of England Chilterns ANOB Management Strategy: The Framework for Action 2002-2007 A Housing Strategy for the London Commuter Belt Sub-Region 2005-2008</p>
<p>County - Hertfordshire</p> <p>Hertfordshire Structure Plan 1991-2011 A 50 Year Vision for the Wildlife and Natural Habitats of Hertfordshire (1998) Hertfordshire Waste Local Plan 1995-2005 (1999) Economic Development Strategy for Hertfordshire 2000-2005 (2000) The Hertfordshire Environmental Strategy (2001) Hertfordshire Minerals Local Plan Review (2001) Rural Hertfordshire – an agenda for action (2001) Enjoy! A Cultural Strategy for Hertfordshire (2002) Hertfordshire Town Renaissance Campaign Hertfordshire Waste Strategy 2002-2024 Hertfordshire Sustainability Guide (2003) The Hertfordshire Minerals and Waste Development Framework and Scheme (2005) Hertfordshire LTP 2006/07 – 2010/11</p>
<p>Local Authority - Dacorum Borough Council</p> <p>Dacorum Borough Local Plan 1991-2011 (adopted April 2004) Dacorum's Community Plan: Dacorum 2015 – A Better Borough Dacorum Housing Strategy and HRA Business Plan 2004-07 Dacorum Borough Nature Conservation Strategy (1999) Dacorum BC, Three Rivers DC and Watford BC Urban Capacity Studies (January 2005) Dacorum, Three Rivers and Watford Councils South West Hertfordshire Employment Space Study (January 2005) Equalities and Diversity Policy Planning for Gypsy and Traveller Sites (2005) Dacorum BC Community Safety Strategy (2002-2006) Dacorum Borough Local Agenda 21 Strategy (2002 – but update online regularly) Hemel 2020 and Beyond - Hemel Hempstead Civic Zone – Draft Development Brief (2005)</p>

PPS 1 – Delivering Sustainable Development

PPS1 identifies that development plans should promote development that creates socially inclusive communities, including suitable mixes of housing. Plan policies should:

- ensure that the impact of development on the social fabric of communities is considered and taken into account;
- seek to reduce social inequalities;
- address accessibility (both in terms of location and physical access) for all members of the community to jobs, health, housing, education, shops, leisure and community facilities;
- take into account the needs of all the community, including particular requirements relating to age, sex, ethnic background, religion, disability or income;
- deliver safe, healthy and attractive places to live; and,
- support the promotion of health and well being by making provision for physical activity.

PPS 12 – Local Development Frameworks

This planning policy statement sets out the Government's policy on the preparation of local development documents which will comprise the local development framework. Local development frameworks are intended to streamline the local planning process and promote a proactive, positive approach to managing development. The key aims of the new framework system are:

- Flexibility. Local planning authorities can respond to changing local circumstances and ensure that spatial plans are prepared and reviewed more quickly than development plans under the old system;
- Strengthening community and stakeholder involvement in the development of local communities. Local communities and all stakeholders will be involved from the outset and throughout the preparation of local development documents;
- Front loading. Local planning authorities should take key decisions early in the preparation of local development documents. The aim will be to seek consensus on essential issues early in the preparation of local development documents and so avoid late changes being made;
- Sustainability appraisal. To ensure that local development documents are prepared with the objective of contributing to the achievement of sustainable development;
- Programme management. The efficient management of the programme for the preparation of a range of local development documents in accordance with the local development scheme; and
- Soundness. Local development documents must be soundly based in terms of their content and the process by which they are produced. They must also be based upon a robust, credible evidence base.

The Regional Spatial Strategy for the East of England - the Draft East of England Plan

The plan provides the statutory framework for local development plans for at least the next 20 years. Its overall aims are ensuring economic growth while promoting sustainable development and renewable energy. Its examination in public will end in March 2006.

Its main environmental objectives are:

- Increase prosperity and employment growth;
- Improve social inclusion and access to employment and services;
- Maintain and enhance cultural diversity;
- Increase the regeneration and renewal of disadvantaged areas;
- Deliver more integrated patterns of land use;
- Sustain and enhance the vitality of town centres;
- Make more use of previously developed land;
- Meet the region's identified housing needs, and in particular provide sufficient affordable housing;
- Protect and enhance the built and historic environment and encourage good quality design and use of sustainable construction methods for all new development;
- Protect and enhance the natural environment, including its biodiversity and landscape character;
- Minimise the demand for use of resources, particularly water, energy supplies, minerals, aggregates, and other natural resources, whether finite or renewable, by encouraging efficient use, re-use, or use of recycled alternatives, and trying to meet needs with minimum impact;
- Minimise the environmental impact of travel, by reducing the need to travel, encouraging the use of more environmentally friendly modes of transport, and widening choice of modes; and,
- Minimise the risk of flooding.

Relevant Plans in London and the South East

Although Hertfordshire is located in the East of England region, parts of it are adjunct to both the South East region and London. The London Plan and the South East Plan are the spatial strategies for the respective regions and proposals within them can greatly affect nearby areas, such as South West Hertfordshire. This is particularly true for London, where the Mayor gained control over public transport and some suburban rail links.

Hertfordshire County Structure Plan (April 1998)

The basic issues that are important to the County of Hertfordshire are economic growth, housing, social needs and transport and the environment. The plan begins by outlining the framework for sustainable development; a major objective. The aim is to address these aforementioned issues in a sustainable way. The area has planned for regeneration with the aim of providing for the changing human needs. More sustainable transport has become a major objective, where the movement of people and goods is one of the critical elements to be addressed in achieving a more sustainable Hertfordshire. Minimising the need for travel and encouraging less damaging forms of transport is an essential element of the overall development strategy. Education is another area in which the county's objectives lie, thus development in education and training needs will be supported. A healthy economy is one of the major objectives because it is an essential and integral element of the strategy for sustainability. Many of the aims cannot be achieved without economic growth and the challenge is to ensure that the impact of this growth is within levels which the environment can sustain.

Dacorum's Community Plan 2015 - A Better Borough

Dacorum is the 43rd most affluent area in the country, but has pockets of deprivation. About 61% of employed residents work within the Borough - mostly in service sectors such as finance, banking, education and health. Dacorum aims to:

- Create a cohesive community where people feel safe by tackling crime and disorder and improving the quality of life for everyone who lives and works in the Borough.
- Adopt measures such as building relationships between the communities and the police and raising awareness.
- Create a cleaner and healthier environment. In order to achieve this, they are working towards changing people's behaviour, creating more sustainable choices for people eg, in terms of diet, food etc, improving waterways, better public transport and the prioritisation of environmental issues.
- Display commitment towards improving social care and health through measures such as better education, localised health support and local relevant services.
- Ensure easy access to local employment via affordable housing and strong links between business and education.
- Deliver lifelong learning, meet housing needs, promote culture, arts and leisure and encourage community involvement.

Dacorum Borough Local Plan 1991-2011

The key Local Plan Objectives which set out the overall sustainability aims of the Plan are as follows:

- To conserve and enhance the countryside, in particular by maintaining the Green Belt and the landscape of the Chilterns Area of Outstanding Natural Beauty;
- To conserve and enhance the built environment and townscape of the Borough, especially as recognised in Conservation Areas and Listed Buildings;
- To protect the Borough's natural and ecological heritage and enhance the natural environment;
- To protect the Borough's historical and archaeological heritage;
- To sustain the development and continued prosperity of the Borough's economy so as to meet service needs and to provide work for existing residents;
- To accommodate housing development that helps meet local needs;
- To encourage the reuse of existing urban land and buildings and minimise the development of greenfield land;
- To resist development that is likely to generate labour supply shortages (and thus lead to increased housing development pressure);
- To make provision for a satisfactory transport system, improving accessibility while limiting the adverse effects of traffic;
- To make provision for satisfactory social, community and leisure facilities;
- To ensure practical, efficient and neighbourly location of new development, and a high standard of design;
- To guide location and influence the type and form of development in ways which help conserve energy; and

- To sustain and enhance the artistic and cultural heritage of the Borough in accordance with the aims of the local cultural strategy.

Consultation question

Q2: Are there any other policies, plans or programmes (PPPs) that contain environmental protection objectives or identify issues that are not covered by this list of PPPs?

2.3 Current and Future State of the Environment

This section outlines the key issues arising from the baseline analysis and is set out according to individual SEA/SA topics.

2.3.1 Air Quality

Relationship with other Plans and Programmes

On European level EU Directive 1996/62/EC on Ambient Air Quality sets the framework for dealing with local air pollution by introducing new air quality standards for previously unregulated pollutants. In addition, the 6th EU Environment Action Programme highlights strategic priorities of the Commission's environmental policy, amongst others human health - an issue closely related to air pollution. On national level, the UK Air Quality Strategy defines a number of air quality objectives for several pollutants, whilst PPS 23 'Planning and Pollution Control' stresses the importance of the proximity principle in siting new developments and thereby separating incompatible land uses.

Baseline Information

The monitoring of air quality is important in ensuring that levels of identified pollutants remain below national standards and targets to protect human health and eco systems. Identified pollutants include:

- Nitrogen oxides (NO_x);
- Nitrogen dioxide (NO₂);
- Particulate matter (PM₁₀);
- Sulphur dioxide (SO₂);
- Benzene;
- Carbon monoxide (CO); and ,
- 1, 3-butadiene.

The ambient pollution concentrations and the number of days where air pollution was moderate or high have been collected. This data has been compared to regional data and national targets.

Table 2 below shows the pollutant levels⁵ of Watford Borough Council, St Albans City Council, Dacorum Borough Council, and Three Rivers District Council. The data was derived by calculating the average of for all sites in the Local Authority area. Measurement and predictions were not available for SO₂ and CO levels in 2005 and 2010, and 1, 3-butadiene in 2010. The data below displays a general trend of decreasing pollutant levels between 2001 and 2010.

⁵ Air Quality Archive: <http://www.airquality.co.uk/archive/laqm/laqm.php>

Table 2: Pollutant Levels.

Pollutant	Watford Borough Council			St Albans City Council			Dacorum Borough Council			Three Rivers District Council		
	2001	2005	2010	2001	2005	2010	2001	2005	2010	2001	2005	2010
NOX	65.04	53.51	40.97	63.77	52.52	40.07	43.87	39.59	28.85	60.00	49.33	38.08
NO2	34.20	29.90	24.89	33.67	29.36	24.47	25.92	22.89	19.44	32.33	28.25	23.64
PM10	21.74	20.92	19.01	21.46	20.61	18.74	20.30	19.53	17.97	21.31	20.49	18.69
SO2	3.6	-	-	3.76	-	-	3.42	-	-	3.6	-	-
Benzene	0.72	0.63	0.47	0.60	0.52	0.40	0.46	0.41	0.32	0.59	0.52	0.39
CO	0.42	-	-	0.38	-	-	0.32	-	-	0.37	-	-
1, 3-butadine	0.31	0.25	-	0.27	0.21	-	0.19	0.17	-	0.27	0.21	-

Units: NO_x (ugm-3 as NO₂ annual mean); NO₂ (ugm-3 annual mean); PM₁₀ (ugm-3 grav. annual mean); SO₂ (ugm-3 annual mean); Benzene (ugm-3 annual mean); CO (mgm-3 annual mean); 1, 3-butadine (1, 3-butadine 2001 ugm-3 annual mean)

Table 3 below displays estimated pollutant level data for the East of England⁶. The data was derived by calculating the average of the predictions for all sites in the East of England. No data was available for benzene or 1, 3-butadine. It can be seen that between 2001 and 2005 pollutant levels fall.

Table 3: Pollutant levels for the East of England⁶.

Pollutant	2001	2005
NOX	60.87	40.58
NO2	28.93	23.95
PM10	21.33	21
SO2	8.1	6.48
Benzene	-	-
CO	0.4	0.24
1, 3-butadine	-	-

Units: NO_x (ugm-3 as NO₂ annual mean); NO₂ (ugm-3 annual mean); PM₁₀ (ugm-3 grav. annual mean); SO₂ (ugm-3 annual mean); Benzene (ugm-3 annual mean); CO (mgm-3 annual mean); 1, 3-butadine (1, 3-butadine 2001 ugm-3 annual mean)

Table 4 displays the national targets for pollutant levels⁷ and the year by which they are to be achieved whereas Table 5 shows the number of days when air pollution was 'moderate' or 'high' for PM₁₀⁸ at the local level. Table 6 shows the number of days when air pollution was 'moderate' or 'high' in the East of England, and in England overall⁹. Figures for the East of England were calculated by taking an average of the sites where days were recorded (Norwich Centre, Southend-on-Sea, Thurrock, St Osyth, Sibton, Weybourne, and Wicken Fen). The number of days where air pollution was 'moderate' or 'high' in England does not

⁶ Air Quality Archive:

http://www.airquality.co.uk/archive/data_and_statistics.php?action=exceedence_pre_step&qo=Go

⁷ APIS: http://www.apis.ac.uk/overview/regulations/overview_UK_NAQS.htm

⁸ Herts Link – Quality of Life Indicators

<http://www.hertslink.org/portal/Observatory/Data%20by%20Subject/Life%20in%20the%20community/Quality%20of%20Life/Quality%20of%20Life%20Indicators>

⁹ Regional Quality of Life Counts:

<http://www.sustainable-development.gov.uk/documents/publications/rqolc2003.pdf>

include figures taken at St Osyth, Weybourne, Stockton-on-Tees Yarm, Hull Freetown, and Coventry Memorial park due to the fact that these were new sites⁹.

Table 4: National Targets⁷.

Pollutant	Objective		Year to be achieved
	concentration	measured as	
NO ₂	200 µg/m ³ not to be exceeded more than 18 times per year	1 hour mean	2005
	40 µg/ m ³	annual mean	2005
PM ₁₀	40 µg/ m ³	annual mean	2004
	50 µg/ m ³ not to be exceeded more than 35 time per year	24 hour mean	2004
SO ₂	350 µg/ m ³ not to be exceeded more than 24 times per year	1 hour mean	2004
	125 µg/ m ³ not to be exceeded more than 3 times per year	24 hour mean	2004
	226 µg/ m ³ not to be exceeded more than 35 times per year	15 minute mean	2005
Benzene	16.25 µg/ m ³	annual running mean	2010
CO	10 mg/ m ³	running 8 hour mean	2003
1, 3-butadine	2.25 µg/ m ³	annual running mean	2003

Table 5: The number of days where air pollution was 'moderate' or 'high'⁸.

Local Authority	2001	2002	2003
Watford Borough Council	5	2	10
St Albans City Council	4	4	15
Dacorum Borough Council	0	4	(4)
Three Rivers District Council	5	8	13

() = denotes sites that have a capture rate of less than 75% over the year.

Table 6: The number of days where air pollution was 'moderate' or 'high'⁹.

Site Name	Site Type	2002	2003
East of England	Average (Urban and Rural)	40	69
England Urban	Urban	19	51
England Rural	Rural	34	68

The pollutant levels in the area encompassed by Dacorum Borough Council decreased between 2001 and 2010. The levels of NO_x, NO₂, PM₁₀, SO₂ and CO in both 2001 and 2005 are below the average levels in the East of England⁶, and where appropriate are below the national targets⁷. The levels of benzene and 1, 3-butadine were also below the national targets⁷.

The number of days where air pollution was 'moderate' or 'high' increased between 2001 and 2002 from 0 to 4 days⁸, and remained constant between 2002 and 2003. This level, however, is both below the average for the East of England and the average for England⁹.

Trends

In general, pollutant levels are decreasing, and are better than the national targets.

2.3.2 Biodiversity

Relationship with other Plans and Programmes

Numerous international agreements deal with the loss of biodiversity. The Ramsar, Bonn and Bern Conventions aim to protect wetlands, migratory species, wildlife and natural habitats respectively whereas the more recent Convention on Biological Diversity, the Millennium Development Goals and the World Summit on Sustainable Development stress the wider importance of biodiversity and its conservation. On European level, the Birds and Habitats Directive and the EU Biodiversity Strategy make more specific provisions which are then cascaded down into national legislation.

The Bern convention, Birds and Habitats Directive are implemented in the UK via the Wildlife and Countryside Act, whereas the national Biodiversity Action Plan (UK BAP) sets out more detailed commitments for species and habitat protection and enhancement. The Biodiversity Strategy for England aims to embed biodiversity conservations in all main sectors of public policy, while the England Forestry Strategy fosters the sustainable management and expansion of woodland areas. This is supplemented by a number of planning policy statements/guidance notes, such as PPG 2 'Green Belts', PPS 9 'Biodiversity and Geological Conservation' and MPG 6 'Aggregates Provision' which make specific provisions for biodiversity conservation in the planning system. More locally, the Hertfordshire Biodiversity Action Plan aims to contribute to the UK BAP by setting out actions for conservation of certain species and habitats.

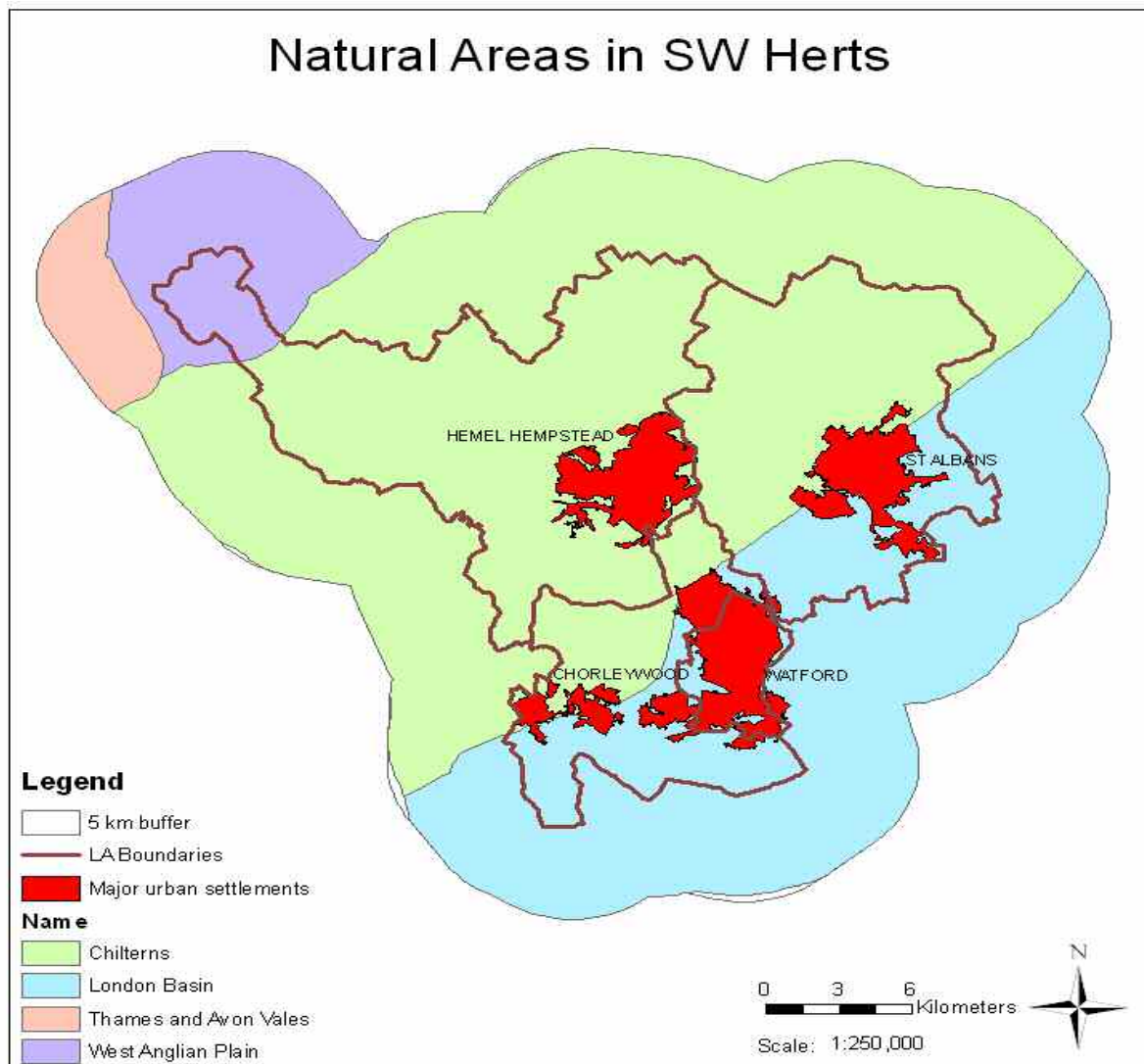
*Baseline Information**Natural Areas*

Figure 2: Natural Areas in South West Hertfordshire.

Dacorum falls within English Nature’s natural areas “Chilterns” (number 65), and “West Anglian Plain” (number 52). The former covers Dacorum almost entirely as illustrated in Figure 2. Natural areas are bio-geographic zones which reflect the geological foundation, the natural systems and processes, and the wildlife within the area. They follow very similar boundaries to the landscape character areas, although natural areas are often divided into more than one character area. The natural areas provide the context in which plans such as the LDF can look to secure, strengthen and enhance the biodiversity and natural features which characterise Dacorum’s parts of the natural areas. The English Nature summary for the Chilterns natural area starts as follows¹⁰:

“The chalk escarpment of the Chilterns is a dominant geological and landscape feature which rises steeply from the Vale of Aylesbury to 275 metres above mean sea level. The scarp face is largely wooded in character, interspersed with areas of unimproved chalk downland and scrub on thin rendzina soils, but the northern end of the scarp is more open.”

¹⁰English Nature (1997) "Chilterns Natural Area", available at <http://www.english-nature.org.uk/science/natural/profiles/naProfile65.pdf>

Dacorum contains a range of sites designated for their biodiversity value. These are illustrated in Figure 3 and discussed in more detail below.

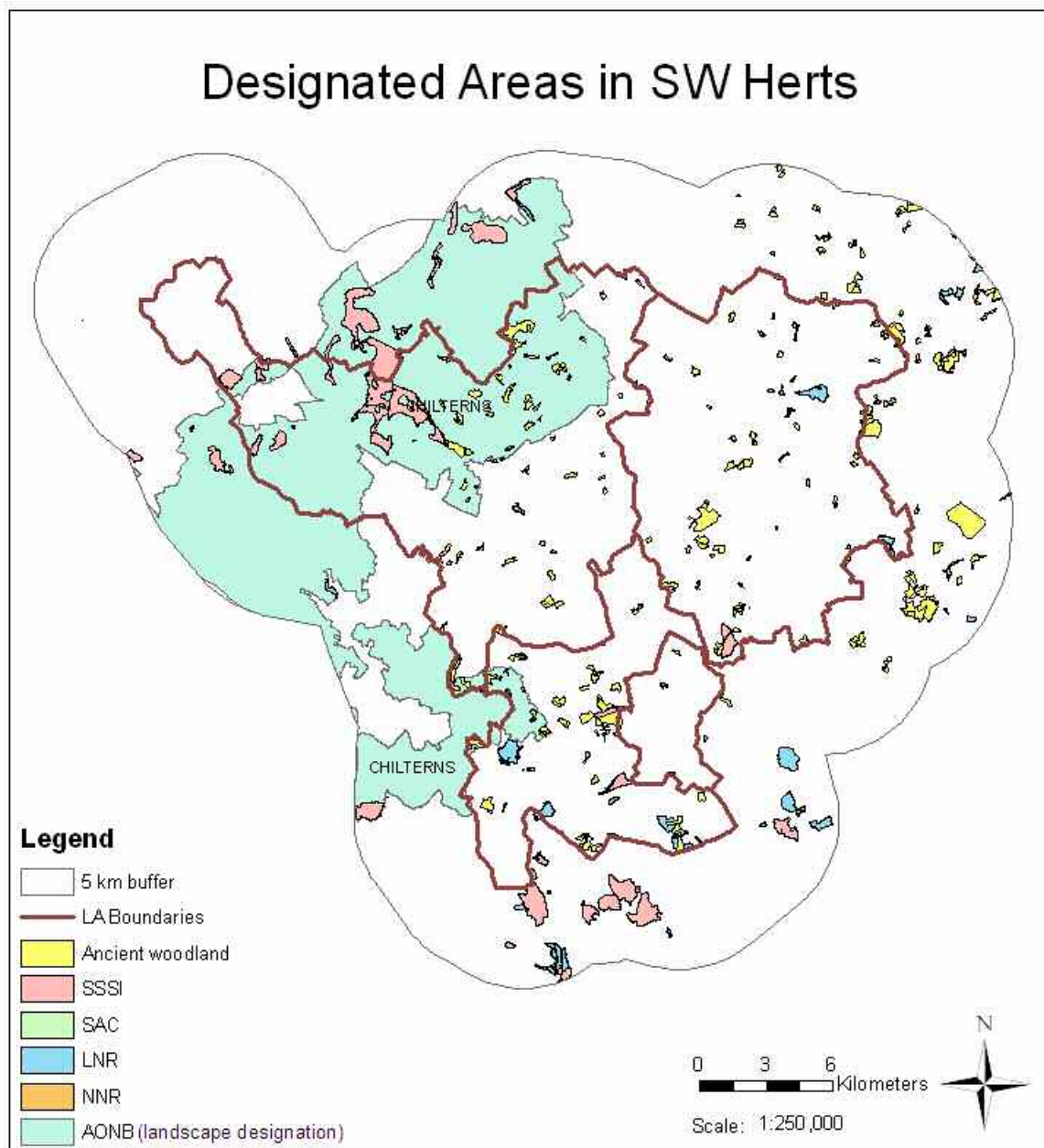


Figure 3: Designated Areas in South West Hertfordshire

Designated Areas

In terms of International and European designations Dacorum contains one Special Protection Area (SAC) under the EC Habitats Directive. Chilterns Beechwoods, is designated for its broad-leaved deciduous woodland habitats. In Addition, 8 Sites of Special Scientific Interest (SSSIs) covering 635 hectares can be found in Dacorum (Roughdown Common, Little Heath Pit, Oddy Hill and Tring Park, Tring Woodlands, Tring Reservoirs, Aldbury Nowers, Ashridge Common and Wood, Alpine Meadow).

English Nature maintains statistics on the condition of all SSSIs in England, and they have a Public Service Agreement target to have 95% of the SSSI area in “favourable” or

“unfavourable recovering” condition by 2010. 98.7% of Dacorum’s SSSIs are in favourable or unfavourable but recovering condition. This is well above the PSA target and the overall figure for Hertfordshire (66.29%) and England (63%). English Nature reports for the condition of SSSIs. The SSSIs were reviewed to find the reasons why certain SSSI areas fall in the ‘part destroyed/destroyed’ category (see Table 7). These should be taken into account in the LDF plan making process to avoid the degeneration of SSSIs in the future.

There is no National Nature Reserves (NNR) in Dacorum itself. According to English Nature¹¹ there are three Local Nature Reserves in Dacorum: Howe Grove Wood (8 ha), Shrubhill Common (11 ha) and Long Deans LNR. The locations of these sites will be taken into account, in the assessment of the LDF. There are also over 200 wildlife Sites within Dacorum.

Table 7: Reasons for adverse conditions of SSSIs (Source: English Nature).

Reason for adverse condition	% of unit area not meeting PSA target	Reason for adverse condition	% of unit area not meeting PSA target
Overgrazing	34.38%	Inappropriate CSS/ESA prescription	1.02%
Moor burning	26.42%	Fire – other	0.95%
Drainage	8.98%	Siltation	0.84%
Sea fisheries	6.93%	Water abstraction	0.79%
Air pollution	6.73%	Inappropriate water levels	0.76%
Forestry and woodland management	6.45%	Inappropriate dredging	0.67%
Inappropriate scrub control	6.10%	Inappropriate cutting/mowing	0.63%
Undergrazing	5.89%	Inappropriate pest control	0.52%
Other - specify in comments	5.88%	Pesticide/herbicide use	0.29%
Coastal squeeze	5.71%	Peat extraction	0.26%
Inappropriate ditch management	5.10%	Game management - pheasant rearing	0.22%
Water pollution - agriculture/run off	3.21%	Vehicles - other	0.21%
Inappropriate weed control	2.55%	Military	0.20%
Water pollution - discharge	2.44%	Game management - other	0.20%
Public access/disturbance	1.49%	Earth science feature obstructed	0.18%
Inappropriate coastal management	1.47%	Vehicles - illicit	0.18%
Agriculture - other	1.44%	Planning permission - other mineral and waste	0.16%
Deer grazing/browsing	1.41%	Earth science feature removed	0.11%
Fertiliser use	1.34%	Planning permission - general	0.10%
Inappropriate stock-feeding	1.04%		

Dacorum’s Biodiversity Action Plan is set out in the Dacorum Borough Nature Conservation Strategy¹². On a county level "A 50 Year Vision for the Wildlife and Natural Habitats of

¹¹ English Nature (2005) “Local Nature Reserves”, available at http://www.english-nature.org.uk/special/lnr/lnr_search.asp

¹² Borough of Dacorum (1999) "Dacorum Borough Nature Conservation Strategy", available at <http://www.ukbap.org.uk/lbap.aspx?ID=371>

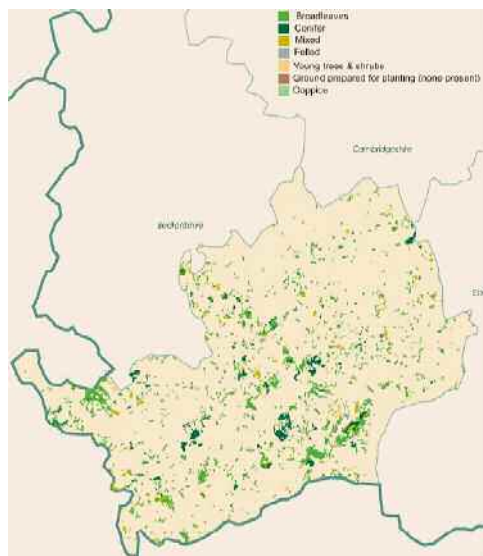
Hertfordshire¹³ was drawn up as a response to the UK Biodiversity Action Plan. It evaluates the status of habitats and species in the county and thereby identifies key habitats, species of national and local significance and areas with high biodiversity.

Species for which action plans have been prepared include, amongst others, great crested newt, bittern, stone curlew, song thrush, freshwater white-clawed crayfish, water vole, otter, dormouse, cornflower and a number of local species. Priority habitats for which action plans have been prepared include, amongst others ancient and/or species-rich hedgerows, chalk rivers, fens, reed beds and a variety of lowland habitats. These Biodiversity Action Plans should be taken into account by Dacorum Borough Council when deciding on issues which could impact on biodiversity directly or indirectly.

Hertfordshire's Quality of Life Report 2004 Report¹⁴ reports a number on indicator species which could potentially be used for monitoring:

- Water voles (declining, reflecting the national trend);
- Pipistrelle bats (no trend, first monitored in 2004);
- Grey heron (reflecting wetlands; 130 nests, regional decline and national increase);
- Skylark (reflecting farmland; increasing against regional and national decline);
- Song thrush (reflecting woodland and mixed farmland; increasing against regional decline and national increase); and,
- House sparrow (reflecting urban environment; declining in line with regional trend, no obvious national trend).

Woodland Cover



Quantified figures for woodland cover where not available for Dacorum.

The county of Hertfordshire itself has a total area of woodland of 15,503 ha covering 9.5% of the county (see Figure 4). This is slightly above the UK average of 7.7% but well below the woodland coverage in continental Europe of 30%. The BAP states that Dacorum contains 2,407ha of woodland, 11.3% of the total area.

Figure 4: Woodland coverage in Hertfordshire by type forest (Source: Forestry Commission¹⁵).

¹³ Hertfordshire Environmental Forum and Herts and Middlesex Wildlife Trust (1998) "A 50 Year Vision for the Wildlife and Natural Habitats of Hertfordshire", available at <http://www.ukbap.org.uk/lbap.aspx?id=374>

¹⁴ Hertfordshire Environmental Forum (2004) "Quality of Life Report 2004", available at <http://www.hertsdirect.org/infobase/docs/pdfstore/gol4.pdf>

¹⁵ Forestry Commission (2002) "National Inventory of Woodland and Trees - County Report Hertfordshire", available at [http://www.forestry.gov.uk/pdf/hertfordshire.pdf/\\$FILE/hertfordshire.pdf](http://www.forestry.gov.uk/pdf/hertfordshire.pdf/$FILE/hertfordshire.pdf)

Trends

The condition of SSSIs in Dacorum is in line with or close to English Nature's PSA target. More detailed trend information does not seem to be available.

The draft East of England Plan proposes to build 79,600 new houses in Hertfordshire (4,600 in Watford, 6,300 in Dacorum, 7,000 St. Albans and 3,600 Three Rivers) by 2021¹⁶. It is therefore possible that these development pressures could adversely affect biodiversity.

Data Gaps/Limitations

Lack of data on local authority level.

2.3.3 Climatic Factors

Relationship with other Plans and Programmes

The United Nations Framework Convention on Climate Change and the Kyoto Protocol provide the international framework for tackling climate change. In addition, the UN Millennium Declaration and Millennium Development Goals, and the EU Sixth Environment Action Programme stress its importance whereas the EU Bio Fuels Directive and the EU Directive to promote Electricity from Renewable Energy set out specific measures to mitigate climate change.

On a national scale, 'Climate Change: The UK Programme' and its review propose to cut UK's carbon dioxide emissions by some 60% by about 2050. This is supplemented by the white papers on energy and transport which highlight the importance of energy efficiency, renewable energy sources and sustainable transport. In a planning context PPS 22 'Renewable Energy' states regional and local planning documents shall contain policies to promote renewable energy. The RSS for the East of England, the 'East of England Plan' implements this by setting a renewables target for electricity of 17% by 2010 (excluding offshore wind).

Baseline Information

Climate change is an issue that is at the forefront of both political and public thinking at present. Over the last century, the U.K. has seen an increase in the number of storms, and extreme weather spells (for example heat waves). Climate change is partially caused by the production of greenhouse gases, which heat the Earth and cause temperatures to rise. The burning of fossil fuels is a major contributor to greenhouse gas production. Rising temperatures will cause ice caps to melt and sea levels to rise. If climate change is not slowed down there is an increased risk of flooding, storms, drought, introduction of foreign pests, and insurance blight¹⁷.

For the purpose of this report, data on carbon emissions (Table 8), improvements in domestic energy efficiency (Table 9), and Local Authority energy consumption was collected (

Table 10). It can be seen that in carbon emissions per capita for Dacorum are the lower than the regional and national average; moreover, domestic energy efficiency improved.

¹⁶ East of England Regional Assembly (2004) "draft East of England Plan", available at <http://www.eera.gov.uk/category.asp?cat=452>

¹⁷ Harman, J, Gawith, M. and Colley, M. 2005. Progress on assessing climate impacts through the UK Climate Impacts Programme, *Weather*, 60 (9), 258-262.

Table 8: Carbon dioxide emission estimates per local authority in 2003 (in kilo tonne CO₂)¹⁸.

Local Authority	Industry and Commercial	Domestic	Road Transport	Land Use Change	Total	Population (in thousands)	Per capita CO ₂ (in tonnes)	Domestic per capita CO ₂ (in tonnes)
Watford	202	215	91	0	509	80	6.4	2.7
Three Rivers	178	244	299	4	725	84	8.6	2.9
St. Albans	283	404	546	15	1248	132	9.5	3.1
Dacorum	371	360	237	20	988	138	7.2	2.6
TOTAL EAST OF ENGLAND	18193	15715	13373	2455	49735	5463	9.1	2.9
UK TOTAL	262087	163737	128606	13676	568105	59537	9.5	2.8

Table 9: Percentage improvement in domestic energy efficiency (1/4/96-31/3/2004)¹⁹.

Local Authority	Improvement in energy efficiency (%)
Watford Borough Council	21.1
St Albans City Council	15.4
Dacorum Borough Council	17.9
Three Rivers District Council	31.87

Table 10: Local Authority energy consumption²⁰.

Indicator	Watford Borough Council		St Albans City Council		Dacorum Borough Council		Three Rivers District Council	
	2002-2003	2003-2004	2002-2003	2003-2004	2002-2003	2003-2004	2002-2003	2003-2004
Actual/'Typical' energy consumption LA buildings - fossil fuels (consumption/m ²)	122.7	-	95.8	112.0	105.0	77.0	99.0	141.0
Actual/'Typical' energy consumption LA buildings – electricity (consumption/m ²)	136.6	-	225.7	234.0	110.0	78.0	97.0	87.0

Dacorum's domestic energy efficiency has improved by 17.9% between 1/4/96 and 31/2/04¹⁹; and, Fossil fuel and electricity consumption by Dacorum Borough Council has decreased between 2002 and 2004²⁰.

¹⁸ Netcen (2003) "Local and Regional Estimates of Carbon Emissions 2003 (excludes aviation, offshore, shipping)", available at

<http://www.defra.gov.uk/environment/statistics/globalatmos/galocalghg.htm>

¹⁹ DEFRA: <http://www.defra.gov.uk/environment/energy/heca95/pdf/heca-data2004.pdf>

²⁰ ODPM: <http://www.bvpi.gov.uk/pages/index.asp>

Besides reducing greenhouse gas emissions to mitigate climate change it is also important that local authorities adapt to the likely impacts. This is necessary since the climate is already changing and is likely to continue to do so for at least the next decades.

Trends

It can be seen that domestic energy efficiency improved¹⁹. There appears to be no trend regarding Local Authority energy consumption²⁰.

Data Gaps/Uncertainties

Carbon emissions per local authority are estimates only and do not include emissions from aviation, offshore and shipping.

2.3.4 Cultural Heritage

Relationship with other Plans and Programmes

The European Spatial Development Perspective aims for balanced and sustainable development in the European Union. As part of that the conservation and management of natural resources and the cultural heritage is set out as one of three fundamental goals. In the UK, 'The Historic Environment: A force for our future' states the intention of the government to protect the historic environment and recognises its major contribution to the rural economy, where as PPG 15 'Planning and the Historic Environment' and PPG 'Archaeology and Planning' set out specific guidance on how the planning system can foster the conservation of historic environmental and cultural heritage.

Baseline Information

According to English Heritage's Heritage Counts 2004, the county of Hertfordshire contains:

- 177 Scheduled Ancient Monuments (increase by 9 from 2003);
- 8,127 Listed Buildings (decrease by 1 from 2003);
- 43 Parks and Gardens (no change from 2003); and,
- 178 Conservation Areas (no change from 2003).

None of England's historic battlefields or World Heritage Sites are located in Hertfordshire. However, 2 National Trust Properties can be found in the county: Ashridge Estate (Dacorum) and Shaw's Corner (near Wheathampstead).

Development pressures and changes in agricultural policy are the two major challenges for the East of England's historic environment according to English Nature's Heritage Counts 2004²¹. For South West Hertfordshire, being part of the London Arc in immediate proximity to Greater London, the planned housing growth and infrastructure developments could potentially have adverse impacts on the local historical heritage and the proposed change needs to be carefully managed.

²¹ English Heritage (2004) "Heritage Counts 2004 - The State of England's Historic Environment", available at <http://www.english-heritage.org.uk/heritagecounts/>

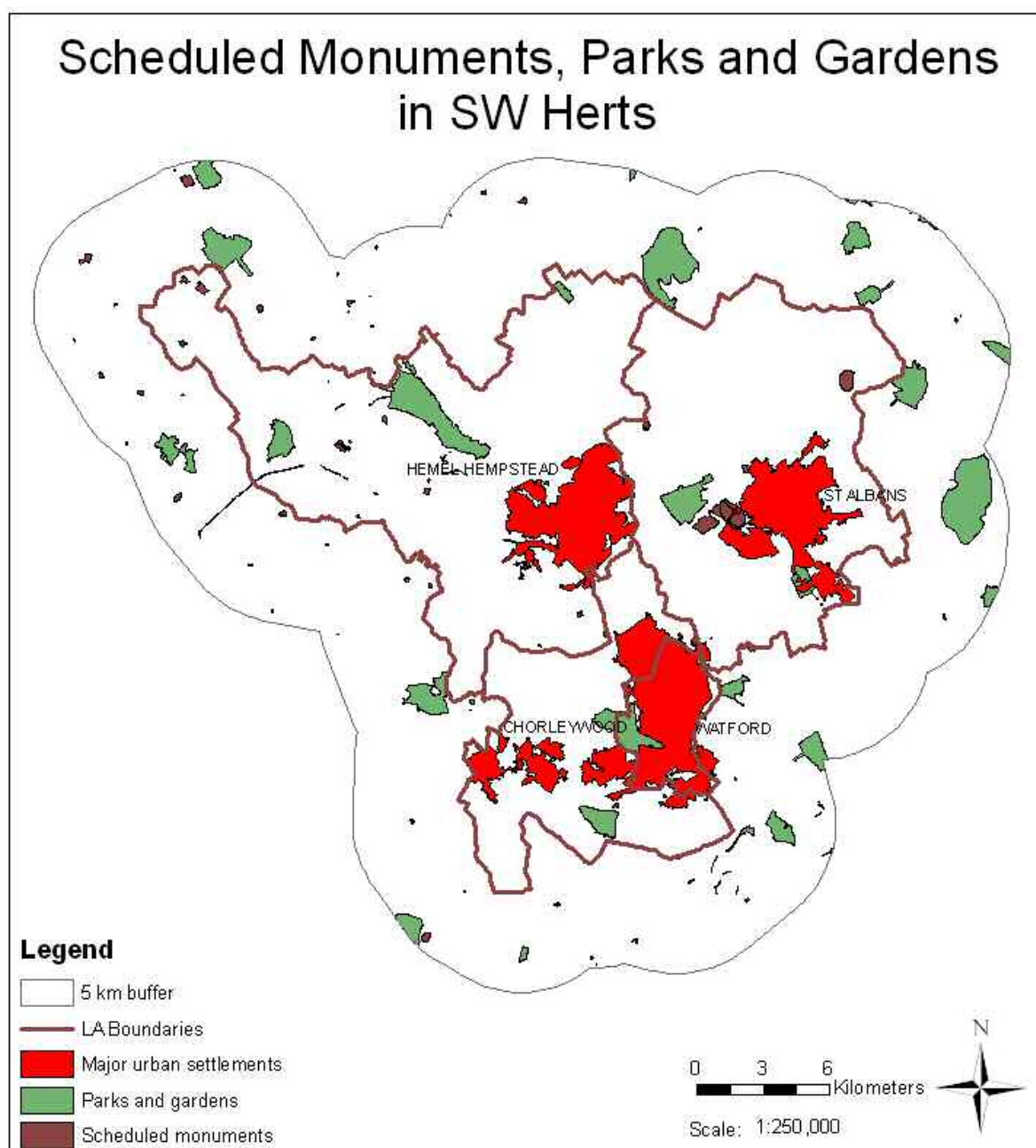


Figure 5: Registered parks and gardens and scheduled monuments in South West Hertfordshire.

The following historic assets can be found in Dacorum:

- 26 Scheduled Ancient Monuments (Two Barrows (Chipperfield Common), Little London Moated Site, Site of Royal Palace, Site of Dominican Priory, Romano Celtic Temple Wood Lane End, High Street Green Roman Barrow, Boxmoor House Roman Villa, Gadebridge Roman Villa, Marlin Chapel Farm Moated Site, Berkhamsted Motte and Bailey Castle, Site of Roman Buidling, North of Berkhamsted Castle, Sections of Grims Ditch, Berkhamsted Common Romano-British Villa Dyke and Temple, Bowl Barrows SSW of Nettleden Lodge, Icehouse SW of Ashridge College, Roman Settlement at the Cow Roast Inn, Romano-British Settlement and Earthworks on the Berkhamsted Common, Stool Balk, Two Barrows at Bridgewater Monument, Bowl Barrow in Turlshanger Wood, Bowl Barrow in Aldbury Nowers Wood, Settlement North of St Mary's Church, Ardwick Deserted Medieval Village, Deserted Village of Tiscott, Charter Tower, Hemel Hempstead);

- Over 1000 Listed Buildings;
- 23 Conservation Areas
- One building at risk²²: Great Barn at Castle Hill Farm, Castle Hill; and
- Three Registered Parks and Gardens (Markyatecell Park (37 ha), Ashridge (577 ha), Tring Park (139 ha)).

It should be noted that Hertfordshire County Council have undertaken extensive work with regards to local archaeological assets²³. Its Hertfordshire Historic Environment Record brings together (HER) information regarding Hertfordshire’s historic environment in a computerised form. It contains information on historic buildings, archaeological remains, historic sites and military remains (Figure 6). It is anticipated that this information will be used to assess in more detail how archaeological assets could be affected by the proposed planning policies.

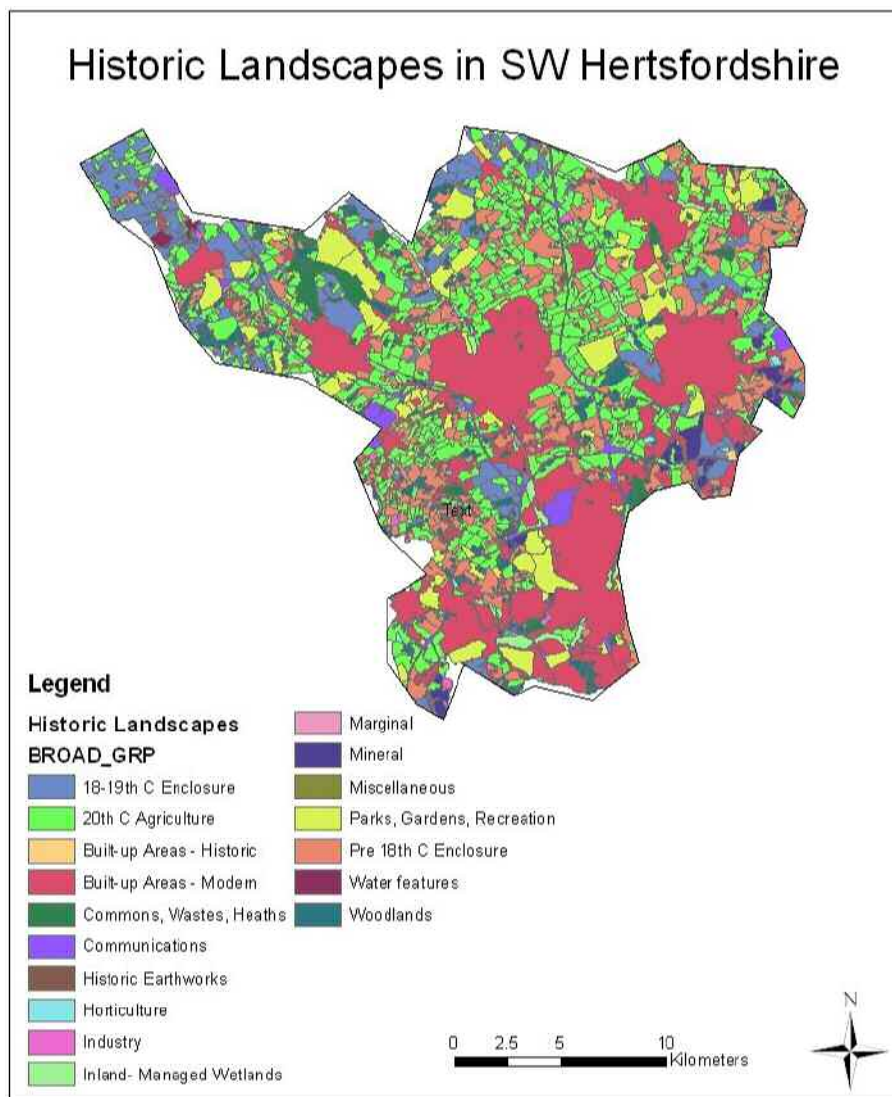


Figure 6: Historic Landscape Classification in South West Hertfordshire.

²² English Heritage (2005) “Buildings At Risk Search”, available at <http://www.english-heritage.org.uk/server/show/nav.1426>

²³ See <http://www.hertsdirect.org/libisleisure/heritage1/archaeology/sitesandmon>

Trends

For Hertfordshire as a whole there was a slight increase in scheduled monuments and no significant change for listed buildings, parks and gardens and conservation areas compared with 2003.

2.3.5 Landscape

Relationship with other Plans and Programmes

The protection and enhancement of the countryside is often dealt with in conjunction with biodiversity issues, such as in the biodiversity strategy for England 'Working with the Grain of Nature', or agricultural issues, such as farming schemes and subsidies. In addition, the new Countryside and Rights of Way Act 2000 (CRoW) created a new statutory right of access to open county and registered common land and provides the context for many accessibility issues in Britain. More locally, the Chilterns AONB strategy sets the framework for protecting and enhancing the Chilterns – an area of outstanding natural beauty lying partly in SW Hertfordshire.

Baseline Information

Tranquillity/Light Pollution

Satellite data shows that light pollution is increasing and tranquillity is decreasing in both the London Arc area and the East of England. This resulted in only 5% of truly 'dark skies' being left²⁴; most of them in deep rural areas further away from Greater London (see Figure 7). However, in Hertfordshire light pollution increased by a modest 5% compared with an 21% increase for the overall region. Over an even longer period (between 1960s and 1990s) 'tranquil areas' and 'tranquil areas with some intrusion', as based on the Campaign to Protect Rural England's mapping exercise²⁵, have been decreasing substantially mainly due to new housing and infrastructure developments (see Figure 8). For the purpose of this mapping exercise 'tranquil areas' were defined as:

'Places which are sufficiently far away from the visual or noise intrusion of development or traffic to be considered unspoilt by urban influences'

These places were identified through specific criteria, such as certain distances away roads, towns, airports and power stations.

²⁴ Campaign to Protect Rural England (2003) "Night Blight! Report", available at <http://www.cpre.org.uk/publications/landscape/light-pollution.htm>

²⁵ Campaign to Protect Rural England (2005) "Mapping Tranquillity - Defining and assessing a valuable resource", available at <http://www.cpre.org.uk/publications/landscape/tranquillity.htm>

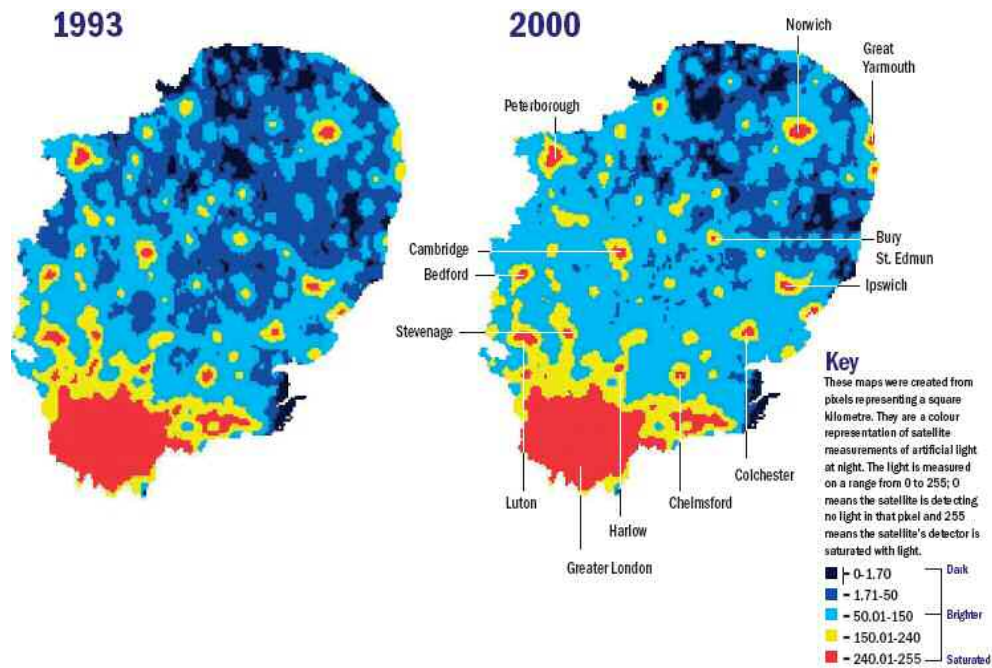


Figure 7: Light pollution in the East of England (source: Campaign to Protect Rural England).

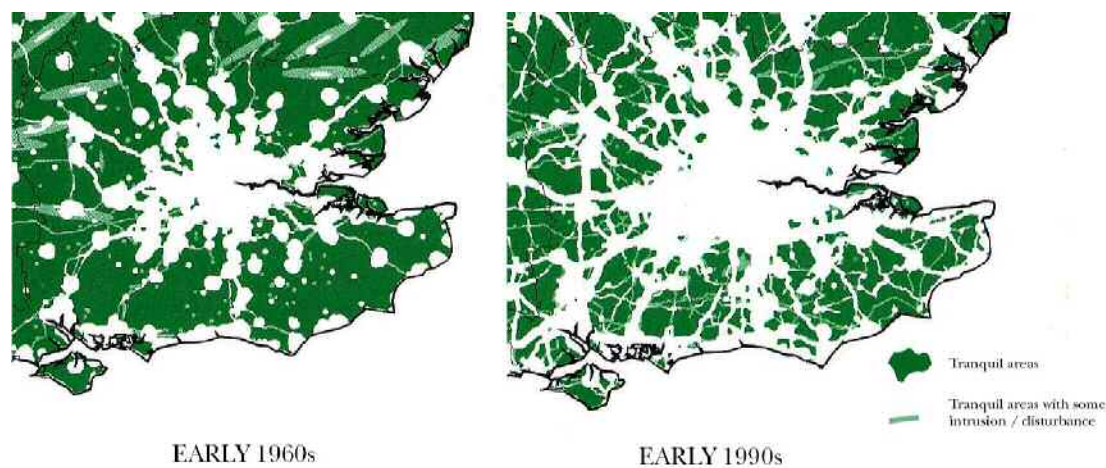


Figure 8: Loss of tranquillity between the 1960's and 1990's (source: Campaign for Rural England).

Landscape Character

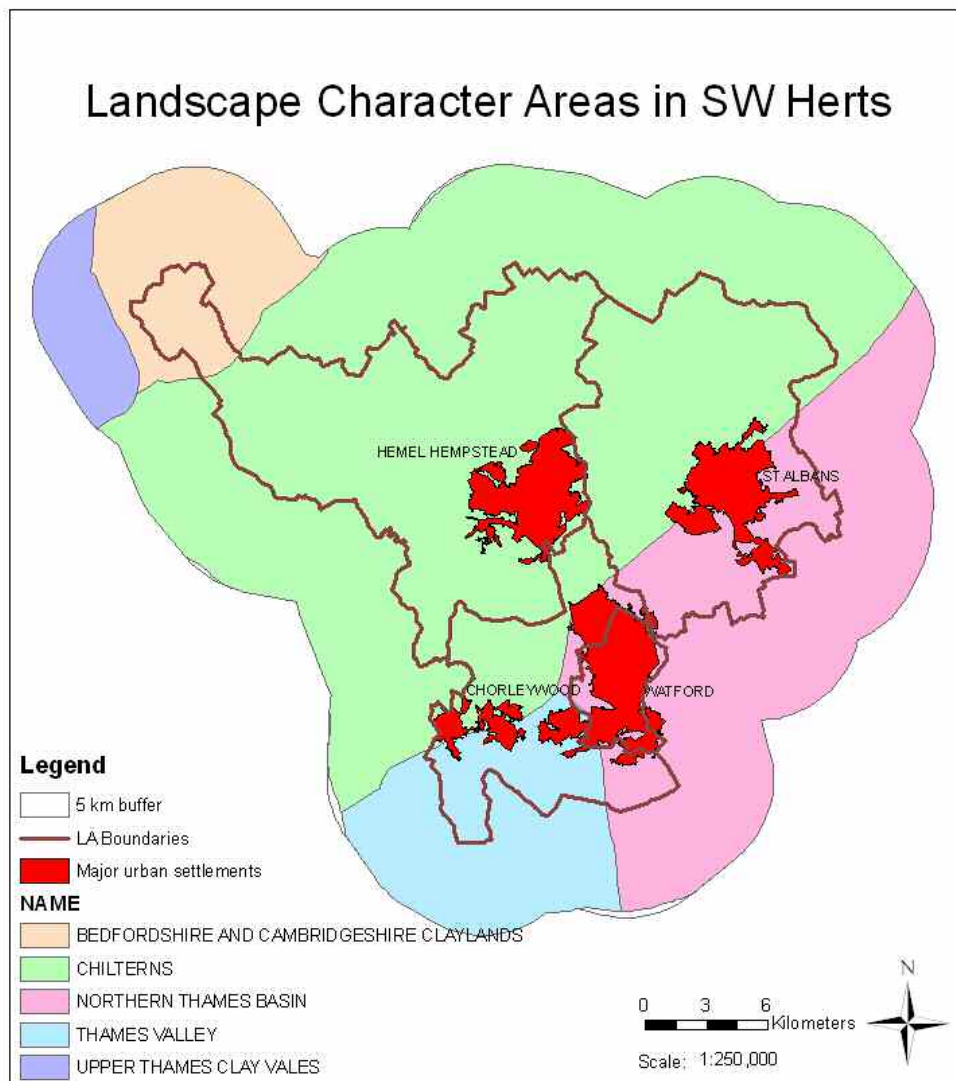


Figure 9: Landscape Character Areas in South West Hertfordshire (source: MAGIC).

Dacorum falls into two Landscape Character Areas, “Chilterns” and “Bedfordshire and Cambridgeshire Claylands” whereby the former covers the majority of Dacorum (see Figure 9). According to the Countryside Agency they are characterised as follows²⁶:

“*Chilterns* consists mainly of chalk hills, small fields and dense network of ancient hedges, often on steep ground. The agricultural landscape is often dominated by hedges, trees and small woodlands. Scattered villages and farmsteads can be found; some of medieval origin, displaying consistent use of traditional building materials including flint, brick, and clay tiles. A network of ancient green lanes and tracks covers the area including the Ridgeway which links numerous archaeological sites and settlements.”

The Bedfordshire and Cambridgeshire Claylands are characterised by a gently undulating topography and plateau areas, divided by broad shallow valleys. It is predominantly an open and intensive arable landscape. The river corridors of Great Ouse and Ivel compose cohesive sub-areas characterised by flood plain grassland, riverine willows and larger hedges. Settlements cluster around major road and rail corridors (A1 and M1). In addition, parts of Dacorum fall into the Area of Outstanding Natural Beauty (AONB) “Chilterns” which

²⁶ Countryside Agency (2000) "Landscape Character Areas in the South East and London ", available at <http://www.countryside.gov.uk/LAR/Landscape/CC/SEL/index.asp>

consists of gently rolling hills covered with beech woodland and chalk downland providing habitat to wild flowers and red kites. Dacorum, being in close proximity to London, experienced as most areas in the London Arc, some changes inconsistent with landscape character²⁷.

Hertfordshire County Council has conducted in depth work regarding local landscape character assessments²⁸. It defined Hertfordshire Landscape Regions which are based on Countryside Agency/ English Nature Countryside Joint Character Areas and supplemented with some local refinements). It is anticipated that this information will be used to assess in more detail how local landscape character could be affected by the proposed planning policies.

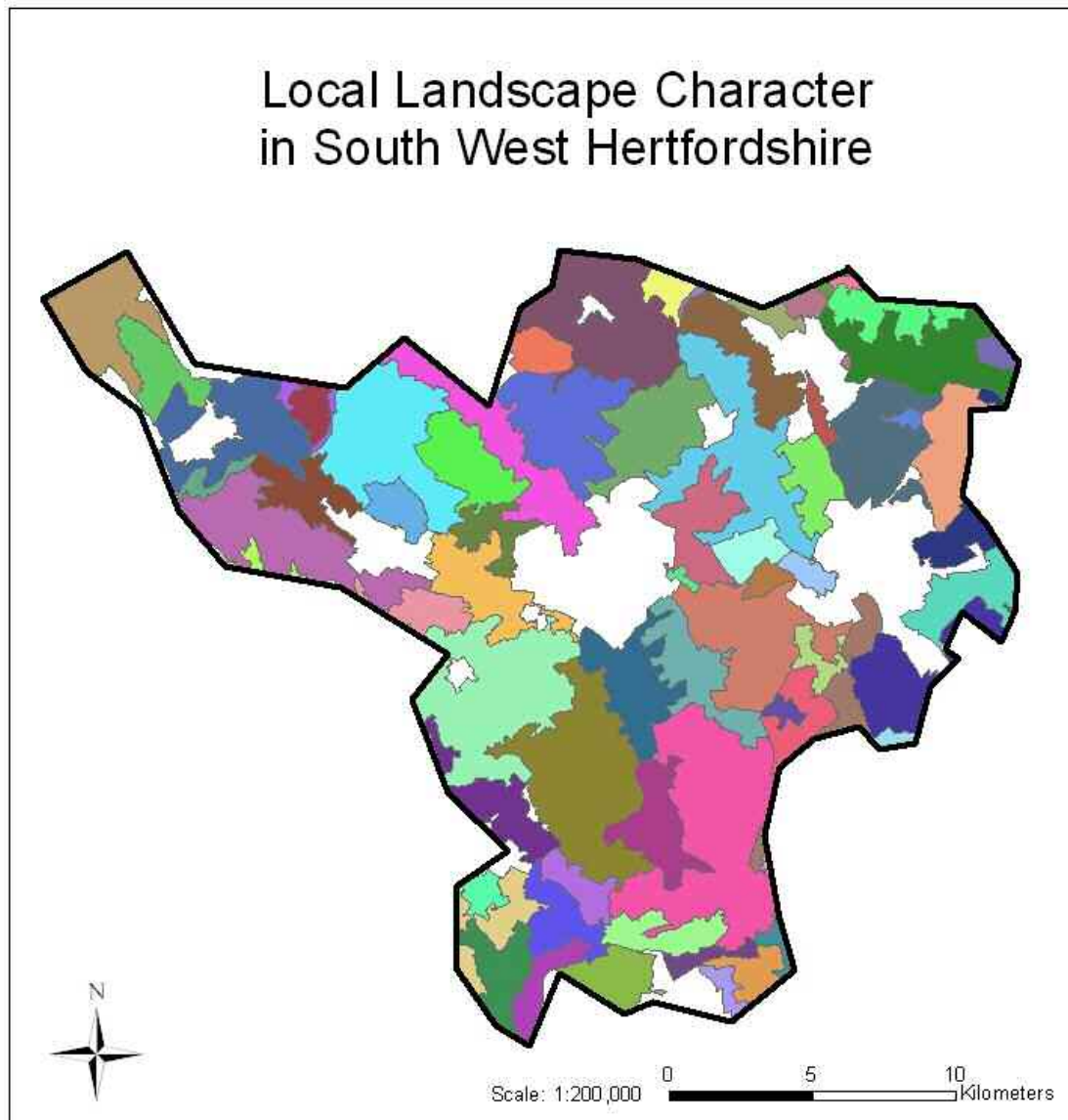


Figure 10: Local Landscape Character Areas in South West Hertfordshire.

²⁷ Levett-Therivel and LUC (2004) "East of England Plan - SA Report", available at <http://www.go-east.gov.uk/goeast/publications/>

²⁸ See <http://www.hertsdirect.org/yrccouncil/hcc/env/enjoy/care/landscape/hlca/>

Trends

Loss of tranquillity and light pollution are likely to increase further due to development pressures. Inconsistent changes to landscape character are likely to continue due to development pressures e.g. the aim to build 79,600 new houses in Hertfordshire (4,600 in Watford, 6,300 in Dacorum, 7,000 St. Albans and 3,600 Three Rivers) by 2021²⁹.

Data Gaps/Limitations

Tranquillity data not available at local authority level.

2.3.6 Material Assets

Relationship with other Plans and Programmes

The World Summit Johannesburg in 2002 and the 6th EU Environment Action Programme highlighted the need of greater resource efficiency, waste reduction and the promotion of renewable energy to make sustainable development feasible.

Numerous pieces of European legislation deal with waste issues; the Landfill Directive and the Waste Framework Directive are only two of them. The former aims to reduce the amount of waste sent to landfill whereas the latter highlights the importance of the waste hierarchy and sets the framework for national waste management licensing. The UK Waste Strategy sets out measures to make waste management in the UK more sustainable, such as decoupling waste from economic growth and promoting the composting of organic waste. PPS 22 'Renewable Energy' sets out the Government's planning policies for renewable energy. It details eight key principles regional planning bodies and local planning authorities should adhere to in their approach to planning for renewable energy.

On a regional level, 'A Shared vision, the regional economic strategy for the East of England stresses the need to improve resource efficiency, whereas the Hertfordshire Waste Plan, Hertfordshire Waste Strategy and the Hertfordshire Minerals and Waste Development Framework set out issues how to address waste issues locally.

Baseline Information

Waste

Waste production and disposal is a growing problem. In almost every country production of waste increases at least as fast as its gross national product³⁰. Disposal of this waste is becoming increasingly difficult, with diminishing numbers of suitable sites for landfill disposal³¹.

Legislation to reduce waste production, and to increase re-use, and recycling has been introduced³². Stringent targets, particularly for biodegradable waste, have been set by the European Union. The Member States must reduce the amount of biodegradable sent to landfill to 75% of 1995 levels by 2006, 50% of 1995 levels by 2009, and 35% of 1995 by 2016³². If these targets are not met, heavy fines will be imposed on the U.K³².

²⁹ East of England Regional Assembly (2004) "draft East of England Plan", available at <http://www.eera.gov.uk/category.asp?cat=452>

³⁰ Cooper, J. 2001. Waste: striving for a more sustainable future, *Local Environment*, 6 (2), 109-111.

³¹ Cheeseman, K. and Phillips, P. 2001, The Northamptonshire Resource Efficiency Project: the exit strategy, *Resources, Conservation and Recycling*, 32, 203-226.

³² Williams, P. 2005. *Waste Treatment and Disposal*, Second edition, John Wiley and Sons Ltd, Chichester, 380pp.

For the purpose of this report, Best Value Performance Indicator (BVPI) data has been collected, along with waste arisings data for Hertfordshire. Table 11 and Table 12 display this data. From these, it can be seen that in general the % of household waste composted and recycled has increased between 2001 and 2004³⁴. However, the amount of household waste (kg) collected per head has increased between 2001 and 2004³⁴.

Table 11: Best Value Performance Indicator data for waste³³.

Indicator	Watford Borough Council			St Albans City Council			Dacorum Borough Council			Three Rivers District Council		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
% of household waste composted	0	1.6	10.4	0	0	0.7	0	0.8	2.9	0	0	0
% of household waste recycled	11.2	11	10.5	15.5	11.1	18.7	9.8	12.6	13.1	12.2	13.3	18.7
Kg of household waste collected per head	339.8	358	376.2	348	369.9	378.6	356	379	376	307.4	333.5	337.9

Table 12: BVPI data for waste³⁴.

Indicator	Watford Borough Council			St Albans City Council			Dacorum Borough Council			Three Rivers District Council		
	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004	2001-2002	2002-2003	2003-2004
% of household waste composted	0	1.6	10.4	0	0	0.7	0	0.8	2.9	0	0	0
% of household waste recycled	11.2	11	10.5	15.5	11.1	18.7	9.8	12.6	13.1	12.2	13.3	18.7
Kg of household waste collected per head	339.8	358	376.2	348	369.9	378.6	356	379	376	307.4	333.5	337.9

³³ ODPM: <http://www.bvpi.gov.uk/pages/index.asp>

³⁴ ODPM: <http://www.bvpi.gov.uk/pages/index.asp>

Table 13: Percentage of the total tonnage of household arisings which have been recycled, composted, used to recover energy, and landfilled in Hertfordshire⁸.

Date	Hertfordshire							
	Recycled %	Recycled Total (Tonnes)	Composted %	Composted Total (Tonnes)	Used to recover heat, power and other energy sources %	Used to recover heat, power and other energy sources Total (Tonnes)	Landfilled %	Landfilled Total (Tonnes)
2002	10.5	55,443	4.6	24,417	7.7	40,694	77.2	408,787
2003 - 2004	15.8	80,982	6.3	32,034	6.6	33,791	71.4	366,509
2004 - 2005 (Provisional)	17.3	90,999	9.5	49,886	5.8	30,741	67.5	355,918

The amount of household waste composted in Dacorum increased from 0% to 2.9%, between 2001 and 2004³⁴. This is lower than the amount composted in Hertfordshire overall⁸.

In addition, the amount of household waste recycled increased from 9.8% to 13.1%, between 2001 and 2004³⁴. In the period 2002-2003, Dacorum Borough Council had a higher recycling rate than the average level in Hertfordshire. Between 2003 and 2004, however, Dacorum Borough Council had a lower recycling rate than Hertfordshire overall⁸.

The amount of waste collected per head increased between 2001 and 2003, from 356 kg to 379 kg, and decreased between 2003 and 2004, from 379kg to 376kg³⁴.

Trends

The percentage of household waste composted and recycled is increasing, but the amount of waste collected per head is increasing³⁴. In Hertfordshire, the amount of household waste being disposed of to landfill is decreasing, but the amount of waste used to recover energy is decreasing⁸.

Land Use

As already mentioned, there are conflicting pressures on land use in Hertfordshire. This is particularly true for housing and associated infrastructure which has to be balanced with the protection of the natural environment³⁵.

To achieve both the more efficient use of previously developed land (PDL) and the reduction of development pressures on undeveloped (greenfield sites and metropolitan greenbelt land), the government set a target that 60% of all new developments should be built on brownfield sites.

A measure of the more efficient use of material assets in the form of land is the local authority best value performance indicator (BVPI) BV 106 which states the percentage of new homes constructed on previously developed land (see Table 14).

Table 14: Best Value Performance Indicator 106 Percentage of houses built on previously developed land.

LA	2001/2002	2002/2003	2003/2004	2004/2005
Watford	100%	100%	100%	98%
Three Rivers	83%	84%	94%	Not available
Dacorum	96%	97%	94%	Not available
St. Albans	90	83	90%	Not available

³⁵ HEF (2004) "Quality of Life Report 2004", available at <http://www.hertsdirect.org/infobase/docs/pdfstore/qol4.pdf>

The figures illustrate that a much higher proportion of new developments in South West Hertfordshire was built on previously developed land compared with the regional average of 57% for 1999-2002³⁶. However, reviously developed land is a finite resource and might not be as readily available in the future, thus leading to greater use of undeveloped sites.

Detailed information about the amount of potentially contaminated land in the four authorities concerned was not available for this study. The ODPM introduced two new indicators from 2005/2006:

- BV 216a Number of sites of potential concern with respect to land contamination; and,
- BV 216b Number of sites for which sufficient detailed information is available to decide whether remediation of the land is necessary, as a percentage of all 'sites of potential concern'.

It is proposed that those indicators should inform the annual monitoring reports.

A measure of achieving higher land efficiency is increasing housing density. However, to sustain quality of life this has to be combined with good design. Unfortunately, density figures of previous housing developments have not been available to inform this report.

The same holds true for local aggregates and mineral resources. Extracting primary resources can cause a variety of impacts which could potentially be avoided by using secondary or recycled materials. Information of the current usage of these materials would therefore be advantageous for this assessment.

Trends

The draft East of England Plan proposes to build 79,600 new houses in Hertfordshire by 2021³⁷. Although the aim is to build the majority of these houses on previously developed land, a significant proportion might be built on undeveloped land. The associated land take could lead to a variety of economic, social and environmental impacts.

Data Gaps/Limitations

Information regarding land contamination, mineral and aggregate use/reserves was not available for this study.

³⁶ ONS (2003) "Regional Quality of Life Counts", available at <http://www.sustainable-development.gov.uk/documents/publications/rqolc2003.pdf>

³⁷ East of England Regional Assembly (2004) "draft East of England Plan", available at <http://www.eera.gov.uk/category.asp?cat=452>

2.3.7 Soil

Relationship with other Plans and Programmes

Besides the 'big' environmental issues, such as climate change, loss of biodiversity and desertification, impacts on soil seem often to have a lower priority. This is despite the fact that soil is the foundation of the environment, landscape, wildlife and food production. Nevertheless, on European level the EU 6th Environment Action Programme highlights soil protection as one of main priorities for the future, whereas MPG 6 'Aggregates Provision' advises mineral planning authorities how to balance best social, economic and environmental issues related to mineral and aggregates extraction which can impact on soil.

Baseline Information

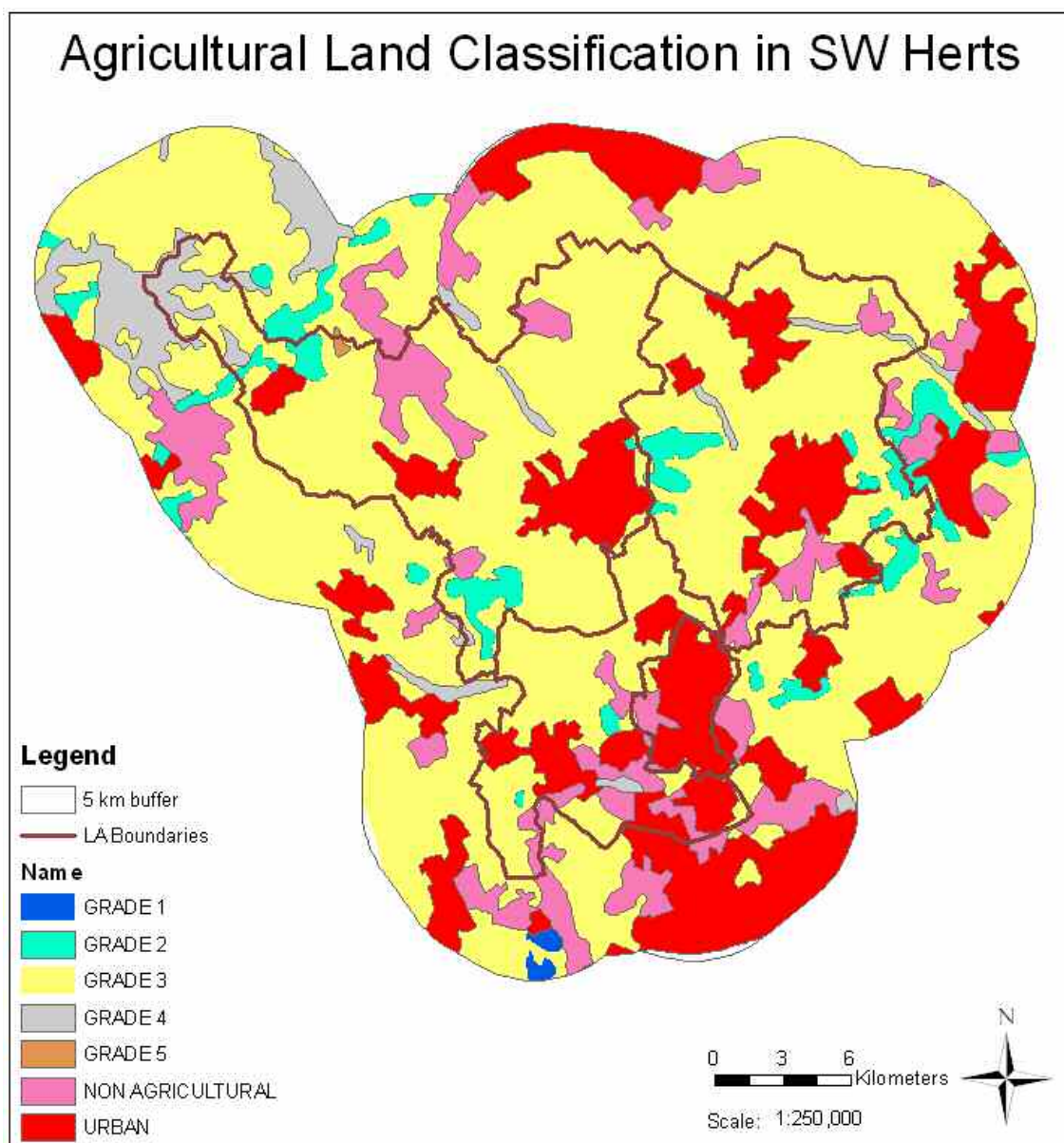


Figure 9: Agricultural Land Classification for South West Hertfordshire.

Southwest Hertfordshire's soils are mainly classified as grade 3 agricultural land, with some graded 2 soils (see Figure 9). A significant proportion is covered by urban areas; a fact it has

in common with many areas in the London Arc. Dacorum and St. Albans contain mostly slightly acid loamy and clayey soils with impeded drainage, whereas Three Rivers is characterised by more freely draining, slightly acidic sand soils. Watford, being a borough, is contains mainly built up areas³⁸.

Major impacts on soil are soil loss, contamination or compaction which can stem from a variety of sources, such as³⁹:

- Erosion;
- New developments (e.g. housing and accompanying infrastructure);
- Nutrient loss and diffuse pollution from agriculture;
- Climate change;
- Air pollution and run-off from roads; and,
- Quarrying.

Trends

The draft East of England Plan proposes to build 79,600 new houses in Hertfordshire (4,600 in Watford, 6,300 in Dacorum, 7,000 St. Albans and 3,600 Three Rivers) by 2021⁴⁰. It is therefore possible that these development pressures could adversely affect soils in the area.

Data Gaps/Uncertainties

More detailed information about local soil properties was not available for this study.

2.3.8 Water

Relationship with other Plans and Programmes

On an international level, the Millennium Development goals highlight the need to tackle issues, such as climate change, conserving biodiversity and protecting water resources. In Europe, the Water Framework Directive requires Member States to achieve 'good ecological status' of inland water bodies by 2015, whereas the EU Nitrates Directive addresses diffuse pollution from agriculture. In England, PPS 23 'Pollution Control' and PPG 25 'Development and Flood Risk' set out how the planning system can help to reduce pollution of water courses and flood risk.

Baseline Information

Water is an essential natural resource. It is important that water resources are protected so that the risk of harm to the environment and to human health can be reduced as far as possible. Nitrate and phosphate levels, in particular, need to be monitored closely due to the risk of eutrophication and loss of biodiversity. For the purpose of this report, data on the chemical and biological quality of rivers, and the % of rivers with high phosphate or nitrate concentrations have been collected. In addition, the number of planning permissions objected to and refused due to flood risk has been collected. The data has been compared against regional data.

³⁸ Levett-Therivel and LUC (2004) "Sustainability Appraisal of the East of England Plan", available at <http://www.eera.gov.uk/category.asp?cat=120&id=SXE12B-A77F5420>

³⁹ Environment Agency (2004) "The State of Soils in England and Wales", available at <http://www.environment-agency.gov.uk/subjects/landquality/776051/775200/775473/?lang=e>

⁴⁰ East of England Regional Assembly (2004) "draft East of England Plan", available at <http://www.eera.gov.uk/category.asp?cat=452>

Some areas of Hertfordshire suffer from over abstraction of water resources which has adverse impacts on flora and fauna. The proposed new developments in South West Hertfordshire are likely to lead to an increases demand for water.

Water Quality

In general, chemical water quality between 1995 and 2004 has improved, and biological water quality has declined (Table 15 and Table 16). There appears to be no obvious trend regarding phosphate and nitrate concentrations (Table 17 and Table 18).

Table 15: Chemical Water Quality⁴¹

Local Authority / Region	1995				2000				2004			
	%Good	%Fair	%Poor	%Bad	%G	%F	%P	%B	%G	%F	%P	%B
Watford	52	48	-	-	85	15	-	-	52	48	-	-
St Albans	34	54	46	-	34	78	22	-	34	95	-	5
Dacorum	18	74	8	-	28	69	3	-	38	46	16	0
Three Rivers	24	70	-	-	60	40	-	-	31	63	7	-
East of England	39.7	47.3	12.8	0.2	45.8	46.9	6.9	0.4	42.4	47.3	10.1	0.2

Table 16: Biological Water Quality⁴¹

Local Authority / Region	1995				2000				2004			
	%G	%F	%P	%B	%G	%F	%P	%B	%G	%F	%P	%B
Watford	34	66	-	-	82	7	12	-	52	7	33	9
St Albans	34	55	45	-	26	65	35	-	26	43	57	-
Dacorum	76	24	-	-	57	17	22	4	15	39	46	-
Three Rivers	90	10	-	-	76	12	9	4	36	19	37	8
East of England	71.0	27.9	0.9	0.2	80.9	18.1	0.9	0.1	77.4	20.8	1.7	0.1

Table 17: Phosphate Levels⁴¹.

Local Authority / Region	1995	2000	2004
	% High	% High	% High
Watford	100	100	100
St Albans	32	59	71
Dacorum	72	72	67
Three Rivers	100	100	93
East of England	82.6	85.4	81.0

Table 18: Nitrate Levels⁴¹.

Local Authority / Region	1995	2000	2004
	% High	% High	% High
Watford	85	52	82
St Albans	95	57	93
Dacorum	86	72	70
Three Rivers	79	26	79
East of England	94.0	92.8	93.7

⁴¹ DEFRA e-Digest: <http://www2.defra.gov.uk/db/rq/gorlist.asp>

The chemical water quality in Dacorum improved between 1995 and 2004. The percentage of rivers considered as having good chemical quality has remained lower than the average for the East of England. The % of rivers considered as having fair chemical quality, however, has remained higher than the average for the east of England, apart from 2004 where the percentage was lower⁴¹.

The biological water quality in Dacorum declined between 1995 and 2004. The percentage of water considered as having good biological quality was higher than the average for the East on England in 1995, and lower than the East of England average in 2000 and 2004⁴¹. Phosphate concentrations in Dacorum have decreased between 1995 and 2004, from 72% to 67% of rivers considered to have high phosphate concentration. This level is lower than the East of England average of 82.6% in 1995, 85.4% in 2000, and 81% in 2004⁴¹.

Nitrate concentrations in Dacorum remained below the average level for the East of England between 1995 and 2004. Levels decreased steadily between 1995 and 2004 from 86% to 70% of rivers considered to have high nitrate concentration⁴¹.

Flood Risk

Table 19 below displays the number of planning permissions objected to and refused on flood risk grounds between 04/2003 and 03/2004⁴². It can be seen that more planning permissions were objected than refused. This may be due to the fact that mitigation measures were introduced to reduce the flood risk⁴². In general, the flood risk in the area does not appear to be high due to the low number of objections by the Environment Agency.

Table 19: Planning permissions objected to and refused⁴².

Local Authority / Region	Planning permissions objected to by Environment Agency on flood risk grounds (04/2003 – 03/2004)	Planning permissions refused in line with Environment Agency advice (04/2003 – 03/2004)
Watford	0	0
St Albans	6	0
Dacorum	8	2
Three Rivers	3	0

Trends

In general, chemical water quality between 1995 and 2004 has improved, and biological water quality has declined. There appears to be no obvious trend regarding phosphate and nitrate concentrations

2.3.9 Social Factors

Human Health

Relationship with other Plans and Programmes

The planning process can affect the health of the population of the area. An unhealthy population may place increasing demands on the requirement for services and resources (such as doctor's surgeries) whilst the provision of the infrastructure to support healthy lifestyles can be encouraged by the provision of public open space or leisure facilities, the reduction of crime, severance, noise, air pollution and improving the access to services and

⁴² Environment Agency – High Level Target 12:
<http://www.environment-agency.gov.uk/subjects/flood/571633/952531/?version=1&lang=e>

facilities. Objectives regarding human health are embodied at the highest tiers of plan making, indeed the EU Sustainable Development Strategy (2001) include, 'Address threats to public health', amongst its headline objectives.

At a national level health is tackled through a number of documents, including PPG17 'Planning for Open Space, Sport, and Recreation', which recognises the health and wellbeing value of recreational and open spaces, and PPG13 'Transport', which aims to encourage walking and cycling. However, the primary document relating to human health at this level is the Government Health White Paper – 'Choosing Health: making Healthier Choices Easier'. This document contains a number of priorities which should be taken into account by the LDF and SA, in particular those relating to 'increasing exercise'.

Some of the general aims of the Hertfordshire Structure Plan (1991-2011) are to improve quality of life, and to encourage walking/cycling. These aims fit with the Health White Paper priorities, and as part of the Structure Plan, should be disseminated down into Borough and District planning documents.

Dacorum's 'Community Plan: Dacorum 2015', and its Community Safety Strategy (2005-2008), both seek to contribute to the wellbeing of Dacorum's residents by reducing fear of crime and actual crime; with 'Dacorum 2015' also aiming to improve healthcare provision. Crime, and fear of crime, is seen as an issue within the Borough and therefore should be addressed where possible in the LDF.

Baseline Information

Hertfordshire is in general a very healthy county. In the 2001 Census questions were asked for the first time about general state of health and the provision of unpaid care. Of Hertfordshire's population 6.6% have health reported as not good, compared to 7.6% in the Eastern Region and 9.0% in England. The following table indicates the percentage of resident population in each group that classify themselves as being in either good, fairly good or not good health and also provides the percentages of people that have limiting long term illnesses, are of working age and have a limiting long term illness and finally the percentage of households with one or more person with a limiting long term illness. This data is recorded for England and Wales, East of England, Watford, St Albans, Dacorum and Three Rivers.

Table 20: Population breakdown by health group⁴³.

	England and Wales	East of England	Watford	St Albans	Dacorum	Three Rivers
General health: Good	68.55%	70.35%	72.57%	75.48%	73.28%	73.58%
General health: Fairly Good	22.23%	22.05%	20.59%	18.62%	20.32%	19.93%
General health: Not Good	9.22%	7.60%	6.85%	5.90%	6.40%	6.49%
People with a limiting long term illness	18.23%	16.21%	14.21%	13.08%	13.82%	14.26%
People of working age with a limiting long term illness	13.56%	11.40%	9.86%	8.59%	9.49%	9.18%
Households with one or more person with a limiting long term illness	34.05%	30.77%	27.40%	25.39%	27.33%	27.95%

The table below shows the percentages of infant mortality for the specified areas over three time periods, indicating a trend for all the areas, illustrating a decline in infant mortality rates between 1999 and 2003.

Table 21: Infant Mortality Rate⁴⁴.

Date	Dacorum %		St. Albans %		Three Rivers %		Watford %	
	Infant Mortality / 1000 Live Births	Still Births/1000 Live Births	Infant Mortality / 1000 Live Births	Still Births/1000 Live Births	Infant Mortality / 1000 Live Births	Still Births/1000 Live Births	Infant Mortality / 1000 Live Births	Still Births/1000 Live Births
2001	4.8	3.0	4.2	4.2	6.3	7.3	7.2	3.6
1999-2001 pooled	4.2	4.0	3.6	3.7	3.3	4.6	5.4	4.5
2000-2002 pooled	3.0	3.2	3.6	3.9	3.1	5.2	6.7	5.7
2001-2003 pooled	4.5	3.5	2.9	5.4	3.9	4.9	6.1	5.8

In the Borough of Dacorum, 8,823 people reported their general health as not good, the 41st lowest rate amongst the 48 regional districts. The areas figures for health are relatively similar to our other three areas with 73.28% of the population residing there classifying their health as being good. ODPM BVPI indicators for 2003/4 show that 11.3 working days were lost to illness in Dacorum, compared to a regional average of 9.2. Infant mortality rates between 1999 and 2001 were 4.2 (per 1000 births), which compares to a national average of 5.6.

⁴³ <http://www.neighbourhood.statistics.gov.uk/dissemination/AreaProfile2.do?tab=3>

⁴⁴ <http://www.hertslink.org/portal/Observatory/Data%20by%20Subject/Life%20in%20the%20community/Quality%20of%20Life/Quality%20of%20Life%20Indicators/QoL11%20Infant%20Mortality.xls>

In the matter of unpaid care, 13057 people (approximately 9.4% of people) provided some level of unpaid care. This was slightly under both the regional and national averages, giving it a rating of 28th lowest ranking regionally⁴⁵.

Much more information could be provided about health; however this beyond the scope of this document.

Noise

Relationship with other Plans and Programmes

There are a number of EU Directives in place which control noise from transport sources, for example from vehicles and outdoor machinery. EU Directive 2002/49/EC relating to the assessment and management of environmental noise – the Environmental Noise Directive – is the latest piece of European legislation. Its aim is to define a common approach across the European Union to avoid, prevent or reduce the harmful effects of environmental noise from road, rail and air traffic and industry. By 2007 strategic noise maps have to be prepared and by 2008 action plans have to be developed for how to reduce environmental noise where necessary. In a national context, PPG 24 ‘Noise’ sets out how the planning system can be used to minimise the adverse impacts of noise and PPG 13 ‘Transport’ aims to reduce the need for travel, possibly leading to a reduction of noise from transport.

Baseline Information

The number of noise complaints in Hertfordshire has risen in the 1990s, with an increase of 2.3% between 98/99 and 99/00. In 1999/2000 local councils in Hertfordshire received over 156,860 complaints about domestic noise. The numbers of complaints for both periods is illustrated in Figure 11.

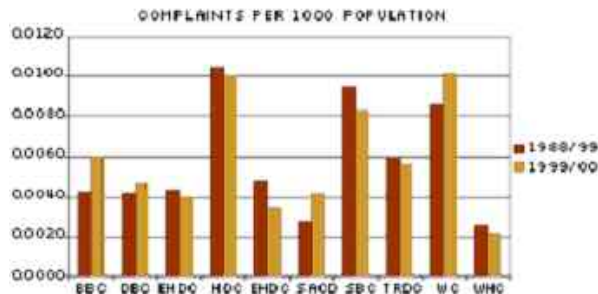


Figure 11: Noise Complaints in Hertfordshire per 1000 population.



Figure 12: Categories of noise complaints made to Hertfordshire Local Authorities in 2001/2.

Figure 12 illustrates the main categories of complaint made to Hertfordshire local councils in 2001/2. The total number of complaints in 2001/2 increased by 5 percent from the previous year with domestic noise being the largest category by far.

Dacorum Borough Council is receiving increasing numbers of complaints about transport and aircraft noise.⁴⁶ However, most of the complaints received are about noise from domestic premises. In 2003/04, the borough dealt with 181 noise complaints.

⁴⁵ UK Government Census 2001

⁴⁶ Dacorum – Report for Corporate Management Team (2004)-

http://www.dacorum.gov.uk/council/CM_Docs/OverviewScrutiny/OSEconProsp/160904ODPM-results-report.pdf

Trends

The number of noise complaints is increasing.

*Population**Relationship with other Plans and Programmes*

Population primarily relates to demographics, about which there are very few specific plans, policies or strategies. However, many other types of plans and policies will have secondary impacts on the population, e.g. housing strategy policies on accommodation for the elderly. Therefore, when taking into account effects on the SEA/SA topic of 'population', cross reference should be made to plans covered within plans and policies relating to housing, education, social deprivation, crime (safety), recreation, leisure and sports.

Objectives relating specifically to demographics (not attempting to alter them, but rather to adapt to changes in future demographics), may be found in documents focusing on sustainable development. An example can be seen in the EU Sustainable Development Strategy (2001), which includes an objective specifically on 'dealing with the economic and social implications of an ageing society'.

Baseline Information

The population of England as a whole is growing. This is due to people living longer, and the relocation of people into England from other parts of the UK, Europe and beyond. Implications will be a growing proportion of the elderly and a decreasing proportion of young people.

The total population in Hertfordshire has been recorded at approximately 1,033,977. Table 22 below shows growth rates in Watford, St Albans, Dacorum and Three Rivers.

Table 22: Population Growth rates (source: 2001 Census Population).

	2001 Census Population	1991 Census	1981 Census	Comparison of 2001 and 1991 Census
Hertfordshire	1033,977	975,829	950,760	6.0%
Watford	79,729	74,566	73,927	6.9%
St Albans	128,982	126,202	124,317	2.2%
Dacorum	137,807	132,240	128,565	4.2%
Three Rivers	82,843	78,457	77,755	5.6%

Table 23 below shows the estimates of resident population from the 2001 census. This estimate for Hertfordshire suggests a rise in population of 6% since the 1991 census.

Table 23: Population Growth by age group and gender Source: Census 2001 data⁴⁷.

	Total	Male	Female	0-14	15-29	30-44	45-59	60-74	75-89	90+
Hertfordshire	1,033,977	505,059	528,918	201,880	182,951	248,799	196,909	130,090	67,093	6,255
2001		48.80%	51.20%	19.50%	17.70%	24.10%	19.00%	12.60%	6.50%	0.60%
1991	975,829	49.00%	51.00%	18.80%	21.80%	22.40%	17.40%	13.30%	5.90%	0.40%
Watford	79,726	39,227	40,499	15,476	16,586	20,405	13,453	8,696	4,604	506
2001		49.20%	50.80%	19.40%	20.80%	25.60%	16.90%	10.90%	5.80%	0.60%
1991	74,566	49.10%	50.90%	19.10%	25.00%	22.00%	15.80%	11.60%	6.10%	0.40%
St Albans	129,005	63,414	65,591	25,003	21,562	31,947	25,303	16,228	8,173	789
2001		49.20%	50.80%	19.40%	16.70%	24.80%	19.60%	12.60%	6.30%	0.60%
1991	126,202	49.10%	50.90%	18.30%	20.90%	23.10%	18.30%	13.00%	6.00%	0.40%
Dacorum	137,799	67,797	70,002	27,153	23,436	33,444	26,829	17,258	8,936	743
2001		49.20%	50.80%	19.70%	17.00%	24.30%	19.50%	12.50%	6.50%	0.50%
1991	132,240	49.10%	50.90%	19.30%	21.60%	23.20%	16.80%	13.30%	5.40%	0.40%
Three Rivers	82,848	40,062	42,786	16,047	13,374	19,002	16,813	10,958	6,014	327
2001		48.40%	51.60%	19.40%	16.10%	22.90%	20.30%	13.20%	7.30%	0.40%
1991	78,457	48.70%	51.30%	18.10%	19.80%	21.90%	18.30%	14.60%	6.90%	0.20%

Dacorum's population was estimated at 138,000 in mid 2003⁴⁸. This saw an increase from the previous year which is forecast to continue at least until 2009. However, these past and predicted increases have been below those seen in Hertfordshire as a whole.

The population age structure is not significantly different from that of the regions. The Census 2001 data indicates that nearly 29,000 people were aged 0 to 15, over 99,000 were aged 17 to 74, and over 9,500 were aged 75 and over. The area has the highest number of people aged 85-89 out of all four areas, with 1,621 falling in to this category.

The largest ethnic minority group within Dacorum is Asian, comprising of 2,828 people according to the 2001 Census. The number of people born outside of the EU numbered 6,442 (the 113th highest proportion out of 376, in England and Wales). The Census also revealed that 131,527 within Dacorum were ethnically white, making them largest grouping.

Trends

All of the areas have shown a population growth between the census of 1991 and 2001 according to statistics. The majority of the population in each of the areas are concentrated between the ages 25 and 39. The majority of the population in each of the four areas are white people; however the Asian population has shown the fastest and greatest rate of growth since the 1991 census in all sets of data.

⁴⁷ 2001 census data from NHS website - http://www.nhsinherts.nhs.uk/hp/Hertfordshire_age2.htm

⁴⁸ Dacorum Stats and Facts – Hertfordshire Observatory (December 2004)

Housing

Relationship with other Plans and Programmes

A home is one of the most basic human needs. New housing of the right type and in the right location can help facilitate social inclusion. Ensuring that there is provision to meet the variety of needs within the community and a choice of house types, size and affordability within sites can foster a sense of place.

The European Spatial Development Perspective (1999) establishes a number of common objectives and concepts adopted by EU member states that set the high level framework for national and hence regional/local spatial plans. Economic and social cohesion are one of the main goals, and housing plays an important role in the achievement of that goal. The main national guidance relating to the provision of new housing on a regional basis is PPG3 'Housing'. This guidance emphasises the importance of mixed use developments, ensuring integration of industrial, commercial, and residential property through spatial and transport plans, in order to minimise dependency on road transport. This land use integration will also go some way toward achieving the social deprivation and accessibility objectives within the plan.

At a regional level, the Sustainable Communities: Building for the Future – Communities Plan (2003), informs the conversion of RPGs into RSSs incorporating increased targets for brown field development and affordable housing. These aims are indeed incorporated into the RSS through the East of England Plan (consultation draft). The targets set out in the East of England Plan are provided for within the Revised Regional Housing Strategy for the East of England 2005-2010. Although one of the aims of the Strategy is to ensure that housing serves to improve the region's health and well-being and reduce inequalities, the SA should ensure that housing targets are implemented in a sustainable fashion within the LDF.

Baseline Information

Additional housing is needed in the region. Access to housing is an acute problem in parts the area and many council homes are in need of significant repair. Government household projections based on the 2001 Census suggest that housing demand will be around 17% higher than was estimated by the 1996 Based Household Projections, although at the Regional level they are broadly in line with recent build rates.

Dacorum rates well in the number of Local Authority homes that are unfit for dwelling with only 6% at the start of 2003/4, which is significantly less than the regional average of 27%⁴⁹.

Within Dacorum, the number of owner occupied houses is below the East of England average by 4.02%. 70.4% of households in this area are owner occupied, this translates to 39361 households which places it 38 out of 48 in the regional rankings⁵⁰.

The percentage of homes built on previously developed land (Brownfield sites) within Dacorum stood at 94.3% in 2003/4 which was significantly higher than the regional average of 81.6%.

Trends

No trends were identified.

⁴⁹ ODPM BVPI 2003/4

⁵⁰ UK Government Census 2001

Crime

Relationship with other Plans and Programmes

Crime is to some extent covered intrinsically in plans and policies that aim to increase social cohesion. Hence plans and policies tackling social inclusion and accessibility will all be relevant. A good example of this can be seen in the Regional Social Strategy: A Strategy to Achieve a Fair and Inclusive Society in the East of England. Its strategic objectives include 'to develop social networks, community assets and promote community cohesion', which when tackled would alleviate some of the root causes of crime.

This is seen again at a higher level in the European Spatial Development Perspective (1999) which calls for economic and social cohesion. Objectives and aims relating more directly to crime should be present in community strategies at the district and borough level.

Baseline Information

Within the UK as a whole, vehicle crime and numbers of burglaries dropped over this same time period, although violent crime also rose at the national level. The table below shows the trend in crimes between 2001 and 2003.

Table 24: Crime Figures (source: Hertfordshire Observatory⁵¹).

Date	Crime	Watford	St Albans	Dacorum	Three Rivers
Apr-01	Domestic burglaries	12.23	10.58	10.25	12.04
Apr-02	Domestic burglaries	16.07	12.9	10.63	12.64
Apr-03	Domestic burglaries	77.63	59.38	45.77	59.76
Apr-01	Violent offences	8.96	3.92	4.09	2.54
Apr-02	Violent offences	16.86	8.36	6.71	6.13
Apr-03	Violent offences	75.21	33.94	32.83	26.7
Apr-01	Vehicle crimes	17.15	14.24	16.77	11.39
Apr-02	Vehicle crimes	21.47	17.61	18.47	13.27
Apr-03	Vehicle crimes	105.75	86.88	81.14	64.13

This table indicates that crime has been steadily increasing over the three years for each of the categories specified. There is a significant increase in crime between April 2002 and April 2003. These high numbers of crime are due to adoption of National Crime Recording Standard which is more victim-led and victim-orientated. In addition to this, previous crime reports were not recorded unless there was evidence.

In 2003/4 the number of burglaries per 1000 households in Dacorum stood at 10.6, below the regional average of 12.3 and England average of 14.5. ODPM BPVI data indicates that this figure is unchanged from 2002/3 figures. BVPI statistics also reveal that violent offences (per 1000 population) in Dacorum was also well below the regional and national averages (9.1 and 10.1 respectively), at only 6.9. This reflected a drop of 3.9 (or 56.2%) from the

⁵¹ Hertfordshire Observatory, Quality of Life Indicators - <http://194.216.237.13/Resources/ResourceFrame.asp?ShowWhich=resource&ResourceId=437>

previous year. Vehicle crime was in 2003/4 was well above the regional average of 13.5 (per 1000 population), standing at 17.8. This number has decreased from 2002/2003 figures by 0.8 (or 4.2%) after having risen by 1.8 (or 9.6%) from 2001/2002.

Trends

Dacorum recorded the lowest number of burglaries per 1000 population in the time period of 2003 and 2004.

Accessibility

Relationship with other Plans and Programmes

Basic facilities are an important part of our communities. They provide essential services such as food and medical provisions. They also contribute to the sense of place in communities and provide a focal point for community interactions and provide employment, often for locally based people. Limiting access and availability to these services can make people feel socially excluded and reduce interactions in the community.

The European Spatial Development Perspective (1999) establish a number of common objectives and concepts adopted by EU member states that set the high level framework for national (and hence regional/local spatial plans). Economic and social cohesion are one of the main goals, and accessibility (to services and employment) plays an important role in the achievement of that goal. The emphasis on accessibility is continued at this high level by the EU Sustainable Development Strategy. The strategy refers to accessibility directly through 'improving transport systems and land use management', and indirectly through 'dealing with the economic and social implications of an ageing society' (the latter in terms of easy access to amenities including hospitals, in which public transport and mixed use planning plays a major role).

PPG13 'Transport' aims to encourage public transport use, walking and cycling, through managing the pattern of urban growth (and other travel generating development). This will need to be addressed directly within the LDF and should contribute towards the European goals of increasing accessibility to amenities and services for all social and age groups.

The East of England Plan (consultation draft) is the overarching regional document relevant to accessibility. It provides the statutory framework for local development plans over the next 20 years, and includes objectives on improving access to employment and services and delivering more integrated patterns of land use. The Regional Social Strategy (2004) develops upon these aims in six strategic objectives which include: promoting access to work and improving access to services, especially for disadvantaged people.

The Hertfordshire Local Transport Plan 2 (LTP 2) objectives includes objectives on developing transport systems that provide access to employment, shopping, education, leisure and health facilities for all (including those without a car and those with impaired mobility). The LDF should take account of these transport objectives, and attempt to provide complimentary land use planning objectives to lie alongside them, e.g. mixed use planning, siting developments next to existing public transport facilities.

Baseline Information

BPVI indicators provide the following information on a regional level:

- The percentage of principle roads in the region, in need of repair stood at 8.7% in 2003/4, slightly lower than the English average of 9.8%;

- Local buses in the region have less patronage than other regions, at just over 14 million passenger journeys per year compared to an average per region in England of over 23.5 million (in 2003/4);
- The percentage length of footpaths and other rights of way which are easy to use in the region stood at 79.3%, significantly higher than the England average of 68.9%; and,
- The proportion of pedestrian crossings with disabled facilities within the region is similar to the English average, at 84.9% and 82.4% respectively.

In Dacorum 61.9% of local authority buildings were classified as suitable for and accessible by disabled people, compared with an average of 47.1% in the region and 43.8% in England. Although this shows an increase from the previous year, it also illustrates a slowing trend in the increase, with a greater gain being recognised between 2001/2 and 2002/3.

Trends

Dacorum has a higher proportion of buildings that are classified as suitable for and accessible by disabled people than the regional average.

Social Deprivation

Relationship with other Plans and Programmes

The European Spatial Development Perspective (1999) establish a number of common objectives and concepts adopted by EU member states that set the high level framework for national (and hence regional/local spatial plans). Economic and social cohesion are one of the main goals, and as such, place tackling pockets of social deprivation high on the agenda.

The main national guidance relevant to social deprivation is: PPG3 'Housing', which emphasises the importance of mixed use developments, and ensuring integration of industrial, commercial, and residential property through spatial and transport plans. This, alongside PPG13 'Transport', aims to improve access to amenities, services, and employment opportunities for all social and age groups.

England's Rural Strategy (2004), includes as one of its three key policies: 'Social Justice for All – tackling social exclusion wherever it occurs and providing fair access to services and opportunities for all rural people'. Despite its relatively small spatial scale, Dacorum's LDF will need to take into account rural issues.

The East of England Plan (consultation draft) is the overarching regional document relevant to social deprivation. It provides the statutory framework for local development plans over the next 20 years, and includes objectives on improving social inclusion, and regeneration of disadvantaged areas. The Regional Social Strategy (2004) develops upon these aims in six strategic objectives which include: reducing poverty and income inequalities and reducing social exclusion of older people.

Baseline Information

The geographical spread of deprivation across Hertfordshire can be gauged by using the Government's Indices of Deprivation 2004 (ID2004). These rely on Census and administrative data from 2001 for the Census's lower-layer Super Output Areas (SOAs). There are 32,482 of these in England, as opposed to the 8,414 wards used for the Indices of Deprivation 2000. In Hertfordshire there were estimated to be 82,559 people in the income deprived category. This represents around 8% of residents. For employment deprivation the number is 31,841. Hertfordshire has over 15% of the total numbers of income deprived in the region and over 14% of the employment deprived. As Hertfordshire has around 19% of the

region's residents, it can be concluded that these forms of deprivation are somewhat less prevalent in Hertfordshire than in the region as a whole⁵²

Dacorum ranks 306th out of 354 local authority areas in England on the 2004 Index of Multiple Deprivation rankings (A rank of 1 being the most deprived) most deprived local authority are (out of 354) area in England on the overall Index of Multiple Deprivation. This ranks alongside Three Rivers which is 308th, but below St Albans which ranks 333rd, and above Watford ranked the 223rd most deprived area in England.

There are pockets of deprivation within Dacorum. The range of deprivation score⁵³ in Dacorum is 1.74 to 25.49; with Berkhamsted Central as the least deprived, and Highfield as the most deprived. None of the wards in Dacorum are in the 25% most deprived nationally. Over half (19/28) of all wards are in the 25% least deprived nationally.

The percentage of economically active people from ethnic minorities in the Dacorum stands at 4.6%, behind the regional average of 5.2% and English average of 5.8% (ODPM BVPI, 2003-4). This shows no change from 2002-3 levels. Similarly, the percentage of economically active disabled people in Dacorum in 2003-4 stood at 10%, behind the regional average of 11% and English average of 13.3%. This shows no change from 2002-3, and a fall of 4.8% from 2001/2 levels (a percentage change of nearly 50%).

Trends

St Albans, Dacorum and Three Rivers all rank around 300 in the indices, St Albans being the least deprived out of the four areas according to these indices.

Recreation, Sport and Leisure

Relationship with other Plans and Programmes

The way in which green spaces are treated within land-use development documents are vital to an areas recreation, leisure and sports capacity. National guidance exists in the form of PPG17 'Planning for Open Space, Sport, and Recreation'. This guidance acknowledges that the recreational quality of opens spaces can be eroded by insensitive development, and therefore local authorities should weigh up any benefits being offered to the community against the loss of open space that will occur (and the benefits that it too provides to the local community).

All plans and policies that relate to the improving of human health through exercise are relevant to this section. This strong link between recreation/sport and health is illustrated within the Health White Paper (2004), Choosing Health: Making Healthier Choices Easier, with one of its priorities being 'increasing exercise'. At a more regional level, the Hertfordshire Sustainability Guide (2003) aims to 'promote healthier lifestyles' alongside, 'protecting, providing, and improving open spaces'.

Baseline Information

The number of visits to a museum per 1000 population in Dacorum has no recorded value in the ODPM BVPI data, which is due to the absence of a museum service in the area. The region as a whole, stood at 707 visits in 2003/4, which was significantly less than the English average of 976⁵⁴. Dacorum⁵⁵ has 9 sports centres in its area.

⁵² Hertfordshire Local Economy Assessment (2004)

⁵³ <http://www.dacorum-pct.nhs>

⁵⁴ ODPM BVPI 2003/4

⁵⁵ <http://www.dacorum.gov.uk/about/sportscentres.aspx>

Trends

Both Dacorum and Three Rivers have no recorded value for the number of visits to a museum per 1000 population, however St Albans is significantly above the regional average.

Disability Allowance

Relationship with other Plans and Programmes

The Disability Discrimination Act came into force in October 2004. The relevant quotes from the 175-page Code of Practice are:

- 2.2 (p7): “The Disability Discrimination Act makes it unlawful for a service provider to discriminate against a disabled person by refusing to provide any service which it provides to members of the public.”; and,
- 4.7 (p39): “From 1st October 1999 a service provider has to take reasonable steps to change a practice which makes it unreasonably difficult for disabled people to make use of its services.”.

This will have consequences for many types of commercial and industrial developments, and land-use development plans will need to take into account these requirements at their most basic level.

Baseline Information

In August 2003, 3,610 people in Dacorum received Disability Living Allowance. This represented 3% of all people under the age of 65 living in the area, which compared with 5% of the same age group across England and Wales⁵⁶. In August 2003, 2,770 people in Dacorum received attendance allowance, which represented 13% of all those people aged 65 and over living in the area; this compared with 14% in England and Wales. In August 2003, 3,305 people in Dacorum between the ages of 16 and 65 claimed Incapacity Benefit or Severe Disability Allowance because they had been unable to work for at least 28 consecutive weeks because of illness or disability. Of these people, 11% were under the age of 30.

Trends

No trend data available

Healthcare

Relationship with other Plans and Programmes

Health is a universal basic human need. High levels of public health lead to fitter, happier and healthier people. Health services are nationally high on citizens' list of political priorities. Other benefits include employment provision and contribution to the local economy, training and research opportunities, reduced burden on social services and public finances. Addressing the effects to public health, and, dealing with the social and economic implications of an ageing society, are both key objectives of the EU Sustainable Development Strategy (2001), and will both have implications on future healthcare provision.

⁵⁶ Figures to be confirmed. Figures on the website for National Statistics appear inaccurate.

Baseline Information

Hertfordshire have pockets of deprivation in certain wards. Hertfordshire but appears to be one of the more healthy counties of England, with life expectancy of 77 years for men and 81 years for women. Table 25 shows the life expectancy in the four areas.

Table 25: Life expectancy (source: Health Profiles of Hertfordshire⁵⁷).

	Life expectancy		Rank within Hertfordshire		Rank within UK 1=Best	
	Male	Female	Male	Female	Male	Female
Watford	75.02	79.29	10	9	249	318
St Albans	78.12	81.65	2	2	9	46
Dacorum	76.55	80.99	6	5	111	114
Three Rivers	78.72	82.66	1	1	2	7

9% of the resident population in Dacorum provided unpaid care compared to 10% in England and Wales. Of the people providing unpaid care, 16% gave 50 hours or more per week; this compared with 21% in England and Wales.

Trends

All four areas either provided care to a level of or just below the level recorded for England and Wales.

Education

Relationship with other Plans and Programmes

The European Spatial Development Perspective (1999) establish a number of common objectives and concepts adopted by EU member states that set the high level framework for national (and hence regional/local spatial plans). Economic and social cohesion are one of the main goals, and education plays an important role in the achievement of that goal.

At a regional level, the Regional Social Strategy (2004), includes strategic objectives covering: improving life chances of children from disadvantaged families, and improving the life chances of adults through learning and skills development. These objectives can be tackled through the LDF by increasing accessibility not only to employment opportunities but also to education facilities.

Baseline Information

The proportion of people of working age qualified to GCSE A level equivalent or higher in the East of England was 47.6% in 2003, this was below the UK average of 50 per cent. The East of England had the lowest percentage of higher education students who were studying in their own area, 41% in 2002/03. In Hertfordshire the proportion of pupils achieving at least level 4 at Key Stage 2 (KS2) (the anticipated level of attainment for pupils aged 11 in their final year at primary school) changed from 75% in 1999 to 78% in 2004 for Mathematics and from 78% to 83% in respect of English. There are approximately 45,893 students in Hertfordshire, 19,061 of which are economically active. Table 26 below shows the percentage of people aged 16-74 that have no qualifications in the respective areas and also highlights the figure for the East of England for comparison.

⁵⁷ Health Profiles of Hertfordshire - [http://www.nhsinherts.nhs.uk/ha/publications/ahr2001/Profile%20Report%202001%20\(C1\).pdf](http://www.nhsinherts.nhs.uk/ha/publications/ahr2001/Profile%20Report%202001%20(C1).pdf)

Table 26: Percentage of people aged 16-74 that have no qualifications.

	East of England	Watford	St Albans	Dacorum	Three Rivers
People aged 16-74 with no qualifications	27.9%	23.7%	17%	24%	21.8%

The proportion (%) of all 18-24 yr olds in full time education or employment as of January 2001 in Dacorum was 88.3%. The percentage of 15 year old pupils in schools maintained by local authority achieving 5+ GCSEs, grades A*-C in Dacorum was 44.8% in 2000/1⁵⁸, compared to an English average of 45.3% and a regional average of 50.7%.

Trends

Three of the areas had relatively high percentages of the 18 to 24 year old in full time education or employment, however interestingly; the value for Watford was unknown according to data recorded at the Hertfordshire Observatory. Dacorum is the only area from the four to score below the English average for the percentage of 15 year old pupils in schools maintained by the local authority, that are achieving 5 or more GCSE's grade A* to C.

2.3.10 Economic Factors

Economic Activity

Relationship with other Plans and Programmes

The UK Government's approach to sustainable development recognises that a better quality of life for all includes economic growth and employment as well as more widely available goods and services. This requires the creation of stable and competitive economy. Over the past three decades, UK output and inflation has been highly volatile. Economic instability has significant costs, making it difficult for individuals and firms to plan and invest, with damaging effects on long-term economic growth. It involves social costs that often fall heavily on people on lower incomes. The sensible response to this kind of economic uncertainty and turbulence is an emphasis on resilience - that is, on enabling the economy to cope with a range of possible shocks and changes. Economic resilience entails maintaining portfolios of diverse options and solutions rather than aiming for a single optimum, and maintaining the capacity of smaller and simpler subsystems to perform basic tasks if larger and more complex systems fail.

Relevant national guidance exists through a number of Planning Policy Guidance Notes. PPS6 'Town Centres and Retail Developments', aims to regenerate town centres; promoting their viability and vitality through improving their environment, transport and safety. PPG4 'Industrial, Commercial Development and Small Firms', offers guidance on the provision in planning for economic development married to respect for the environment, for example, placing industrial and commercial developments in such as way so as to minimise dependency on road transport. PPG4 reflects a number of the objectives set in place by the European Commission's White Paper on the European Transport Policy (2001), with its principles on developing high-quality urban transport.

Tourism has been and increasingly will be an important component of the local economy. PPG21 related to tourism outlines the economic significance of tourism along with its

⁵⁸ Quality of Life Indicators, Hertfordshire Observatory

potential environmental impacts. The combination of these two factors makes it an important consideration for any land-use plans.

The importance of economic growth as a key pillar within sustainable development is illustrated at the regional level by the Sustainable Development Framework for the East of England (2001). One of the Frameworks key objectives is for the achievement of growth in a balanced way. This theme is adopted by the draft East of England Plan, which has objectives relating to increased prosperity and employment growth (through increased access to employment opportunities and increasing the vitality of town centres).

A Shared Vision: The Regional Economic Strategy of the East of England (2004), expresses a vision of creating a leading economy, through objectives pertaining to improved skills base, innovation and entrepreneurship, efficient resource use, and tackling social exclusion. This is the key regional document relating to the economic activity. At a more local level, the Economic Development Strategy for Hertfordshire (2000-2005) sets out economic priorities up to 2005, including developing skills and promoting social inclusion. This Strategy embodies a large part of the Counties Employment Strategy and Workforce Development Plan. Hertfordshire's important rural economy is addressed through 'Rural Hertfordshire – and agenda for action 2001' (2005).

Baseline Information

Employment rates in the region remain high. The region however needs to do better in its progress towards National Learning Targets. In addition a significantly lower proportion of employees in the Region receive job-related training than the UK average. As in the rest of the country, women are also receiving less job-related training than men. Table 27 below shows the percentage of economic activity levels for all four authorities and also the figures for the county as a whole to enable comparison and identify targets at a local level.

Table 27: Economic Activity⁵⁹.

	% males (16-64)				
	Hertfordshire	Watford	St Albans	Dacorum	Three Rivers
Economically Active	89.80%	90.70%	87.60%	90.20%	87.90%
Economically Inactive	10.20%	9.3	12.40%	9.80%	12.10%
Students (economically active or inactive)	5.60%	5.2	6.80%	5.40%	6.60%
	% females (16-59)				
	Hertfordshire	Watford	St Albans	Dacorum	Three Rivers
Economically Active	70.40%	72.60%	70.20%	71.10%	67.60%
Economically Inactive	29.60%	27.40%	29.80%	28.90%	32.40%
Students (economically active or inactive)	9.20%	5.60%	7.80%	5.90%	7.20%

Table 28 shows the percentage of long term unemployment that prevails in all four authorities.

⁵⁹ National Statistics -

<http://www.statistics.gov.uk/StatBase/xsdataset.asp?More=Y&vlnk=1939&All=Y&B2.x=74&B2.y=7>

Table 28: Long term Unemployment.

	% males (16-74)				
	Herts	Watford	St Albans	Dacorum	Three Rivers
Long Term Unemployed	22.41%	25.60%	18.35%	20.35%	25.44%
	% females (16-74)				
	Herts	Watford	St Albans	Dacorum	Three Rivers
Long Term Unemployed	26.92%	24.34%	25.43%	24.10%	26.69%

Table 29 shows income support claimants in Hertfordshire and then Watford, St Albans, Dacorum and Three Rivers

Table 29: Income support claimants.

	Total	%	Pensioners (MIG)	Disabled	Lone Parents	Other
Hertfordshire	44,550	100	21,510	10,525	10,430	2,085
Watford	3,820	8.6	940	940	920	225
St Albans	4,265	9.6	2,020	1,150	895	200
Dacorum	5,765	13	2,795	1,385	1,340	245
Three Rivers	3,215	7.2	1,635	665	770	145

Employment

Relationship with other Plans and Programmes

The majority of the plans and programmes mentioned above under 'Economic Activity and Foot-Printing', are relevant to, and promote, local employment. A number of other relevant pieces of national and regional guidance are described below:

PPS6 'Town Centres and Retail Developments', focuses on the regeneration of town centres; promoting their viability and vitality through improving their environment, transport and safety. Viable town centres will provide employment opportunities, and improved transport should stimulate increased employment opportunities for all sectors of society.

The tourism sector could potentially provide a significant amount of local employment. PPG21 related to tourism outlines the economic significance of tourism along with its potential environmental impacts. The combination of these two factors makes it an important consideration for any land-use plans.

The East of England Plan (Consultation Draft) is a defining document at the regional level as regards employment issues. It provides the statutory framework for local development plans for at least the next 20 years, and has key objectives relating to increasing social inclusion and access to employment opportunities, along with more general employment growth.

At a more local level, the Economic Development Strategy for Hertfordshire (2000-2005) sets out economic priorities up to 2005, including developing skills and promoting social inclusion. This Strategy embodies a large part of the Counties Employment Strategy and Workforce Development Plan.

Baseline Information

Claimant count unemployed⁶⁰ in Hertfordshire for September 2005 is 9,258, a proportion of 1.4%. Over the last year the number of claimant count unemployed in Hertfordshire increased by 1,082 (13.2%).

The unemployment claimant count for Dacorum⁶¹ in October 2005 was 1,467 (1.7%) compared to 1,284 in October 2004. This was above the county average of 1.3% but below the region as a whole. Of all businesses based in Hertfordshire, 13.7% were located in Dacorum. For 'Qualifications' within Dacorum, see 'Education' section.

Trends

There has been a declining trend in the unemployment claimant count figures in Dacorum. More recently, figures seem to be rising.

Economic Footprint

Relationship with other Plans and Programmes

See relevant section under "Economic Activity".

Baseline Information

Hertfordshire accounts for 21% of Gross Value Added (GVA) growth in the East of England, and just over 2% of UK GVA. Over the period 2003-2009, GVA growth in the county is expected to average 3% pa, faster than the average for the East of England (2¾% pa) and UK (2½% pa). As in the rest of the UK, growth over this period is expected to be fuelled by services, with growth in manufacturing only averaging 1¼% pa, which is slower than the growth expected in manufacturing in the East of England (3% pa) and UK (2¾% pa) as a whole.

Employment growth in the county is expected to be driven by financial & business services, at 2¼% pa over 2003-2009, which is faster than the growth expected in the East of England (1¾% pa) and UK (1½% pa) over the same period.

The Governments Index of Deprivation (2004) gives information on the numbers considered income deprived and employment deprived. The actual numbers of people in the income deprived and employment deprived⁶² categories, on which these indices are based, are reported as the 'Income Scale' and the 'Employment Scale'. (using mid 2001 estimates). An analysis of the results for the four areas was included in the Hertfordshire Local Economy Assessment (2004):

The Hertfordshire Local Economy Assessment 2004, reveals that Dacorum accounts for around 14% of Hertfordshire's GVA. From 2003 to 2009, GVA growth in Dacorum is expected to exceed that of the rest of the county (with growth at 3.5% per annum as opposed to the 3% expected for the rest of Hertfordshire). It is proposed that this will be driven by services. The Hertfordshire Local Economy Assessment 2004 revealed that banking, finance, and insurance contribute the largest share of business units in Dacorum.

The Employment Scale showed that the Borough of Dacorum had 4,044 employment deprived people (4.8% of working age population) – giving it a rating of 7th amongst the ten districts in Hertfordshire (10 being most deprived). The Income Scale indicates that Dacorum

⁶⁰ Hertfordshire Monthly Unemployment Bulletin, October 2005.

⁶¹ Hertfordshire Monthly Unemployment Bulletin, October 2005.

⁶² A person is defined as employment deprived if they want to work but are excluded from the labour market through unemployment, sickness or disability.

had 10,801 people affected by income deprivation (7.8% of resident population) – giving it a rating of 6th amongst the ten districts in Hertfordshire. The Employment Scale showed that Dacorum had 4,044 employment deprived people (4.8% of working age population) – giving the borough a rating of 7th amongst the ten districts in Hertfordshire.

Trends

The four areas contribute 11% as a mean average towards Hertfordshire's GVA, with Dacorum holding the largest proportion out of the four with 14% contributions. They are all experiencing positive growth with regards to this GVA indicator.

Enterprise and Innovation

Relationship with other Plans and Programmes

See relevant section under "Economic Activity".

Baseline Information

The number of VAT registered businesses in Hertfordshire increased every year from 1996 to 2003. In 2003, less than 1% of all businesses were large (over 200 employees); the majority were micro (1-10 employees); the largest number was in banking, finance and insurance.

Of all businesses based in Hertfordshire, 13.7% were located in Dacorum. In 2001, there was a 0.7% increase in VAT registered businesses within Dacorum, however, this dropped by 0.3% in 2002, and fell slightly again in 2003.

Trends

There has been no clear trend in the number of VAT registered business in the areas.

2.4 Conclusions

Appendix A provides a comprehensive analysis of relevant plans and programmes and key points, under a series of topics have been identified in Section 2.3 to 2.14 above. The challenge is for the LDF to incorporate these key principles, without simply repeating higher tier policy, having regard to the local context.

Consultation question

Q3: Are there any other issues or information related to the topics covered in section 2.3 that are relevant to Dacorum's Core Strategy and Site Allocations Document that should be included?

3 Environmental and Sustainability Issues, Opportunities and Priorities

3.1 Issues and Opportunities

The review of plans and programmes affecting the borough, and the collation of the environmental baseline data informed the identification of a series of environmental problems or issues that could be addressed by, or affect the strategies and measures developed in the DPDs. Table 30 overleaf sets out the key issues, opportunities and highlights the links between the issues and topics.

Table 30: Sustainability issues.

SEA Objective	Key Issues	Opportunities	Interrelationships
Biodiversity	<p>Dacorum falls within English Nature’s natural areas “Chilterns”, and “West Anglian Plain”.</p> <p>Dacorum contains one Special Protection Area (SAC) under the EC Habitats Directive: Chilterns Beechwoods</p> <p>8 Sites of Special Scientific Interest (SSSIs) covering 635 hectares can be found in Dacorum.</p> <p>There are three Local Nature Reserves in Dacorum: Howe Grove Wood (8 ha); Long Deans and, Shrubhill Common (11 ha).</p>	<p>Create new, and improve existing habitats, Green Infrastructure</p> <p>Compensation for features lost to development where loss is completely unavoidable.</p> <p>Protection of existing networks of natural habitats including buffer areas, migration routes, stepping stones and landscape features of major importance for wildlife.</p> <p>Restoration of existing habitats and landscape features which could potentially be of major importance for wildlife.</p> <p>Linking and connecting isolated and fragmented habitats, important species populations and landscape features through creation of wildlife corridor (greenway) networks.</p> <p>LDF to promote the use of management agreements for designated sites, where this can be linked to development.</p>	<p>A healthy natural environment improves quality of life. Provides economic benefits through attracting inward investment and increased revenue through tourism.</p> <p>The diversity of habitats and species enriches peoples lives.</p> <p>Economic growth if undertaken unsustainably could adversely impact upon these assets and housing.</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
Water	<p>The chemical water quality in Dacorum improved between 1995 and 2004. The percentage of rivers considered as having good chemical quality has remained lower than the average for the East of England.</p> <p>The % of rivers considered as having fair chemical quality has remained higher than the average for the east of England, apart from 2004 where the percentage was lower.</p> <p>The biological water quality in Dacorum declined between 1995 and 2004. The percentage of water considered as having good biological quality was higher than the average for the East on England in 1995, and lower than the East of England average in 2000 and 2004.</p> <p>Nitrate concentrations in Dacorum remained below the average level for the East of England between 1995 and 2004. Levels decreased steadily between 1995 and 2004 from 86% to 70% of rivers considered to have high nitrate concentration.</p> <p>Over abstraction of water resources</p>	<p>Recognise and implement Environment Agency's surface water protection policies.</p> <p>Consider overall siting of development schemes in order to minimise potential effects on water quality</p> <p>Encourage the use of Sustainable Urban Drainage in new developments.</p> <p>Ensure efficient use of water resources in development schemes, this includes the use of recycled water.</p> <p>New developments should incorporate rainwater re-use.</p> <p>Ensure new polluting processes are located in areas where groundwater is not vulnerable.</p>	<p>Climate change is resulting in more extreme weather conditions and will heighten flood risk and demands on water resources.</p>
Soil	<p>Southwest Hertfordshire's soils are mainly classified as grade 3 agricultural land, with some graded 2. A significant proportion is covered by urban areas.</p> <p>Dacorum contains mostly slightly acid loamy and clayey soils with impeded drainage</p>	<p>Protect best and most versatile land. Promote good soil handling practices.</p>	<p>Soil resources are key to sustaining the agricultural economy.</p>
Climatic Factors	<p>It can be seen that carbon emissions per capita for Dacorum are the same/lower than the regional and national average.</p> <p>Domestic energy efficiency has improved by 17.9% between 1/4/96 and 31/2/04</p> <p>Fossil fuel and electricity consumption by Dacorum Borough Council has decreased between 2002 and 2004.</p>	<p>Ensure development proposals do not exacerbate flooding elsewhere in catchment by adopting the sequential approach to site selection advocated in PPG25</p> <p>Ensure consultation with the Environment Agency/Local Planning Authority.</p>	<p>Climate change is likely to affect water resources (supply and demand), alter habitats, affect air quality and public health and increase flood risk. These could all adversely impact upon the borough's economy.</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
		<p>Sustainable Urban Drainage – porous surfaces, greenspace, wetlands, flood storage areas, urban forestry.</p> <p>Opportunity to decrease greenhouse gas emissions through reduced reliance on the private car.</p>	
Air	<p>The pollutant levels in Dacorum decreased between 2001 and 2010.</p> <p>The levels of NOX, NO2, PM10, SO2 and CO in both 2001 and 2005 are below the average levels in the East of England and are below the national targets. The levels of benzene and 1, 3-butadine were also below the national targets.</p> <p>The number of days where air pollution was moderate or high increased between 2001 and 2002 from 0 to 4 days, and remained constant between 2002 and 2003. This level is both below the average for the East of England and the average for England.</p> <p>Increased air pollution from growth traffic and congestion</p>	<p>Ensure potentially polluting processes incorporate pollution minimisation measures.</p> <p>Promote the development of Green Travel Plans</p>	<p>Air quality influences human health which affects quality of life and also economic activity.</p> <p>Greenhouse gas emissions could lead to significant climate changes which could have significant implications for other aspects of quality of life.</p> <p>Local residents and businesses experience air quality at the local level, which affects health and amenity.</p>
Material Assets	<p>In 2001/02- 96%, 2002/03- 97% and 2003/04- 94% of new houses were built on previously developed land.</p> <p>Need to reduce household and commercial waste production</p> <p>The amount of household waste recycled increased from 9.8% to 13.1%, between 2001 and 2004.</p> <p>The amount of waste collected per head increased between 2001 and 2003, from 356 kg to 379 kg, and decreased between 2003 and 2004, from 379% to 376%.</p>	<p>Support a reduction in the amount of waste deposited in landfill</p> <p>Support alternative methods of waste management, e.g. minimisation and recycling by incorporating facilities within development schemes.</p> <p>Encourage re-use and recycling of construction waste in development schemes through the use of planning conditions.</p>	<p>Material assets include resources such as land, building materials and other resources which are non-renewable. The topic is concerned with the efficient use of resources, including re-use of brownfield sites and sustainable waste management.</p> <p>The quality of the material assets in the borough contributes to overall quality of life and can</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
			impact upon the region's economy.
Cultural heritage	<p>In Dacorum there are :</p> <p>26 scheduled monuments Over 1000 listed buildings; One building at risk: Great Barn at Castle Hill Farm, Castle Hill; and</p> <p>Four registered parks and gardens (Maryatecell Park (37 ha), Ashridge (577 ha), Tring Park (139 ha), minor part of Mentmore Towers (271 ha)).</p>	<p>Recognise the importance of cultural heritage and archaeological features and the importance of regenerating and re-using important buildings, particularly those listed as 'buildings at risk'</p> <p>Be proactive in preparing development briefs to renew, restore and redevelop neglected and deteriorating sites of historic character.</p> <p>Ensure there are strong and robust design standards for new development.</p> <p>Ensure that new and existing developments have regard to settlement patterns, the local vernacular style and incorporate local materials.</p> <p>Ensure that the public realm is effectively designed using quality materials that maintain or add to the character/distinctiveness of an area.</p> <p>Recognise the importance of archaeological features and advocate a programme of archaeological investigation prior to initial earthworks.</p> <p>Retain features of historic landscape significance, where possible.</p>	<p>Cultural heritage contributes to the overall diversity and value of the landscape.</p> <p>Also provides economic benefits and is a source of enjoyment and entertainment for the population.</p>
Landscape	<p>Light pollution is rapidly increasing and tranquillity is rapidly decreasing in the East of England.</p> <p>Increase in light pollution</p>	<p>Recognise value of all landscapes, not just designated sites.</p> <p>Monitor light pollution levels</p>	<p>An attractive landscape improves quality of life which in turn could contribute to increase inward investment.</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
	<p>Dacorum falls into two Landscape Character Areas, "Chilterns" and "Bedfordshire and Cambridgeshire Claylands"</p> <p>Parts of Dacorum fall into AONB: "Chilterns"</p>	<p>New lighting should be selected which minimises light pollution.</p> <p>Ensure landscape proposals for development schemes reflect local landscape character.</p> <p>Ensure that the character, diversity and local distinctiveness of all the landscapes of the borough are maintained, enhanced or restored.</p> <p>Ensure that access to landscape character areas is socially inclusive</p>	
<p>Population & Human Health</p>	<p>Dacorum's population was estimated at 138,000 in mid 2003. This saw an increase from the previous year which is forecast to continue at least until 2009.</p> <p>An ageing population means that there are fewer economically active people to support an increasing number of people coming up to retirement age.</p> <p>73.28% of Dacorum's population classified their health as being good.</p> <p>Infant mortality rates between 1999 and 2001 were 4.2 (per 1000 births), which compares to a national average of 5.6.</p>	<p>Ensure adequate housing, facilities and infrastructure whilst protecting and enhancing the local environment.</p> <p>Promote the dual use of facilities, e.g. post office incorporated in community hall etc.</p> <p>Ensure provision of a range of housing types to satisfy demand including affordable housing and mixed use developments and a range of housing types of varying sizes.</p> <p>Invest in sustainable transport infrastructure to support expansion. Encourage reused and recycled demolition waste in development.</p> <p>Encourage mixed-use developments.</p> <p>Use planning obligations to help secure an appropriate range of facilities.</p>	<p>Benefits of improved human health include employment provision and contribution to the local economy, training, research opportunities, reduced burden on social services and public finances.</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
Social Factors	<p>At the start of 2003/04 6% of dwellings in Dacorum are unfit for dwelling. (regional average of 27%.)</p> <p>2003/4 the number of burglaries per 1000 households in Dacorum stood at 10.6, (regional average of 12.3 and England average of 14.5).</p> <p>Violent offences (per 1000 population) in Dacorum was well below the regional and national averages (9.1 and 10.1 respectively), at only 6.9. This reflected a drop of 3.9 (or 56.2%) from the previous year.</p> <p>Vehicle crime in 2003/4 was above the regional average of 13.5 (per 1000 population), standing at 17.8.</p> <p>In Dacorum 61.9% of local authority buildings were classified as suitable for and accessible by disabled people, compared with an average of 47.1% in the region and 43.8% in England.</p> <p>Additional growth is likely to increase the pressure on affordable housing in the borough</p> <p>Dacorum ranks as the 306th most deprived area in England. Life expectancy for Males- 76.55 and Females- 80.99</p> <p>The proportion of all 18-24 yr olds in full time education or employment as of January 2001 in Dacorum was 88.3%.</p> <p>Percentage of 15 yr old pupils in schools maintained by local authority achieving 5+ GCSEs, grades A*-C was 44.8% in 2000/1⁶³, compared to an English average of 45.3% and a regional average of 50.7%.</p>	<p>Provision of affordable housing in accessible locations.</p> <p>Provision of a range of employment opportunities in accessible locations.</p> <p>Encourage the provision of convenience stores that provide fresh produce in accessible locations.</p> <p>Consider using voluntary agreements in relation to local recruitment and training.</p> <p>Use planning obligations to secure improvements to public transport.</p> <p>Adopt 'planning out crime' design principles, e.g. encourage overlooking of space etc.</p> <p>Encourage healthy forms of travel and exercise, e.g. walking/cycling and access to leisure and recreational facilities.</p> <p>Provide and maintain safe and available infrastructure for healthy pursuits – cycleways, dedicated walkways.</p> <p>Require green travel plans.</p> <p>Ensure appropriate housing provision for the elderly, e.g. through Life-long homes and appropriate forms of affordable housing.</p> <p>Ensure that such housing is located near to the necessary services and facilities and</p>	<p>Poor health and well-being will adversely impact upon economic growth in the borough.</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
		<p>public transport.</p> <p>Ensure provision of a range of education facilities. Planning obligations used to enhance existing educational facilities</p> <p>Encourage working from home by providing the necessary infrastructure.</p> <p>Need to provide a range of employment opportunities in different sectors.</p>	
Economic Factors	<p>81.2% of people of working age being in employment (Hertfordshire average being 82%).</p> <p>The unemployed claimant count in June 2004 was 1,296 (1.5%). Above the county average of 1.3%.</p> <p>GVA growth in Dacorum is expected to exceed that of the rest of the county (with growth at 3.5% per annum as opposed to the 3% expected for the rest of Hertfordshire)</p> <p>Low proportion of employees in the Region receive job-related training.</p>	<p>Provide a range of employment sites, including ones that will be attractive to inward investment.</p> <p>Provide incubator units and units with shared facilities, e.g. reception and meeting facilities etc. LDF to identify suitable locations.</p> <p>Planning obligations used to enhance existing educational facilities</p> <p>Provide a range of employments sites that will be attractive to knowledge based industries</p> <p>Support employment opportunities in higher value activities, e.g. knowledge based industries.</p> <p>Need to attract and retain people with the right skills.</p>	Social considerations and quality of life will impact on employment opportunities and ability to attract inward investment

Consultation question

Q4: Are there any other opportunities or issues that are relevant to Dacorum's Development Plan Documents that have not been covered?

Q5: Are there any further interrelationships between topics that have not been identified?

3.2 Priorities for Investigation

At this early stage of the planning process details regarding the possible content of the emerging LDF are not available. Therefore, it is very difficult to evaluate which environmental, social or economic topics are likely to be more affected than others and therefore merit more detailed assessment. Hence it is proposed to investigate all topics described in 2.3; however, it is anticipated to evaluate the following topic in more detail: biodiversity, air quality, soil, climatic factors, health, landscape and townscape, material assets, water, social and economic factors.

Consultation question

Q6: Where do you see the main issues in the area and which topics do you want see addressed with priority within the SA/SEA?

4 SEA/SA Objectives and Framework

4.1 Introduction

Current guidance on SA/SEA of land use and spatial plans advocates the use of objectives in the appraisal process. This section provides an outline of the draft objectives, criteria and indicators formulation process of the SA/SEA in order to provide a focused and clarified approach to appraising the DPDs at a later stage in the SA/SEA. This appraisal framework includes broad sustainability objectives, criteria explaining the broader objective in a more localised manner and indicators.

In order to facilitate legibility and ease of understanding and use, the sustainability objectives, criteria and indicators have been set out in the form of an Appraisal Framework, outlined in section 4.2. This approach is recommended in government good practice on carrying out environmental and sustainability appraisals⁶⁴. This Appraisal Framework will form the basis for the appraisal of all the DPDs. An explanation of the methodology for formulating the Appraisal Framework is presented below.

Please, note that work on developing the objectives, criteria and indicators is ongoing and will not be finalised until submission of the final DPDs.

4.1.1 SEA Topic

The sustainability objectives outlined in the Appraisal Framework have been arranged under SEA/SA topics. The topics that have been selected relate to the same topics listed in:

- Annex I of Directive 2001/42/EC of the European Parliament on ‘the assessment of the effects of certain plans and programmes’ (the SEA Directive); and
- Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents, ODPM, November 2005.

The topics used are set out in the first column (Biodiversity, Water, Soil, Climatic Factors, Air, Material Assets, Cultural Heritage, Landscape, Population & Human Health, Social Factors and Economic Factors).

4.1.2 Sustainability Objectives (Column 1)

Objectives have focussed on those issues, which are directly relevant to South West Hertfordshire and the scope of the DPDs. They are based on the sustainability objectives presented in the “Sustainable Development Framework for the East of England⁶⁵”.

4.1.3 Criteria (Column 2)

Criteria provide a more specific elaboration of the individual objectives. They focus specifically on the items which are of direct relevance to the DPDs.

4.1.4 Potential Assessment Indicators (Column 3)

The indicators are the yardsticks by which the environmental and sustainability performance of the LDF can be assessed and quantified in the light of the achievement of particular objectives and the satisfaction of key criteria. The indicators provide relevant measurements for the success of the DPDs in achieving the identified objectives.

⁶⁴ The Strategic Environmental Assessment Directive: Guidance for Planning Authorities. ODPM, October 2003

⁶⁵ A Sustainable Development Framework For The East of England, The East of England Regional Assembly, October 2001

The indicators outlined in the Appraisal Framework were primarily derived from the Sustainable Development Framework for the East of England supplemented with other relevant indicators already identified at the European, national, regional and local level.

The indicators will form the basis for the SA/SEA assessment work and some of the indicators might be suggested for the future monitoring of the success of the DPDs implementation.

Consultation question

Q7: Do the SA/SEA objectives provide a reasonable framework through which the likely significant environmental effects of the Core Strategy and Site Allocations DPDs can be assessed?

Q8: Are there any other indicators which are relevant to the DPDs?

4.2 Proposed SEA/SA Framework

Table 31: The SEA/SA Appraisal Framework.

Objective	Criteria	Possible Assessment Indicators
Biodiversity		
1. To protect and enhance biodiversity at all levels, including the maintenance and enhancement of Biodiversity Action Plan habitats and species in line with local targets	Avoid damage to designated wildlife sites (international, national and local) and protected species and achieve favourable condition	Populations of wild birds
	To support farming and countryside practices that enhance biodiversity and landscape quality by economically and socially valuable activities (e.g. grazing, coppicing, nature reserves)	Area of semi-natural habitat lost to development
	To restore the full range of characteristic habitats and species, to achieve BAP targets, maintain or enhance other natural assets (e.g. reedbeds) and to secure the regional stock above viable levels	Area of new semi-natural habitat created
	To create or re-create habitats, to ensure sustainable and linked species populations	Wildlife sites affected by water abstraction
	To manage sustainably all woodland and protect existing woodland against conversion to other uses	Loss/damage to Sites of Special Scientific Interest (SSSIs)
	To recognise the social/environmental value of woodlands/orchards particularly near urban areas	Numbers of species at risk
	To encourage people to come into contact with, understand, and enjoy nature	Area of ancient semi-natural woodland
Water		
2. Maintain and enhance water quality and limit water consumption to levels supportable by natural processes and storage systems, taking into account the impact of climate change	To regulate water supply to be within reasonable limits, and manage demand	Levels of awareness of water issues and the need for water saving
	To raise awareness and encourage higher water efficiency and conservation	Average per capita water consumption in new and existing development
	To develop and promote local water recycling initiatives for developments and buildings	Proportion of water needs met by local water recycling in urban and rural areas
	To encourage rainwater harvesting, to reduce new development needs	Proportion of housing (existing and new

Objective	Criteria	Possible Assessment Indicators
	<p>To improve quality and flow of rivers and reduce nitrate levels in groundwater</p> <p>To reduce pollution by managing supplied water and effluents in an integrated way</p> <p>To maintain or restore the integrity of the many water dependent wildlife sites in the region.</p>	<p>development) which includes on-site provision for rainwater re-use</p> <p>Household water use and peak demand</p> <p>Low flows in river</p> <p>Margin between water supply and projected demand</p>
<p>3. Ensure that new development does not increase flood risk and protects or enhances the capacity & integrity of flood storage areas</p>	<p>To avoid development from being located in areas at risk from coastal and fluvial flooding or storm surges taking into account of climate change</p> <p>To promote sustainable urban drainage systems to reduce flood risk and water loss from natural systems</p> <p>No development in undefended floodplains</p>	<p>% of water lost to leakage</p> <p>Number and severity of pollution incidents to surface water</p> <p>Rivers of good or fair quality</p> <p>Number and severity of pollution incidents to groundwater</p> <p>Proportion of new roads served by swales, basins or infiltration trenches vs conventional kerbs</p> <p>River flows during dry summer periods.</p> <p>Total extent/ capacity of flood storage area</p> <p>Number of properties at risk from flooding</p> <p>Proportion of runoff from new developments which is directed into Sustainable Urban Drainage Systems⁶⁶</p>

⁶⁶ Sustainable Urban Drainage Systems (SUDS) are management practices and physical structures designed to drain surface water in a more sustainable way than conventional systems.

Objective	Criteria	Possible Assessment Indicators
Soil		
4. Minimise development of land with the most agricultural value, and minimise the loss of soils to new development	To safeguard high quality agricultural land (Grades 1-2) from development	Amount of high quality agricultural land lost to development
	To limit the loss of soils to development	Net loss of soils in development Concentration of organic matter in agricultural top-soils
Climatic Factors		
5. Reduce the impacts of climate change, with a particular focus on reducing the consumption of fossil fuels and levels of CO ₂	To minimise CO ₂ emissions	Output of greenhouse gases and particularly CO ₂ per local authority and per capita Weather-related insurance claims
	To adopt lifestyle changes to cope with climate change, such as promoting water and energy efficiency(through e.g. higher levels of home insulation)	
	To encourage technological development to provide clean and efficient use of resources	Regional energy consumption compared with population and GDP
	To raise awareness of the potential of renewable energy to attract more investment	Energy use per household
	To encourage positive attitudes towards renewable energy schemes (e.g. wind and biomass)	Energy Efficiency rating for new buildings
	To encourage planning authorities to take a more positive attitude towards renewable energy schemes, home insulation, and local community renewable energy schemes	Proportion of electricity generated from renewable sources Economic health and prospects of energy industry, including off-shore
	To encourage ways of mitigating the region's impact upon the global environment, such as cleaner and more efficient use of transport, supporting local markets to reduce the unnecessary movement of raw materials and food stuffs Encourage carbon sequestration (e.g. tree planting)	Proportion of total travel which is by car Transports share of region's CO ₂ emissions Freight transport: tonne/miles and empty lorry miles
To encourage more efficient uses of energy, including product design, manufacturing processes, transport, and behavioural changes To develop, adopt and ensure the effective use of built development design guides tackling energy use, to provide homes and businesses	Air quality improvements measured against related illnesses Design solutions which work with the environment, including: working with	

Objective	Criteria	Possible Assessment Indicators
	with self-sufficient energy	topography, wind direction and solar shade to reduce impacts on/of climate change & microclimatic impacts
6. Ensure that development is capable of withstanding the effects of climate change	To promote design for more extreme climatic events, incorporating robust and weather resistant built forms	<p>Number of specific measures included in the layout which will provide climatic protection</p> <p>% of surfaces designed for water re-absorption</p>
Air Quality		
7. Achieve good air quality, especially in urban areas	To reduce the need to travel by car through a combination of high quality transport alternatives, particularly public transport, walking and cycling networks, but also light rail, taxi, and water	Levels of key air pollutants within the local authority area, and within the East of England
	To develop the East of England as Britain's premier cycling region, and promote safe routes to schools, greenways and quiet lanes	Number of days when air pollution reported as moderate or higher within the local authority area
	To promote Green Transport Plans, including car pools, car sharing, choice of low fuel and non-fossil fuel powered vehicles	Proportion of trips made by public transport/ foot/ cycle
	To improve opportunities for tourists not to have to drive, such as public transport, green lanes, and cycling	Pollutant levels for Benzene, 1,3-Butadiene, CO ₂ , Lead, NO ₂ , PM10, SO ₂
	To support energy saving and clean fuel initiatives for all forms of powered transport	Journey times on strategic links
	To encourage intelligent freight practices to transfer movements to rail and water, minimise empty lorry journeys, and promote local distribution of local food products	Time lost to congestion Amount of traffic on strategic links
	To plan for a pattern of settlement and economic activity that reduces dependence on the car and maintains access to work and essential services for non-car-owners	Emissions from public and private transport
	To raise public awareness of the need for lifestyle changes (e.g. to reduce dependence on the car)	Proportion of public transport vehicles with emissions compliant with Euro 3/ Euro 4 standards
	To encourage use of information technology and e-commerce as an	Proportion of materials specified which

Objective	Criteria	Possible Assessment Indicators
	<p>alternative communication link to travel</p> <p>To address radial (from London) dominance of routes and promote east-west links, including rail</p> <p>To make best use of and support adequate maintenance of existing strategic road and rail infrastructure, to overcome congestion</p>	<p>can be derived from local sources</p> <p>Average distance over which building materials are transported</p> <p>Proportion of essential trips possible by public transport</p> <p>Quality of strategic pedestrian routes including safety, interest and amenity</p> <p>Investment in public transport as a proportion of total transport investment</p> <p>Proportion of road network benefiting from public transport priority measures</p> <p>Public transport choice (in terms of routes and modes)</p>
Material Assets		
<p>8. Maximise the use of previously developed land and buildings, and the efficient use of land</p>	<p>To concentrate development through the reuse of previously developed land and buildings and by urban extensions only where the development of greenfield land is unavoidable</p> <p>To encourage local authorities to prepare integrated strategies which identify and bring back into productive use contaminated, vacant, and derelict land and buildings, taking into account any nature conservation or historic interest that they might have developed</p> <p>To maximise the efficient use of land by such measures as higher density development, mixed use</p>	<p>New developments built on previously developed land</p> <p>Loss of greenfield and green belt land</p> <p>Number of vacant properties</p> <p>Average density of development</p> <p>Densities along main transport corridors</p> <p>Densities in the town centre</p> <p>Area under agri-environment schemes</p> <p>Area converted to organic production</p>
<p>9. To use natural resources, both finite and renewable, as efficiently as possible, and re-use finite resources or recycled alternatives wherever possible</p>	<p>To safeguard reserves of exploitable minerals from sterilisation by other development</p> <p>To encourage maximum efficiency and appropriate use of aggregate materials</p> <p>To manage aggregate outputs to meet regional needs in a sustainable manner</p>	<p>Volumes of minerals produced in the region</p> <p>Level of minerals and aggregate use replaced by recycled or substitute</p>

Objective	Criteria	Possible Assessment Indicators
	To prevent mineral extraction where environmental/amenity impacts would be unacceptable (e.g. to communities, wildlife, semi-natural habitats, landscape, archaeology or groundwater)	materials Number of exhausted mineral sites returned to suitable use
	To restore to a high standard exhausted or abandoned mineral workings maximising opportunities to create new habitats, and ensure effective after-use management	Construction and demolition waste going to landfill
	To promote the use of recycled materials particularly in the construction industry, to avoid wasteful use and transport of resources	Imported mineral tonnage Numbers of dwellings created by re-use of existing buildings
	New development to incorporate renewable and recycled materials in buildings and infrastructure, or materials of lower environmental impact or locally sourced materials where possible	Number of buildings designed to sustainability principals
	To minimise the production of waste, and then promote re-use, recycling, composting, alternative treatment options and energy recovery before resorting to landfill, taking into account the Best Practicable Environmental Option (BPEO)	Levels of wastes and emissions (nutrients, pesticides, herbicides) Household waste and recycling rates (absolute and trends)
	To promote a shift from a culture of cheap landfill to public acceptance of well-sited well-run alternatives (e.g. recycling and composting facilities)	Concentrations of persistent organic pollutants
	To encourage easily accessible recycling systems and develop markets for recyclable materials building upon the work of the Waste and Resources Action Programme, and promote and support local strategies and enterprises (e.g. Re-Made schemes)	% of the total tonnage of household waste that has been reduced, re-used or recycled
	To promote education and demonstration projects for Combined Heat & Power (CHP) and waste recovery and recycling To promote waste awareness education programmes in schools and the community	Initiatives to promote sustainable waste management Proportion of development which incorporates design measures to facilitate sustainable household waste management
Cultural Heritage		
10. To maintain and enhance historic and cultural assets	To safeguard and enhance the historic environment, and re-create important historic features To promote local distinctiveness and pride in local identity by repairing	Buildings of Grade 1 and II* at risk of decay

Objective	Criteria	Possible Assessment Indicators
	<p>historic buildings and areas, and by encouraging the re-use of valued buildings</p> <p>To encourage thoughtful design, high density housing and mixed-use developments, which respects their context, reflecting local distinctiveness</p> <p>To promote public education and enjoyment of the built heritage and archaeology</p>	<p>Number of historic assets restored/reused</p> <p>Measures to enhance the local architectural heritage</p> <p>Conditions of ancient scheduled monuments</p>
Landscape		
<p>11. Conserve and enhance the landscape and townscape, encouraging local distinctiveness</p>	<p>To protect and enhance the district's countryside</p> <p>To protect dark skies from light pollution, and promote low energy and less invasive lighting sources, considering the balance between safety and environmental impacts</p>	<p>Development in areas designated as Countryside and Sensitive Landscape Character</p> <p>Area of landscape designation affected by/lost to development</p> <p>Changes in landscape features – woodland, hedges, stone walls and ponds</p>
Population and Human Health		
<p>12. Encourage healthy lifestyles and reduce the health impacts of new developments</p>	<p>To reduce the need for travel by promoting mixed use development</p> <p>To promote the health advantages of walking and cycling, and community based activities</p> <p>To include measures to reduce road traffic accidents</p> <p>To improve the quality and quantity of publicly accessible open space.</p> <p>To identify, protect and manage open space, such as rivers and canals, parks and gardens, allotments and playing fields, and the links between them, for the benefit of people and wildlife</p> <p>To narrow the income gap between the poorest and wealthiest parts of the region and to reduce health differential</p> <p>To make greater use of IT links to specialists by GPs for initial consultations</p>	<p>Number and length of journeys by environmentally damaging modes: car, lorry, plane</p> <p>Proportion of journeys by 'green' modes: walking, cycle, bus passenger rail, rail freight</p> <p>Access to open green spaces</p> <p>Traffic congestion</p> <p>Average journey distances</p> <p>Modal share of private car</p> <p>Modal shift to cycling and walking</p>

Objective	Criteria	Possible Assessment Indicators
	<p>To promote better public transport links to major hospitals</p> <p>To include specific design and amenity policies to minimise noise and odour pollution, particularly in residential areas</p> <p>To use strategic environmental assessment and environment impact assessment techniques to minimise noise</p>	<p>Length of cycle / footpath network</p> <p>Perceived safety of cycle ways and footpaths</p> <p>Lighting levels (in Lux) of footpaths & cycle ways & levels of exposure to vehicular traffic</p>
<p>13. To deliver more sustainable patterns of location of development, including employment and housing</p>	<p>To reduce the need to travel through closer integration of housing, jobs and services</p>	<p>Proportion of office developments & schools for which Green Travel Plans have been prepared and monitored</p> <p>Number of road casualties</p> <p>% of residents surveyed who are concerned about different types of noise in their area</p> <p>Number of residential units created above shops</p> <p>Distance travelled to work and mode of travel</p>
<p>Social Factors</p>		
<p>14. Promote equity & address social exclusion by closing the gap between the poorest communities and the rest</p>	<p>To include measures which will improve everyone's access to high quality health, education, recreation, community facilities and public transport</p> <p>To ensure facilities and services are accessible by people with disabilities</p> <p>To encourage development of sporting opportunities.</p> <p>To encourage businesses to access learning and skills for prosperity</p> <p>To encourage people to access the learning and skills they need for high quality of life</p> <p>To increase promotion and use of online learning within the workplace</p>	<p>% of residents finding it easy to access key local services & community facilities</p> <p>Qualifications at age 19</p> <p>Proportion of housing unfit or lacking appropriate insulation, by area</p> <p>% of public & community buildings accessible to disabled people</p> <p>% of community buildings that are in multiple use e.g. schools that also allow community access</p> <p>Measures to ensure that public transport</p>

Objective	Criteria	Possible Assessment Indicators
	<p>To give greater focus to learning and skills in regeneration areas</p> <p>To concentrate efforts on the provision of basic skills at community and family level</p>	<p>is accessible to the mobility impaired – including dropped kerbs, low floor busses, etc.</p>
15. Ensure that everyone has access to good quality housing that meets their needs	<p>Promote a range housing types and tenure, including high quality affordable and key worker housing</p>	<p>Proportion of public transport which is accessible to the mobility impaired</p>
16. Enhance community identity and participation	<p>To improve the provision and condition of affordable housing</p>	<p>Public transport affordable by the poorest</p>
	<p>To make the political process relevant to all sectors of communities by reinforcing local government and improving participative democracy, through proactive dialogue and community strategies</p>	<p>Library floor space per 1,000 population</p> <p>Primary school places provided</p> <p>Secondary schools places provided</p>
	<p>To acknowledge diversity, and to help communities, including ethnic minorities and others potentially excluded, to develop in their preferred way - if possible at street level</p>	<p>Affordable housing completion figures</p> <p>% of affordable housing provided</p>
	<p>To encourage local authorities and other partners to develop local cultural strategies which link to and support the Regional Cultural Strategy</p>	<p>% of housing units will be accessible to disabled people</p>
	<p>To recognise the value of the multi-cultural/faith diversity of the peoples in the region</p>	<p>% households stating their neighbourhood has 'community spirit'</p>
	<p>To improve the quality of life in urban areas by making them more attractive places in which to live and work, and to visit</p>	<p>Number of design measures/ features aimed specifically at promoting community identity</p>
	<p>To encourage high quality design in new development, including mixed uses, to create local identity and encourage a sense of community pride</p>	<p>% of citizens satisfied with the overall services provided</p>
17. Reduce both crime and fear of crime	<p>To make a concerted effort to clean up and discourage litter, graffiti, dog mess, and encourage community ownership over the issue through education and awareness</p>	<p>Recorded crime (by type) per 100,000 population</p> <p>Rates of fear of crime</p>
	<p>To tackle the root causes of crime, for example by increasing education and qualification levels of the workforce</p>	<p>Proportion of public spaces and streets which are overlooked by development.</p>
	<p>To reduce offending, particularly violent crime and burglary, year on year</p> <p>To reduce drug use and drug-related crime</p> <p>To support government-sponsored crime/safety initiatives, maximising</p>	<p>Proportion of public facilities which are multi-functional, catering for a range of uses over different periods of the day.</p>
		<p>Proportion of development (particularly in</p>

Objective	Criteria	Possible Assessment Indicators
	<p>the use of all tools available to police, local authorities and other agencies to tackle anti-social behaviour</p> <p>To improve attendance at school</p> <p>To prevent environmental crime</p> <p>To increase the use of community beat officers</p> <p>To plan new development to help reduce crime and fear of crime through the design of the physical environment, and by promoting well-used streets and public spaces</p> <p>To support citizenship awareness and anti-racism initiatives</p>	<p>the town centre) which is dormant/ unused after hours</p> <p>% of public places that have security lighting and cameras</p> <p>Levels of usage, maintenance and care of public spaces</p>
Economic Factors		
18. Achieve sustainable levels of prosperity and economic growth	<p>To support the Regional Economic Strategy aim of making the East of England a world-class economy, renowned for its knowledge base, the creativity and enterprise of its people and the quality of life of all who live and work here</p> <p>To promote and support economic diversity and particularly green technology initiatives within the manufacturing sector</p> <p>To support and promote key industry sectors, small and medium sized enterprises, community-based enterprises, and leading edge infrastructure and high quality environment</p> <p>To support the development of micro-businesses, community economic development and local investment</p> <p>To encourage investment in rural tourism initiatives, including farm diversification</p> <p>To plan and manage tourism development and activities to encourage year-round tourism, and more sustainable destinations, products and businesses (e.g. through use of a 'green audit kit')</p>	<p>GDP per head</p> <p>Annual average investment by manufacturing industry as % of GDP</p> <p>% of businesses recognised as Investors in People</p> <p>Adoption of Environmental Management Systems (ISO 14001. EMAS) and 'Green Accounting' by businesses</p> <p>Proportion of working age people in work</p> <p>Number and survival of business start-ups</p> <p>Participation in training</p> <p>Rate of growth of rural businesses</p> <p>Variations in GDP per head within the region</p> <p>Index of local deprivation</p>
19. Achieve a more equitable	To encourage local provision of, and access to, jobs and services	

Objective	Criteria	Possible Assessment Indicators
sharing of the benefits of prosperity across all sectors of society and fairer access to services, focusing on deprived area in the region	To enhance local economies giving access to appropriate, rewarding paid work	Proportion of working age people in work, by area, age band, gender and ethnicity
	To improve the competitiveness of rural businesses by promoting innovative means of service delivery (e.g. ICT, multi-purpose community centres)	Woman in public appointments and senior positions
	To promote the restructuring and diversification of agriculture such as establishing alternative rural businesses, including re-use of farm buildings as workspace to service the local area	Dependency of working –age people in workless households
	To complete telecommunications links where there are network gaps	Fuel poverty
20. Revitalise town centres to promote a return to sustainable urban living	To restore the role of market towns as centres for sustainable development providing services, housing and employment, drawing on the principles of urban renaissance.	Increase in number of illness-free years % pensioners in households with below average income
	To encourage well-designed mixed-use developments in the heart of towns and cities, create viable and attractive town centres that have vitality and life, and discourage out-of-town developments	% children in households with below have half average income Vacant land and properties and derelict land Proportion of new retail in town centres versus out-of-town Proportion of population living in town centres

4.3 Compatibility between SEA/SA Objectives and Plan Objectives

4.3.1 Compatibility between plan and SEA/SA objectives

At the beginning of the LDF process, a broad set of Core Strategy objectives were developed. The Site Allocations objectives will encompass these broad Core Strategy objectives. These emerging Core Strategy and Site Allocations objectives have been cross-referenced against the SEA objectives. The purpose of the compatibility assessment is to clarify potential conflicts and to identify any inconsistencies and incompatibilities between the two sets of objectives. Table 32 overleaf summarises the appraisal of the SEA objectives against the Core Strategy and Site Allocations Objectives.

4.3.2 The Dacorum Core Strategy and Site Allocations Objectives

Promoting Sustainable Development and Conserving Resources

- Focus development in existing urban centres, maximising accessibility to facilities
- Ensure best use of urban land
- Encourage high density development, maximising the use of places with high transport accessibility
- Support regeneration of urban sites
- Use previously developed land for new development first
- Encourage energy efficiency, renewable energy sources, water conservation/sustainable drainage and sustainable construction
- Reduce pollution
- Reduce car use and encourage use of public transport, cycling and walking
- Conserve and enhance biodiversity
- Encourage recycling

Meeting community development needs

- Provide homes to meet local needs, including affordable housing
- Meet leisure and open space needs
- Provide community infrastructure
- Provide integrated transport opportunities to meet residents needs
- Provide access to goods and services

Promoting a vibrant and prosperous economy

- Balance homes and jobs
- Ensure a range of employment opportunities across the borough for different firms and businesses
- Encourage provision of a prestigious landmark employment site

Creating and conserving quality environments

- Create high quality, safe urban developments and spaces
- Enhance and protecting the countryside and Green Belt
- Conserve local character and identity
- Conserve our historic and cultural heritage

4.3.3 Summary and Conclusions

The Compatibility Matrix indicates that overall, the Core strategy objectives are compatible with the SA/SEA objectives. Nevertheless, there are a number of objectives where there is uncertainty about compatibility. The most important areas of uncertainty which should be clarified and ideally made compatible are illustrated below.

A potential conflict could arise between the LDF objective, “Focus development in existing urban centres” and SEA objective 10, “Protect cultural assets” and objective 11, “enhance landscape and townscape.” Focusing development in the built up areas could lead to a number of inevitable negative impacts on the character and setting of sites of heritage value and the townscape. The LDF needs to ensure that high environmental standards are delivered as well as ensuring all development proposals are to a high standard and design, include mitigation measures in relation to visual intrusion and have considered potential traffic impacts.

Possible conflicts could arise between the LDF objective, “Encourage high density development. Maximising the use of places with high transport accessibility” and the SEA objective 10, “Protect cultural assets”, objective 11, “enhance landscape and townscape”. High density development can often have a detrimental impact on the character of the area and lead to an area losing its distinctive qualities. Apartments and flats are often out of keeping with the surrounding area and do not respect areas of heritage and conservation importance. High density areas can put extra pressure on local services, amenities, parking and increase traffic. Although the implementation of this LDF objective could lead to potential conflicts, it is considered that it will have significant positive outcomes for example, higher densities often result in the more efficient use of land and reduce greenfield development and in terms of affordable housing provision, as flats are more likely to be affordable than semi-detached houses.

A sustainable conflict could arise between the implementation of LDF objective, “provide homes to meet local needs, including affordable housing” and SEA objectives 1 “to protect and enhance biodiversity”, objective 2, “maintain & enhance water quality, objective 4, “minimise loss of soils”, objective 10, protect cultural assets, and objective 11, enhance landscape and townscape.” The draft East of England plan proposes to build 6,300 new houses in Dacorum by 2021. This level of proposed growth could lead to a number of negative impacts including habitat loss, in the medium to long term water quality and water consumption issues, erosion of the landscape and townscape character. Landscape and townscape character contributes to the quality of life. Local landscape features contribute to local distinctiveness and provide an attractive setting for towns. The natural landscape is an environmental asset with recreational and tourism benefits. It is applauded that the balance between housing and employment growth is recognised as being a key element of sustainable development. However it is recognised that housing is a key driver to revitalisation and it is an essential community need and a variety of housing is required across the Borough.

The implementation of the LDF Objective, ‘Ensure a range of employment opportunities across the borough’ could conflict with SEA objectives 1, “protect and enhance biodiversity”, objective 10, “Protect cultural assets” and objective 11, “enhance landscape and townscape”. The provision of a range of employment opportunities will lead to an increase in development in the borough and this growth could lead to a number of inevitable negative impacts on the character and setting of sites of heritage value, Dacorum’s townscape and landscape. It is important to protect and enhance Dacorum’s townscape and landscape as it acts as a lure for new residents and businesses. Clear design guidance and mitigation is required to protect the character of the main urban centres.

There could be a sustainability conflict between the implementation of the LDF objective, “encourage recycling” and SEA objective, “maintain and enhance water quality and quantity”. Recycling processing plants could have high waste water volumes.

There are a number of uncertainties at this stage as the full extent of the scale and location of development is at this stage undecided. The detailed aspects of the core strategy and Site allocations document will be appraised at the next SEA stage.

There are also several objectives which do not have a clear relationship between each other. For example, LDF Objective “Conserve and enhance biodiversity” and SEA objective 17, “Reduce Crime” do not bear any relationship to each other. Despite there being no relationship, it does not necessarily mean that there is a negative relationship. Objectives may relate to subject matters and therefore cannot be reasonably compared.

Consultation questions

Q9: Are there any other potential conflicts between the proposed SA/SEA objectives and the core strategy objectives that have not been identified in the compatibility assessment?

Q10: How could potential conflicts be addressed?

5 Consultation and Next Steps

5.1 Consultation

For the purposes of complying with the SEA Regulations, Part 3 Section 13, the following statutory consultees will be consulted on the Scoping Report:

- Environment Agency;
- Countryside Agency;
- English Nature; and,
- English Heritage.

Responses received from the consultation exercise will be used to inform the next stages of the SA/SEA. The SA/Environmental Report will document how the Scoping Report responses have been taken into account.

Please send responses to:

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Civic Centre
Hemel Hempstead
Hertfordshire
HP1 1HH
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Consultation question

Q.11: How would your organisation like to be involved in the rest of this SA/SEA process?

5.2 Next Steps

5.2.1 Introduction

This section of the report sets out the subsequent stages of the SA/SEA. They are:

- Stage B: Developing and refining options and assessing the effects of the plan;
- Stage C: Documenting the appraisal process in the SEA/SA report;
- Stage D: Consultation with the public and statutory bodies; and
- Stage E: Monitor the effects of the plan on the environment/sustainability.

Each of these stages has been summarised in the sections below.

5.2.2 Stage B: Assessment of the effects of the LDF alternatives

Stage B provides first opportunity for the appraisal of the emerging DPDs in terms of their potential to meet sustainable objectives and satisfy individual criteria. It is considered that in

principle the appraisal will ascertain the impacts of each of the Plan's alternatives as well as providing recommendations and suggestions for mitigation measures to be included, which could improve the sustainability performance of the alternatives under consideration. By means of this process the SEA/SA will contribute to the selection of the preferred alternative.

Each of the options identified will be tested against the SA / SEA framework of objectives and indicators. This will help the assessors determine their performance in sustainability terms and identify their significant environmental effects. The process will be iterative with the assessors working closely with the plan makers to strengthen options as the assessment continues. The level of the assessment depends much on the level of detail provided by the plan makers. It is likely to vary between two extremes:

- At the strategic level, options will be assessed at a relatively broad scale using expert judgement, indicating which issues are likely to be of concern and what assumptions have been made regarding potential sites that may be developed under the particular options. The setting out of the assumptions made by the team will help to manage the uncertainty inherent in a strategic level assessment;
- At the site level the assessment may allow some quantification. i.e. the number of households that may experience increased noise, potential increases in traffic levels etc.

Regardless of the stage in the assessment (whether at the strategic or the site level), a judgement based approach to prediction that is transparent and auditable will be taken. This will wherever possible be guided by pre-set assessment questions / indicators and evidence. A variety of tools will be used to aid assessment and these include:

- Participation of environmental groups;
- Geographical Information Systems (GIS); and
- Causal chain analysis.

The results will be presented in a matrix to ensure clarity and transparency. It is proposed that the Appraisal Framework, outlined in section 4.2 will provide the basis for predicting the effects of the alternatives which will involve comparing the alternatives with one another. This will describe changes in terms of their magnitude, their geographical scale, the time period over which they will occur, whether they are permanent or temporary, positive or negative, probable or improbable, frequent or rare, and whether or not there are cumulative and/or synergistic effects. These criteria will be used to determine if each effect is considered significant both by itself and in conjunction with other plans and programmes.

For each significant effect identified, mitigation measures (including avoidance, offsetting and enhancement measures) will be suggested. The SA Report will:

- Identify the need for mitigation for the strategy as a whole and will also suggest mitigation for specific sites if needed. However, the nature of mitigation is likely to be different at different stages. Mitigation of the strategy is likely to include provision of testing of new strategies and policies, whereas, mitigation for sites can include physical measures (noise barriers, landscaping etc);
- Consider measures to enhance positive outcomes. DPD options may provide opportunities for environmental and community enhancements. Mitigation, therefore, is often a case of changing policies rather than implementing physical measures on the ground; and,
- Consider that while mitigation measures should generally be directed towards the resource being affected or the action causing the cumulative effect, the concept of "no-net loss" may be an appropriate mitigation measure in response to cumulative effects. No-net loss requires that any resource disturbed from its pre-action condition

be "replaced" with an area of equivalent capability to ensure that sustainable use of the resource is maintained.

It is envisaged that the appraisal results and subsequent appraisal report will supplement the Final DPDs.

Consultation questions

Q12 Do you believe that the significant impacts of the core strategy can be identified using this approach?

Q13: Are there other/additional methodologies that could be used to identify the significant impacts of the Core Strategy and Housing Allocations DPDs?

5.2.3 Stage C: Preparation of an Overarching Draft SA/Environmental Report

The SA/Environmental Report will should broadly follow the recommended structure as set out in the ODPM's guidance on the SEA Directive. The report will be made up of the following chapter headings as illustrated in Table 33.

Table 33: Proposed sections of the Environmental Report.

Section of report	Contents
1. Summary and outcomes	1.1. Non-technical summary 1.2. Statement on the difference the process has made 1.3. How to comment on the report
2. Appraisal methodology	2.1. Approach adopted to the SA/SEA process 2.2. When the SA/SEA was carried out 2.3. Who carried out the SA/SEA 2.4. Who was consulted, when and how
3. Background	3.1. Purpose of the SA/SEA process and the SA/Environmental Report 3.2. Plan objectives and outline of contents 3.3. Compliance with the SEA regulations/guidance
4. Sustainability objectives, baseline and context	4.1. Links to other strategies, plans and programmes and sustainability objectives 4.2. Description of the social, environmental and economic baseline characteristics and the predicted future baseline 4.3. Difficulties in collecting data and limitations of the data 4.4. The SA/SEA framework, including objectives, targets and indicators 4.5. Main social, environmental and economic issues and problems identified
5. Plan issues and options	5.1. Main strategic options consider and how they were identified 5.2. Comparison of the social, environmental and economic effects of the options 5.3. How social, environmental and economic issues were considered in choosing the preferred options 5.4. Other options considered, and why these were rejected 5.5. Proposed mitigation measures
6. Plan policies	6.1. Significant social, environmental and economic effects of the preferred policies 6.2. How social, environmental and economic problems were considered in developing the policies 6.3. Proposed mitigation measures 6.4. Uncertainties and risks
7. Implementation	7.1. Links to other tiers of plans and programmes and the project level (environmental impact assessment, design guidance, etc) 7.2. Proposals for monitoring

5.2.4 Stage D: Consultation with the public and statutory bodies

The SEA Regulations set specific requirements for consultation with the Statutory Environmental Bodies, the public and other interested parties (these could include NGO's, community groups and academia for example). The SEA/SA Environmental Report will be made available for all these parties so that they can provide a response to the contents of the report.

A SA/SEA statement will be published with the final adopted DPD. The purpose of this statement is to update the environmental information available with the final plan in order to outline how the environmental assessment and consultation have influenced the final DPD.

5.2.5 Stage E: Monitor the effects of the plan on the environment/sustainability

The SEA Regulations includes a requirement for the monitoring of “the significant environmental effects of the implementation of plans... in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action” (Article 10.1). The Environmental Report should provide information on “a description of the measures envisaged concerning monitoring...”

The development of a monitoring strategy will allow the actual effects of the DPDs to be tested against the predicted impacts, enabling significant problems to be identified and tackled over time, and environmental baseline information to be gathered for future plans. Some of the indicators set out in the Appraisal Framework and existing monitoring programmes will form the basis for the monitoring strategy, and will be linked to measuring progress towards the SEA/SA objectives. The proposed monitoring system and arrangements will be agreed with key stakeholders in terms of their current and future monitoring responsibilities and a programme for monitoring, with due consideration for how this will fit into future reviews of the DPDs.

6 Summary of Questions for Consultees

Q1: Do you think the LDF might impact on Natura 2000 sites? If so, on which sites and what might be the likely impacts?

Q2: Are there any other policies, plans or programmes (PPPs) that contain environmental protection objectives or identify issues that are not covered by this list of PPPs?

Q3: Are there any other issues or information related to the topics covered in section 2.3 that are relevant to Dacorum's DPDs and should be included?

Q4: Are there any other problems, opportunities or issues that are relevant to Dacorum's development plan documents and have not been covered?

Q5: Are there any further interrelationships between topics that have not been identified?

Q6: Where do you see the main issues in the area and which topics do you want see addressed with priority within the SA/SEA?

Q7: Do the SA/SEA objectives, criteria and assessment indicators provide a reasonable framework through which the likely significant environmental effects of the DPDs can be assessed?

Q8: Are there any other indicators which are relevant to the DPDs?

Q9: Are there any other potential conflicts between the proposed SA/SEA objectives and the core strategy objectives that have not been identified in the compatibility assessment?

Q10: How could potential conflicts be addressed?

Q11: How would your organisation like to be involved in the rest of this SA/SEA process?

Q12: Do you believe that the significant impacts of the DPDs can be identified using this approach?

Q13: Are there other/additional methodologies that could be used to identify the significant impacts of the DPDs?

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Appendices

Appendix A. Review of Other Related Policies, Plans and Programmes

See volume 2.