

Three Rivers District Council

Three Rivers Site Allocations DPD

Pre-Submission Sustainability Appraisal

January 2012

**Halcrow Group Limited, CH2MHill
Company, in association with TRL**

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Three Rivers District Council
Three Rivers Site Allocations DPD
Pre-Submission Sustainability Appraisal
January 2012

Contents Amendment Record

This report has been issued and amended as follows:

Issue	Revision	Description	Date	Signed
01	00	Site Allocations DPD Issues and Options SA Working Note	11.11.10	KD

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Appendix 6	Alternative sites performance against environmental and social criteria
Appendix 7	Detailed assessment matrices for all sites within the Site Allocations DPD

1 Introduction

1.1 *Background*

1.1.1 Three Rivers District Council (TRDC) have commissioned C4S at TRL and Halcrow Group Ltd to conduct a Strategic Environment Assessment and a Sustainability Appraisal for the 'Site Allocations Pre-Submission' Development Plan Document (SA DPD). This DPD identifies sites for housing, employment, education, retail, open space and for mixed use developments. It also provides the basis for the proposed revisions to the Green Belt on certain sites. The purpose of this DPD is to support the Core Strategy DPD in achieving the delivery of the Core Strategy Objectives and form part of the Local Development Documents that will be material considerations for planning matters in the District.

1.1.2 This document, 'the Sites Allocation Pre-Submission DPD SA', provides an assessment of the contribution of the options developed in the Site Allocations DPD to sustainable development and will inform further stages of the DPD production process, i.e., Submission of the DPD to the Secretary of State after undergoing rounds of consultation with the stakeholders and members of the public. This document will accompany the Sites Allocation DPD Pre-Submission document for the consultation conducted during January - March 2012.

1.2 *Pre-Submission sites allocation*

1.2.1 The Site Allocations DPD identifies sites throughout the District for various land use purposes such as residential, schools, employment, retail, open spaces and for mixed use developments, to enable delivery of the objectives for spatial development set out in the Core Strategy DPD and of the Community Strategy.

1.2.2 The Pre-Submission (Preferred Options), which is the current stage, proposes sites considered suitable for the land uses listed above, and these proposals are now subject to a consultation with relevant stakeholders and members of the public. It is to note that proposed sites were consulted as part of the Core Strategy preparation process- the Core Strategy Preferred Options Addendum, 2009 and later as a Sites Allocation DPD Issues and Options Working Note, 2010. The former contained most of the current proposed housing sites and the latter listed sites for education, employment, retail and open spaces. Based on the consultation responses, and further information, appropriate preferred sites have now been identified. A few residential sites have now been included and the current Pre-Submission document also makes minor revision to the Green Belt boundary associated with the allocation of land for development. During this process some alternative sites were also considered but have not been taken forward and these are listed as part of the DPD documentation.

1.3

1.3.1

Strategic Environment Assessment/ Sustainability Appraisal

The Planning and Compulsory Purchase Act (2004) requires planning authorities to replace their Local Plans with Local Development Frameworks (LDF). Three Rivers' Core Strategy, Three Rivers Development Management Policies and Three Rivers Sites Allocation Document, all 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 Report.

1.3.2

Purpose of this Sustainability Report

Regulations require that the sustainability appraisal results of the Pre-Submission Draft shall be consulted with statutory bodies and with members of the public to obtain their views prior to adoption of the Sites Allocation DPD. In addition to declaring results of the assessment, the SA Report proposes mitigation measures/recommendations to enhance the sustainability contribution of the proposed sites and of the policies that support the Sites Allocation. The SA Report also proposes a monitoring framework for all significant sustainability issues identified during the assessment. In order to enable bespoke analysis, but to maintain continuity from the Core Strategy, the SA/SEA Framework of the Core Strategy SA Report has been adopted to suit site level analysis. This revised framework, Table 4.1, was circulated and views gathered from the four neighbouring Councils of Three Rivers District Council, St Albans District Council, Watford Borough Council and Dacorum Borough Council, during December 2011.

The sustainability performance of the sites are analysed based on information gathered from a Policies, Plans and Programme Review, individual site baseline

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)

information and TRDC's Site Analysis results using their housing site selection criteria (Appendix 2 of the Core Strategy DPD). The PPP review from the Core Strategy is re-produced in Appendix 1; District level baseline in Appendix 2; and individual sites baseline are documented in Appendix 2a.

This report will accompany the Pre-Submission Draft version of the DPD and will be taken forward for submission to the Secretary of State upon completion of the statutory procedures of the regulation.

1.4

SEA/SA Methodology

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

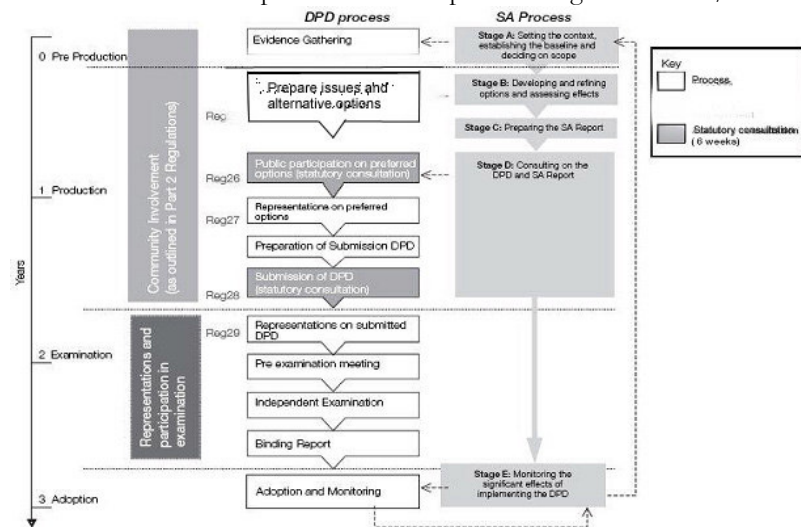


Figure 1: The DPD and SA/SEA process (Source: DCLG)

The key stages of the SA/SEA process are broadly presented in Table 1.1.

Table 1.1 Stages in the SA/SEA and Three Rivers Site Allocations DPD

Three Rivers Site Allocations DPD	SA/SEA Stages	Dates
Begin Document Preparation	Stage A: Setting the context, establishing the baseline and deciding on the scope <ul style="list-style-type: none"> • A1: identify other relevant policies, plans and document programmes, and sustainability objectives. • A2: collecting baseline information. • A3: Identifying sustainability issues and problems. • A4: Developing the SA framework. • A5: Consulting on the scope of the SA (Scoping Report). 	Core Strategy SA Scoping Report (wholly applicable to the Site allocations DPD SA), prepared February 2006 Consultation on Scoping Report February 2006
Preparation of Issues and Options (I&O) paper and consultation Preparation of preferred options, including	Stage B: Developing and refining options and assessing of effects <ul style="list-style-type: none"> • B1: Tenting the DPD objectives against the SA framework. • B2: Developing the DPD options. • B3: Predicting the effects of the DPD. • B4: Evaluating the effects of the DPD. 	Consultation on Core Strategy Issues & Options (I&O) paper (which contained the Site allocations principles), June 2006 As part of the Core Strategy Preferred Options Consultation,

Three Rivers Site Allocations DPD	SA/SEA Stages	Dates
consultation on possible preferred option	<ul style="list-style-type: none"> • B5: Considering ways of mitigating adverse effects preferred and maximising beneficial effects. • B6: Proposing measures to monitor the significant effects of implementing the DPDs. 	<p>consulted on the Addendum to the Preferred Options SA, November 2009. This document appraised the Strategic and Non-strategic housing sites.</p> <p>Branching out from the Core Strategy, a Site allocations Issues & Options SA Working Note, was produced in November 2010. This document included sites put forward for Education, Retail, Open space and Recreation use.</p>
Public consultation on Preferred options	<p>Stage C: Preparing the Sustainability Appraisal Report.</p> <ul style="list-style-type: none"> • C1 Preparing the SA Report. <p>Stage D: Consulting on the preferred options of the DPD and SA Report.</p> <ul style="list-style-type: none"> • D1: Public participation on the preferred options of the DPD and the SA Report. • D2 (i) Appraising significant changes. • D2 (ii) Appraising significant changes resulting from representations. • D3: Making decisions and providing Information. 	<p>Preparation of the Core Strategy Preferred Options (which included the housing sites) and the SA Report, February 2009; the Core Strategy Preferred Options Addendum (further housing sites consulted), November 2010</p> <p>Formal consultation on The Core Strategy Preferred Options (which included the housing sites) and the SA Report, February 2009; and consultation on the Core Strategy Preferred Options Addendum (further housing sites consulted), November 2010 and the accompanying SA Report.</p> <p>Preparation of the Site Allocations Issues & Options DPD and preparation of the Site Allocations Issues and Options SA Working Note, November 2010.</p> <p>Formal consultation on the Site Allocations Issues & Options DPD and preparation of the Site Allocations Issues and Options SA Working Note, November 2010.</p> <p>Consulting on the Sites Allocation DPD and the SA Report, Pre-Submission Version (current stage), January 2012.</p>
Submission of DPD to Secretary of State	<p>Stage E: Monitoring the significant effects of implementing the DPD</p> <ul style="list-style-type: none"> • E1: Finalising aims and methods for monitoring. • E2: Responding to adverse effects. • Preparing the SEA Statement.² 	<p>Publication of the Proposed Submission Site Allocations DPD and SA Report, June 2012</p> <p>Submission of the SADPD: September 2012</p> <p>Final adoption of the Site</p>

Three Rivers Site Allocations DPD	SA/SEA Stages	Dates
		Allocations DPD is scheduled for SA Statement: June 2013

¹This output is not required by the SEA Regulations but was produced to assist in selecting the preferred options.

²The SEA Statement is required by the SEA Regulations.

1.5

Report structure

The SEA Regulations require the Sustainability Report to clearly document findings of all stages of the SEA/SA process. The Report should show that the SEA Directive has been complied with and all components that meet these requirements should be easily identifiable. The reporting requirements and corresponding chapters contained in this report are shown below:

Chapter / Section	SEA Directive Requirement (abridged)
Chapter 2 Appendix 1	Outline of contents, main objectives of the plan, and relationship with other relevant plans and programmes
Chapters 2 & 3 Appendix 2	Environment, social and economic baseline and likely evolution of the current state without implementation of the plan/ programme; any existing environmental, social and economic problems which are relevant to the plan or programme Documenting environmental characteristics of areas likely to be significantly affected
Chapter 4 Appendix 1	Environmental protection objectives set out in national and regional policies, its relevance to the plan/ programme and the way these objectives are considered in the SA process
Chapters 5 & 6	The likely significant effects of the plan on the environment, including on issues such as biodiversity, water, soil, population, human health, material assets, cultural heritage, landscape and the inter-relationship between the above. These effects should include secondary, cumulative, synergistic, temporal and severity details
Chapter 6	Mitigation measures to offset any identified significant effect
Chapter 6	Outline of reasons for selecting alternatives and documentation of difficulties encountered in the assessment
Chapter 7	Description of monitoring arrangements proposed
Chapter 0	Non-technical summary of information under all the above headings
Appendix 1	Plans, Policies and Programmes Review (PPP Review)
Appendix 2, 2a and 2b	Detailed baseline (reiterated from the Core Strategy); Individual sites baseline information; Proposed sites performance against environmental and social criteria
Appendix 3	Consultation – results of the consultation of the previous SA Report for the Core Strategy DPD
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1.6

Consultation

SEA Directive requires consultation of documents at various stages of the SA process, as indicated in Table 1.1. To date, as most Sites proposed in this DPD, formed part of housing, education, retail, open space and recreation sites in the Core Strategy, the Core Strategy consultation process applies to the Site Allocation DPD. The Core Strategy consultation was held at the end of the scoping stage;

further at the end of the Core Strategy Preferred Options DPD in February 2009 and again to consult on the changes to the Preferred Options DPD in November 2009. Further a separate Sites Allocation DPD Preferred Options version was produced in November 2010, and this was consulted with members of the public, along with the Site Allocations DPD Issues and Options SA Working Note.

The SEA Regulations and SA Guidance³ requires that the Scoping Report consultation and the Preferred Options Appraisal be carried out with stakeholders the Council finds appropriate to consult with, and four statutory environmental consultees i.e., Countryside Agency, English Nature (now Natural England), English Heritage and the Environment Agency. The aim of the scoping consultation was to ensure that all the relevant issues were identified and discussed at an early stage of the process so that they could be addressed during the SA and plan making. The list of those who were consulted, those who responded, along with a summary of the comments received and how they have been addressed are included in Appendix 3.

No significant comments were received during the second and third round of consultation on the Preferred Options Report for the Core Strategy DPD. The consultees included statutory environmental consultees and a wide range of other stakeholders. The public were also invited to consult via inclusion of the documents on the Three Rivers District Council website, at the council offices and libraries.

1.7

How the SA influenced the Site allocations DPD

The advantage of running the SA process in parallel with the plan making process is that it ensures sustainability and environmental considerations are incorporated in the plan. At each stage of planning, the sustainability appraisal team made recommendations regarding measures to include in the plan, such as suggestions to mitigate any negative effect predicted, or to revise policies, options or objectives of the plan to improve its sustainability quotient. These recommendations as well as the sustainability assessment carried out for each individual site have informed the Council's consideration of whether sites should be included as allocations for development.

1.8

Geographic and Temporal Scope

The spatial scope for the assessment is largely local (in and around the site) and within the immediate neighbourhood area (where cumulative effects from a collection of sites in the same area may occur).

Deviant from a typical policy level SA/SEA, this appraisal does not specify impacts temporal scales such as short, medium and long term. Instead the predicted effect applies at each site when the proposal takes effect, typically the

³ ODPM's (now DCLG) Sustainability Appraisal of Regional Spatial Strategies and Local developments Documents, November 2005

construction stage and most of the effects are applicable up to the end of the plan period i.e., 2026.

1.9

Habitat Regulations Assessment⁴

A Habitat Regulations Assessment was conducted as an independent study alongside the SA/SEA for TRDC, sharing information with the SA/SEA where applicable. In November 2007, a Habitat Regulations Assessment (HRA) Screening Report was prepared to comply with the UK's Habitats Regulations⁵. Screening is required where a plan, alone or 'in combination' with other plans, could affect Natura 2000 Sites (Special Protection Areas for birds – SPAs, Special Areas of Conservation for habitats - SACs) following Article 6(3) of the European Habitats Directive.

The first phase of this screening involved an analysis of Three Rivers Issues and Options to ascertain any likely significant effects that may compromise the conservation objectives of nearby Natura 2000 sites. At this stage it was concluded that on its own the Core Strategy Issues and Options DPD may not pose a threat to any SACs themselves, but may do in combination with other plans and programmes that are relevant to the wider region and this needed investigation. Therefore, Burnham Beeches SAC was the relevant site to this screening as it is the closest Natura 2000 site to Three Rivers, lying approximately 9.5km from the District boundary.

After identifying the relevant Natura 2000 site for Three Rivers the next phase of the HRA involved examining all other plans, programmes and projects that may affect the Burnham Beeches SAC in conjunction with Three Rivers Issues and Options. This included the Issues and Options papers of St Albans District Council, Dacorum Borough Council and Watford Borough Council. The principle possible impacts on Burnham Beeches SAC were deemed to be water shortage and recreation disturbance due to increased housing in the district.

The HRA screening report, in agreement with Natural England, concluded that Three Rivers Issues and Options are not likely to cause any significant effects on any Natura 2000 sites, either alone or in combination with other plans and programmes. It was therefore considered, in consultation with Natural England, the statutory consultee, that a full Appropriate Assessment was not necessary.

A review was carried out at the Core Strategy Proposed Submission Document (June 2010) and the Core Strategy Further Proposed Changes (October 2010) stages, to examine whether the detailed policies (not available at the Initial Issues and Options Stage) altered position of the HRA conclusion. It was concluded that there were no significant changes to the Core Strategy that were likely to impact

⁴ Reproduced from the Core Strategy SA Report

⁵ These regulations have since been updated and are now termed the *Conservation of Habitats and Species Regulations 2010 (SI490)*.

on Burnham Beeches SAC and the housing allocation for the district has decreased since the Core Strategy Issues and Options stage. There was therefore no need to conduct an Appropriate Assessment.

Natural England was engaged throughout the HRA process, however as part of this consultation, Natural England will be invited again to comment on our conclusion.

2

Environmental & Sustainability Planning Context

2.1

Introduction

The intention of the Site Allocations DPD is to provide the local community, the local authority and developers with some certainty about what sites will be developed in the future and for what purpose. Inclusion of these sites does not automatically qualify them to be approved for future development, but provide a principle that a particular form and landuse of the development may be located at the identified site. The Core Strategy Policies and Development Management Policies are applicable to the development context at each site.

In accordance with Regulation it is required to identify and predict the effect of these sites and related policies as well as comment on the potential cumulative, synergistic and secondary effects these proposals are likely to have on achieving a sustainable development in Three Rivers District. This SA Report covers appraisal of the sites and Site Allocations Policies contained in the DPD.

2.2

Relationship of the Site Allocations Policies with other Plans and Programmes

The SEA Regulations state that an Environmental Report should outline:

- Relationship of the Development Plan (Site Allocations) with other relevant plans and programmes; and
- The environmental protection objectives- established at international, community or Member State level- relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.

To fulfil this requirement, the Core Strategy SA undertook a review of the relevant plans, policies and programmes (henceforth referred as PPP review) to identify environmental objectives which may provide constraints or synergies with the plan being formulated. The PPP review covered international conventions and EU policies through to local plans and strategies. A detailed PPP review was presented in the Scoping Report and was updated during the development of the Core Strategy, the final PPP review being included in the SA Report that accompanied the Submission Core Strategy. In addition to adopting this review to inform the Site Allocations DPD SA, Appendix 1 presents updated PPP review with additional social and environmental policies at the local level. Appendix 2 reiterates baseline information from the Core Strategy SA relevant to the sub-regional and the District context. In order to inform this assessment, site level baseline information has been collated using various sources- TRDC staff

members, GIS database and evidence base reports from the public domain of <http://www.threerivers.gov.uk/Default.aspx/Web/EvidenceBase>, documented in Appendix 2a.

A summary of the PPP review is presented in this chapter. This chapter also discusses the current state of the environment within Three Rivers District.

2.3

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 it allows opportunities and synergies to be identified, as well as potential conflicts between aims, objectives or detailed policies. This review also highlighted sustainability drivers relevant to the DPD.

At an international level various environmental policies such as Kyoto Protocol, EU Policies on greenhouse gas emissions, EU Second Climate Change Programme are to be considered. Other supra-national conventions such as Ramsar Convention and the Habitats Directive should be considered in the DPD in relation to protection and enhancement of biodiversity. The Water Framework Directive is a major European policy that requires its Member states to achieve 'good ecological status' of all natural inland water bodies and protection/enhancements to ground waters. As a result all Member states are required to prepare River Basin Management Plans.

The majority of the Planning Policy Guidance and Planning Policy Statements that guide national planning and development are relevant to the Site Allocations Policies. These include the recent Draft National Planning Policy Framework (2011), and those related to delivering sustainable development (PPS1), housing (PPS3), sustainable economic growth (PPS4), biodiversity and geological conservation (PPS9), planning for sustainable waste management (PPS10), transport (PPG13), renewable energy (PPS22), Pollution Control, Air and Water Quality (PPS23, Annex), flood risk management (PPS25).

This strategy has relation to number of regional and local plans and policies such as the East of England Plan (RSS), Hertfordshire Biodiversity Action Plan, Hertfordshire Local Transport Plan 3, Four Councils Level 1 Strategic Flood Risk Assessment, London Arc Employment Land Study, and various plans and strategies developed by Three Rivers District Council such as the Three Rivers Open Space Update 2010 and Review of the Community Strategy 2006-2012. New policies reviewed are shown in bold italics.

Table 2.1 below lists all reviewed policies, plans and programmes reiterated from the Core Strategy. New policies reviewed are shown in bold italics.

Table 2.1: List of reviewed relevant policies, plans and programmes⁶

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
<i>Draft National Planning Policy Framework, July 2011</i> PPS1 - Delivering Sustainable Development SPPS1 - Planning Policy Statement: Planning and Climate Change - Supplement to Planning Policy Statement 1 SPPS1- Planning Policy Statement: Supplement on Eco-towns- Supplement to PPS1 PPG 2 – Green Belts PPS 3 – Housing PPS 4 – Planning for Sustainable Economic Growth PPG 8 - Telecommunications PPS 9 – Biodiversity and Geological Conservation PPS 10 – Sustainable Waste Management PPS 11 – Regional Spatial Strategies PPS 12 –Local Spatial Planning 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

⁶ New Policies reviewed since the Core Strategy adoption are shown in bold italics

PPG 24 – Planning and Noise
 PPS 25 – Development and Flood Risk
Development and Flood Risk Practice Guide (2009)
Flood and Water Management Act, 2010 (amended 2011)
 Wildlife and Countryside Act 1981 (as amended)
 UK Biodiversity Action Plan - UK BAP (1994)
 England Forestry Strategy (1999)
 UK Air Quality Strategy (2007)
 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 (2007)
 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)
 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)
 Sustainable Communities: Building for the Future - Communities Plan (2003)
 Habitat Regulations Assessment (HRA)
 Communities and Local Government: ‘Lighting in the Countryside: Towards Good Practice (1997)
The Institution of Lighting Engineers: Guidance Notes for the Reduction of Obtrusive Light (2005)

Regional – East of England

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, 2008
 Regional Transport Strategy for the East of England (2008, 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 AONB Management Strategy: The Framework for Action 2002-2007
 A Housing Strategy for the London Commuter Belt Sub-Region 2005-2008

County - Hertfordshire

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
 Draft Hertfordshire Infrastructure Investment Strategy Study, 2008
 Four Councils Level 1 Strategic Flood Risk Assessment, Dacorum, St. Albans, Three Rivers and Watford, 2007
 Strategic Housing Market Assessment, London Commuter Belt (West), 2009
 London Arc Employment Land Study, 2009
 Building Futures: A Hertfordshire guide to promoting sustainability in development'
Infrastructure Delivery Plan, 2010

Local Authority – Three Rivers District Council

Three Rivers Local Plan 1996-2011
 Strategic Plan Three Rivers District Council 2005-2008 (December 2004)
 Three Rivers Cultural Strategy 2002 – 2007
 Three Rivers Housing Needs Survey Update 2003
 Three Rivers Housing Stock Options Appraisal
 Planning for Gypsy and Traveller Sites (2005)
 Home Energy Conservation Act (H.E.C.A) Progress Report (June 2001)
 Three Rivers Biodiversity Action Plan (2003)
 Three Rivers Open Space. Sport and Recreation study (2005)
 Community Strategy for Three Rivers 2006 - 2012
 Community Safety Strategy April 2005 – March 2008
 Three Rivers Corporate Anti-Social Behaviour Policy (2005)
 Three Rivers Economic Development Strategy 2005 – 2007
 Watford and Three Rivers Primary Care Trust Public Health Online Report (2005)
 Contaminated Land Inspection Strategy (March 2002)
 Three Rivers DC Urban Capacity Study (2005)
 South West Hertfordshire Employment Space Study 2005
 Three Rivers District Council Parking Scheme
 Conservation Area Appraisals/town and local centre refurbishment.
 Grand Union Canal: - Abbots Langley to Rickmansworth Corridor Study (2001)
 Three Rivers Sustainable Communities SPD, 2007
 Three Rivers Open Space, Amenity and Child's Play space SPD, 2007
 Three Rivers District Council Playing Pitches Assessment Update, 2010
Three Rivers Open Space Update 2010
Review of the Community Strategy 2006-2012

The Site Allocations Policies and the sustainability appraisal process have considered review of these relevant plans, programmes and policies in preparation of the DPD. Detailed PPP review in Appendix 1 discusses how the SA has considered these policies in the DPD preparation.

2.4

Current and Future Baseline Review

A key step in the SA process is establishing current state of the environment and its likely evolution in the future without implementation of any plan.

A practical approach is generally taken to data collection bearing in mind data availability and trend analysis, following which the actual data and gaps in information to consider in the future were analysed and updated in the most

recently adopted Core Strategy SA Report (2011). The information contained in this report is relevant to the Site Allocations to understand the District wide context. The Core Strategy SA Baseline first issued in February 2006, and updated in 2011, reported baseline information under environmental, social and economic themes. The data was organised under the following headings – Air Quality, Biodiversity, Climatic Factors, Cultural Heritage, Landscape, Material Assets, Waste, Land use, Soil, Water, Flood risk, Social factor, Noise, Population, Housing, Crime, Accessibility, Social deprivation, Recreation, Sports and Leisure, Health, Education, Economic activity, Employment, Economic footprint, Enterprise and Innovation- most of which are directly applicable to informing the Site Allocations DPD Sustainability Appraisal.

In addition to this, individual sites information has been collated based on TRDC's existing knowledge of the sites; querying available GIS database and desktop reviews of sites and site areas. This information is collated in Appendix 2a. While considering the sites for allocation, TRDC followed an objective scoring method for a set of criteria, typically classified under environmental features at or near the site, proximity to various community facilities such as GP, local shops, secondary shopping, schools and open spaces. In addition to these, issues such as congestion, and risk of flooding were scored. The score against each such criterion has been classified under red (poor), amber (moderate) and yellow (reasonable-good) in Appendix 2b - this information was also used to inform the assessment process. Key issues and opportunities identified as part of the baseline analysis are discussed in Chapter 3.

3

Environmental and Sustainability Issues, Opportunities and Priorities⁷

3.1

Issues and Opportunities

The review of plans and programmes affecting the District, 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. Such issues, problems and opportunities have been confirmed through:

- Review of the baseline data;
- Tensions/ inconsistencies with other plans, programmes and sustainability objectives;
- Scoping Workshop held in February 2006;
- Discussions with the Three Rivers District Council Officers;
- Response to the Core Strategy SA Scoping Report consultation;
- Responses to the Core Strategy SA Preferred Option and Pre-Submission Consultation

3.2

Key Sustainability Issues

The sustainability issues were identified at the scoping stage, and have since been revised in light of updated baseline data. Whilst a detailed note of the issues and opportunities can be found in the Core Strategy Scoping Report, Table 3.1 presents a summary of key sustainability issues and inter-relationships between the issues, for example, between biodiversity (environment) and health (social) are discussed to provide an integrated understanding of the sustainability issues.

⁷ This chapter has been reiterated from the Core Strategy SA Report, with few amendments

Table 3.1: Issues and Opportunities in Three Rivers

SEA Objective	Key Issues	Opportunities	Interrelationships
Biodiversity	<p>Three Rivers falls within Natural England’s natural areas “London Basin and Chilterns” and comprises of 5 Sites of Special Scientific Interest (SSSIs) and 9 Local Nature Reserves</p> <p>Although the SSSIs are considered to be within or close to Natural England PSA targets, they may be under pressure due to the high housing targets the district should fulfil.</p>	<p>Protect and improve existing habitats, Green Infrastructure</p> <p>Compensate features lost to development where loss is completely unavoidable.</p> <p>LDF to promote the use of management agreements for designated sites, where this can be linked to development.</p> <p>Minimise fragmentation of wildlife habitats as a result of 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 people’s lives.</p> <p>Economic growth if undertaken unsustainably could adversely impact upon these assets.</p>
Water	<p>Chemical water quality in R.Chess, R. Colne and R.Ver are very good, as of 2008 data</p> <p>Biological water quality declined between 1995 and 2008</p> <p>Phosphate concentrations have decreased between 1995 and 2004</p> <p>Water resources are over abstracted in the region</p>	<p>Improve river quality by e.g. using sustainable drainage schemes</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>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> <p>Negative synergy likely for flora and fauna when water bodies with low water flow combined with poor quality water</p>
Soil	<p>Southwest Hertfordshire’s soils are mainly classified as grade 3 agricultural land, with some graded 2 soils. A significant proportion is covered by urban areas.</p>	<p>Protect best and most versatile land</p> <p>Promote good soil handling practice</p>	<p>Soil resources are key to sustaining the agricultural economy.</p>
Climatic Factors	<p>Domestic CO₂ emissions per capita are above the regional average</p> <p>Greenhouse emissions in UK are increasing</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>Promote the use and generation of renewable</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>energy and promote energy efficiency</p> <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>Pollutant levels decreased between 2001 and 2010.</p> <p>Levels of NO_x and NO₂ in both 2001 and 2005 can be seen to be above the levels for the East of England, but below the national target level of 40 µg/m³</p> <p>Increased air pollution from growth traffic and congestion</p> <p>There are 5 Air Quality Management Areas in the District</p>	<p>Ensure potentially polluting processes incorporate pollution minimisation measures</p> <p>Promote the development of Green Travel Plans</p> <p>Improve cycle and pedestrian routes and links</p> <p>Promote low emission vehicles (e.g. hybrids)</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>The percentage of household waste recycled increased between 2001 and 2009</p> <p>Percentage of houses built on previously developed land is high</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, both for general and construction waste</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>
Cultural Heritage	<p>Historic assets include:</p> <p>Three scheduled monuments (Oxhey Hall Moated Site, Roman Villa on Moor Park Golf Course, The Manor of the More);</p> <p>351 listed buildings;</p> <p>22 Conservation areas</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>Encourage strong and robust design standards for new development that respects cultural heritage of the development area.</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>

SEA Objective	Key Issues	Opportunities	Interrelationships
Landscape	<p>Light pollution is rapidly increasing and tranquillity is rapidly decreasing in the East of England.</p> <p>Three Rivers falls into three Landscape Character Areas, “Northern Thames Basin”, “Thames Valley” and “Chilterns”</p>	<p>Recognise value of all landscapes, not just designated sites</p> <p>Monitor light pollution levels; new lighting should be selected which minimises light pollution</p>	<p>An attractive landscape improves quality of life which in turn could contribute to increase inward investment.</p>
Population & Human Health	<p>Three Rivers population is growing 74% of Three Rivers population state to be in generally good health</p>	<p>Ensure adequate housing, facilities and infrastructure whilst protecting and enhancing the local environment. Encourage mixed use.</p> <p>Promote the dual use of facilities, e.g. post office incorporated in community hall etc.</p> <p>Need to attract and retain people with the right skills.</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>Encourage sustainable transport modes</p> <p>Explore using 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>
Social Factors	<p>A relatively high percentage of homes in Three Rivers were recorded as unfit for living at 2003/2004. (7% above average, 34% of the areas Local Authority homes were classified as unfit.)</p> <p>Crime rates (violent) are comparatively lower than the rest of England whereas Race related crime in Three Rivers is in the top quartile of England.</p> <p>Additional growth is likely to increase the pressure on affordable housing in the borough</p> <p>Three Rivers has recorded a high proportion of local authority buildings that are classified as suitable for and accessible by disabled people.</p>	<p>Provision of affordable housing in accessible locations</p> <p>Adopt ‘planning out crime’ design principles, e.g. encourage overlooking of space etc</p> <p>Ensure appropriate housing provision for the elderly, e.g. through Life-long homes located close to key amenities and public transport</p> <p>Consider using voluntary agreements in relation to local recruitment and training.</p> <p>Ensure provision of a range of education facilities. Planning obligations used to enhance</p>	<p>Poor health and well-being will adversely impact upon economic growth in the borough.</p> <p>Increasing employment and quality education opportunities will contribute to economic prosperity</p>

SEA Objective	Key Issues	Opportunities	Interrelationships
	<p>Levels of deprivation in Three Rivers is not significant, however few super output areas in the District are considered close to top 20% most deprived in England.</p> <p>In 2004 the level of educational achievement in all areas from Key Stage 2 to average A/AS level points was above the rate for the East of England</p>	<p>existing educational facilities</p> <p>Use planning obligations to secure improvements to public transport.</p> <p>Encourage healthy forms of travel and exercise, e.g. walking/cycling and access to leisure and recreational facilities.</p> <p>Provision of a range of employment opportunities in accessible locations</p>	
Economic Factors	<p>Economic activity rate has increased between 2000 and 2005</p> <p>Three Rivers has managed to achieve the lowest recorded figure of Unemployment in Hertfordshire, its claimant count has fallen to 6.1% of Hertfordshire's total, a 1.3 decline</p> <p>Employment in the district was expected to grow by ½% pa over 2003-2009</p> <p>GVA in the district was expected to underperform the county, with growth of 2¼% pa compared with around 3% pa over 2003-2009.</p> <p>The number of VAT registered businesses increased every year during 2005-2007</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>Social considerations and quality of life will impact on employment opportunities and ability to attract inward investment</p>
Contamination	<p>TRDC maintains a register of contaminated or special sites. At the time of writing this report, no entries were reported, however based on previous land use such as depots or aerodromes some sites may be subject to contamination.</p>	<p>Development will enable contamination remediation, thus help improve local environmental quality.</p>	<p>Quality of life, health in particular may be improved for the local residents</p>
Surface water flooding	<p>The Hertfordshire County Council is the co-ordinating authority to produce a Surface Water Management Plan for the region. Appropriate guidance must be derived from this document, when available.</p>	<p>Understanding surface water related floodrisk will help reduce the risk caused by future developments as well as reduce the risk to the users of future developments</p>	

4 SEA/SA Objectives and Framework⁸

4.1

Introduction

Current guidance on SA/SEA of development documents advocates the use of objectives in the appraisal process. This section provides an outline of the objectives, criteria and indicators, organised under a SA Framework that was used to appraise the Core Strategy Policies, but refined to take into account the site context. The 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 Table 4.1. This approach is recommended in Government good practice on carrying out environmental and sustainability appraisals⁹. An explanation of the methodology for formulating the Appraisal Framework is presented below.

A SEA/SA Framework was developed in the Core Strategy SA process which also provided a basis for predicting and monitoring the effects of the Core Strategy Policies. As much time had elapsed between the Scoping Report consultation (conducted in 2006) and now, this SA Framework (which forms the basis for analysis of the sites and the policies put forward in the DPD), was refined to suit the site context and was circulated for consultation to the neighbouring Councils (i.e., Watford Borough Council, Dacorum Borough Council and St. Albans District Council) along with Three Rivers District Council. Based on the responses the SA Framework has been refined and used for this round of the sustainability appraisal.

4.2

Three Rivers District Site Allocations DPD SEA/SA Framework

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

⁸ Reiterated from the Core Strategy SA Report, with amendments

⁹ The Strategic Environmental Assessment Directive: Guidance for Planning Authorities. ODPM, October 2003

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).

4.2.1 Sustainability Objectives (Column 1)

Objectives have focussed on those issues, which are directly relevant to Three Rivers District Council and the scope of the DPDs. They are based on the sustainability objectives presented in the “Sustainable Development Framework for the East of England¹⁰”.

4.2.2 Criteria (Column 2)

Following on from the identification of objectives, a range of associated criteria and indicators were identified to provide further clarity in respect of future development directions as well as to assist in the appraisal process. The criteria were based on the key sustainability objectives outlined in the “Sustainable Development Framework for the East of England”. They focus specifically on the items which are of direct relevance to the DPDs.

4.2.3 Site specific questions (Column 3)

In order to contextualise the assessment the objectives and criterion have been translated into site specific issues to look at whilst conducting the assessment. All the four neighbouring councils were involved in providing these questions.

¹⁰ A Sustainable Development Framework For The East of England, The East of England Regional Assembly, October 2001

Table 4.1 Proposed Sustainability Appraisal Framework for the Three Rivers Site Allocations DPD

Objective	Criteria	Site specific questions
Biodiversity		
1. To protect, maintain and enhance biodiversity and geodiversity at all levels, including the maintenance and enhancement of Biodiversity Action Plan habitats and species in line with local targets	To protect, maintain and enhance designated wildlife and geological sites (international, national and local) and protected species to achieve favourable condition	<p>Would development of the site:</p> <ul style="list-style-type: none"> • provide opportunities for enhancement of biodiversity? • avoid fragmentation & improve connectivity? • contribute to a wider green infrastructure strategy? • protect woodlands, hedgerows, trees and watercourses? <p>Is it likely that there are any protected species or habitats on or near the site?</p> <p>Would development of the site impact locally on a recognised site of geological / geomorphological importance?</p>
	To restore characteristic habitats and species, to achieve BAP targets	
	To support farming and countryside practices that enhance wider biodiversity and landscape quality by economically and socially valuable activities (e.g. grazing, coppicing, nature reserves) ¹¹	
	To manage woodlands and other habitats of value for biodiversity in a sustainable manner and protect them against conversion to other uses	
	To recognise the social/environmental value and increase access to woodlands, wildlife & geological sites and green spaces particularly near/in urban areas	
	To encourage people to come into contact with, understand, and enjoy nature	
Water		
2. To protect, maintain and enhance water resources (including water quality and quantity) while taking into account the impacts of climate change	To raise awareness and encourage higher water efficiency and conservation by for instance promoting water reuse in new and existing developments	<p>Would development of the site:</p> <ul style="list-style-type: none"> • be of a sufficient size to act as an exemplar for sustainable water management? • operate within the existing capacities for water supply and wastewater treatment? • enable resolution of existing wastewater infrastructure problems?
	To ensure water consumption does not exceed levels which can be supported by natural processes and storage systems	
	To improve chemical and biological quality and flow of rivers and encourage practices which reduce nitrate levels in groundwater	
	To improve flow of rivers	
	To reduce the number and severity of pollution incidents	
	To maintain or restore the integrity of water dependent wildlife sites in the area	
3. Ensure that new developments	To avoid developments in areas being at risk from fluvial, sewer or groundwater flooding (for	Is the site located outside of an area at risk from flooding? (e.g. flood

¹¹ Not always applicable to urban boroughs, such as Watford

Objective	Criteria	Site specific questions
avoid areas which are at risk from flooding and natural flood storage areas	instance natural flood plains) while taking into account the impacts of climate change	zones 3a and 3b, or areas of known pluvial flooding)
	To ensure that developments, which are at risk from flooding or are likely to be at risk in future due to climate change, are sufficiently adapted	Would development of the site:
	To promote properly maintained sustainable urban drainage systems to reduce flood risk and run off in areas outside Source Protection Zones 1 (SPZ)	<ul style="list-style-type: none"> • reduce the risk of flooding to people and property? • resolve an existing drainage problem?
Soil		
4. Minimise development of land with high quality soils and minimise the degradation/loss of soils due to new developments	To safeguard high quality soils, such as agricultural land grades 1, 2 and 3a) from development ¹²	Would development of the site:
	To limit contamination/degradation/loss of soils due to development	<ul style="list-style-type: none"> • involve the loss of high quality agricultural land? • involve remediation of previously developed land?
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 greenhouse gas emissions (particularly CO ₂) for instance through more energy efficient design and reducing the need to travel	Is the site of sufficient size to act as an exemplar of sustainable development?
	To promote increased carbon sequestration e.g. through increases in woodland cover	Does the site location encourage sustainable modes of travel?
	To adopt lifestyle changes which help to mitigate and adapt to climate change, such as promoting water and energy efficiency (through for instance higher levels of home insulation)	Is the site of sufficient size to provide on or off-site CHP? Is the site located such that it could be linked to an existing CHP facility? Will it develop significant renewable energy resources?
6. Ensure that developments are capable of withstanding the effects of climate change (adaptation to climate change)	To promote design measures which enable developments to withstand and accommodate the likely impacts and results of climate change (for instance through robust and weather resistant building structures)	No site specific questions. Flood risk covered in SA3.
Air Quality		
7. Achieve good air quality, especially in urban areas	To reduce the need to travel by car through planning settlement patterns and economic activity in a way that reduces dependence on the car and maintains access to work and essential services for non-car-owners	Would development of the site affect an AQMA or lead to its designation?

¹² Might not always be applicable for urban boroughs, such as Watford

Objective	Criteria	Site specific questions
	<p>To integrate land use and transport planning by for instance:</p> <ul style="list-style-type: none"> • Promoting Green Transport Plans, including car pools, car sharing as part of new developments • Ensuring services and facilities are accessible by sustainable modes of transport <p>To ensure that development proposals do not make existing air quality problems worse</p> <p>To address existing or potential air quality problems</p>	<p>Would development of the site be likely to improve air quality within an area of poor air quality?</p> <p>Will the proposed use increase air pollution (from traffic or industrial processes)?</p>
Material Assets		
<p>8. Maximise the use of previously developed land and buildings, and the efficient use of land</p>	<p>To concentrate new developments on previously developed land (PDL)</p> <p>To avoid use of Greenfield sites for development</p> <p>To maximise the efficient use of land and existing buildings by measures such as higher densities and mixed use developments</p> <p>To encourage the remediation of contaminated and derelict land and buildings</p>	<p>Is the site on previously developed land?</p> <p>Is the site capable of supporting higher density development and/or a mix of uses?</p> <p>Would development of the site:</p> <ul style="list-style-type: none"> • restore vacant / contaminated land? • clean up contaminated land? • involve the loss of greenfield land • involve the loss of gardens? • allow re-use of existing buildings?
<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 encourage maximum efficiency and appropriate use of materials, particularly from local and regional sources</p> <p>To require new developments to incorporate renewable, secondary, or sustainably sourced local materials in buildings and infrastructure</p> <p>To safeguard reserves of exploitable minerals from sterilisation by other developments</p> <p>To promote renewable energy sources as part of new or refurbished developments</p> <p>To increase recycling and composting rates and encourage easily accessible recycling systems as part of new developments</p> <p>To promote awareness regarding waste/recycling and renewable energy issues through education programmes in schools and the community</p>	<p>Would development of the site:</p> <ul style="list-style-type: none"> • be able to support the generation & use of renewable resources? • be able to take advantage of passive solar gain through orientation? • be able to minimise use of energy through design and occupation? • be of a size to support waste to energy options? • be able to minimise demand for primary minerals & aggregates? • be able to use materials from nearby sources? • be able to recycle local stone to reinforce local character?

Objective	Criteria	Site specific questions
		Is the site in a mineral safeguarding zone?
Cultural Heritage		
10. To identify, maintain and enhance the historic environment and cultural assets	To safeguard and enhance the historic environment and restore historic character where appropriate, based on sound historical evidence	<p>Could development of the site enhance features & settings of historical, archaeological or cultural importance and the enjoyment of such assets?</p> <p>Would development of the site adversely affect a Conservation Area, listed building, HP&G, area of archaeological importance, SAM, or WHS?</p> <p>Is it likely to adversely affect a building, structure or area of heritage importance?</p>
	To promote local distinctiveness by maintaining and restoring historic buildings and areas, encouraging the re-use of valued buildings and thoughtful high quality design in housing and mixed use developments – to a density which respects the local context and townscape character, and includes enhancement of the public realm	
	To promote public education, enjoyment and access of the built heritage and archaeology	
Landscape & Townscape		
11. To conserve and enhance landscape and townscape character and encourage local distinctiveness	To protect and enhance landscape and townscape character	<p>Would development of the site:</p> <ul style="list-style-type: none"> • have the potential to enhance the quality & diversity of open land/countryside? • lead to coalescence of existing towns/villages? • be likely to adversely affect an area of landscape importance? <p>Would development of the site affect townscapes?</p> <p>Would development of the site provide green infrastructure as part of wider strategy?</p>
	To evaluate the sensitivity of the landscape to new/inappropriate developments and avoid inappropriate developments in these areas	
	To protect ‘dark skies’ from light pollution, and promote low energy and less invasive lighting sources while considering the balance between safety and environmental impacts	
	To minimise the visual impact of new developments	
Population & Human Health		
12. To encourage healthier lifestyles and reduce adverse health impacts of new developments	To promote the health advantages of walking and cycling and community based activities	<p>Would development of the site:</p> <ul style="list-style-type: none"> • provide opportunities to extend or improve the cycle/footpath network? • affect public rights of way? • provide open space for informal and/or formal recreation? • enable enhanced access to existing open space? • provide open space for allotments?
	To identify, protect and enhance open spaces, such as rivers and canals, parks and gardens, allotments and playing fields, and the links between them, for the benefit of people and wildlife	
	To include specific design and amenity policies to minimise noise and odour pollution, particularly in residential areas	
	To narrow the income gap between the poorest and wealthiest parts of the area and to reduce health differential	

Objective	Criteria	Site specific questions
		<ul style="list-style-type: none"> integrate with a wider green infrastructure strategy? <p>Would the site involve locating a noisy or polluting land use next to a sensitive land use?</p>
13. To deliver more sustainable patterns of location of development	To reduce the need to travel through closer integration of housing, jobs and services	<p>Would development of the site:</p> <ul style="list-style-type: none"> help to reduce the need to travel? <p>Is the site within a main settlement?</p> <p>Is the site within close proximity to key services (e.g. schools, food shops, public transport, health centres etc)</p>
	To promote better and more sustainable access to health facilities	
Social Factors		
14. Promote equity & address social exclusion by closing the gap between the poorest communities and the rest	To include measures which will improve everyone's access to high quality health, education, recreation, community facilities and public transport	<p>Would development of the site:</p> <ul style="list-style-type: none"> provide local community services & facilities e.g. education, health, leisure & recreation) or enable access to existing ones? provide facilities that existing communities could share? help support existing community facilities? promote mixed tenure & mixed use? provide business & employment space near to residents?
	To ensure facilities and services are accessible by people with disabilities and minority groups	
	To encourage people to access the learning and skills they need for high quality of life	
	To ensure that the LDF does not discriminate on the basis of disability, ethnic minority, or gender	
15. Ensure that everyone has access to good quality housing that meets their needs	Promote a range housing types and tenure, including high quality affordable and key worker housing	Would development of the site secure afford affordable homes and/or Lifetime Homes?
16. Enhance community identity and participation	To recognise the value of the multi-cultural/faith diversity of the peoples in the region	Would development of the site include provision of religious cultural uses?
	To improve the quality of life in urban areas by making them more attractive places in which to live and work, and to visit	
	To encourage high quality design in new developments, including mixed uses, to create local identity and encourage a sense of community pride	
17. Reduce both crime and fear of crime	To reduce all levels of crime with particular focus on violent, drug related, environmental and racially motivated crime	<p>Could development of the site:</p> <ul style="list-style-type: none"> reduce crime through design measures increase the frequency of nuisance complaints and criminal /
	To plan new developments to help reducing crime and fear of crime through thoughtful design of the physical environment, and by promoting well-used streets and public spaces	

Objective	Criteria	Site specific questions
	To support government-sponsored crime/safety initiatives, maximising the use of all tools available to police, local authorities and other agencies to tackle anti-social behaviour	anti-social activity (noise pollution, vandalism, anti-social behaviour orders)
Economic Factors		
18. Achieve sustainable levels of prosperity and economic growth	To support an economy in the Authority which draws on the knowledge base, creativity and enterprise of its people	Would development of the site: <ul style="list-style-type: none"> • lead to the loss of viable employment/jobs? • contribute employment floorspace?
	To promote and support economic diversity, small and medium sized enterprises and community-based enterprises	
	To support the economy with high quality infrastructure and a high quality environment	
19. Achieve a more equitable sharing of the benefits of prosperity across all sectors of society and fairer access to services, focusing on deprived areas in the region	To encourage local provision of and access to jobs and services	Would development of the site: <ul style="list-style-type: none"> • encourage provision of jobs to local people? • enable local people to work near their homes?
	To improve the competitiveness of the rural economy [not applicable for urban boroughs, such as Watford]	
20. Revitalise town centres to promote a return to sustainable urban living	To promote the role of local centres as centres for sustainable development providing services, housing and employment, drawing on the principles of urban renaissance	Would development of the site: <ul style="list-style-type: none"> • support the vibrancy of the town centres • support the vibrancy of the local centres
	To encourage well-designed mixed-use developments in the heart of urban areas, create viable and attractive town centres that have vitality and life, and discourage out-of-town developments	

5 Site Allocations Issues and Options

5.1 *Introduction*

Three Rivers District Council consulted members of the public, statutory authorities and other relevant stakeholders on the Core Strategy DPD - Initial Issues and Options Report in June 2006 and Additional Issues and Options Paper in July 2007. This version of the Core Strategy comprised of options that lead to the development of Site Allocations Policies. In addition a separate Site Allocations Issues and Options report that identified potential sites to address specific provision like secondary schools, employment, retail, open spaces and cemeteries was produced in November 2010 and a SA Working Note accompanying the Site Allocations Issues and Options Report was put forward for public consultation in November 2010. Key results of this SA Working Note are reiterated in this section.

5.2 *Issues*

The SAIO DPD (November 2010) identified potential sites to address specific provision like secondary schools, employment, retail, open spaces and cemeteries. These proposals are in response to issues relating to these theme areas, and are based on information from sources such as:

- Sites previously submitted to the Council
- Sites proposed within other LDF documents
- A review of land allocations within the adopted Three Rivers Local Plan

The potential sites were assessed for their sustainability performance, and results are presented under each theme that the sites were classified as in the SAIO DPD. A summary of the assessment is presented in this chapter, for the detailed reports refer to Appendices 5 and 5a.

5.2.1 Education

Following studies undertaken by Hertfordshire County Council in collaboration with TRDC, the need for further secondary school provision from 2010-11 and beyond 2014-15 has been identified. The County Council and TRDC have identified five potential sites for developing a new secondary school:

- Site S(a) Mill End/Maple Cross - Land east of A405 (North Orbital)/north of A412 (19.64ha)
- Site S(c) Croxley Green - Land to the north of Little Green Lane (17.4ha)
- Site S(d) Croxley Green - Land off Baldwins Lane (12.26ha)
- Site S(b) Mill End/Maple Cross – Froghall Farm and adjoining land (20.65ha)
- Site S(e) Croxley Green – Land west and north of Little Green JMI.

Summary sustainability score matrix (Secondary schools)

Site	Environment	Social	Economic
Site S(a)	--	+	0
Site S(b)	--	+	0
Site S(c)	-	?	0
Site S(d)	?	+	0
Site S(e)	?	?	0

5.2.2

Employment

Summary sustainability score matrix (Employment)

Site	Environment	Social	Economic
Site E(a)	?	?	+
Site E(b)	-	?	+
Site E(c)	0	?	?
Site E(d)	0	?	?
Site E(e)	-	?	+
Site E(f)	0	?	?

5.2.3

Retail

The SAIO DPD identifies retail units in the district (all of which are existing), and proposes or reconfirms their function such as primary frontages (A1 use), secondary frontages (restaurants etc) and local shopping centres.

- Site R(a) Abbots Langley
- Site R(b) Chorleywood
- Site R(c) Croxley Green
- Site R(d) Maple Cross
- Site R(e) Rickmansworth
- Site R(f) –Moneyhill Parade
- Site R(g)- South Oxhey

Summary sustainability score matrix (Retail)

Site	Environment	Social	Economic
Site R(a)	0	+	+
Site R(b)	0	+	+
Site R(c)	0	0	+
Site R(d)	0	0	+
Site R(e)	-	+	+
Site R (f)	0	0	++
Site R (g)	0	0	+

5.2.4

Open spaces

The DPD proposes revisions to some open space sites, as well as proposing two new sites. The sites are:

- Site OS(a): The Grove Woodland (Plaitford Close/The Byeway), Rickmansworth
- Site OS(b) Chorleywood House Estate
- Site OS(c): Land north of South Way (Horsefield/Furtherfield), Leavesden
- Site OS(d) Middleton Road
- Site OS(e): South Oxhey Playing Fields

Summary sustainability score matrix (Open spaces)

Site	Environment	Social	Economic
Site OS(a)	?	+	0
Site OS(b)	?	0	0
Site OS(c)	?	+	0
Site OS(d)	0	0	0
Site OS(e)	0	+	0

5.3

Recommendations applicable to all issue topics

In addition to recommendations made to enhance the sustainability contribution from each site, the Issues and Options SA Working Note made series of generic recommendations, reproduced below:

- Developers should be encouraged from the outset to incorporate habitats into their developments

- Attention to design of the development should be given such that new developments layouts are complementary to the existing urban fabric
- Encourage buildings to use Secure by Design code to address crime
- Policy support for sustainable design, demolition and construction techniques; maximise material and resource efficiency, through adoption of standards such as BREEM (equivalent to the Code for Sustainable Homes) for the employment, and other non-residential built environment uses.
- Include policies which support and enforce the minimisation of waste, and the re-use of materials on and off site
- Consideration should be given to include measures to reduce per capita water and water saving technology in layout and design of development.

6 Site Allocations DPD Pre-Submission Assessment

6.1 *Assessment methodology*

Assessment of the Site Allocation Policies and the Sites allocated in the DPD Pre-Submission draft, a key task of this stage of the SA, involves prediction of the effects of each Site Allocation policy, and the effect of each site, against every sustainability objective. The assessment is expressed using the significance criteria outlined below.

Figure 6.1 Assessment significance criteria

Symbol	Description
++	Very sustainable - Option is likely to contribute significantly to the SA/SEA objective
+	Sustainable - Option is likely to contribute in some way to the SA/SEA objective
0	Neutral – Option is unlikely to impact on the SA/SEA objective
?	Uncertain – It is uncertain how or if the Option impacts on the SA/SEA objective
-	Unsustainable – Option is likely to have minor adverse impacts on the SA/SEA objective
--	Very unsustainable – Option is likely to have significant adverse impacts on the SA/SEA objective

The effects are typically local in nature, with a moderate likelihood of occurrence during the plan period i.e., short to the medium term.

6.2 *Mitigation and recommendations*

The SEA Regulations require the SA process to identify suitable mitigation measures for any significant adverse effects predicted for the policies. This is also an important component of the SA Report. In addition, recommendations to enhance sustainability measures within the policy document are documented as part of this report. Reference should be made to the Detailed Assessment matrices in Appendix 7 and the commentary relating to each predicted effect in order to gather mitigation suggestions, and recommendations to improve the site contribution to achieving each sustainability objective. For ease of reference the mitigation and recommendations are incorporated under each policy and site assessment summary in Section 6.3.

6.3 *Summary of the Pre-Submission Draft appraisal results*

Based on the above methodology all Site Allocation policies and the sites proposed were assessed and the results presented as detailed assessment matrix in Appendix 7. These results are summarised in Table 6.1, with the sub-sections that follow providing a text summary of the sustainability contribution the site allocations will have under the economic, social and environmental themes.

In general, development at all sites should have regard to the Core Strategy Policies (Adopted in October 2011) and to the Development Management Policies (under production), implying that the cumulative and synergistic positive effects are likely to occur for many sustainability themes such as biodiversity, landscape character, cultural heritage assets and material efficiency. In addition to the contribution of individual sites to sustainable development (documented in Appendix 7), by co-location in a neighbourhood or a parish area, the sites may also have synergistic or cumulative effects, that are discussed in Section 6.5.

The regulations also require that the effects should be predicted against the SEA/SA Objectives against a Do-nothing scenario. This section discusses the potential effects of a Do-nothing scenario against the SA objectives.

6.3.1 *Do-nothing option*

Assuming that future development will go ahead in the absence of the proposed Site Allocation Policies, but that other local, regional and national policies and plans that may influence future development remains, it is generally predicted that progressing the 'good quality housing', 'access to services', 'economic growth' and 'revitalising the town centres' SA objectives may not occur uniformly across all parishes of the District.

A major concern in a Do-nothing scenario will be an opportunity lost in the predictability of the location of future development for housing, education, open space and retail uses- thus having a risk of TRDC not being able to meet most Core Strategy Objectives, including that of housing. In the absence of planned allocations it will be difficult for the County to co-ordinate any educational provision, which may seriously affect meeting the infrastructure requirements of the District and of the Sub-region. Environmental effects are also likely both from individual and cumulative site influence, thus overall a haphazard and unplanned development would be likely to occur in a Do-nothing scenario.

Table 6.1 Site Allocation Policies and Sites Sustainability Assessment Summary Matrix

SEA Objective (abridged)	SA1- Biodiversity	SA 2&3- Water	SA4- Soils	SA 5&6- Climate change	SA7- Air Quality	SA8&9- Resource efficiency	SA10- Cultural Heritage	SA11- Landscape & Townscape	SA12- Health	SA13- Sustainable locations	SA14,15&16- Good Quality Housing	SA17- Crime	SA18- Economic Growth	SA19- Fairer access to services	SA20- Revitalise town centres
SA1: Housing Allocations	0	0	0	0	0	0	0	0	0	+	++	0	+	+	+
Land west of Bluebell Drive, Bedmond, H(1)	-	0	?	0	0	?	0	-	0	0	+	0	0	0	0
Adjacent Tom's Lane, King's Langley H(2)	0	0	+	0	0	+	0	0	0	-	+	0	-	0	0
Land at Three Acres, King's Langley H(3)	0	0	+	0	?	+	0	0	+	0	+	0	?	+	0
Land west of 10 Tom's Lane H(4)	-	0	-	0	0	-	0	-	0	0	+	0	0	0	+
Kings Langley Employment Area H(5)	-	?	+	0	-	+	?	0	+	+	++	0	+	+	+
Mansion House Farm Equestrian Centre H(6)	0	0	-	0	0	-	?	0	0	0	+	0	0	0	0
Former King's Head Public House H(7)	0	0	+	0	0	+	?	?	0	0	++	0	0	0	-
Leavesden Pumping Station, Abbots Langley H(8)	0	0	++	0	0	++	0	?	0	0	+	0	0	0	0
Furtherfield Depot, Abbots Langley H(9)	0	0	+	0	+	+	0	+	0	0	+	0	-	+	0
Leavesden Aerodrome, Abbots Langley H(10)	-	?	+	-	-	+	0	-	0	-	++	0	0	-	0
Hill Farm Industrial Estate H(11)	0	0	++	0	0	+	0	0	0	+	+	0	0	+	0
Langleybury House/School Langleybury H(12)	?	?	+	?	0	+	?	?	0	-	+	0	0	-	0
Royal British Legion H(13)	0	0	+	0	0	+	0	0	0	+	+	0	0	+	0
33 Baldwins Lane, Croxley Green H(14)	?	0	+	0	0	+	0	0	0	+	+	0	-	+	0
Killingdown Farm Buildings, Croxley Green H(15)	?	0	-	0	0	-	?	0	0	0	+	0	?	+	0
50-52, New Road, Croxley Green H(16)	0	0	+	0	0	+	0	0	0	+	+	0	-	+	0
Former Yorke Road School H(17)	0	0	+	0	0	+	0	0	0	+	+	0	0	+	0
Croxley Station Car park and Timber Yard H(18)	0	?	+	0	0	+	0	0	0	+	+	0	0	?	+
Branksome Lodge, Loudwater H(19)	?	0	-	0	0	-	?	?	0	?	+	0	0	?	0
Land rear of the Queen's Drive H(20)	?	0	-	0	0	-	0	0	-	+	+	0	0	+	0
Land at Arnett Close, Rickmansworth H(21)	?	0	-	0	0	-	0	0	0	+	+	0	0	+	0
Garages rear of Drillyard, Rickmansworth H(22)	0	0	+	0	0	+	0	0	0	+	+	0	0	+	0
Long Island Exchange, Rickmansworth H(23)	?	?	+	0	?	+	?	0	0	+	+	0	-	+	?
Police Station, Rickmansworth H(24)	0	0	+	0	0	+	?	0	0	+	+	0	0	0	+

SEA Objective (abridged)																
Policy/ Site name	SA1- Biodiversity	SA 2&3- Water	SA4- Soils	SA 5&6- Climate change	SA7- Air Quality	SA8&9- Resource efficiency	SA10- Cultural Heritage	SA11- Landscape & Townscape	SA12- Health	SA13- Sustainable Locations	SA14,15&16- Good Quality Housing	SA17- Crime	SA18- Economic Growth	SA19- Fairer access to services	SA20- Revitalise town centres	
Royal British Legion, Ebury Road, Rickmansworth H(25)	0	0	+	0	0	+	0	0	0	+	+	0	0	?	0	
Langwood House, Rickmansworth H(26)	?	0	+	0	0	0	?	0	0	+	+	0	0	0	0	
Gas works, Salter's Close H(27)	?	?	++	?	+	++	0	0	0	+	+	0	-	+	0	
Bridge Motors, Rickmansworth H(28)	?	?	+	?	0	+	?	0	0	+	+	0	-	+	0	
Depot, Harefield Road. Rickmansworth H(29)	?	?	+	?	0	+	?	0	0	+	+	0	-	+	0	
Depot, Stockers Farm Road, Rickmansworth H(30)	?	?	+	?	-	+	?	0	0	-	?	0	-	-	0	
Land south of Tolpits Lane H(31)	-	-	-	0	-	-	?	-	0	0	+	0	0	0	0	
Pocklington House H(32)	0	0	+	0	?	+	?	0	-	?	+	-	0	-	0	
The Fairway, Oxhey Hall H(33)	0	?	+	0	0	+	0	0	-	+	?	0	0	?	0	
Crescent Club, South Oxhey H(34)	0	0	+	0	0	+	0	0	0	0	+	0	0	-	?	
Jet Public House, South Oxhey H(35)	?	0	+	0	0	+	0	0	0	+	+	0	0	+	0	
Little Furze School H(36)	-	0	+	-	-	+	0	-	0	+	+	0	0	?	0	
Land south of St.Joseph's H(37)	-	0	+	0	?	+	0	0	0	+	-	0	0	+	+	
Amenity Space at Maylands Road H(38)	?	0	-	0	0	-	0	0	?	+	+	0	0	+	0	
South Oxhey Town Centre H(39)	?	?	+	?	?	+	0	?	0	+	+	+	0	+	+	
Grapevine Public House (H40)	?	0	+	0	0	+	?	-	0	+	+	0	-	-	0	
Land at Heysham Drive (H41)	?	0	-	0	?	-	0	-	-	+	+	0	0	-	0	
Rear of Lytham Avenue (H42)	0	0	-	0	0	-	0	0	0	0	+	0	0	0	0	
SA2: Employment Allocations	?	0	+	?	?	+	?	?	0	0	+	0	?	0	?	
Site @ Junction Park, Hunton Bridge E(c)	0		+	0	?	+	0	0	+	0	++	0	-	0	0	
Carpenders Park West/Delta Gain E(d)	-	0	+	0	?	+	0	0	0	+	+	0	+	0	0	
Maple Cross/Maple Lodge E(e)	-	0	+	0	?	0	?	?	0	0	0	0	+	0	0	
Kings Langley E (f)	?	?	+	0	?	+	?	0	0	+	0	0	+	0	0	
SA3: Education Site Allocations	0	0	0	0	0	0	0	0	0	+	0	0	0	+	0	

SEA Objective (abridged)																
Policy/ Site name	SA1- Biodiversity	SA 2&3- Water	SA4- Soils	SA 5&6- Climate change	SA7- Air Quality	SA8&9- Resource efficiency	SA10- Cultural Heritage	SA11- Landscape & Townscape	SA12- Health	SA13- Sustainable locations	SA14,15&16- Good Quality Housing	SA17- Crime	SA18- Economic Growth	SA19- Fairer access to services	SA20- Revitalise town centres	
Croxley Green S(d)	-	0	-	0	-	-	0	?	+	0	0	0	0	++	0	
Mill End/Maple Cross/ Froghall Farm S(b)	-	0	-	-	-	0	0	?	?	0	0	0	0	++	0	
Mill End/Maple Cross- land east of A405 S(a)	-	0	-	-	-	0	0	?	?	0	0	0	0	++	0	
Primary school- Ashfields Aerodrome way P(a)	?	0	+	-	-	+	0	?	?	0	0	0	0	+	0	
Policy SA4: Retail Allocations	0	0	?	?	?	?	0	0	0	+	0	0	+	+	+	
Rickmansworth Town Centre R(a)	0	?	+	0	-	+	?	?	0	0	0	0	+	+	+	
South Oxhey R(b)	0	0	+	0	0	+	0	0	0	+	0	0	+	+	0	
Abbotts Langley R(c)	0	0	+	0	0	+	0	0	0	+	0	0	+	+	0	
Chorleywood R(d)	0	0	+	0	+	+	0	0	0	+	0	0	+	+	0	
Watford Road, Croxley Green R(e)	0	0	+	0	0	+	0	0	0	0	0	0	+	+	0	
Moneyhill Paradise,Rickmansworth R(f)	0	0	+	0	0	+	0	0	0	0	0	0	+	+	0	
Croxley Green (New Road) R(g)	0	0	+	0	0	+	0	0	0	0	0	0	+	+	0	
Maple Cross R(h)	0	0	+	0	0	+	0	0	0	0	0	0	+	0	0	
SA5: Publicly Accessible Open Space Allocations	+	+	+	+	+	+	+	+	+	+	0	0	0	+	0	
The Grove Woodland OS(a)	+	0	+	0	+	+	0	+	+	0	0	0	0	+	0	
Chorleywood House Estate, Chorleywood OS(b)	?	+	+	+	+	+	+	+	++	0	0	0	0	+	0	
Land north of Southway OS(c)	?	0	+	+	+	+	0	+	+	0	0	0	0	+	0	
Middleton Road, Rickmansworth OS (d)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
South Oxhey Playing Fields OS (e)	+	0	+	0	0	+	0	0	+	0	0	0	0	+	0	
Baldwins Lane, Croxley Green OS(f)	0	0	0	0	0	0	0	0	+	0	0	0	0	+	0	
Croxley Wood, Croxley Green OS(g)	0	0	0	0	0	0	0	0	+	0	0	0	0	+	0	
Buddleia Walk, Croxley Green OS(h)	0	0	0	0	0	0	0	0	+	0	0	0	0	+	0	
Pheasant's Wood and Solomon's wood OS (i)	0	0	0	0	0	0	0	0	+	0	0	0	0	+	0	
Croxley Common Moor OS(j)	?	0	0	0	0	0	0	0	+	0	0	0	0	+	0	
SA6: South Oxhey	?	+	+	+	?	+	0	+	+	+	++	+	++	++	+	
Option 1- No development	0	-	+	0	0	0	0	0	-	0	-	0	-	-	0	
Option 2- Refurbishment only	?	-	+	0	0	0	0	0	0	0	+	0	+	0	0	

SEA Objective (abridged)																
Policy/ Site name	SA1- Biodiversity	SA 2&3- Water	SA4- Soils	SA 5&6- Climate change	SA7- Air Quality	SA8&9- Resource efficiency	SA10- Cultural Heritage	SA11- Landscape & Townscape	SA12- Health	SA13- Sustainable locations	SA14,15&16- Good Quality Housing	SA17- Crime	SA18- Economic Growth	SA19- Fairer access to services	SA20- Revitalise town centres	
Option 3- Part refurbishment, part redevelopment	?	?	+	0	0	0	0	+	0	+	+	0	+	+	+	
Option 4- complete redevelopment	?	+	+	+	?	0	0	+	+	+	++	+	++	++	+	
SA7: Langleybury & The Grove	-	?	+	0	-	?	?	?	0	0	+	0	+	0	0	
GREEN BELT																
Leavesden GB(1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
South of Heysham Drive, South Oxhey GB(2)	-	0	-	0	0	-	0	?	0	0	0	0	0	0	0	
MAJOR DEVELOPED SITE																
SA8: Maple Lodge WwTW	0	?	0	?	-	0	0	?	?	0	0	0	0	0	0	
SA9: Monitoring and Delivery	0	0	0	0	0	0	0	0	0	+	+	0	+	0	+	

6.3.2

SA1 Housing Allocations and identified Housing sites

The assessment found that SA1 and all the Housing sites identified will contribute to achieving the Core Strategy Housing targets as well as support the good quality housing and affordable housing SA objectives.

A consistent observation is that the policy and the site proposals do not contribute to addressing crime (perceived and actual). Although an abstract theme, the design of a development can have a reasonable effect on addressing this issue- such as adopting Secure by Design standards must be considered.

Overall positive or neutral effects are observed across most SA objectives. The uncertain or negative effects predicted are typically for the following reasons. Reference must be made to the detailed assessment for specific assessment results for each site.

- *Biodiversity*- where the sites are greenfield or are located within or adjacent or very close to wildlife sites or sites of Local Nature Reserve (such as H1- Land at Bluebell Drive, Bedmond), and where the proposed development is significant (above 50 dwellings), negative effects are likely to occur on the habitats and biodiversity features at the wildlife sites. Where the proposed site are in the vicinity of a site of potential biodiversity value, dependent on size and site features the effects on biodiversity features may be neutral or negative, which can be predicted with further details, therefore at such sites the effect on SA1-Biodiversity objective is predicted to be uncertain.
- *Landscape and cultural heritage*- At sites that are likely to encroach into an open space, wooded area (or the Green Belt), dependent on the scale of the development landscape features and related visual amenity in the area will be affected in a negative way (for example at the Leavesden Aerodrome (H 10)). On the other hand where the scale may be limited, dependent on the design of the development landscape character may be altered at some sites such as the Langleybury House site (H12)) leading to uncertainty in predicting the effect. Similar comment applies to site in close proximity to Cultural Heritage assets or to Conservation areas.
- *Water*- whilst some sites are located within the Ground water Protection zone (details on Appendix 2b), few residential proposals are made on sites at risk of flooding where residential use is classified incompatible (Environment Agency Flood Zone 3b)- the effect of development at these sites on the water objective is predicted to be negative. It is most likely that this minor negative

effect can be negated with appropriate mitigation measures. For example, avoid Flood Zone 3b (if only part of the site) and implement measures to not affect the Ground water at site. A detailed analysis of mitigation dependent on the site context will be required.

- *Air quality*- the effect of developments at the site on air quality objective is mixed. The assessment in general observes that any major development (above 50 dwellings) will result in increase in traffic thus alter air quality in an area. This condition could be exacerbated at sites that have poor connectivity to basic community amenities such as shopping and health services, implying more short trips (such as at the Leavesden Aerodrome-H10). On the other hand some proposals are likely to improve or maintain air quality, a positive effect against this objective. For example traffic associated with the employment sites may reduce with the proposed landuse change at sites such as Land at Three Acres, King's Langley (H3), but the effect should be determined taking future potential emissions into account.
- *Soil*- where Greenfield sites (either in full or part) are put forward for development, the effect on the soil and brownfield objectives are considered negative. In general, as most sites are on PDL the majority of sites score positive under both SA4 (soil) and SA8 (brownfield development). The positive effect is significant at sites where the proposed development will result in remediation of potential contamination, such as at the Gas works site, Salter's Close (H27).
- *Economic Growth*- The developments will result in increased inward investment which in turn will have secondary positive effect on retail businesses. However at particular sites, the proposed developments could lead to a loss of jobs where existing employment sites are replaced with housing. For example, at H2 and H3 in King's Langley, H9 (Furtherfield Depot), Long Island Exchange (H27) and similar. On the other hand, proposed redevelopment at some sites may generate employment opportunities, making a positive impact on economic growth. For example mixed land use at King's Langley Employment Area H(5).
- *Access to services, equity and social exclusion*- as the site connectivity to community amenities such as retail, health and community facilities are mixed the effect must be examined on a case by case basis on Table 6.1.

6.3.3

SA2 Employment Allocation and Employment sites

By safeguarding employment sites the Policy SA2 will help maintain *economic growth levels* but on the other hand on sites where mixed use is promoted, it is unclear if this will result in potential loss of some employment space that is viable. For this reason the effect of policy SA2 on economic growth is considered uncertain. However as all the proposals relating to employment sites will occur on PDL, it is supportive of SA4 (soils) and SA8 (brownfield) SA objectives.

Biodiversity- the impact of the proposed alterations to the employment land use or to continue/ expand the employment landuse on this objective are likely to be negative or uncertain at those sites which include or are in proximity to sites of biodiversity importance.

Air Quality- the effect of alteration to employment use or expansion can be determined with further information as both alterations will have implications to air quality. For example a revised land use, or alteration to mixed use, such as at King's Langley may reduce emissions by comparison to emissions from employment related traffic. The converse may be true due to the potential large scale of residential development at the site. Similarly an expansion of existing employment use may add to the employment related traffic thus affecting air quality. Conversely, if the future uses relate to commercial/ office use as opposed to warehousing the traffic impact will be comparatively less severe.

The impact of the proposals on *cultural heritage assets* and of the *landscape character* in the vicinity of the site must be addressed on a case by case basis therefore the effects are predicted to be uncertain.

6.3.4

SA3 Education site Allocations and Education sites

Environmental features- All sites proposed for Secondary and Primary Schools are predicted to have a negative effect on *air quality*. This is primarily due to its location, i.e., either on or adjacent to a busy or congested road, and the proposed use will add to traffic at certain times of the day contributing to air quality deterioration.

Likewise as all sites are proposed on Greenfield land, the developments are predicted to have a negative effect on the *soils* (SA4) and *Brownfield* (SA8) development objectives.

Social factors- Policy SA3 and all the proposed Education allocation sites are very supportive of 'access to services' objective (SA19).

6.3.5

SA4 Retail Allocations and Retail sites

The policy is very supportive of maintaining and improving opportunities for local economic growth (SA18) and therefore helps maintain or revitalise town centres and local centres (SA20).

In addition to the above comments for the retail sites put forward in the DPD, all sites will be on PDL, thus also supportive of soils (SA4) and Brown field (SA8) objectives.

6.3.6

SA5 Publicly Accessible Open Space Allocations

Environmental features: The policy SA5 is supportive of safeguarding the open spaces in the District thus is likely to help maintain most environmental features such as biodiversity, soils, air quality, landscape features and will support to complement any cultural heritage assets in the vicinity. Similar positive effects are predicted against all the identified environmental factors for the sites- The Grove Woodland OS(a), Chorleywood House Estate, Chorleywood OS(b), Land north of South way OS(c). At other sites while positive effects are likely on soils (SA4), Brown field (SA8) and on Biodiversity (SA1), neutral effects are predicted against all other environmental objectives.

Social factors: SA5 and all proposed sites, with the exception of the site at Middleton Road (OS5) are likely to bring benefits to the health of local population (by providing access to walking and cycling that will lead to a healthy lifestyle). The proposals are all supportive of the SA19 objective- fairer access to services.

6.3.7

SA6 South Oxhey redevelopment

The proposal is for the redevelopment of the South Oxhey Town centre area to improve the physical, retail and community provisions in order to revitalise the area.

Economic factors: Overall, the proposal will bring significant positive benefits to bring economic growth (SA18) and improve access to services (SA19). The proposal will help revitalise the town centre (SA20), and help improve the townscape features along with having a positive effect on sustainable locations and health objectives.

Social factors By improving the open spaces surrounding the South Oxhey area, which will be accessible to the general public, positive health benefits, are likely (access to maintain a healthy lifestyle).

Environmental features: By supporting redevelopment on PDL, Policy SA 6 supports the soils (SA4) and Brownfield (SA8) objectives. It is however unclear how the development will respond to existing biodiversity features and the impact on air quality i.e., will the redevelopment promote public transport better in order to relieve the congestion in the area, or will the development lead to further congestion. Further design stages should assess these aspects as more details become available.

6.3.8

SA7 Langleybury & The Grove

Environmental features: As parts of the site houses 'Building at Risk', the proposed redevelopment may be an opportunity to restore the building, however the effects on cultural heritage objective SA10 will be dependent on the design details. As part of the site comprises of woodlands and wildlife site on Heath Wood it is likely that the proposed development and the operations may negatively biodiversity at the site, dependent on the design details and location of habitats/species.

As parts of the site are on Floodzones 3a and 3b, dependent on the layout, the risk of flooding to the proposed residential land use, and vice versa will be determined. However, on its own the policy SA7 is predicted to have a negative effect on Water resources objectives (SA2 and 3). Appropriate flood management plan will be required.

Economic factors: The proposal will help achieve the District's housing target, and fulfil both housing supply and affordable housing objectives. The Hotel and Residential use proposal will help increase inward investments, and potentially increase job opportunities, thus support local economic growth (SA18).

6.3.9

SA8 Green Belt

As the site GB 1- Leavesden is already developed and no further alterations to the landuse is proposed, a designation alteration i.e. removal of Green Belt is unlikely to have an impact on any sustainability objectives.

At site GB2- South of Heysham Drive, South Oxhey, the revision is likely to negatively affect the soil (SA4) and Brown field (SA8) objectives and will affect habitats/species on the adjacent Local Nature Reserve- therefore biodiversity features (SA1).

6.3.10

SA8 Maple Lodge WwTW

Although neutral effects are predicted against most social and economic SA objectives by continuing provision at Maple Lodge the treatment works is likely to create odour issues, thus having a negative effect on health (SA 12).

The Water Cycle Scoping Study (2010) identifies constrained capacity at the WwTW is likely to affect water quality of the nearest water body. By continuing current treatment works, the policy may enable capacity improvements thus potentially addressing water quality issues.

6.3.11

SA9: Monitoring and Delivery-

Policy SA9 will help monitor progress of the District in achieving the Housing targets, thus contributing to achieving the housing objectives (SA14, 15 and 16) and through appropriate distribution of residential developments, will help progress sustainable locations (SA13) objectives and support in progressing local economy (SA18) and to revitalise the town centre (SA 20).

6.4 ***Assessment of Alternative sites***

The SEA Guidance requires SA to assess realistic alternatives that may have considered in the process of preparation of the DPD. The results of the SA will help inform the decision to take forward or to reject the alternatives.

In the process of preparing this DPD, TRDC had put forward a number of sites at the Issues and Options Stage (November 2010) and considered more sites since the Issues and Options Stage. As part of the SA, all sites considered in November

2010 have been appraised; the details are documented in Appendix 5 and 5a. Other sites put forward further to the November 2010 issue were appraised by TRDC using the site selection criteria (Appendix 2 of the Core Strategy). These criteria were reviewed as part of the SA exercise and the results documented through a colour coding to highlight the negative and positive environmental and social features of each site in Appendix 6.

In addition to these residential alternative sites four options have been put forward for Policy SA 6 South Oxhey. These alternative sites have been assessed as part of this SA exercise and documented in Appendix 7. In comparison to the other options, Option 4, which is similar to the proposed Policy SA 6, is found to support most sustainability objectives.

6.5 ***Cumulative, Synergistic and Secondary effect***

The SA Guidance¹³ requires that in addition to predicting the positive, negative, neutral or uncertain effect against the SEA/SA objectives, any cumulative, synergistic and secondary effect these policies will have whilst interacting with each other, or with other LDF policies. Explanatory to these effects are given below

Cumulative- On its own the policy option does not have significant effect, but when combined with other policies may have significant impact;

Synergistic- Synergistic effects occur when policies interact to produce a total effect greater than effect of an individual policy e.g., interaction between habitats and humans when habitats reach their capacity;

Secondary- Indirect effects that are not a direct result of the policies, however effects may occur through complex pathways.

In the case of site allocations, the interaction between site developments and the effect such an interaction is likely to have on the overall sustainability contribution has been assessed and listed below:

¹³ DCLG, DPD Guidance on Sustainability Appraisal, 2005

Residential sites

At the Croxley Green Parish Area, a general observation is that all the local centres proposed are likely to benefit from the proposed residential development in the area- synergistic positive effect on economic growth (SA18) and on access to services (SA19) objectives.

In the Non Parished Area, Land South of Tolpits Lane (H31) is located adjacent to employment land on Tolpits Lane. The residents may benefit from proximity to work place (providing they are employed at this site), but the synergistic effect on air quality and townscape is difficult to determine. If the employment site generates more traffic and the design of these buildings do not complement the proposed residential use, negative effect on air quality and townscape features are likely.

School Allocations

The traffic related impacts may be exacerbated with co-location of the secondary school allocations at Maple Cross – S(a) and S(b), thus causing a synergistic negative effect on air quality.

Retail Allocations

In general all primary frontage allocations at Rickmansworth are likely to benefit from the residential proposals in the area- synergistic positive effect for economic growth (SA18).

6.6 *Difficulties encountered*

Although a range of site level, local, and regional information sources and studies were available to inform the assessment process, without sufficient detailed information it has not been possible to predict some effects of few policies against certain SA objectives. These uncertainties are likely to be reduced as more detail is provided at to the Local Development Framework through Development Briefs, Design Guidance SPD and in individual planning applications.

7 Monitoring

7.1 *Monitoring of significant environmental effects*

The SEA Directive requires SA Reports to identify monitoring measures for significant (adverse and positive) environmental effects of the plan. The SA of the Three Rivers Site Allocations Policies SA has identified combination of significant negative, significant positive, minor positive, minor negative and some uncertain effects. It is important that monitoring be considered to administer these effects. There are likely to be several benefits in monitoring any environmental effects arising from the implementation of the Site Allocations policies, including:

- Identifying when action should be taken to reduce or offset any potential environmental effects of the plan;
- Enhancing understanding of how the environment is changing in the District;
- Tracking whether the site development has any unforeseen environmental effects; and

7.2 *Monitoring Measures*

The monitoring measures recommended in this report are aligned with the measures developed for the Adopted Core Strategy, and have been reiterated in this section. Based on information that will be available in the future, and recommendations from the future stage consultations, the proposed measures may be altered after the public examination or the baseline position may change at the time of adoption of this framework. Additionally the framework should be flexible to adapt to any changes in monitoring methods.

As a number of uncertain effects have been identified in this assessment, there is a need to develop a monitoring strategy at a later stage when the likely impacts of these effects are further understood. Table 7.1 presents the draft monitoring framework. This framework will be refined further to the consultation responses received during this consultation. The final monitoring framework will be developed based on specific effects identified at each of the sites included in the final submission DPD.

Table 7.1 Monitoring Framework

Effect or indicator to be monitored	Information required / Indicator	Information source	Information quality, gaps (& solution)
Biodiversity	BAP species monitoring	Natural England Specialist environmental groups i.e. RSPB, wetlands trusts etc	To be determined
	Change in areas and populations of biodiversity importance, includes: i) change in priority habitats and species (in type) and ii) change in area designated for their intrinsic environmental value including sites of international, regional, sub-regional or local significance.	Annual Monitoring report Biodiversity Monitoring Centre	Currently partially monitored (gaps in relation to species to be addressed with HBRC). Currently monitored
	Change in quality condition status of designated sites, e.g. from air pollutant deposition	Natural England, Air Pollution Information System (www.apis.ac.uk)	Consultation for joint action with Natural England/ other stakeholders
Maintain/Enhance Water Quality	Ecological status of the nearest water body	Environment Agency	Currently monitored
Flood Risk	EA Flood Zone classification, the Flood Risk Management Plan and related monitoring	Three Rivers District Council (TDC)	To be determined
Greenhouse Gas Emissions/ Resource Efficiency	Renewable energy installed by type	Three Rivers District Council (TDC)	Currently partially monitored, gaps in relation to domestic installations.
	CO2 emissions per dwelling	Defra/ DTI/ DECC	To be determined
Historic & Cultural Assets	No. of conservation areas, Historic Environment Character Zones, Listed Buildings, and locally listed buildings (local output indicator)	TDC English Heritage	Currently monitored
	Site affecting no. of historic assets in the vicinity	TDC	To be determined
Landscape character	Area of landscape designation affected by/lost to development	TDC	To be determined
Community identity and participation	% households stating their neighbourhood has 'community spirit'	TDC	To be determined
	% population participating/ responding to local development initiatives		

8 Next steps

8.1 Future stages

8.1.1 The results of this sustainability appraisal will be consulted along with the Site Allocations DPD with the statutory consultees, key stakeholders and members of the public. Based on the consultation responses and other information that may become available during the consultation stage, the DPD Submission Report will be finalised to present in front of the Secretary of State. This will be accompanied by the Final SA Report-Submission Version.

8.1.2 Further to submission, the DPD document will be adopted at a later stage. This will be accompanied by a SA Adoption Statement.