Three Rivers District Council
Three Rivers Development Management
Policies Local Development Document
Proposed Submission Version Sustainability
Appraisal Report
July 2012

Halcrow Group Limited, a CH2MHill Company,
in **association with**
Centre for Sustainability at TRL Limited

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Contents Amendment Record

This report has been issued and amended as follows:

Issue	Revision	Description	Date	Signed	Verified
01	00	Development Management Policies LDD Proposed Submission Version SA Report	20th July 2012	KD	RG

Contents

Appendices

Abbreviations

AONB	Area of Outstanding Natural Beauty
AQMA	Air Quality Management Area
BAP	Biodiversity Action Plan
BVPI	Best Value Performance Indicator
CO	Carbon monoxide
CO_2	Carbon dioxide
DEFRA	Department for the Environment, Food and Rural Affairs
EC	European Commission
EU	European Union
GIS	Geographical Information System
GHG	Greenhouse gas
LA	Local Authority
LDD	Local Development Document
LDF	Local Development Framework
LNR	Local Nature Reserve
LTP	Local Transport Plan
MPG	Minerals Planning Guidance
NNR	National Nature Reserve
NOx	Nitrogen oxide
NPPF	National Planning Policy Framework
ODPM	Office of the Deputy Prime Minister
PDL	Previously Developed Land
PM_{10}	Particulate matter at less than 10 microns diameter
PSA	Public Service Agreement
RSS	Regional Spatial Strategy
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SO_2	Sulphur dioxide
SPA	Special Protection Area
SPD	Supplementary Planning Document
SSSI	Site of Special Scientific Interest
VAT	Value Added Tax

0 Introduction

0.1 **Background to Strategic Environmental 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 SEA[1] and for SA of Development Plan Documents[2] in particular details how the SA and SEA should be integrated into one process. The final output of the process is a combined Sustainability Appraisal/Environmental Report which will be published alongside the plan. This report will be referred to as the SA/Environmental Report.

Three Rivers District Council (TRDC) have already completed production of the Core Strategy, which was adopted in October 2011. Further level Local Development Documents (LDD), such as the Development Management Policies Local Development Document (DMPLDD), the accompanying document, will support the Core Strategy and form material consideration to inform decisions on future planning applications. Once fully adopted the complete Local Development Framework (LDF) will replace the existing Three Rivers Local Plan 1996-2011, however until that point saved policies not superseded by the adopted Core Strategy will remain

0.1.1 *Purpose of this Sustainability Report*

The SEA 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 Development

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[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)

Management Policies LDD. In addition to declaring results of the assessment, the Sustainability Report proposes mitigation measures/recommendations to enhance sustainability features of the Development Management Policies LDD, as well as to proposing a monitoring framework for all significant sustainability issues identified during the assessment. In order to limit duplication, the Scoping stage Report of the Core Strategy SA, which contained the SA/SEA Framework has been adopted for the DMP LDD SA. New sections, not contained in the Core Strategy, but which form part of the DMP, such as Contamination and pollution; Surface water management; Open space and recreation space; and Community facilities are being analysed through a Policies, Plans and Programme Review and baseline studies. This information, along with extracts of relevant baseline and PPP review from the Core Strategy is produced in Appendix 1 (PPP Review) and Appendix 2 (Baseline). Any updates to the baseline further to those reported at the Adoption of the Core Strategy are captured in Appendix 2.

This report will accompany the Proposed Submission version of the DMP LDD and will be taken forward for submission to the Secretary of State after completing the statutory procedures of the regulation.

<p style="font-style:italic">0.1.2</p>

Background to the Project

This SEA/SA is being carried out by Three Rivers District Council. The Centre for Sustainability (C4S) at TRL Ltd and their project partners Halcrow Group Ltd, a CH2MHill Company, have been appointed to undertake this project.

0.2   **Three Rivers Local Development Framework- Development Management Policies Document**

Under the New National Planning Policy Framework (2012), the Local Plans are the key to delivering sustainable development that reflects the vision and aspirations of the local communities. The Local Plans comprise of Local Development Documents and planning decisions must be taken in accordance with the development plan unless material considerations indicate otherwise.

The LDDs consists of a portfolio of documents, central to which is the Core Strategy, which sets out the overall vision for future development in the District and is the basis for subsequent LDDs which will be adopted, including the Development Management Policies LDD and the Site Allocations Document.

The Development Management Policies LDD sets out the criteria against which all planning applications within the District will be considered. The Council considers that these policies will enable the delivery of the objectives and long term vision for Three Rivers set out in the Core Strategy DPD which was adopted by the Council on 17 October 2011.

Most policies included in the DMP LDD have previously formed part of the Core Strategy Initial Issues and Options (2006), the Core Strategy Supplementary Issues and Options (2007) and the Core Strategy Preferred Options (2009). These

Development Control policies of the Core Strategy have now been refined as Development Management policies LDD. All these policies were subject to statutory and public consultation, as part of the Core Strategy document at each of the aforementioned stages. Further to the consultations and iteration by TRDC, the DC policies were removed from the Core Strategy in order that they may be elaborated as another Local Development Document, i.e. the accompanying DMP. The following list provides details of how the DC policies, as included at the Core Strategy Preferred Options stage, have been taken forward:

- DC 8 Residential Layout, now **DM1** Residential development;

- DC1 Green Belt, now **DM2** Green Belt;

- DC13 Historic Built Environment, now **DM3** The Historic Built Environment;

- DC10 Carbon dioxide emissions and Renewable Energy, now **DM4** Carbon dioxide emissions and Renewable Energy;

- DC11 Renewable energy developments, now **DM5** Renewable energy developments;

- DC 2 Biodiversity, Trees and Woodlands, now **DM6** Biodiversity, Trees, Woodlands, Watercourses and Landscaping;

- DC3 Landscape Character, now **DM7** Landscape Character;

- DC9 Flood risk and water resources, now **DM8** Flood risk and Water resources;

- DC14 Contamination and Pollution Control, now **DM9** Contamination and Pollution;

- DC12 Waste management, now **DM10** Waste management;

- DC4 Open space, Sports and Recreation facilities, and DC5 Children's Play Space, now combined into **DM11** Open Space, Sports and Recreation facilities and Children's Play Space;

- DC6 Community, leisure and cultural facilities, now **DM12** Community, leisure and cultural facilities;

- DC15 Parking, now **DM13** Parking;

- DC7 Design of Development, now Core Strategy Policy CP12

Two new Development Management policies, that were not included as DC policies in the Core Strategy (2009), are also now included in the DM LDDP. These are as follows:

- **DM14-** Telecommunications; and

- **DM15-** Moorings.

As all stages of the SA process prior to this Pre-Submission Stage, i.e., Scoping Report, Initial Options SA Report and the Preferred Options SA Report have

been produced for the Development Control (then Development Management) Policies, and so as not to duplicate these processes, this SA has progressed to the DMP LDD SA Proposed Submission version (this document).

This SA Report has been prepared to accompany the Proposed Submission version of the Development Management Policy Document, and therefore compiles the SA process records since the Scoping Report Stage and makes recommendations for monitoring any adverse effect identified by the SA.

In order to enable delivery of the Core Strategy objectives, the Development Management Policies LDD sets out the criteria against which all planning applications within the District will be considered. Although individual applications will be determined on their merits and according to relevant material considerations when being determined, these criteria will be used as guidance both by TRDC, and the developers- thus giving a clear signal on the direction of future development.

The list of Development Management Policy topics are reiterated below:

DM1 Residential development;

DM2 Green Belt;

DM3 The Historic Built Environment;

DM4 Carbon dioxide emissions and Renewable Energy;

DM5 Renewable energy developments;

DM6 Biodiversity, Trees, Woodlands, Water Resources and Landscaping;

DM7 Landscape Character;

DM8 Flood risk and Water resources;

DM9 Contamination and Pollution;

DM10 Waste management;

DM11 space, Sports and Recreation facilities and Children's Play Space;

DM12 Community, leisure and cultural facilities;

DM13 Parking;

DM14- Telecommunications; and

 DM15- Moorings

0.3   ***SEA/SA Methodology***
Figure 1 illustrates the relationship between Local Development Document plan making and the SA/SEA process.
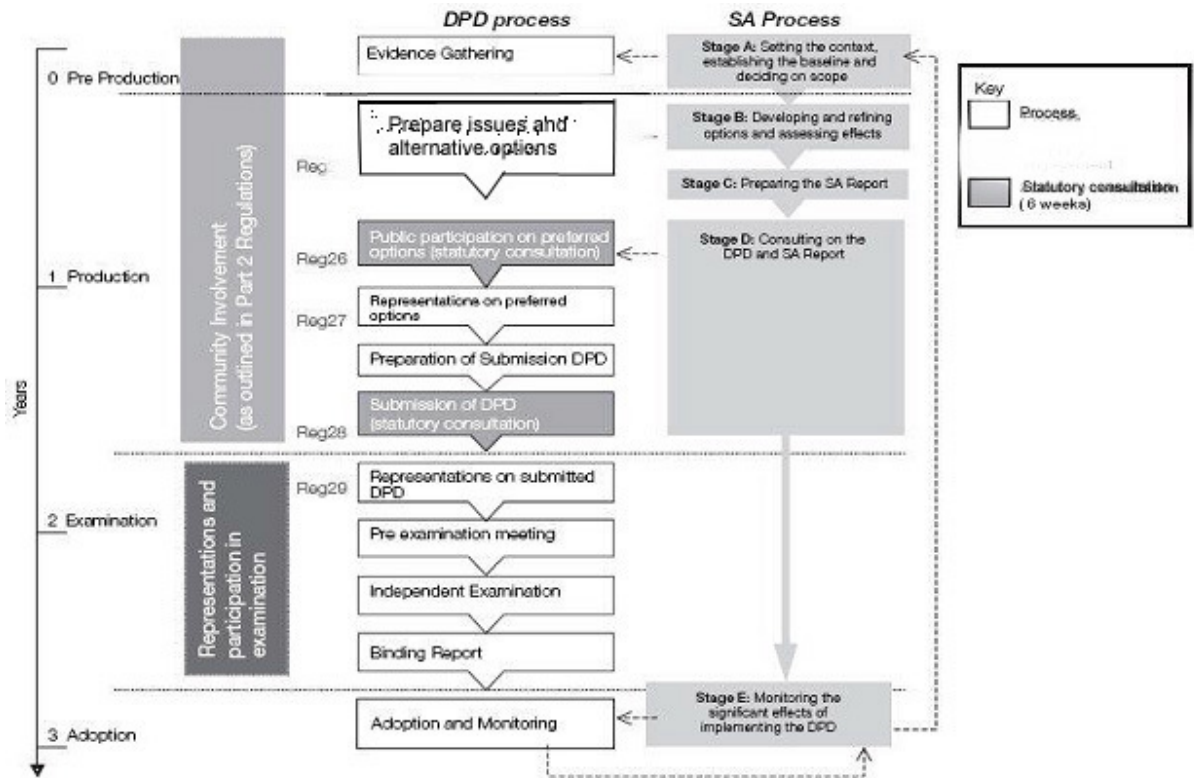
Figure 1: The LDD and SA/SEA process (Source: ODPM)

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 Development Management Policies LDD

Three Rivers Development Management Policies LDD	SA/SEA Stages	Dates
Begin Document Preparation	Stage A: Setting the context, establishing the baseline and deciding on the scope • Al: 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 DMP LDD 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 consultation on possible preferred option	Stage B: Developing and refining options and assessing of effects • B1: Testing the DPD objectives against the SA framework. • B2: Developing the DPD options. • B3: Predicting the effects of the DPD. • B4: Evaluating the effects of the DPD. • B5: Considering ways of mitigating adverse effects preferred and maximising beneficial effects. • B6: Proposing measures to monitor the significant effects of implementing the DPDs.	Consultation on Core Strategy Issues & Options (l&O) paper (which contains the DM Policies, named as DC Policies), June 2006 Preparation of SA Working Note on I&O[1] June 2006 Core Strategy Supplemental Issues and Options (l&O) paper, including preparation of SA Working Note on Supplemental I&O in July 2007

Three Rivers Development Management Policies LDD	SA/SEA Stages	Dates
Public consultation on Preferred options	Stage C: Preparing the Sustainability Appraisal Report. • C1 Preparing the **SA Report.** Stage D: Consulting on the preferred options of the DPD and SA Report. • Dl: 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.	Preparation of the Core Strategy Preferred Options (containing the DC policies) and the SA Report and formal consultation, February 2009 Revisions and additions to the DC policies, and incorporating these into a new LDD-Development Management Policies, Pre-Submission Version, January 2012; Consultation on the DMP LDD and the SA Report, Pre-Submission Version , January 2012. Publication of the Proposed Submission DMP LDD and SA Report, July 2012 (**current stage**)
Submission of DPD to Secretary of State	Stage E: Monitoring the significant effects of implementing the DPD • El: Finalising aims and methods for monitoring. • E2: Responding to adverse effects. • Preparing the **SEA Statement.²**	Submission of the DMDPD: September 2012 Final adoption of the Development Management Policies LDD 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.

0.4   ***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

Chapter / Section	SEA Directive Requirement (abridged)
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	Detailed baseline (reiterated from the Core Strategy, along with new topics)
Appendix 3	Consultation – results of the consultation of the previous SA Report for the Core Strategy DPD

0.5   *Consultation*

The SEA Regulations require consultation at various stages of the SA process, as indicated in Table 1.1. To date, as most DM policies formed part of DC policies in the Core Strategy, the Core Strategy consultation process applies to the DMP LDD. 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.

The SEA Regulations and SA Guidance[3] requires that the Scoping Report consultation be carried out with the four statutory environmental consultees i.e., Countryside Agency, English Nature (now Natural England), English Heritage and the Environment Agency. In addition, the Council expanded also consulted with a range of other key stakeholders. 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 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 in libraries. The Pre-Submission Version of the DM LDD, accompanied by the Pre-submission SA Report was put forward for consultation in January 2012. No comments on this SA Report were received at the time of preparation of the Proposed Submission Version in July 2012.

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

This Proposed Submission Version SA Report, alongwith the Development Management Policies LDD is now presented for consultation between July 23rd 2012 and September 3rd, 2012 to receive responses and comments.

0.6   *How the SA influenced the Core Strategy*

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 effects predicted, or to revise policies, options or objectives of the plan to improve its sustainability quotient. Table 1.2 indicates how the SA process influenced the Core Strategy development in relation to the Development Control policies that were originally included in the Core Strategy – and which now for part of the Development Management Policies Local Development Document.

Table 1.2: SA influence in the Core Strategy development

Stage	Recommendations	Changes to Policies
1) Initial Issues and Options SA of the Core Strategy	• Encouraging water efficiency in future buildings should address potential water issues in the future • Policy can set up energy efficiency targets like EcoHomes and consider BREEAM/CEEQUAL	• DC9 (now DM8) supports design and technical intervention to address the issue, including rain water harvesting • DC10 (now DM4) sets Code for Sustainable Homes Level for future development, from 2016
2) Core Strategy Preferred Options	• Policy can set up energy efficiency targets like EcoHomes and consider BREEAM/CEEQUAL • Consider improving quality of existing water resources, in addition to prevention of deterioration from future development • Consider including commercial and public buildings as well as residential in policy on carbon dioxide emissions	• DM4 sets requirements for future residential and non-residential development to encourage renewable energy generation and to work towards a Zero carbon target • DM8 supports development where the quantity and quality of surface and ground water resources are protected and where possible enhanced • DM4 applies to residential and commercial development
3) Development Management Policies Pre-Submission	• DM1: Residential Design and Layout: Consider addressing aspects relating to Crime through design • DM2: Green Belt: Elaborate on what constitutes Special circumstance under which	• Policy wording has been altered to include designing against crime and to use the Secured by Design Standards for new developments • Policy wording clearly indicates that sites included in the Sites Allocation Document will form part of the Very Special Circumstance

Stage	Recommendations	Changes to Policies
	developments on the Green Belt may be allowed	consideration.
	• DM5: Renewable Energy Developments: Recommended for explicit reference to impact on biodiversity in the criteria list the Council will consider while evaluating future Renewable Developments application	• Biodiversity added to the criteria list
	• DM6: Biodiversity, Trees, Woodland, Watercourses and Landscaping: Consider ways to restrict activities that could lead to habitat fragmentation.	• Policy wording requires development proposals not to contribute to habitat fragmentation and instead encourages restoration of broken chains in the biodiversity features.
	• DM8: Flood Risk and Water Resources: Consider discussion of flooding related to surface water run-off	• In addition to designing to protect from fluvial flooding the policy requires developments to reduce the risk of flooding from surface run-off and to plan for this risk.

0.7   *Geographic and Temporal Scope*

The spatial scope for the assessment is largely local (Three Rivers District); however the assessment also takes into account potential regional impacts (such as Watford, Hertsmere and St Albans) and national impacts, wherever appropriate.

The SA/SEA examines plans across three temporal scales:

- Short term effects: effects expected in the next 1-10 years;
- Medium term effects: effects expected in the next 10-20 years; and
- Long term effects: effects expected in the next 20+ years (after the life of the plan)

0.8   *Habitat Regulations Assessment[4]*

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 Regulations[5]. 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

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[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).*

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 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 the conclusion of the HRA.

1 Environmental & Sustainability Planning Context

1.1 **Introduction**

According to the new National Planning Policy Framework, and the Planning and Compulsory Purchase Act (2004), a sustainability appraisal which meets the requirements of the European Directive on strategic environmental assessment should be an integral part of the plan preparation process, and should consider all the likely significant effects on the environment, economic and social factors.

The Development Management Policies LDD sets out the criteria against which all planning applications within the District will be evaluated. TRDC considers that these policies will help achieve the objectives and long term vision set out within the Three Rivers Adopted Core Strategy (2011). The policies set out the approach required to be taken whilst producing a planning application submission for future developments. The topics deal with the physical location, characteristics of the development, their contribution to achieving energy and material efficiency, as well to specific topics such as parking, moorings, and telecommunications.

The Council will use the policies outlined in these documents to provide a consistent approach to the assessment of planning applications within the District, although each application will be assessed on their own merit and its overall contribution to a sustainable development.

This Sustainability Report covers appraisal of the Development Management Policies.

1.2 **Relationship of the Development Management Policies with other Plans and Programmes**

The SEA Regulations state that an Environmental Report should outline:

- Relationship of the Local Development Plan (Development Management Policy) 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, a review of the relevant plans, policies and programmes (henceforth referred as PPP review) has been carried out to identify environmental objectives which may provide constraints or synergies with the plan being formulated. The PPP review has 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 DMP LDD SA, Appendix 1 presents updated PPP review with additional policies relevant to the DM topics.

Since the version produced in January 2012, changes to the planning system imply replacement of the Local Development Framework with the new National Planning Policy Framework. While in terms of concept and the process for the Local Development Document preparation remain the same, the implications of this new policy on the SA is analysed and documented in Appendix 1. Appendix 2 reiterates relevant baseline information from the Core Strategy SA, and also contains new sections to reflect topic coverage of the DM policies. 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.

1.3   *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 LDD.

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 LDD 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.

National planning policy has recently been condensed from a number of planning policy statements and guidance into one single National Planning Policy Framework (NPPF). The previous appraisals of this document and other LDF documents have also considered national policy 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).

Policies in this document have 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.

Table 2.1 below lists all reviewed policies, plans and programmes.

Table 2.1: List of reviewed relevant policies, plans and programmes[6]

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
National Planning Policy Framework (2012)
Localism Act (2011)
The Town and Country Planning (Local Planning) (England) Regulations 2012
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)

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

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
Three Rivers Core Strategy 2011-2026

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 Development Management Policies and the sustainability appraisal process have considered review of these relevant plans, programmes and policies in preparation of the LDD. Detailed PPP review in Appendix 1 discusses how the SA has considered these policies in the LDD preparation.

1.4   *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 Development Management Policies 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 DM Sustainability Appraisal.

The baseline data provides an evidence base for identifying sustainability issues in Three Rivers, as well as a mechanism for identifying alternative ways of dealing with them. The 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. Following internal consultations, this framework is considered suitable to be adopted to predict the effects of the proposed Development Management Policies LDD.

In order to assess how the DM Policies will contribute to sustainable development, it is essential to understand the present economic, environmental and social baseline of the District, and to predict how they may progress without implementation of the Plan. Prediction of future trends can be highly uncertain but key trends identified from the available baseline data, and therefore potential sustainability issues are identified and discussed in Appendix 2 (which includes iteration of Baseline information from the Core Strategy SA) and Appendix 2a, which includes additional topics relevant to the Development Management Policies. Key issues and opportunities identified as part of the baseline analysis are discussed in Chapter 2.

This version of the SA reiterates the most recently updated baseline contained in the Core Strategy, however as baseline data collection is a continuous process that informs SA production, the baseline information will be updated at regular intervals throughout the SA production process.

2 Environmental and Sustainability Issues, Opportunities and Priorities[7]

2.1   *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 LDDs. Such issues, problems and opportunites 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

2.2   *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 2.1 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.

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[7] This chapter is reiterated from the Core Strategy SA Report, with few amendments

Table 2.1: Issues and Opportunities in Three Rivers

SEA Objective	Key Issues	Opportunities	Interrelationships
Biodiversity	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 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.	Protect and improve existing habitats, Green Infrastructure Compensate features lost to development where loss is completely unavoidable. LDF to promote the use of management agreements for designated sites, where this can be linked to development. Minimise fragmentation of wildlife habitats as a result of development	A healthy natural environment improves quality of life. Provides economic benefits through attracting inward investment and increased revenue through tourism. The diversity of habitats and species enriches people's lives. Economic growth if undertaken unsustainably could adversely impact upon these assets.
Water	Chemical water quality in R.Chess, R. Colne and R.Ver are very good, as of 2008 data Biological water quality declined between 1995 and 2008 Phosphate concentrations have decreased between 1995 and 2004 Water resources are over abstracted in the region	Improve river quality by e.g. using sustainable drainage schemes Consider overall siting of development schemes in order to minimise potential effects on water quality Encourage the use of Sustainable Urban Drainage in new developments. Ensure efficient use of water resources in development schemes, this includes the use of recycled water. Ensure new polluting processes are located in areas where groundwater is not vulnerable.	Climate change is resulting in more extreme weather conditions and will heighten flood risk and demands on water resources. Negative synergy likely for flora and fauna when water bodies with low water flow combined with poor quality water
Soil	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.	Protect best and most versatile land Promote good soil handling practice	Soil resources are key to sustaining the agricultural economy.
Climatic Factors	Domestic CO_2 emissions per capita are above the regional average	Ensure development proposals do not exacerbate flooding elsewhere in catchment by adopting the sequential approach to site	Climate change is likely to affect water resources (supply and demand), alter habitats, affect air quality and public health

SEA Objective	Key Issues	Opportunities	Interrelationships
	Greenhouse emissions in UK are increasing	selection advocated in PPG25 Promote the use and generation of renewable energy and promote energy efficiency Sustainable Urban Drainage – porous surfaces, greenspace, wetlands, flood storage areas, urban forestry. Opportunity to decrease greenhouse gas emissions through reduced reliance on the private car	and increase flood risk. These could all adversely impact upon the borough's economy.
Air	Pollutant levels decreased between 2001 and 2010. Levels of NO_X and NO_2 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/m^3 Increased air pollution from growth traffic and congestion There are 5 Air Quality Management Areas in the District	Ensure potentially polluting processes incorporate pollution minimisation measures Promote the development of Green Travel Plans Improve cycle and pedestrian routes and links Promote low emission vehicles (e.g. hybrids)	Air quality influences human health which affects quality of life and also economic activity. Greenhouse gas emissions could lead to significant climate changes which could have significant implications for other aspects of quality of life. Local residents and businesses experience air quality at the local level, which affects health and amenity.
Material Assets	The percentage of household waste recycled increased between 2001 and 2009 Percentage of houses built on previously developed land is high	Support a reduction in the amount of waste deposited in landfill Support alternative methods of waste management, e.g. minimisation and recycling, both for general and construction waste Encourage re-use and recycling of construction waste in development schemes through the use of planning conditions.	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.
Cultural Heritage	Historic assets include: Three scheduled monuments (Oxhey Hall Moated Site, Roman Villa on Moor Park Golf Course, The Manor of the More); 351 listed buildings;	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' Encourage strong and robust design standards	Cultural heritage contributes to the overall diversity and value of the landscape. Also provides economic benefits and is a source of enjoyment and entertainment for the population.

SEA Objective	Key Issues	Opportunities	Interrelationships
	22 Conservation areas	for new development that respects cultural heritage of the development area.	
Landscape	Light pollution is rapidly increasing and tranquillity is rapidly decreasing in the East of England. Three Rivers falls into three Landscape Character Areas, "Northern Thames Basin", "Thames Valley" and "Chilterns"	Recognise value of all landscapes, not just designated sites Monitor light pollution levels; new lighting should be selected which minimises light pollution	An attractive landscape improves quality of life which in turn could contribute to increase inward investment.
Population & Human Health	Three Rivers population is growing 74% of Three Rivers population state to be in generally good health	Ensure adequate housing, facilities and infrastructure whilst protecting and enhancing the local environment. Encourage mixed use. Promote the dual use of facilities, e.g. post office incorporated in community hall etc. Need to attract and retain people with the right skills. 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. Encourage sustainable transport modes Explore using planning obligations to help secure an appropriate range of facilities.	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.
Social Factors	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.) 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. Additional growth is likely to increase the pressure on affordable housing in the borough Three Rivers has recorded a high proportion of local authority buildings that are classified as suitable for	Provision of affordable housing in accessible locations Adopt 'planning out crime' design principles, e.g. encourage overlooking of space etc Ensure appropriate housing provision for the elderly, e.g. through Life-long homes located close to key amenities and public transport Consider using voluntary agreements in relation to local recruitment and training.	Poor health and well-being will adversely impact upon economic growth in the borough. Increasing employment and quality education opportunities will contribute to economic prosperity

SEA Objective	Key Issues	Opportunities	Interrelationships
	and accessible by disabled people. 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. 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	Ensure provision of a range of education facilities. Planning obligations used to enhance existing educational facilities Use planning obligations to secure improvements to public transport. Encourage healthy forms of travel and exercise, e.g. walking/cycling and access to leisure and recreational facilities. Provision of a range of employment opportunities in accessible locations	
Economic Factors	Economic activity rate has increased between 2000 and 2005 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 Employment in the district was expected to grow by ½% pa over 2003-2009 GVA in the district was expected to underperform the county, with growth of 2¾% pa compared with around 3% pa over 2003-2009. The number of VAT registered businesses increased every year during 2005-2007	Provide a range of employment sites, including ones that will be attractive to inward investment. Provide incubator units and units with shared facilities, e.g. reception and meeting facilities etc. LDF to identify suitable locations. Planning obligations used to enhance existing educational facilities Provide a range of employments sites that will be attractive to knowledge based industries Support employment opportunities in higher value activities, e.g. knowledge based industries.	Social considerations and quality of life will impact on employment opportunities and ability to attract inward investment
Contamination	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.	Development will enable contamination remediation, thus help improve local environmental quality.	Quality of life, health in particular may be improved for the local residents
Surface water flooding	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.	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	

3   SEA/SA Objectives and Framework[8]

3.1   *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, which included the Development Management Policies (as Development Control till February 2009). This Framework was used in the Pre-Submission Version (January 2012) and has been used to appraise the Proposed Submission DM Policies and will be used in subsequent stages to appraise the DPD. This 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 3.1. This approach is recommended in Government good practice on carrying out environmental and sustainability appraisals[9].An explanation of the methodology for formulating the Appraisal Framework is presented below.

3.2   *Three Rivers District Development Management Policies 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 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).

3.2.1   *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 England[10]".

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[8] Reiterated from the Core Strategy SA Report, with amendments
[9] The Strategic Environmental Assessment Directive: Guidance for Planning Authorities. ODPM, October 2003
[10] A Sustainable Development Framework For The East of England, The East of England Regional Assembly, October 2001

3.2.2   *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.

3.2.3   *Potential Assessment Indicators (Column 3)*
Indicators are the means by which the environmental and sustainability performance of the LDF can be assessed.

The indicators outlined in the Appraisal Framework were primarily derived from the Sustainable Development Framework for the East of England supplemented with other relevant indicators already identified at the European, national, regional and local level, and through discussions with the neighbouring councils i.e., Dacorum Borough Council, Watford Borough Council and St. Albans District Council.

Table 3.1 SEA/SA Framework

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

Objective	Criteria	Indicative Indicators
	To reduce pollution by managing supplied water and effluents in an integrated way To maintain or restore the integrity of the many water dependent wildlife sites in the region.	which includes on-site provision for rainwater re-use Household water use and peak demand Low flows in river
3. Ensure that new development does not increase flood risk and protects or enhances the capacity & integrity of flood storage areas	To avoid development from being located in areas at risk from fluvial flooding or storm surges taking into account of climate change	Margin between water supply and projected demand % of water lost to leakage
	To promote sustainable urban drainage systems to reduce flood risk and water loss from natural systems No development in undefended floodplains	Number and severity of pollution incidents to surface water Length of river of good or fair quality Number and severity of pollution incidents to groundwater Proportion of new roads served by swales, basins or infiltration trenches vs conventional kerbs River flows during dry summer periods. Total extent/ capacity of flood storage area Number of properties at risk from flooding Proportion of runoff from new developments which is directed into Sustainable Drainage Systems[11]
Soil		
4. Minimise development of land with the most agricultural value, and minimise the loss of soils to new development	To safeguard high quality agricultural land (Grades 1-2) from development	Amount of high quality agricultural land lost to development
	To limit the loss of soils to development	Net loss of soils in development Concentration of organic matter in top soil
Climatic Factors		

Objective	Criteria	Indicative Indicators
5. Reduce the impacts of climate change, with a particular focus on reducing the consumption of fossil fuels and levels of CO2	To minimise CO_2 emissions To adopt lifestyle changes to cope with climate change, such as promoting water and energy efficiency (through e.g. higher levels of home insulation) To encourage technological development to provide clean and efficient use of resources	Output of greenhouse gases and particularly CO_2 and SO_2 per local authority and per capita Weather-related insurance claims Regional energy consumption compared with population and GDP Energy use per household Energy Efficiency rating for new buildings Proportion of electricity generated from renewable sources Economic health and prospects of energy industry, including off-shore Proportion of total travel which is by car Transports share of region's CO_2 emissions Freight transport: tonne/miles and empty lorry miles Air quality improvements measured against related illnesses
	To raise awareness of the potential of renewable energy to attract more investment To encourage positive attitudes towards renewable energy schemes (e.g. wind and biomass) To encourage planning authorities to take a more positive attitude towards renewable energy schemes, home insulation, and local community renewable energy schemes	
	To encourage ways of mitigating the region's impact upon the global environment, such as cleaner and more efficient use of transport, supporting local markets to reduce the unnecessary movement of raw materials and food stuffs Encourage carbon sequestration (e.g. tree planting)	
	To encourage more efficient uses of energy, including product design, manufacturing processes, transport, and behavioural changes To develop, adopt and ensure the effective use of built development design guides tackling energy use, to provide homes and businesses with self-sufficient energy	
6. Ensure that development is capable of withstanding the effects of climate change	To promote design for more extreme climatic events, incorporating robust and weather resistant built forms	Design solutions which work with the environment, including: working with topography, wind direction and solar shade to reduce impacts on/of climate change & microclimatic impacts Number of specific measures included in the layout which will provide climatic protection % of surfaces designed for water re-absorption
Air Quality		
7. Achieve good air quality, especially in urban areas	To reduce the need to travel by car through a combination of high quality transport alternatives, particularly public transport, walking and cycling networks,	Levels of key air pollutants within the local authority area, and within the East of England

Objective	Criteria	Indicative Indicators
	but also light rail, taxi, and water	Number of days when air pollution reported as moderate or higher within the local authority area
	To develop the East of England as Britain's premier cycling region, and promote safe routes to schools, greenways and quiet lanes	Proportion of trips made by public transport/ foot/ cycle
	To promote Green Transport Plans, including car pools, car sharing, choice of low fuel and non-fossil fuel powered vehicles	Pollutant levels for Benzene, 1,3-Butadiene, CO_2, Lead, NO_2, PM_{10}, SO_2
	To improve opportunities for tourists not to have to drive, such as public transport, green lanes, and cycling	Journey times on strategic links
	To support energy saving and clean fuel initiatives for all forms of powered transport.	Time lost to congestion
	To encourage intelligent freight practices to transfer movements to rail and water, minimise empty lorry journeys, and promote local distribution of local food products.	Amount of traffic on strategic links Emissions from public and private transport
	To plan for a pattern of settlement and economic activity that reduces dependence on the car and maintains access to work and essential services for non-car-owners	Proportion of public transport vehicles with emissions compliant with Euro 4/ Euro 5 standards
	To raise public awareness of the need for lifestyle changes (e.g. to reduce dependence on the car)	Proportion of materials specified which can be derived from local sources
	To encourage use of information technology and e-commerce as an alternative communication link to travel.	Average distance over which building materials are transported
	To address radial (from London) dominance of routes and promote east-west links, including rail	Proportion of essential trips possible by public transport
	To make best use of and support adequate maintenance of existing strategic road and rail infrastructure, to overcome congestion	Quality of strategic pedestrian routes including safety, interest and amenity Investment in public transport as a proportion of total transport investment Proportion of road network benefiting from public transport priority measures Public transport choice (in terms of routes and modes)

Objective	Criteria	Indicative Indicators
Material Assets		
8. Maximise the use of previously developed land and buildings, and the efficient use of land	To concentrate development through the reuse of previously developed land and buildings and by urban extensions only where the development of greenfield land is unavoidable	New homes built on previously developed land Number of vacant properties Average density of development
	To encourage local authorities to prepare integrated strategies which identify and bring back into productive use contaminated, vacant, and derelict land and buildings, taking into account any nature conservation or historic interest that they might have developed	Densities along main transport corridors Densities in the town centre
	To maximise the efficient use of land by such measures as higher density development, mixed use	Area under agri-environment schemes
9. To use natural resources, both finite and renewable, as efficiently as possible, and re-use finite resources or recycled alternatives wherever possible	To safeguard reserves of exploitable minerals from sterilisation by other development	Area converted to organic production Volumes of minerals produced in the region
	To encourage maximum efficiency and appropriate use of aggregate materials	Level of minerals and aggregate use replaced by recycled or substitute materials
	To manage aggregate outputs to meet regional needs in a sustainable manner	
	To prevent mineral extraction where environmental/amenity impacts would be unacceptable (e.g. to communities, wildlife, semi-natural habitats, landscape, archaeology or groundwater)	Number of exhausted mineral sites returned to suitable use
	To restore to a high standard exhausted or abandoned mineral workings maximising opportunities to create new habitats, and ensure effective after-use management	Construction and demolition waste going to landfill Imported mineral tonnage
	To promote the use of recycled materials particularly in the construction industry, to avoid wasteful use and transport of resources	Numbers of dwellings created by re-use of existing buildings
	New development to incorporate renewable and recycled materials in buildings and infrastructure, or materials of lower environmental impact or locally sourced materials where possible	Number of buildings designed to sustainability principals Levels of wastes and emissions (nutrients, pesticides, herbicides)
	To minimise the production of waste, and then promote re-use, recycling, composting, alternative treatment options and energy recovery before resorting to landfill, taking into account the Best Practicable Environmental Option (BPEO)	Household waste and recycling rates

Objective	Criteria	Indicative Indicators
	To promote a shift from a culture of cheap landfill to public acceptance of well-sited well-run alternatives (e.g. recycling and composting facilities)	Waste production per head of population
		Concentrations of persistent organic pollutants
	To encourage easily accessible recycling systems and develop markets for recyclable materials building upon the work of the Waste and Resources Action Programme, and promote and support local strategies and enterprises (e.g. Re-Made schemes)	% of the total tonnage of household waste that has been reduced, re-used or recycled
	To promote education and demonstration projects for Combined Heat & Power (CHP) and waste recovery and recycling	Initiatives to promote sustainable waste management
	To promote waste awareness education programmes in schools and the community	Proportion of development which incorporates design measures to facilitate sustainable household waste management
Cultural Heritage		
10. To identify, maintain and enhance the historic environment and cultural assets	To safeguard and enhance the historic environment, and re-create important historic features	Buildings of Grade 1 and II* at risk of decay
		Number of historic assets restored/reused
	To promote local distinctiveness and pride in local identity by repairing historic buildings and areas, and by encouraging the re-use of valued buildings	Measures to enhance the local architectural heritage
	To encourage thoughtful design, high density housing and mixed-use developments, which respects their context, reflecting local distinctiveness	Condition of Ancient Monuments
	To promote public education and enjoyment of the built heritage and archaeology	Awareness about built heritage and archaeology
Landscape		
11. Conserve and enhance the landscape and townscape, encouraging local distinctiveness	To protect and enhance the district's countryside	Development in areas designated as Countryside and Sensitive Landscape Character
	To protect dark skies from light pollution, and promote low energy and less invasive lighting sources, considering the balance between safety and environmental impacts	Loss of Greenfield land
		Area of landscape designation affected by/lost to development
		Changes in landscape features –woodland, hedges, stone walls and ponds
Population and Human Health		
12. Encourage healthy lifestyles and reduce adverse health impacts of new developments	To reduce the need for travel by promoting mixed use development	Number and length of journeys by environmentally damaging modes: car, lorry, plane
	To promote the health advantages of walking and cycling, and community based activities	
	To include measures to reduce road traffic accidents	Proportion of journeys by 'green' modes: walking,

Objective	Criteria	Indicative Indicators
	To improve the quality and quantity of publicly accessible open space.	cycle, bus passenger rail, rail freight
	To identify, protect and manage open space, such as rivers and canals, parks and gardens, allotments and playing fields, and the links between them, for the benefit of people and wildlife	Access to local green space
	To narrow the income gap between the poorest and wealthiest parts of the region and to reduce health differential	Traffic congestion
	To make greater use of IT links to specialists by GPs for initial consultations	Average journey distances
	To promote better public transport links to major hospitals	Modal share of private car
	To include specific design and amenity policies to minimise noise and odour pollution, particularly in residential areas	Modal shift to cycling and walking
	To use strategic environmental assessment and environment impact assessment techniques to minimise noise	Length of cycle / footpath network
13. To deliver more sustainable patterns of location of development, including employment and housing	To reduce the need to travel through closer integration of housing, jobs and services	Perceived safety of cycle ways and footpaths
		Lighting levels (in Lux) of footpaths & cycle ways & levels of exposure to vehicular traffic
		Proportion of office developments & schools for which Green Travel Plans have been prepared and monitored
		Number of road casualties
		% of residents surveyed who are concerned about different types of noise in their area
		Number of residential units created above shops
		Distance travelled to work and mode of travel
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	% of residents finding it easy to access key local services & community facilities
	To ensure facilities and services are accessible by people with disabilities	Qualifications at age 19
	To encourage development of sporting opportunities.	
	To encourage businesses to access learning and skills for prosperity	Proportion of housing unfit or lacking appropriate insulation, by area

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

Objective	Criteria	Indicative Indicators
	behaviour	periods of the day.
	To improve attendance at school	
	To prevent environmental crime	Proportion of development (particularly in the town centre) which is dormant/ unused after hours
	To increase the use of community beat officers	
	To plan new development to help reduce crime and fear of crime through the design of the physical environment, and by promoting well-used streets and public spaces	% of public places that have security lighting and cameras
	To support citizenship awareness and anti-racism initiatives	
Economic Factors		
18. Achieve sustainable levels of prosperity and economic growth	To support the Regional Economic Strategy aim of making the East of England a world-class economy, renowned for its knowledge base, the creativity and enterprise of its people and the quality of life of all who live and work here	GDP per head Annual average investment by manufacturing industry as % of GDP
	To promote and support economic diversity and particularly green technology initiatives within the manufacturing sector	% of businesses recognised as Investors in People
	To support and promote key industry sectors, small and medium sized enterprises, community-based enterprises, and leading edge infrastructure and high quality environment	Adoption of Environmental Management Systems (ISO 14001. EMAS) and 'Green Accounting' by businesses
	To support the development of micro-businesses, community economic development and local investment	
	To encourage investment in rural tourism initiatives, including farm diversification	Proportion of working age people in employment
	To plan and manage tourism development and activities to encourage year-round tourism, and more sustainable destinations, products and businesses (e.g. through use of a 'green audit kit')	Number and survival of business start-ups
19. Achieve a more equitable sharing of the benefits of prosperity across all sectors of society and fairer access to services, focusing on deprived area in the region	To encourage local provision of, and access to, jobs and services	Rate of growth of rural businesses
	To enhance local economies giving access to appropriate, rewarding paid work	
	To improve the competitiveness of rural businesses by promoting innovative means of service delivery (e.g. ICT, multi-purpose community centres)	Index of local deprivation
	To promote the restructuring and diversification of agriculture such as establishing alternative rural businesses, including re-use of farm buildings as workspace to service the local area	Proportion of working age people in work, by area, age brand, gender and ethnicity
	To complete telecommunications links where there are network gaps	Woman in public appointments and senior positions
20. Revitalise town centres to promote a return to sustainable urban living	To restore the role of market towns as centres for sustainable development providing services, housing and employment, drawing on the principles of urban renaissance.	Dependency of working –age people in workless households
	To encourage well-designed mixed-use developments in the heart of towns and cities, create viable and attractive town centres that have vitality and life, and discourage out-of-town developments	Fuel poverty

Objective	Criteria	Indicative Indicators
		Increase in number of illness-free years
		% children in households with below have half average income
		Proportion of new retail in town centres versus out-of-town
		Proportion of population living in town centres

4 Development Management Policies Issues and Options

4.1   *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 Development Control Policies in the subsequent version of the Core Strategy Preferred Option produced in February 2009. The Issues and Options report was accompanied by the Core Strategy Preferred Options SA working note, which documented results of the sustainability appraisal of the Initial Options and Additional Issues and Options paper. Key results of the Issues and Options that relate to the current Development Management Policies appraisal are reiterated in this section.

4.2   *Initial Issues and Options Assessment Results*

Overall the initial Issues and Options were found to perform well against many of the SEA/SA objectives. Its commitment to pollution reduction and CO_2 emissions reduction, increasing accessibility to community amenities, open spaces and play spaces and promotion of sustainable design were considered particularly significant as they will help meet objectives relating to climate change and natural resources. Extract of the Core Strategy I&O Report, highlighting Issues relevant to the Development Management Policies is attached in Appendix 4 for reference.

4.3   *Additional Issues and Options Assessment Results*

Following some revisions and additions to the Issues and Options Paper, a Core Strategy Supplemental Issues and Options Paper was produced in July 2007 and subject to consultation. The Supplemental Issues and Options paper was developed to take account of following gaps identified within the 2006 Core Strategy Issues and Options Paper:

  • The Generic Development Control Policies
  • The Implementation and Monitoring Strategy
  • Strategic Transport Issues

These options were further subject to an assessment on sustainability and results produced as a Core Strategy Supplemental Issues and Options - SA Working Note in July 2007. . As none of these revisions relate to the Development Management Policies, the Additional Options SA Working Note (July 2007) does not form part of the DMP LDD, however reference may be made to the Core Strategy suite of documents for details about the Note.

5 Development Management Policies Pre-Submission Assessment

In January 2012, Three Rivers District Council produced a document elaborating on the Development Management Policies that will become material consideration to future planning applications. In accordance to the European Directive on Strategic Environment Assessment and to the DCLG Guidance on Sustainability Appraisals of Local Development Documents, the Development Management Policies were appraised against the SEA Framework and effects predicted to inform the decision makers at Council and the stakeholders, including members of the public, on how the policies will contribute to achieving a sustainable development. This chapter discusses results of this assessment. The detailed assessment matrices formed part of the Pre-Submission Version documentation of January 2012. The Pre-Submission Stage Development Management Policies LDD, along with the SA Report were subject to public consultation in January 2012. Further stage developments are discussed in the following chapters.

5.1 Assessment methodology

Assessment of the Development Management Policies LDD Pre-Submission Version, a key task of this stage of the SA, involves prediction of the effects of each DM policy against each of the sustainability objectives. The assessment is expressed using the significance criteria outlined below.

Figure 5.1 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 assessed in terms of geographic and temporal scale, permanence of effect and likelihood of occurrence.

Geographic scale relates to predicting effects that will have an effect at a national, regional or local level.

Temporal scale relates to effects that are likely to be in the short term (0-10 years); medium term (10 -20 years) and long term (over 20 years).

Permanence criteria - Temporary or Permanent

Likelihood of occurrence – high, medium or low.

5.2 Summary of the Pre-Submission Draft appraisal results

Based on the above methodology all DM policies were assessed and the results presented as detailed assessment matrix in Appendix 6 of the Pre-Submission Version SA Report documents. These results are summarised in Table 5.1, with the sub-sections that follow providing a text summary for each policy.

Based on findings of the SA, all Pre-Submission Development Management Policies LDD were predicted to have significant or minor positive, and in some cases uncertain, contribution to the progression of sustainable development in the Three Rivers District Council and to the achievement of the Core Strategy objectives. No significantly adverse effects were predicted in the assessment; however one minor negative effect was predicted for policy DM2 Greenbelt against the Brownfield SA objective. Where it was not possible to predict the effects (i.e. there is uncertainty) an explanation of how the uncertainty may be addressed were suggested in the detailed assessment matrix.

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.

5.2.1 Do-nothing option

Assuming that future development will go ahead in the absence of the proposed Development Management Policies, but other local, regional and national policies and plans that may influence future development exists it is generally predicted that air quality, and CO_2 emissions, and in general visual character as well as biodiversity within the District are likely to be negatively affected.

A major concern in a Do-nothing scenario will be the lack of a mechanism to translate the strategic Core Strategy Vision and Objectives at a ground level. It has not been possible to predict the effect of future development against the SA themes of water resources, soils, population and health, equity, housing, community identity and sustainable prosperity and growth as they will be dependent on the approach taken by individual developers. In the absence of development management, it may not be possible to achieve the Core Strategy objectives in a co-ordinated manner with the future developers.

Table 5.1 Assessment Summary Table- Development Management SA Pre-Submission Version

Development Management Policy	Biodiversity	Water quality	Flood risk	Soils	CO$_2$ emissions	'Climate change proof'	Air quality	Use of Brownfield land	Resource efficiency	Historic & cultural assets	Landscape and townscape	Health	Sustainable development patterns & accessibility	Equity & social exclusion	Good quality housing	Community identity & participation	Crime	Sustainable prosperity & growth	Revitalise town centres
Do-nothing	-	?	?	?	-	-	-	?	-	-	-	?	-	?	?	?	?	?	?
DM1	+	0	0	+	+	0	+	+	0	+	+	0	0	0	+	+	0	0	0
DM2	+	0	0	+	0	0	0	-	?	+	+	+	0	0	0	+	0	?	0
DM3	+	0	0	+	0	0	0	0	0	++	++	0	0	0	0	+	0	0	+
DM4	+	0	+	0	+	0	0	0	+	0	?	+	0	0	+	0	0	+	0
DM5	+	+	?	0	+	0	+	0	+	+	+	+	0	0	0	+	0	+	0
DM6	++	+	+	+	+	+	+	0	+	+	++	+	+	0	0	+	0	?	0
DM7	?	0	0	+	0	0	0	0	0	+	++	+	+	0	0	+	0	0	0
DM8	+	+	+	0	0	+	0	0	0	0	0	+	0	0	0	?	0	0	0
DM9	+	+	0	+	+	0	+	+	+	0	+	+	0	+	0	0	0	0	0
DM10	0	+	0	+	+	0	+	0	+	0	?	+	0	0	0	0	0	0	0
DM11	+	0	?	0	0	0	0	?	0	0	++	++	++	+	+	+	0	+	+
DM12	0	0	0	0	+	0	+	0	0	0	0	++	+	+	0	++	0	+	0
DM13	0	0	0	0	+	0	+	0	0	0	0	0	0	+	0	0	0	+ ?	+ ?
DM14	?	0	0	0	0	0	0	0	+	+	+	+	0	0	0	0	0	+	0
DM15	+	0	?	0	0	0	0	0	+	+	0	0	0	0	0	0	0	0	0

6 Development Management Policies LDD Proposed Submission Version Assessment

Further to the consultation on the Pre-Submission Version of the Development Management Policies LDD and the accompanying Sustainability Appraisal Report in January 2012, Three Rivers District Council have progressed to the Proposed Submission Stage taking into account consultation responses since January 2012. No specific comments were received on the SA Report. In accordance with regulations and guidance on SEA and SA production, the changes made to the DM Policies were assessed against the SEA Framework to find whether the proposed changes will alter any effect predicted at the Pre-Submission Stage.

In line with the NPPF recommendation that the environment assessments and sustainability assessments *'should not repeat policy assessment that has already been undertaken',* at this stage, assessment only to the changes to the DM Policies since the Pre-Submission stage of January 2012 is conducted. Details on the Schedule of Changes and corresponding alteration to the Pre-Submission SA predicted effects are documented in Appendix 6. The changes relate to the following policies:

- DM1 Residential Design and Layout;
- DM2 Green Belt
- DM8 Flood Risk
- DM14 Telecommunications
- DM15 Moorings

In this chapter, the assessment results of the current version of the Development Management Policies LDD are discussed. Table 6.1 presents the Proposed Submission Stage Assessment Summary matrix and the Detailed Assessment Matrix in Appendix 5. The cumulative, synergistic and secondary effects are discussed in Section 6.3 and Mitigations and recommendations to any predicted negative effects, or to strengthen the policy position to contribute to sustainable development is discussed in Section 6.4

Table 6.1 Assessment Summary Table- Development Management SA Proposed-Submission Version

Development Management Policy	Biodiversity	Water quality	Flood risk	Soils	CO$_2$ emissions	'Climate change proof'	Air quality	Use of brownfield land	Resource efficiency	Historic & cultural assets	Landscape and townscape	Health	Sustainable development patterns & accessibility	Equity & social exclusion	Good quality housing	Community identity & participation	Crime	Sustainable prosperity & growth	Revitalise town centres
Do-nothing	-	?	?	?	-	-	-	?	-	-	-	?	-	?	?	?	?	?	?
DM1	+	0	0	+	+	0	+	+	0	+	+	0	0	0	+	+	+	0	0
DM2	+ / ?	0	0	+ / -	0	0	0	-	?	+	+ / ?	+	0	0	0	+	0	?	0
DM3	+	0	0	+	0	0	0	0	0	++	++	0	0	0	0	+	0	0	+
DM4	+	0	+	0	+	0	0	0	+	0	?	+	0	0	+	0	0	+	0
DM5	+	+	?	0	+	0	+	0	+	+	+	+	0	0	0	+	0	+	0
DM6	++	+	+	+	+	+	+	0	+	+	++	+	+	0	0	+	0	?	0
DM7	?	0	0	+	0	0	0	0	0	+	++	+	+	0	0	+	0	0	0
DM8	+	++	+ / ?	0	0	+	0	0	0	0	0	+	0	0	0	?	0	0	0
DM9	+	+	0	+	+	0	+	+	+	0	+	+	0	+	0	0	0	0	0
DM10	0	+	0	+	+	0	+	0	+	0	?	+	0	0	0	0	0	0	0
DM11	+	0	?	0	0	0	0	?	0	++	++	++	++	+	+	+	0	+	+
DM12	0	0	0	0	+	0	+	0	0	0	0	++	+	+	0	++	0	+	0
DM13	0	0	0	0	+	0	+	0	0	0	0	0	0	+	0	0	0	+ / ?	+ / ?
DM14	?	0	0	0	0	0	0	0	+	+	+	+	+	0	0	0	0	+	0
DM15	+	0	+	0	0	0	0	0	+	+	0	0	0	0	0	0	0	0	0

6.1.1   *DM1 Residential Design and Layout*
The policy is supportive of many SA objectives such as soils, and use of brownfield land and biodiversity. It makes particular reference to how future residential designs should respect the character of the surrounding area, and thus helps achieve the cultural heritage and good quality housing objectives alike. The policy, by requiring developments to design for crime prevention and to adopt Secured by Design standards, is supportive of the Crime related SA objective.

6.1.2   *DM2 Green Belt*
In general, the policy aims to protect the nature of the Green Belt and reduce encroachment into to open countryside which is likely to have positive effects on landscape and biodiversity. DM2 may help protect, therefore maintain, the historic character of areas with cultural heritage interest as well as help maintain the landscape/ townscape character near Green Belt areas. The policy will help reduce any unreasonable intrusion of the greenbelt. However, the policy facilitates Green Belt revisions under very special circumstances i.e., on the sites named in the Sites Allocation Document. Where these sites are located on Greenfield land, there may be a minor negative effect on the 'Use of brownfield land' SA objective and development is likely to result in loss of top soil, thus negative effect on the Soils SA objective. The construction and potential operational impacts from these sites considered under the very special circumstances on biodiversity is also not known, therefore a split assessment for biodiversity is allocated- both positive and uncertain effect.

6.1.3   *DM3 The Historic Built Environment*
The policy, which aims to protect/ maintain heritage assets and landscape features whilst allowing future developments, is very supportive of the SA objectives- Cultural Heritage and Landscape and Townscape.

6.1.4   *DM4: Carbon Dioxide Emissions and On-site Renewable Energy*
The policy targets one of the major and point sources for current carbon emissions i.e., buildings (both materials and operational energy efficiency). Both direct and indirect (secondary) positive effects against many SA objectives are predicted with the implementation of this policy. In addition to the biodiversity, CO_2 emissions and Flood risk SA objectives, positive health benefits (pollution reduction) and good quality housing SA objectives also will be progressed with DM4.

It is however uncertain as what effect the design of on-site renewables installation will have on local cultural heritage, and landscape character, if applicable. Cumulative positive effect is likely with Core Strategy policy CP12 Design of Development.

6.1.5   *DM5: Renewable Energy Developments*

Similar to DM4, the renewable energy development policy will help guide future developers on what aspects should be considered whilst making a renewable energy development application. The criteria set out in the policy in general will support natural environment, therefore, biodiversity, water quality, CO2 emissions, air quality and resource efficiency SA objectives. The policy criteria are also sympathetic to the visual amenities and community amenities, such as access to the countryside, which may have a bearing on the health of the residents (for walking and cycling).

6.1.6   *DM6 Biodiversity, Trees, Woodlands, Watercourses and Landscaping*

Biodiversity and landscape features within the District are likely to be significantly affected, in a positive way, with the implementation of DM6. Overall the policy is supportive of most SA objectives such as water resources, soils, air quality improvement and resource efficiency. Social and economic benefits are likely from this policy on health, access to amenities and on community identity (through a sense of pride and belonging).

6.1.7   *DM7 Landscape Character*

By protecting various aspects of landscape and topography, and including measures to strengthen, reinforce, safeguard, manage, improve, restore and reconstruct landscapes, the policy significantly progresses the Landscape and Townscape SA objective. DM7 will also support the soils and cultural heritage SA objectives.

By protecting natural resources and by encouraging public access and recreation opportunities, the policy will support sustainable growth and health objectives. However by opening public access the effect on the habitats and species, such as fragmentation is unknown.

6.1.8   *DM8 Flood Risk and Water Resources*

The policy is supportive of protecting water resources, and promotes water efficiency (in new build) and indirectly will limit effects on the water quality by restricting flooding run-off on water resources- all significantly progressing the water SA objective. The policy encourages new development adjacent to water courses to include river restoration and de-culverting where possible. This will help to protect and enhance aquatic habitats. Although DM8 takes into account risk of flooding, based on the existing Environment Agency Zoning from 1 to 3b, risk of surface water run-off led flooding must be acknowledged. It is unclear whether the buffer of 5m suggested for developments from the water courses will be sufficient to addressing the risk from flooding, and whether this will compromise the achievement of Water Framework Directive objectives. It is also not clear whether the policy will require the applicants to consult local residents, along with typical flooding related consultees such as the Environment Agency.

6.1.9   *DM9 Contamination and Pollution Control*

The policy is generally supportive of most environmental objectives such as biodiversity, water quality, soils, CO2 emissions, air quality, use of brownfield land and landscape SA objectives and has neutral effect on most social and economic objectives, although indirect positive benefits are acknowledged.

By requiring contamination remediation in new developments, the policy will limit environmental injustice, such as locating affordable housing close to a land fill or on a contaminated site, addressing potential social exclusion issues.

6.1.10   *DM10 Waste management*

Overall the environmental SA objectives such as water resources, soils, CO2 emissions, and resource efficiency are likely to be supported by encouraging future developments to adopt waste management methods. Although positive, it is unclear as to how the waste facilities will interface with the townscape character in terms of scale and design.

6.1.11   DM11 Open Space, Sport, Recreation Facilities and Children's Play Space

The policy will help safeguard existing provision as well as enable future developments to contribute to open space provision, thus making a significant contribution to achieving the health, landscape and accessibility SA objectives. DM11 is predicted to have a positive effect on most social objectives, such as good quality housing, equity & social inclusion, and community identity and participation (by enabling the space). The policy position on its approach to locating open spaces in flood risk areas and on prioritising the use of PDL is unclear.

6.1.12   *DM12 Community, Leisure and Cultural Facilities*

The policy discusses the protection of existing provision and for making new provision of community facilities. In general significant positive health benefits and creating a sense of pride and belonging to the community are predicted to be the major effects of policy DM12 against the social SA objectives. By recognising the importance of sustainable modes of transport there are likely to be benefits for local air quality and CO_2 emissions, thus the policy also supports few environmental objectives.

Although positive effects have been predicted against most objectives, the assessment makes recommendations to improve the policy's contribution to sustainable development.

6.1.13   *DM13 Parking*

This policy has neutral effect against most environmental objectives, and is supportive of the air quality and CO_2 emissions objectives. In terms of contribution to the social objectives, DM12 considers disabled parking in most land use types, thus being sympathetic to some equality groups and supporting the equity and social exclusion objective.

Although no direct negative effect is predicted from this policy on any objective, it is not possible to predict if the restrictive nature of parking will drive shoppers to competing centres such as Watford and Harrow. On the other hand, with the support of public transport and improvements to the public realm, reduced parking and therefore traffic may improve the shopping experience (pedestrian), thus helping to revitalise the town centre.

In essence a balanced approach to restrictive parking is recommended.

6.1.14   DM14 Telecommunications

Whilst policy DM14 is likely to have neutral effect against most environmental and social objectives, by encouraging sharing of telecom resources the policy is supportive of the resource efficiency objective. Future proposals for telecom installations are required to be sympathetic to the visual amenity, which will benefit the landscape character as well as reducing any stress relating to this, thus affecting the health of residents (secondary effect). The policy requires future telecommunications related proposals to ensure accessibility is not compromised, thus supporting the Sustainable Development Patterns and Accessibility objective.

6.1.15   DM15 Moorings

The policy discusses aspects to be considered whilst making an application for permanent residential use of moorings. It is generally supportive of biodiversity (aquatic habitats) and of cultural heritage (and visual effects to the surrounds), flood risk and has neutral effect against most environmental, social and economic objectives.

6.2   Reasons for selecting alternatives

The policies contained in this document have evolved since the production of the Core Strategy and have been refined over time; however other than a Do-nothing option, no significant alternatives have evolved in this LDD production process, therefore no alternatives have been assessed at this stage of the SA.

6.3   Cumulative, Synergistic and Secondary effect

The SA Guidance[12] 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

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[12] DCLG, DPD Guidance on Sustainability Appraisal, 2005

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 general all Development Management Policies are likely to have synergistic or cumulative positive effect with many Core Strategy policies, particularly CP1 Sustainable Development. Other likely synergistic effects predicted are for interaction of CP 11 Green Belt with DM2 Green Belt and CP12 Design of Development with DM1 Residential Design and Layout.

- Synergistic positive effect between DM4 Carbon dioxide emissions and Renewable Energy and DM5 Renewable Energy Developments is predicted against CO2 Emissions and Air Quality objectives. Cumulative effect between the policies may help limit the uncertain effect DM5 is predicted to have on the Landscape character and Cultural Heritage of the District.

- Synergistic positive effect is likely between DM7 Landscape Character, with DM6 Biodiversity, Trees, Woodland and Landscaping on the Landscape Character SA objective.

6.4   *Mitigations 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 must be made to the Detailed Assessment matrices in Appendix 5 and the commentary relating to each predicted effect in order to gather mitigation suggestions, and recommendations to improve the policy contribution to achieving each sustainability objective. For ease of reference the mitigation and recommendations are documented in this section.

DM1 Residential Design and Layout Recommendation

- Discussion on waste management in infill or conversion related development is recommended. Waste relates to both construction and operational waste.

DM4: Carbon Dioxide Emissions and On-site Renewable Energy Recommendation.

- Encourage the use of construction material with less embodied carbon and encourage life cycle analysis of carbon.

- The policy could proactively engage with developments and seek for their monitoring/ reporting of CO_2 emissions, during the operational phase. Such an arrangement will ensure that the predicted efficiency effects will be continual as opposed to being a snapshot in time. It is acknowledged that establishing such a system may need wider resources, which perhaps the neighbouring Councils could jointly initiate, starting with commercial and public buildings.

DM5: Renewable Energy Developments Recommendation

- The Policy should discuss implication of renewables installation on flooding and vice versa

- The policy should discuss state of the land, material and human resources after project decommissioning i.e. require an exit strategy.

DM6: Biodiversity, Trees, Woodlands and Landscaping Recommendation

- While deciding the exceptional circumstances that may affect biodiversity from an application, appropriate stakeholders, including local people should be involved. Activities that may result in any habitat fragmentation must be restricted.

- Significant positive effect on sustainable prosperity and on health objectives likely if the policy supports 'enhancement to open spaces'

DM8: Flood Risk and Water Resources Recommendation

- Local residents should be involved in the emergency planning process and a mechanism to encourage developers to enable this practice is recommended.

DM9: Contamination and Pollution Control Recommendation

- Add 'ecological receptors' to the Contaminated land section criteria.

- As cumulative effects from various small developments in an area may be significant than 'adverse' effect from one development, consideration to air pollution mitigation from all development types and sizes, including refurbishment is recommended.

- Consider encouraging light pollution reduction for internal lighting, such as using building management systems and Passive Infrared Sensor technology.

DM10: Waste Management Recommendation

- Consider including major refurbishment projects in the policy

- Consider waste management in demolition waste and setting annual targets for general waste reduction

- Set construction material targets such as % recycled content

DM11: Open Space, Sport, Recreation Facilities and Children's Play Space Recommendation

- In addition to space provision specification, the policy should specify minimum travel distance to emphasise accessibility.

DM12: Community, Leisure and Cultural Facilities Recommendation

- Policy does not discuss how existing deficit will be managed, an important aspect to be considered.

- Policy currently only discusses safeguard from amenity loss; another important aspect to discuss is the likely pressure on existing community facilities associated with new development proposals.

- Policy should consider improving accessibility to existing cultural amenities where access is an issue.

- New facilities should be guided by appropriate urban design principles and establish good public realm, particularly near town centres

DM3 The Historic Built Environment Recommendation.

- Elaborate on the 'exceptional' circumstances for Listed buildings demolition in order to limit ambiguity.

- Further, information/explanation on the material, proportions and scale that are acceptable in the development proposals at conservation areas is recommended.

- The policy would benefit from making reference to the Hertfordshire Historic Landscape Characterisation, with the aim of protecting the most important historic landscapes in the District.

DM14: Telecommunication Recommendation

- Add biodiversity as a criterion whilst considering proposals for telecommunication installations

6.5 ***Difficulties encountered***

Although a range of 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 Site Allocations LDD, 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 Development Management Policies LDD SA has identified 11 separate significant positive effects (on 20 of the SA objectives), 95 positive effects, two negative effects (mild) and 13 uncertain impacts. Monitoring has been considered to cover these effects. Monitoring has also been proposed in relation to the minor negative effects and uncertain effects that have been forecast in the assessment. There are likely to be several benefits in monitoring any environmental effects arising from the implementation of the Development Management 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 plan has any unforeseen environmental effects; and
- Providing baseline data for future SAs/SEAs.

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 (next page) presents the draft monitoring framework.

Table 7.1 Draft DM Policies LDD 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 if 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
	Number of planning permissions affecting designated wildlife sites	TRDC	To be determined
	Percentage of planning applications with provision or funding of green infrastructure, wildlife areas or alternative green space (Natural England ANGSt standard)	TRDC	To be determined
Maintain/Enhance Water Quality	Number of planning permissions granted contrary to the advice of the Environment Agency on water quality or water abstraction grounds	Environment Agency	Currently monitored
Flood Risk	Number of planning permissions granted contrary to the advice of the Environment Agency on flood risk grounds	Three Rivers District Council (TDC)	Currently monitored
Greenhouse Gas Emissions/ Resource Efficiency	Renewable energy installed by type	Three Rivers District Council (TDC)	Currently partially monitored, gaps in relation to domestic installations.
	CO_2 emissions per dwelling	Defra/ DTI/ DECC	To be determined
Use of Brownfield Sites	Percentage of new dwellings on previously developed land	TDC	Currently monitored
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
	Number of historic assets in district on English Heritage's 'at risk' register	English Heritage	To be determined
	Number of planning applications affecting historic assets	TDC	To be determined
Landscape character	Development in areas designated as Countryside and Sensitive Landscape Character Loss of Greenfield land Area of landscape designation affected by/lost to development	TDC	To be determined
Community identity and participation	% households stating their neighbourhood has 'community spirit' % population participating/ responding to local development initiatives	TDC	To be determined

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