

Three Rivers District Council

Sustainable Communities SPD

Sustainability Appraisal

Sustainability Report

July 2007

Halcrow Group Limited

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Three Rivers District Council

Sustainability Appraisal

Final Sustainability Report

Contents Amendment Record

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Non Technical Summary

Introduction

Three Rivers District Council has appointed Halcrow Group Ltd to undertake a Sustainability Appraisal (SA) of the emerging Three Rivers Sustainable Communities Supplementary Planning Document (SPD). The appraisal will provide an independent assessment of the effects the Sustainable Communities SPD will have on a range of sustainability objectives.

Purpose of this SA Report

This Sustainability Report documents the outcome of the SA of the emerging Sustainable Communities SPD. This report provides an independent, broad qualitative appraisal of the emerging draft SPD. It also includes a number of sustainability recommendations to be considered in future stages of the SPD.

This Sustainability Report will be submitted with the draft SPD for public consultation in July 2007. Following consultation the final SPD and Sustainability Report will then be formally adopted towards the end of 2007.

Sustainable Communities SPD

Three Rivers District Council are preparing a Sustainable Communities SPD. The SPD provides guidelines and expands on the saved Local Plan “sustainability” policies. These policies will be saved until the adoption of the Core Strategy. The SPD cannot outline new policy.

Predicting the effects of the draft SPD

On the basis of the appraisal the draft Sustainable Communities SPD and saved local plan policies, are judged to have mainly positive effects on the sustainability objectives. When implemented the SPD will help increase energy efficiency in new homes and help reduce the causes of climate change.

Evaluating the effects of the draft SPD

On the basis of the evaluation of the potential effects of the draft Sustainable Communities SPD, it is judged to have mainly major positive or positive effects and no major negative or negative effects on the sustainability objectives. The implementation of the draft SPD will result in mostly local effects but the anticipated reductions in greenhouse gases and carbon dioxide emissions is likely to result in positive effects on both a local and global scale.

Key Recommendations

- It is recommended that the SPD should refer to the Government's Code for Sustainable Homes. The SPD could set a minimum code level which should be achieved in Three Rivers. The SPD could also consider setting a target relating to Lifetime Homes Standards. E.g. All homes to be designed to meet all 16 Lifetime Homes Standards. There is also an opportunity to set a target relating to the Building for Life criteria. E.g. All development will achieve a minimum of a silver standard (14 of the 20 criteria to be achieved). Or a more ambitious target could be

Biodiversity

- The main SPD should promote green roofs. Green roofs consist of plants being grown on roofs. Green roofs have many environmental and community benefits.
 - Green roofs significantly reduce the amount of rainwater runoff created by rooftops and thereby help reduce flood risk and help improve local water quality;
 - Green roofs help keep buildings cooler in summer and warmer in winter, providing a layer of insulation that also helps reduce energy bills;
 - They can also enhance biodiversity and the quality of life; and
 - Green roofs can help extend the life of the roof by reducing temperature fluctuations that can damage roofing material.

Water

- Examples of water saving devices should be outlined in the SPD, for example low flush toilets, waterless urinals, spray and low flow taps, water-saving white goods, low flow showerheads;
- The SPD should encourage developers to incorporate low water use gardens in their designs (e.g. drought resistant plants, utilise existing vegetation);
- Approaches to sustainable drainage solutions should be provided e.g. swales and basins, ponds, wetlands, permeable surfaces, green roofs; and
- It is suggested that reference is made to the need for restrictions on development based on the sensitivity of the area to groundwater pollution.

Climatic Factors

- The SPD should promote/encourage the use of thermal mass construction materials. The use of thermal materials will increase the energy efficiency of buildings and thereby help reduce the carbon footprint of development.
- It is recommended that the micro-generation section should be amended to provide further detail on alternate sources of energy. This might include:
 - Active solar panels: which collect solar radiation, and transfer it to a fluid or air, with the heat then used inside the building;
 - Photovoltaics: panels incorporated into roofs, walls, sunspaces and sunshades, which produce electricity from solar radiation. Optimum performance is achieved from panels facing due south, at angle of 30 degrees, particularly where the aspect is of a relatively open space;
 - Wind turbines: Small scale roof mounted structures, generating energy for a building or series of buildings;
 - Community Heating: central boiler plant which provides heat and distributes it via a pipework system to adjacent buildings; and
 - Community Heat and Power: system that produces electricity and recovers waste heat from the process to supply a proportion of the heating load.

Population and Human Health

- Later revisions of the SPD could encourage the reduction in car use by promoting car-free and car-reduced housing developments;
- Care will need to be taken to ensure that routes for walking and cycling are carefully maintained (Primarily Core Strategy issue);

- Walking and cycling routes should be well signposted (with signage in keeping with the landscape and townscape character); and
- The SPD could encourage the use of noise insulation techniques and screening to mitigate potential disturbance from noise. Noise from traffic could be reduced through the use of noise reducing surfaces on roads combined with appropriate screening – this is particularly relevant in relation to higher speed roads with significant anticipated night traffic.

Material Assets

- Care will need to be taken to ensure that recycling facilities and waste storage areas take account of landscape and townscape character and are small and unobtrusive in scale and design;
- Measures to control light pollution should be explored;
- It is suggested that the SPD state that development on previously developed land will be given priority over greenfield sites; and
- The re-use of existing/under-used/vacant land or buildings should be encouraged.

Cultural Heritage

- It is recommended that a section on cultural heritage is added to the main SPD. This section should outline the need for developments to respect, preserve and enhance the built environment and Conservation Areas.

Landscape and Townscape

- Care needs to be taken to ensure renewable energy projects are in keeping with landscape character and of an appropriate scale and design.
- Reference should be made in the SPD to ensure all noisy on-site recycling sites are located undercover.

Conclusions

The remaining phases of the SPD preparation process represent a critical opportunity to ensure that the groundwork for sustainability is laid down and that future residential development will impact positively on sustainability objectives. If the issues and opportunities identified in this report are not addressed there is a risk that they will be omitted altogether from the SPD.

1 Context and Purpose of the Sustainability Appraisal

1.1

Introduction

Three Rivers District Council has appointed Halcrow Group Ltd to undertake a Sustainability Appraisal (SA) of the emerging Three Rivers Sustainable Communities Supplementary Planning Document (SPD). The SA will form an integral part of the formulation of the SPD. In this report the acronym SA is used to denote the appraisal process as prescribed by the EC SEA Directive and UK Environmental Assessment of Plans and Programmes Regulations (2004), and includes consideration of broad sustainability issues which would usually be considered in a SA.

The appraisal will provide an independent assessment of the effects the Sustainable Communities SPD will have on a range of sustainability objectives. The Sustainable Communities SPD and accompanying SA represents a critical opportunity to drive forward the sustainability agenda and to present a high-level vision for sustainable development in Three Rivers. The SA ensures that the SPD is grounded on sustainable foundations. It is envisaged that the emerging Sustainable Communities SPD can help provide the basis for ensuring that sustainability goals are met and that future development will impact positively on sustainability targets.

Given that 4,000 new homes are to be provided in the District between 2001 and 2021 the adoption of the Sustainable Communities SPD is critical. The SPD ensures that developers and other applicants know what information is required of them in relation to delivering sustainable development when submitting a planning application. The SPD and the property market offer a significant opportunity to contribute to the Government target of a 20% cut in UK carbon dioxide emissions by 2010.

1.2

Purpose of this report

This Sustainability Report documents the outcome of the SA of the emerging Sustainable Communities SPD. This report provides an independent, broad qualitative appraisal of the emerging draft SPD. It also includes a number of sustainability recommendations to be considered in future stages of the SPD.

This Sustainability Report will be submitted with the draft SPD for public consultation in July 2007. Following consultation the final SPD and Sustainability Report will then be formally adopted towards the end of 2007.

This Sustainability Report relates to Stages B and C of the five stage process outlined in the former ODPM guidance¹, Stage A having been completed at the LDF Scoping stage. Future tasks relate to Stages D and E.

Stages and tasks
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope
A1: Identifying other relevant plans, 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
Stage B: Developing and refining options and assessing effects
B1: Testing the SPD objectives against the SA framework
B2: Developing the SPD options
B3: Predicting the effects of the draft SPD
B4: Evaluating the effects the draft SPD
B5: Considering ways of mitigating adverse effects and maximising beneficial effects
B6: Proposing measures to monitor the significant effects of implementing the SPD
Stage C: Preparing the Sustainability Appraisal Report
C1: Preparing SA Report
Stage D: Consulting on draft SPD and Sustainability Appraisal Report

¹ Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents (ODPM, November 2005)

Stages and tasks
D1: Public participation on the SA Report and the draft SPD
D2: Assessing significant changes
Stage E: Monitoring the significant effects of implementing the SPD
E1: Finalising aims and methods for monitoring
E2: Responding to adverse effects

1.3

Three Rivers Local Development Framework

The Local Development Framework (LDF) is the emerging development plan for Three Rivers. LDFs are the new form of spatial development plan introduced by the Government's planning reforms in the Planning and Compulsory Purchase Act (2004) (hereafter referred to as The Act). The LDF will replace the existing Three Rivers Local Plan 1996-201. The new LDF will set out the strategy for the way in which land is used and to guide new development in the District for the next 10-15 years.

The LDF will consist of a portfolio of Local Development Documents (LDDs). Central to this portfolio is the Core Strategy Development Plan Document (DPD), which sets out the overall vision for future development in the District and is the basis for later LDDs including the Site Allocations DPD. In addition to these statutory DPDs there will be a number of non-statutory SPDs, setting out more detailed guidance at a more specific level.

1.4

Sustainable Communities SPD

As part of this LDF process Three Rivers District Council are preparing a Sustainable Communities SPD. The SPD provides guidelines and expands on the saved Local Plan "sustainability" policies. These policies will be saved until the adoption of the Core Strategy. The SPD cannot outline new policy.

It is envisaged that the SPD will help stimulate sustainable development, guide future development and provide a planning context for planning application decisions on future development within the District.

If any of these saved local plan policies are revised or new Sustainability policies are prepared as part of the Core Strategy preparation process then the Sustainable Communities SPD will need to be revised to illustrate these policy changes.

1.5

Background to SEA and SA

Under The Act and the SEA Regulations² which came into force in England and Wales in July 2004 SA and SEA are mandatory for Regional Spatial Strategies (RSS), Development Plan Documents (DPDs) and Supplementary Planning Documents (SPDs).

The Act requires SAs to be carried out on DPDs (which include the core strategy and site specific allocations), and SPDs. SAs 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 for their area.

The Environmental Assessment of Plans and Programmes Regulations (2004) which implement European Directive 2001/42/EC, known as the Strategic Environmental Assessment (SEA) Directive, requires SEA of a wide range of plans and programmes, including LDFs. The objective of the SEA Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans, with a view to promoting sustainable development.

SEA and SA are very closely linked. SA aims to integrate sustainability issues into decision making by appraising the plan or strategy using environmental, social and economic objectives. SEA also aims to facilitate sustainable development but its emphasis is on integrating environmental considerations into decision making through a thorough analysis of environmental 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. The former ODPM's Guidance on Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents³ integrates SEA with SA. It describes a single appraisal process that meets the legal requirements of both the SEA Directive and the Act. This SA incorporates this integrated approach.

² The Environmental Assessment of Plans and Programmes Regulations 2004

³ Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents, ODPM, November 2005

1.6

Interface with Core Strategy SA

A Scoping report for the Three Rivers LDF was prepared and consulted upon with statutory consultees and stakeholders in March 2006 as part of the previous phase of the Core Strategy SA. This Scoping Report provided an overview of the completed SA tasks, presented the baseline information and the SA framework and outlined the proposed methodology for the remaining stages of the LDF SA. The Scoping Report set the sustainability framework for the SA process for the Three Rivers LDF. This Scoping report acts as the basis for all DPDs and SPDs. Given the level of detail and amount of baseline information collected as part of the LDF Scoping Report, an individual Scoping Report for the SA of the Sustainable Communities SPD has not been prepared. The LDF Scoping Report can be viewed at www.threerivers.gov.uk. (Follow links to Local Development Framework).

A Scoping Note was submitted to the statutory bodies in July 2007. The purpose of the Scoping Note was to seek views and opinions on the SA framework which will be used to appraise the draft Sustainable Communities SPD and to provide the opportunity for the statutory consultees to raise any issues which can feed into the assessment process. The results of this consultation exercise will be presented in the final SA report, which will be finalised after Draft SPD and SA Report consultation.

To ensure that all Three Rivers' LDDs are assessed in a consistent format, the SA of the Sustainable Communities SPD was carried out using the sustainability objectives used for the SA of the Core Strategy.

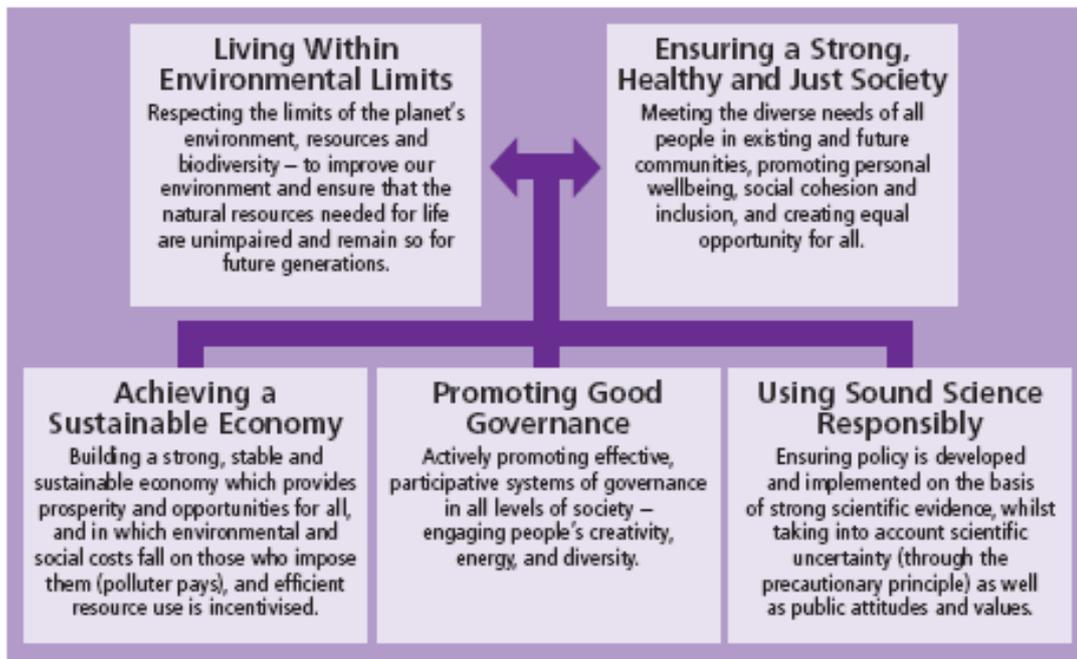
1.7

Sustainability Context

In 1987 the World Commission on Environment and Development, produced the report, "Our Common Future" (commonly known as the Brundtland Report). It provided the now widely accepted definition of sustainable development:

"Development that meet the needs of the present, without compromising the ability of future generations to meet their needs"

The UK Government's approach to sustainable development is set out in the national strategy "Securing Our Future". The strategy, published in March 2005 focuses on five principles – with an explicit focus on environmental limits.



Four priority areas are identified within the strategy:

- sustainable consumption and production
- climate change
- natural resource protection and
- sustainable communities

1.8

SEA Directive Requirements Checklist

Table 1.1 below summarises the requirements of the SEA Directive and signposts where they have been met in the SA process.

Table 1.1: The SEA Directive's requirements

The SEA Directive's requirements⁴	Where covered in the SEA/SA process
a) An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes	LDF Scoping Report

⁴ As listed in Annex 1 of the SEA Directive

The SEA Directive's requirements ⁴	Where covered in the SEA/SA process
b) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme	LDF Scoping Report
c) The environmental characteristics of areas likely to be significantly affected	LDF Scoping Report
d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC	LDF Scoping Report
e) The environmental protection objectives, established at international, Community or national level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;	LDF Scoping Report and Scoping Note
f) The likely significant effects on the environment, including on issues such as biodiversity, population, human health, & fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects)	Sections 2 and 3
g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme	Section 4
h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Sections 2 and 3
i) a description of measures envisaged concerning monitoring in accordance with Article 10	Section 5
j) a non-technical summary of the information provided under the above headings.	Non Technical Report

1.9

Task B1: Testing the SPD objectives against the SA framework

An important test of the effectiveness of the SA process is its capacity to identify any inconsistencies between plan objectives set out in the document under review and the sustainability objectives defined in the SA framework. This task represents a key opportunity to ensure that the SPD objectives reflect the principles of sustainability, and that full recognition is given to sustainability issues early on in plan development. It is recognised that a series of key aspirations and national policy to reduce carbon emissions shape the vision for the SPD. The overarching objective of the SPD is to provide guidance on good principles and practice for sustainable development. An additional assessment of the SPD was not undertaken at this stage.

2 Tasks B2 and B3: Developing the SPD options and predicting the effects of the draft SPD

2.1 *Purpose*

It is considered that this stage provides the first opportunity for the appraisal of the emerging draft SPD. This stage covers the prediction and examination of the environmental, social and social effects that will potentially arise as a result of the implementation of the draft SPD. An examination of the saved policies which the Sustainable Communities SPD is based upon has also been undertaken.

2.2 *Appraisal Approach*

The appraisal was undertaken using the SA framework developed at the LDF Scoping stage. The draft SPD and saved policies were scored against their compliance with the sustainability objectives. The predicted impacts and key assumptions were set out in the appraisal comments column. The appraisal results are set out in Table 2.1 below. The performance of the draft SPD and the saved policies against the SA objectives was scored using the following six point scale:

Symbol	Description
✓✓	Very sustainable
✓	Sustainable
-	Neutral (neither positive or negative)
?	Uncertain
X	Unsustainable
XX	Very unsustainable

Table 2.1: Draft Sustainable Communities SPD Assessment Results

Option Description

Prepare and adopt SPD

Sets out guidance on good principles and practice for sustainable development. The focus of this option is on the assessment of the impacts of the draft SPD.

Business as Usual

Continuation of exiting national, regional and local planning policy. This option focuses on the saved sustainability Three Rivers Local Plan 1996-2011 policies- GEN.1, D.2 and D.7 and the Sustainability Checklist (Appendix 1 in the Local Plan)

SEA/SA Objective (abridged)	SPD	Commentary	business as usual	Commentary
Biodiversity				
To protect and enhance biodiversity at all levels	✓✓	<p>The SPD encourages the use of renewable resources, brown field sites, low environmental impact materials, energy and water efficiency techniques, sustainable drainage solutions, waste minimisation and recycling. These sustainable practices could have significant environmental benefits for Three River's environment. Its approach to waste minimisation and recycling will help reduce the use of landfill which will benefit landscape, tranquilly, water and soil quality.</p> <p>Protecting water resources and quality will be beneficial to biodiversity, soil resources and consequently for the overall landscape of the district.</p> <p>However inappropriate renewable energy schemes could have a significant adverse effect on landscape and biodiversity</p>	✓✓	<p>Policies Gen.1, D.2 and D.3 and D.7 all aim to promote sustainable construction and development which will all have indirect positive effects on improving and enhancing Three Rivers natural environment and biodiversity.</p> <p>Policy D.7 requires developers to consider water conservation which will positively impact on Three Rivers' water resources and biodiversity. Further to this, the criterion in the Sustainability Checklist encourages the protection and conservation of designated sites and other sites/features of nature conservation importance (SSSIs, trees, hedgerows etc)</p>
Water				
To maintain/enhance water quality and limit water consumption	✓✓	<p>Sustainable drainage solutions which are required by the SPD will help reduce water pollution associated with surface water run-off.</p> <p>The SPD requirement for applicants to submit details of water conservation solutions will not only help achieve savings in water consumption but also reduced treatment requirements- with energy efficiency and cost benefits.</p> <p>It is suggested that reference is made to the need for restrictions on development based on the sensitivity of the area to groundwater pollution.</p>	✓✓	<p>Policy D.7 will positively impact on Three Rivers' water resources. Additionally, the sustainability criterion outlined in the Checklist, supports this objective and promotes the maintenance/enhancement of water quality and protection of the hydrology of the site.</p>

SEA/SA Objective (abridged)	SPD	Commentary	business as usual	Commentary
Ensure new developments do not increase flood risk	✓	<p>The SPD will have positive impacts on greenhouse gas emissions which will help reduce climate change and the risk of flooding.</p> <p>By requiring applicants to submit details of sustainable drainage solutions the SPD will help the mitigation of stormwater run off. The run off from roof surfaces and impermeable surfaces such as roads, car parks can result in flooding.</p>	✓	<p>Policy D.2 and D.7 encourage and support energy conservation and sustainable drainage similar to the SPD which will help reduce flood risk however there are no specific targets in relation to energy and water efficiency.</p> <p>The sustainability criteria outlined in the Checklist encourages the protection of the hydrology of the site, with the aim of mitigating against the risk flooding.</p>
Soil				
Minimise the loss of valuable soils to development	✓	By encouraging recycling, use of low environmental impact materials and sustainable urban drainage solutions will help protect soil resources and reduce opportunities for pollution.	✓✓	Policy D7 will help reduce opportunities for contamination. Avoid areas of high quality agricultural land is a key criterion in the Sustainability Checklist.
Climatic Factors				
Reduce the emissions of CO ₂ and other greenhouse gases	✓✓	<p>The SPD urges applicants to incorporate renewable energy and energy efficient design into their developments, which will have positive impact on greenhouse gas emissions and thereby helping tackle climate change.</p> <p>The SPD encourages the use of a number of techniques for passive solar design, including building orientation. Orientation of buildings will maximise passive solar gain and day lighting reducing the need for artificial heating and electrical lighting.</p> <p>At present the SPD is merely “looking” for all development to achieve zero carbon emissions (Para 4.3) and developers are “encouraged to incorporate renewable energy production equipment to provide at least 20% of predicted annual energy requirements.” Suggest changing the wording to, “..all development should achieve zero carbon emissions.” The SPD could be more ambitious by making the 20% renewable energy target mandatory.</p> <p>This slight modification would strengthen the SPD and would help reduce greenhouse gas emissions.</p> <p>The SPD could consider providing information on the cost implications of renewable energy technologies.</p>	✓	<p>Policy Gen.1, D.2 and D.3 all help facilitate renewable energy use and energy efficiency which help reduce carbon emissions.</p> <p>All developers are to assess their applications against a Sustainable Checklist. This checklist contains criteria relating to energy efficiency in buildings and renewable energy solutions. Further to this it encourages the reduction of greenhouse gas emissions.</p> <p>SPD is focussed on developments achieving zero carbon emissions through energy efficiency and use of renewables, however, policies that minimise CO₂ levels through implementation of travel behavioural change initiatives (e.g. residential travel plans). Policies that influence location of development so that is in areas where day to day facilities are readily accessible by public transport, walking and cycling, will also help achieve carbon neutrality.</p>
Ensure development is Climate Change proof	-	The SPD addresses the issue of energy consumption of buildings through building orientation to maximise natural ventilation, shading and daylight for solar gain. All these measures will help reduce the need for air conditioning in the summer and electrical heating systems in the winter thereby helping to reduce	-	The issue of energy efficiency in buildings is addressed in the Sustainability Checklist but there is no direct reference to climate change resistant developments, although it does draw focus to the hydrology of

SEA/SA Objective (abridged)	SPD	Commentary	business as usual	Commentary
		<p>greenhouse gas emissions and will also have benefits in terms of reducing maintenance costs. However this is the only reference to climate change proof and we see this as a missed opportunity, it is recommended that the SPD includes details on principles of flood restraint design (e.g. living accommodation on first floor, solid floors rather than suspended floors, use water resistant materials for walls.)</p> <p>The SPD would be further strengthened by including information on the merits of using high thermal mass materials. Use of thermal materials will help buildings reduce their carbon footprint. (Further details outlined in section 4.6 of this report)</p>		<p>the site and surrounding area to mitigate against flood risk.</p>
Air Quality				
<p>To achieve good air quality especially in urban areas</p>	<p>✓✓</p>	<p>Air quality is a specific consideration of the draft SPD. The SPD requests developers to demonstrate that the development will enhance air quality and mitigate any effects of pollution.</p> <p>Transport is a key source of pollutants to air. Promoting sustainable forms of transport (para. 4.19), improving public transport services (para. 4.20) and encouraging applicants to include a green travel plan (4.30) will help reduce carbon dioxide emissions and improve air quality. The increased modal share of public transport will be the key in reducing emissions.</p> <p>The SPD encourages applicants to provide cycle routes and storage facilities (both in private premises and communally) this will in turn encourage people to use more sustainable modes of transport which will help reduce carbon dioxide emissions with benefits to both air quality and human health.</p> <p>Increasing renewable energy use and energy efficiency will help reduce air pollution by reducing carbon emissions.</p> <p>The SPD encourages on site storage for recycled waste which will help reduce road miles thereby contributing to the reduction in greenhouse gas emissions, air pollution and increasing tranquillity.</p> <p>It is recognised that the “saved” sustainability checklist covers the issue of noise however the SPD itself should make some reference to noise pollution. Noise mitigation measures should be explored. (e.g. noise insulation, screening, building orientation)</p>	<p>✓</p>	<p>Policy Gen.1, D.2 and D.3 all help facilitate renewable energy use and energy efficiency which help reduce carbon emissions.</p> <p>The Sustainability Checklist supports the above policies and encourages the reduction of air pollution, greenhouse gas emissions and the introduction of pollutant monitoring schemes.</p>
Material Assets				

SEA/SA Objective (abridged)	SPD	Commentary	business as usual	Commentary
To maximise the use of previously developed land	✓	<p>The SPD encourages developers to demonstrate that they meet the Eco Homes sustainability criteria. The first criterion (para. 4.12) relates to use of brownfield sites. However it is considered that the SPD should address the issue of efficient use of land and buildings in more detail. It is suggested that the SPD states that development on previously developed land will be given priority. The re-use of existing/under-used/vacant land or buildings is given consideration in the sustainability checklist however the main SPD should also encourage the re-use of existing buildings. The re-use of existing buildings will help reduce the need for new construction materials.</p> <p>Waste reduction and recycling will help reduce the amount of waste being buried in landfill sites thereby having a positive indirect impact on soil and landscape.</p>	✓✓	<p>The Sustainability Checklist favours central town locations over green field sites.</p> <p>The use of recycled, recyclable and durable products are encouraged in the checklist.</p>
To use natural resources efficiently	✓	<p>The SPD requires the use of energy efficient construction materials from renewable resources. However it is considered that the SPD could be much stronger on this. The SPD should encourage developers to use recycled, reused materials and local materials.</p> <p>Water conservation and sustainable drainage solutions such as water saving devices, rainwater collection/harvesting and grey water recycling will have positive effects on water resources in the District. Protecting water resources will also be extremely beneficial for biodiversity, soil resources and the landscape.</p> <p>The SPD target for new developments to provide facilities to enable 50% of household waste to be recycled or composted will help reduce waste, the carbon footprint of developments and road miles – less waste is produced and more waste is recycled on site, resulting in less waste requiring disposal.</p>	✓	Policy D3 encourages the efficient use of natural resources and further to this, the Checklist requires developers to consider sustainable development principles and the use of natural resources and generation of sustainable energy.
Cultural Heritage				
To maintain and enhance historic and cultural assets	?	<p>This issue is covered in the saved sustainability checklist however there is no direct reference in the draft SPD on the need to respect, preserve and enhance the built environment. Inappropriate renewable energy projects (solar panels, wind turbines) may have a detrimental impact on historical assets of an area and Conservation Areas. Nevertheless widespread improvements to public realm will improve quality of the built environment.</p> <p>The potential effects on historic and cultural assets</p>	✓✓	The sustainability checklist promotes improvement of leisure and recreational facilities including the improvement of cultural facilities, and the protection and improvement of the settings and features of places of archaeological and historical interest.

SEA/SA Objective (abridged)	SPD	Commentary	business as usual	Commentary
		depends on the scale and location of new commercial and residential development. Proposals to reduce traffic/ encourage modal shift will be beneficial for the setting of cultural heritage features.		
Landscape				
To conserve and enhance the landscape and townscape	?	The SPD has a mixed performance in relation to visual quality. Development of renewable energy projects may result in visual intrusion on the townscape and the wider countryside. However waste minimisation and recycling will help reduce the amount of waste going to landfill thereby reducing the need for landfill sites with positive effects on the conservation of the landscape. The main SPD should require applicants to consider impacts on the landscape.	✓✓	The Sustainability Checklist requires the applicant to consider landscaping, impacts of development on the landscape. The Checklist also requires developers to minimise the use of aggregates in both construction and operation, this is likely to have positive impacts on the landscape by reducing the need for mineral extraction.
Population and human health				
Encourage healthy lifestyles	✓✓	The SPD can significantly contribute to the protection and enhancement of human health by promoting walking, cycling and public transport. Increasing energy efficiency of houses, insulation and high performance glazing will reduce energy costs resulting in positive impacts on human health and well-being. Implementation of the SPD should help reduce air pollution resulting in positive impacts on human health and will also contribute to a feeling of well-being. Noise can impact on the quality of peoples' lives. The waste storage areas (para. 4.55) have the potential to generate a significant noise impact. The SPD could highlight the need for careful siting of any residential development and the use of noise insulation techniques and screening to mitigate potential disturbance from noise. Noise from traffic could be reduced through the use of noise reducing surfaces on roads combined with appropriate screening – this is particularly relevant in relation to higher speed roads with significant anticipated night traffic.	✓✓	Protecting designated sites, conserving and enhancing nature conservation (section 6 of the Sustainability Checklist) will have positive impacts on biodiversity and human health and well-being. Topic 11 of the Checklist which encourages walking, cycling, public transport use, car free neighbourhoods will all help increase human health and well-being.

SEA/SA Objective (abridged)	SPD	Commentary	business as usual	Commentary
To deliver more sustainable patterns of development	-	The primary focus of the SPD is on sustainable design and construction, it does not cover land use patterns, these details are covered in the Local Plan and the emerging Core Strategy. However, the saved sustainability checklist includes criteria encouraging town centre locations and provision of local facilities. The implementation of the SPD will help improve public transport services, cycling and pedestrian facilities and will subsequently improve accessibility to local facilities and employment opportunities.	✓✓	Land use patterns is a key criterion in the Sustainability Checklist. The checklist encourages provision of local facilities, central town locations and locating high traffic generating uses near public transport.
Social Factors				
To promote equity and address social exclusion	✓✓	The SPD will increase energy efficiency in new developments and will help reduce running costs and building maintenance costs thereby reducing fuel poverty.	✓✓	The Sustainability Checklist and policies GEN.1, D.2 and D.3 will contribute to reducing fuel poverty. The Checklist also aims to encourage a decent quality of life for all, improve access to buildings for all and improve facilities for those without a car.
Ensure that everyone has access to good quality housing	✓✓	The SPD aims to deliver sustainable homes and communities.	✓✓	Housing and affordable housing targets will be outlined in the emerging Core Strategy. Policy D3 indirectly adds to the quality of housing and further to this, the Sustainability Checklist aims to reduce homelessness and unfit housing. The construction costs of the sustainability measures advised by this SPD may have impacts upon dwelling costs and overall housing delivery, however, these extra costs are likely to become negligible in the future as the price of the required technologies falls. Additionally, some costs will be recouped through savings in energy and water bills.
Enhance community identity and participation	✓✓	The Draft SPD will be subject to extensive public and stakeholder consultation thereby allowing the community to have inputs in SPD development.	✓✓	The Core Strategy has been subject to public and stakeholder consultation as it has emerged through the option stage to present. Further consultation will be undertaken thereby allowing continued inputs from the community. The Sustainability Checklist also encourages community participation and the representation of all groups of

SEA/SA Objective (abridged)	SPD	Commentary	business as usual	Commentary
				society.
Reduce both crime and fear of crime	✓✓	High quality design not only helps enhance the quality of life, social well being and human health but it can also help reduce crime, fear of crime and deter anti-social behaviour. Improving pedestrian and cycling facilities will contribute to passive surveillance of streets, spaces and parking.	✓✓	The Sustainability Checklist includes criteria relating to public safety. More specifically, it aims to reduce crime and ensure safety for open space users.
Economic Factors				
Achieve sustainable levels of prosperity and growth	✓	Adoption of the SPD will provide indirect benefits in terms of inward investment and economic competitiveness. The anticipated growth in the sustainable construction market and in markets for recycled materials present new employment opportunities. The SPD will help facilitate the development of sustainable construction skills. High quality residential and commercial development will enhance the marketability of Three Rivers. A high quality landscape/ townscape could lead to indirect commercial benefits as well as increasing Three River's ability to attract inward investment.	✓✓	The Sustainability Checklist includes criteria covering employment opportunities and diversity. The construction costs of the sustainability measures advised by this SPD may have impacts upon dwelling costs and overall housing delivery, however, these extra costs are likely to become negligible in the future as the price of the required technologies falls. Additionally, some costs will be recouped through savings in energy and water bills.
Promote wider prosperity and fairer access to services	✓	Improving public transport services, cycling and pedestrian facilities will improve accessibility to facilities and employment opportunities. Energy efficiency and use of renewable energy projects will help reduce buildings maintenance costs and thereby giving businesses additional savings.	✓✓	Policy D2 outlines that new housing developments should have good access to transport. Community facilities and services. Access issues are also comprehensively covered in the Sustainability Checklist and include the provision of improved public transport, minimised distances to main employment centres and making walking and cycling safer and easier.
Revitalise town centres	✓		✓	Improving access, addressing basic needs and taking the opportunity to improve the street scene and appearance of the area, as per the Sustainability Checklist will help to revitalise town centres.

2.3

Assessment Summary

On the basis of the appraisal the draft Sustainable Communities SPD and saved policies, are judged to have mainly positive effects on the sustainability objectives. However it is considered that the saved policies have limited scope and they focus on efficient use of land, energy efficient layout and water conservation. The saved

policies do not reflect the full range of sustainable development issues such as renewable energy, waste management, recycling, materials and microgeneration, therefore the adoption of the Sustainable Communities SPD is welcomed to help bridge this gap. It is recommended that policies relating to these issues are set out in the emerging Core Strategy. Many of these issues are picked up in the Sustainability Checklist which should be submitted with planning applications. The Sustainability Checklist aims to encourage developers to consider sustainability development issues although there are no requirements for developers to implement these development principles within their applications. Although on the positive side the role and importance of the checklist in determining planning applications is outlined in the explanatory text.

3 Task B4: Evaluating the effects of the draft SPD

3.1

Purpose

Having identified the effects of the Draft SPD, the next step of the SA is to assess the significance of these predicted effects. This task takes into account the scale, permanence, the nature and sensitivity of the receptor(s), duration, frequency, secondary, cumulative and synergistic effects of the draft SPD. The results of these findings are presented in this chapter. Table 3.1 shows the results of this evaluation assessment. The assessment of the potential effects of the draft SPD were classified using the following significance scale:

Description	Symbol
Major Positive	✓✓
Positive	✓
Neutral (neither positive or negative)	-
Uncertain	?
Negative	X
Major Negative	XX

3.2

Assessment Results

On the basis of the evaluation of the potential effects of the draft Sustainable Communities SPD, it is judged to have mainly major positive or positive effects and no major negative or negative effects on the sustainability objectives. The implementation of the draft SPD will result in mostly local effects but the anticipated reductions in greenhouse gases and carbon dioxide emissions is likely to result in positive effects on both a local and global scale.

Table 3.1: Evaluation of the effects of the draft Sustainable Communities SPD

SA Objective	Commentary	Significance
To protect and enhance biodiversity at all levels	Conserving energy, water resources and materials, use of brownfield sites and reducing air pollution the SPD will have potential short, medium and long term positive effects on the district's biodiversity. Many sustainable drainage systems provide habitats for wildlife.	✓

SA Objective	Commentary	Significance
To maintain/enhance water quality and limit water consumption	<p>Sustainable drainage solutions required by the SPD will have short, medium and long term positive effects.</p> <p>The implementation of water saving techniques required by the SPD will result in significant water savings in Three Rivers over the short, medium and long term.</p>	✓✓
Ensure new developments do not increase flood risk	The successful implementation of the measures outlined in the SPD and the accompanying sustainability checklist will have short, medium and long term positive effects on flood risk. Reduction in greenhouse emissions will have significant positive effects on climate change and will therefore help reduce the risk of flooding.	✓
Minimise the loss of valuable soils to development	Implementation of the SPD is likely to have short, medium and long term positive effects on soil quality. The increase in recycling and use of low environmental impact materials will help reduce soil pollution.	✓
Reduce the emissions of CO₂ and other greenhouse gases	<p>The SPD will have significant short, medium and long term positive effects on helping to reduce carbon dioxide emissions both on a local and global scale. The SPD will help reduce the carbon footprint of new developments.</p> <p>The SPD scores strongly under climate change objectives as it encourages renewable energy production and the renewables sector which in turn will have positive cumulative impacts on environmental objectives and health.</p>	✓✓
Ensure development is Climate Change proof	Building orientation (solar gain, shading etc) is given consideration in the draft SPD but it is felt this section can be further strengthened and further techniques to help adapt to Climate change should be included. (refer to section 4 for recommendations)	-
To achieve good air quality especially in urban areas	<p>The successful implementation of the SPD is likely to have significant short, medium and long term positive effects in terms of reducing local air pollution. Likely to have positive global impacts.</p> <p>The SPD includes a range of measures designed to reduce traffic congestion which will result in positive cumulative effects for biodiversity and human health.</p>	✓✓
To maximise the use of previously developed land	Given some consideration in the SPD, but it is felt this is a missed opportunity to maximise the use of PDL and the re-use and use of existing buildings. The re-use of buildings is given consideration in the sustainability checklist however it is recommended	-

SA Objective	Commentary	Significance
	that this issue is given further consideration in the main SPD.	
To use natural resources efficiently	Water conservation and sustainable drainage solutions will have short, medium and long term positive effects on water resources. However the SPD should encourage developers to use recycled and reused materials.	✓
To maintain and enhance historic and cultural assets	Not considered in the main SPD. The significance of the impacts on Three Rivers' historic and cultural assets depends on the scale and location of new commercial and residential development.	?
To conserve and enhance the landscape and townscape	Renewable energy projects could have significant negative effects on the landscape and townscape. The severity of the impacts on Three Rivers' landscape and townscape depends on the scale and location of such renewable projects. However on the positive side the anticipated increase in waste recycling rates will help reduce the amount of waste being sent to landfill which will have significant positive effects on Three Rivers' landscape.	?
Encourage healthy lifestyles	Implementation of the SPD is likely to have significant short, medium and long term positive effects on the health of Three Rivers' population. Promoting sustainable modes of transport such as cycle, pedestrian, public transport will help improve human health.	✓✓
To deliver more sustainable patterns of development	Land use patterns are covered in the emerging Core Strategy however improving public transport, pedestrian and cycle facilities will improve accessibility to local facilities.	✓
To promote equity and address social exclusion	No significant effects however increased energy efficiency will reduce running and building maintenance costs and thereby helping to reduce fuel poverty.	✓
Ensure that everyone has access to good quality housing	No significant effects however implementation of the SPD will help deliver sustainable communities. The promotion of innovation and a high standard of design will result in positive synergistic effects for the economy, cultural heritage and townscape.	✓
Enhance community identity and participation	No predicted significant effects	-
Reduce both crime and fear of crime	Medium and long term benefits. The SPD will help foster high quality design which in turn will help reduce crime and fear of crime.	✓

SA Objective	Commentary	Significance
Achieve sustainable levels of prosperity and growth	It is judged the SPD will not have significant effects on the local economy however the SPD will provide some indirect medium and long term benefits to Three Rivers' economy. The successful implementation of the SPD will result in the growth in sustainable construction industry techniques leading to new employment opportunities.	✓
Promote wider prosperity and fairer access to services	Refer to "To deliver more sustainable patterns of development" objective	✓
Revitalise town centres	Medium and long term positive effects as energy efficiency will help reduce maintenance costs for businesses.	✓

4

Task B5: Mitigation Measures

4.1

Introduction

Overall the draft SPD is judged to have mainly positive effects on the sustainability objectives. However it is considered that the performance of the draft Sustainable Communities SPD can be enhanced through the application of a range of mitigation measures and recommendations. It is important that the proposed mitigation measures and recommendations are incorporated into later revisions of the SPD. These are described below. A number of these recommendations can also be incorporated into the emerging Three Rivers Core Strategy.

4.2

General Issues

It is considered that the SPD could be further enhanced by the council “requiring” actions rather than just “encouraging” developers to consider certain issues. At present the SPD states, “Developers are **encouraged** to address the following issues”, “The Council **encourages** developers to demonstrate that they meet the following Eco Home sustainability criteria”. These sentences should be replaced by “Developers **should** address the following issues.”, “The Council **requests** developers to demonstrate that they meet the following Eco Home sustainability criteria”. This change would strengthen and benefit the SPD and contribute to the aim of delivering sustainable development and reducing carbon emissions.

The Building Regulations 2000 are the principal means for specifying design and performance standards for conventional new buildings. These represent the statutory minimum standards which must be achieved, but fall short in terms of delivering high standards of sustainable design and construction. Although these Regulations were tightened in 2006 there remain issues about the enforcement of the regulations. The SPD could be further strengthened by including specific design standards.

It is recommended that the SPD should refer to the Government’s Code for Sustainable Homes. The SPD could set a minimum code level which should be achieved in Three Rivers. The SPD could also consider setting a target relating to Lifetime Homes Standards. E.g. All homes to be designed to meet all 16 Lifetime Homes Standards. There is also an opportunity to set a target relating to the Building for Life criteria. E.g. All development will achieve a minimum of a silver

standard (14 of the 20 criteria to be achieved). Or a more ambitious target could be set: All development will achieve gold or higher (16 of the criteria to be achieved).

If these standards are incorporated into the SPD then mechanisms will be required to be in place to update them as national standards and planning requirements are updated over time. Over time the Building Regulations have specified more demanding standards for energy efficiency in the design and use of new buildings and the Government has signalled a further review of energy performance standards in 2010.

It is recommended that explanatory text is included in SPD section 1.4- 'Purpose of the Document' that clarifies the types of development the SPD relates to i.e. all commercial and residential development. This section could also state that the SPD should be read in conjunction and comply with the other Local Plan saved policies and the Core Strategy.

4.3

Policies and Supporting Initiatives

In order to foster sustainable practices across the Three Rivers, a number of supporting policies and initiatives will need to be included in the Core Strategy. These are highlighted below:

- Initiatives, which develop and promote the local recycling economy and the market for recycled materials;
- Policy support for sustainable design, demolition and construction techniques in all forms of development across all Three Rivers DPDs; and
- Policies supportive of energy efficiency, local energy production and increasing the use and generation of renewable energy and use of heat from Energy from Waste facilities.

4.4

Biodiversity

- The main SPD should promote green roofs. Green roofs consist of plants being grown on roofs. Green roofs have many environmental and community benefits.
 - Green roofs significantly reduce the amount of rainwater runoff created by rooftops and thereby help reduce flood risk and help improve local water quality;
 - Green roofs help keep buildings cooler in summer and warmer in winter, providing a layer of insulation that also helps reduce energy bills;

- They can also enhance biodiversity and the quality of life; and
- Green roofs can help extend the life of the roof by reducing temperature fluctuations that can damage roofing material.

4.5

Water

- Examples of water saving devices should be outlined in the SPD, for example low flush toilets, waterless urinals, spray and low flow taps, water-saving white goods, low flow showerheads;
- The SPD should encourage developers to incorporate low water use gardens in their designs (e.g. drought resistant plants, utilise existing vegetation);
- Approaches to sustainable drainage solutions should be provided e.g. swales and basins, ponds, wetlands, permeable surfaces, green roofs; and
- It is suggested that reference is made to the need for restrictions on development based on the sensitivity of the area to groundwater pollution.

4.6

Climatic Factors

- SPD is focussed on developments achieving zero carbon emissions through energy efficiency and use of renewables, however, policies that minimise CO₂ levels through implementation of travel behavioural change initiatives (e.g. residential travel plans). Policies that influence location of development so that is in areas where day to day facilities are readily accessible by public transport, walking and cycling, will also help achieve carbon neutrality.
- The SPD should promote/encourage the use of thermal mass construction materials. The use of thermal materials will increase the energy efficiency of buildings and thereby help reduce the carbon footprint of development.

Thermal mass is the ability of a material to absorb heat and re-radiate it. Buildings constructed with a high level of thermal mass are able to absorb and release heat at different times of the day. Thermal mass provides an effective means of reducing overheating during the summer months. In the winter, heat gains from the sun are absorbed into the thermal mass and radiated in the evenings reducing the need for heating.

- It is recommended that the micro-generation section should be amended to provide further detail on alternate sources of energy. This might include:
 - Active solar panels: which collect solar radiation, and transfer it to a fluid or air, with the heat then used inside the building;
 - Photovoltaics: panels incorporated into roofs, walls, sunspaces and sunshades, which produce electricity from solar radiation. Optimum performance is achieved from panels facing due south, at angle of 30 degrees, particularly where the aspect is of a relatively open space;
 - Wind turbines: Small scale roof mounted structures, generating energy for a building or series of buildings;
 - Community Heating: central boiler plant which provides heat and distributes it via a pipework system to adjacent buildings; and
 - Community Heat and Power: system that produces electricity and recovers waste heat from the process to supply a proportion of the heating load.

4.7

Population and Human Health

- Later revisions of the SPD could encourage the reduction in car use by promoting car-free and car-reduced housing developments;
- Care will need to be taken to ensure that routes for walking and cycling are carefully maintained (Primarily Core Strategy issue);
- Walking and cycling routes should be well signposted (with signage in keeping with the landscape and townscape character); and
- The SPD could encourage the use of noise insulation techniques and screening to mitigate potential disturbance from noise. Noise from traffic could be reduced through the use of noise reducing surfaces on roads combined with appropriate screening – this is particularly relevant in relation to higher speed roads with significant anticipated night traffic.

4.8

Material Assets

- Care will need to be taken to ensure that recycling facilities and waste storage areas take account of landscape and townscape character and are small and unobtrusive in scale and design;
- Measures to control light pollution should be explored;
- It is suggested that the SPD state that development on previously developed land will be given priority over greenfield sites; and
- The re-use of existing/under-used/vacant land or buildings should be encouraged.

4.9

Cultural Heritage

- It is recommended that a section on cultural heritage is added to the main SPD. This section should outline the need for developments to respect, preserve and enhance the built environment and Conservation Areas.

4.10

Landscape and Townscape

- Care needs to be taken to ensure renewable energy projects are in keeping with landscape character and of an appropriate scale and design.
- Reference should be made in the SPD to ensure all noisy on-site recycling sites are located undercover.

5 Task B6: Monitoring Proposals

5.1

Introduction

The SEA Directive requires that the significant environmental effects of the plan are monitored⁵. Monitoring of the Sustainable Communities SPD will help verify the performance of the SPD against the sustainable objectives.

The ODPM's SEA Guidance states that monitoring should be based on the indicators which have been used to describe the baseline environment. Therefore it is proposed that the SA indicators outlined in the SA Framework which were developed and consulted on during the LDF Scoping Report stage, will form the basis of the SPD Monitoring Strategy. The SA team has selected key priority indicators which should form the basis of any future Monitoring Strategy. The proposed monitoring indicators are outlined in Table 5.1 below.

Note that work on developing the monitoring indicators is ongoing and will not be finalised until submission of the final Sustainable Communities SPD.

Table 5.1 Proposed Monitoring Indicators

Topic	Potential Monitoring Indicator
Economic Factors	
	Percentage rise in Gross Value Added (GVA)
Social Factors	
	Index of Multiple Deprivation*
	Affordable housing completions*
	Burglaries No. per 1,000 households
	Robberies per 1000 population and percentage detected
	Violent offences committed in a public place per 1,000 population

⁵ **“Annex 1 (i):** a description of the measures envisaged concerning monitoring in accordance with Article 10. **Article 10:** Member States shall monitor the significant environmental effects of the implementation of plans and programmes in order, inter alia, to identify at an early stage unforeseen adverse effects, and to be able to undertake appropriate remedial action.”

Topic	Potential Monitoring Indicator
Water	<p>Average household water consumption per capita*</p> <p>Commercial water consumption</p> <p>Biological and chemical river quality</p> <p>Number of properties at risk from flooding*</p>
Biodiversity	<p>Condition of SSSIs</p> <p>Wildlife Sites and HBRC number and area of Wildlife Sites</p> <p>No. of Wildlife Sites lost or degraded by development or gained/secured by agreements</p> <p>Bird Populations</p>
Air Quality	<p>Levels of key air pollutants (e.g. Benzene, 1,3-Butadiene, CO₂, Lead, NO₂, PM10, SO₂) within the local authority area, and within the East of England</p> <p>Volume of motor traffic*</p> <p>Modal split*</p> <p>Number of days when air pollution reported as moderate or higher within the local authority area</p> <p>Number of designated AQMAs</p>
Soil	<p>Amount of high quality agricultural land degraded/lost to development</p> <p>Area/percentage of contaminated land remediated</p>
Climatic Factors	<p>Emissions of greenhouse gases (particularly CO₂) per capita grouped per type of source</p> <p>Energy efficiency - average Standard Assessment Procedure (SAP) rating of authority dwellings*</p> <p>Actual/'Typical' energy consumption LA buildings - electricity*</p> <p>Actual/'Typical' energy consumption LA buildings - fossil fuels*</p> <p>Energy efficiency in homes - overall reduction in CO₂ emissions %*</p> <p>Energy efficiency in public buildings*</p>
Population and Human Health	<p>Length and condition of cycle / footpath network*</p> <p>Number and condition of sports facilities*</p> <p>Percentage of eligible open spaces managed to green flag award standards*</p> <p>Percentage of population with access to public open space*</p> <p>Noise complaints received per 1000 population</p> <p>Source of noise complaints</p>
Material Considerations	<p>Amount of land developed for employment by type and percentage which is on previously developed land*</p> <p>Percentage of new and converted dwellings on previously developed land*</p>

Topic	Potential Monitoring Indicator
	Residential development on previously developed land* % of new homes built on previously developed land* Amount and percentage of secondary and recycled materials (including minerals and aggregates) used in construction* Household waste - percentage recycled* Household waste - percentage composted* Household waste - percentage of heat, power and other energy recovered* Household waste - percentage landfilled * Kg of household waste collected per head* Household waste per capita* Percentage of waste recycled*
Cultural Heritage	
	Number of Listed Buildings at Risk Number and condition of Scheduled Ancient Monuments (SAMs)
Landscape and Townscape	
	Area of designated landscapes affected by/lost to development Light pollution and tranquillity*

* indicators of most significance to the Sustainable Communities SPD.

5.2

Next SA Steps

This draft Sustainability Appraisal Report will be submitted with the draft SPD for public consultation in summer 2007. If any significant changes are made to the SPD as a result of the public consultation, these changes will be assessed and a final SA Report prepared.

Following consultation the final SPD and Sustainability Report will then be formally adopted towards the end of 2007.