

Strategic Environmental Assessment of the EU Structural Funds Competitiveness and Employment Programme for South West England 2007-2013

Environmental Report

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Introduction

The process of preparation of the EU Structural Funds Competitiveness and Employment Programme for South West England 2007-2013¹ is subject to a Strategic Environmental Assessment (SEA). SEA aims to ensure the Programme will deliver a high level of environmental protection and enhancement.

This document is the Environmental Report for that Strategic Environmental Assessment. It has been updated, following the consultation undertaken on the Programme and (earlier version of the) Environmental Report, to take account of changes made in the Programme.

Its purpose is to provide a description of the likely effects on the environment of the activities proposed in the final version of the Operational Programme, together with options and recommendations for enhancing likely positive impacts, and reducing potential negative impacts, as a basis for consultation.

The Environmental Report takes account of the suggested structure and required content, in accordance with the EU Directive on SEA² and Government guidance³. The content of individual Chapters is set out below:

1. The first Chapter provides an outline and key contacts for the Operational Programme and SEA.
2. The second Chapter details the focus of the Programme, and factors in its development.
3. The third Chapter gives a description of the SEA process in theory, and explains the way it has been tailored to better reflect the requirements of the Operational Programme.
4. The fourth chapter provides a summary of the key environmental policy issues and environmental context in which the Operational Programme will be delivered, including lessons from previous Programmes and wider political changes. Specific assessment criteria for use in the SEA have been developed on the basis this information.
5. The fifth Chapter concentrates on the assessments of the detail of the Programme. Following convention, these assessments are presented in matrix format, and the conclusions summarised.

¹ The terms Competitiveness Programme, Operational Programme and OP are used interchangeably in this report

² Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment

³ A Practical Guide to the Strategic Environmental Assessment Directive, ODPM and Administrations in Scotland, Wales and Northern Ireland, 2005

6. The sixth Chapter considers issues which flow from the findings of the assessment process, particularly in relation to the implementation of the SEA, and discusses in detail the approaches taken to consideration of alternatives and to mitigation. It also presents recommendations on monitoring of the SEA, and finally, some concluding comments.

An annex to this report provides further detail on the environmental context (summarised in chapter 4) which has informed the SEA process.

This Environmental Report has been prepared by Fraser Associates on behalf of the Government Office for the South West.

1. Outline and Key Contacts for the Competitiveness and Employment Programme for South West England 2007-2013

1.1 Responsible Authority

The Authority responsible for the Programme is the *Government Office for the South West (GO-SW)*.

1.2 Lead Contact

The lead contacts for the Programme are:

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South West Regional Development Agency
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1.3 Programme Title

The Programme Title is *Competitiveness and Employment Programme for South West England 2007-2013*.

1.4 Programme Area

The Programme covers the South West region of England, excluding Cornwall and the Isles of Scilly, which are covered by an EU Convergence Programme. Some elements of the Programme, which focus on urban regeneration, are spatially targeted.

1.5 Purpose of the Programme

Structural Funds are used to promote regeneration and economic development in regions which are lagging in comparison to the European average. The Funds are delivered within the wider context of EU Policy, including EU policies on the environment and sustainable development.

Structural Funds Programmes provide only a proportion of total costs for projects. Individual projects can be led by the public, private or voluntary sectors, but must contribute directly to the overall aims of the Programme. A wide range of activities can potentially be supported; the decisions on which of those activities will be taken up are made by regional partners. The process of Programme development, at its simplest level, concentrates on

those decisions. More detail on the options and guidance for the 2007-2013 period is given in Chapter 2, below.

The SW Programme sets the framework only for resources available through the European Regional Development Fund (ERDF). However, it also influences and seeks to complement, activities which will be supported by other European Funds, including the European Social Fund (ESF), the European Agriculture Fund for Rural Development (EAFRD) and the European Fisheries Fund (EFF). Given the close relationship between the funds, this report refers (in Chapter 5) to issues which are more appropriately covered by these funds.

It is important to note that the end outcome of OP development is a Programme which sets out a menu of activities which can be undertaken. Specific projects are developed during the life of the programme, and are not identified at the stage of writing. This has implications for the ways in which the SEA is focused, which are discussed in Chapter 3.

1.6 Frequency of Update

Previous European Programmes have had a formal requirement to undertake two evaluations, the first at the Mid Term stage, and the second following completion of the Programmes. The new ERDF regulation is less clear on the requirements for evaluations. While it is beyond the scope of this SEA to decide on the approach which will be taken to evaluation of the Programme, the comments on monitoring do provide recommendations for areas which might usefully be examined.

1.7 Ex-Ante Evaluation and Relationship to SEA

All EU funded programmes are subject to a process known as Ex-Ante Evaluation. Ex-Ante evaluators are external consultants, who provide quality assurance and mentoring role to those developing the programme. Ex-ante evaluators are not responsible for writing material which will form part of the plan, but, rather, are responsible for commenting on it, or for producing guidance and checklists to which those writing the plan can refer.

The overall aim of this process is to ensure that the programme is clearly set out, that activities proposed are justified by reference to the evidence base provided, and therefore to reduce the time required for negotiation when the programme is formally submitted for approval to the European Commission.

In the past, Ex-Ante evaluation has included an examination of the environmental elements of the Programme in question, and the European Commission has indicated that, for this Programming period, single contracts bringing together ex-ante evaluation with SEA were preferred. The ex-ante evaluation will therefore apply the same standards to the SEA material as are relevant to other aspects of Programme development.

2. Focus of the Programme

2.1 EU Proposals for the New Programme

EU Structural Funds promote cohesion across Europe, by supporting economic development activities which will address regional disparities within existing and candidate Member States. A number of factors influence the form of the all new Competitiveness and Employment Programmes:

There is a concentration of available resources for mainstream economic development and basic infrastructure towards the new Member States – those in Central and Eastern Europe, Malta and Cyprus. These resources will be delivered through the Convergence objective, the successor to the current Objective 1 status.

Fewer areas in other Member States are eligible for these higher levels of support.⁴ The resources available for the (comparatively better off regions) which are covered by Competitiveness and Employment Programmes are significantly lower than at present. Because of this, the range of activities which can be carried out under these Programmes is more focused.

In addition, the European Commission has emphasised the need for Programmes in better off regions to contribute, towards the Lisbon agenda. This refers to the aim of making the European economy more competitive at a global level, and the implementation of this agenda is taking the form of greater emphasis on support for innovation and enterprise. The Commission has set a target for a minimum of 75% of Competitiveness Programmes to be spent on activities which contribute directly to the Lisbon Agenda.

At the same time, wider social and environmental EU policy aspects – the Gothenburg agenda – have also clearly influenced the range of possible activities which can be supported, including focuses on environmental issues as they relate to economic development, and on sustainable urban development, which highlights more socially based issues.

The Commission has adopted regulations on the use of Structural Funds, and has published Community Strategic Guidelines⁵, which provide more detail on the range of activities which are eligible for support, and which target the areas outlined above.

2.2 UK Proposals

The UK Government has set out, in the National Strategic Reference Framework, its expectations for the coverage of Programmes at regional level. The text below is reproduced from the NSRF.

⁴ Cornwall and the Isles of Scilly is the only part of England that qualifies for Convergence status in 2007-2013.

⁵ It is currently anticipated that the Community Strategic Guidelines will be formally adopted in October 2006.

STRATEGY FOR THE COMPETITIVENESS AND EMPLOYMENT OBJECTIVE IN ENGLAND

The whole of England with the exception of Cornwall and the Isles of Scilly will be eligible for funding under the Competitiveness and Employment objective for the 2007-2013 Financial Perspective. South Yorkshire and Merseyside will be eligible for phasing-in Competitiveness funding during the period.

ERDF

There will be four main priorities for ERDF spending under England's Competitiveness and Employment Programmes: first, to promote innovation and knowledge transfer; secondly, to stimulate enterprise; thirdly, to ensure sustainable development, production and consumption; and fourthly to build sustainable communities.

Priority 1: Promoting innovation and knowledge transfer

The purpose of this priority will be to promote innovation and knowledge transfer in order to improve productivity and build a dynamic, knowledge-based economy. Examples of actions that may be supported include: developing the supportive environment for innovation and creating incentives for businesses to increase investment in research and development; promoting technology transfer and the commercialisation of research, in particular by developing stronger links between businesses and higher education institutions; encouraging the use of renewable energy and promoting greater energy and resource efficiency; and supporting the development of new technologies (including environmentally friendly technologies), products and services.

These activities will support CSG 1.2 (Improving knowledge and innovation for growth) 1.2.1 (Increase and better target investment in RTD), 1.2.2 (Facilitate innovation and promote entrepreneurship) and 1.1.3 (Address Europe's intensive use of traditional energy sources). They will also support NRP 3.51-3.67 (Innovation).

Priority 2: Stimulating enterprise and supporting successful business

This priority will focus on stimulating enterprise and supporting successful business, including social enterprises, by overcoming barriers to business creation and expansion. Examples of actions that may be supported include: providing business support for SMEs to start up and grow; providing the necessary infrastructure for enterprise (for example, an adequate supply of business sites, incubator facilities and access to new technologies); supporting the development of business clusters and sectors with growth potential, and helping businesses to exploit opportunities and enter new markets, stimulating enterprise through enterprise workshops and seminars in universities and elsewhere and business plan competitions; improving access to finance by means of capital investment and loan funds and preparing SMEs to make investments through 'investment readiness' programmes.

These activities will support CSGs 1.2.2 (Facilitate innovation and promote entrepreneurship) and 1.2.4 (Improve access to finance). They will also support NRP 3.24-3.50 (Enterprise) and 3.26-3.27 (Promoting entrepreneurship).

Priority 3: Ensuring sustainable development, production and consumption

This priority will focus on promoting sustainable development, production and consumption. Examples of activities that may be supported include: increasing innovation and adaptability in the use of natural resources (encouraging businesses to use the environment as an economic driver); promoting take up and usage of low carbon sources of energy and greater efficiency in the use of energy; making links between a better quality environment and tackling social and economic disadvantage

and exclusion; assisting businesses to become more profitable through resource efficiency savings, promoting eco-innovation and developing new technologies, products, process or services that reduce environmental impact and help businesses mitigate and adapt to climate change; and supporting businesses in establishing and, where they already exist, enhancing environmental management systems.

These activities will support CSGs 1.1.2 (Strengthen the synergies between environmental protection and growth) and 1.1.3 (Address Europe's intensive use of traditional energy sources) and 1.2.2 (Facilitate innovation and promote entrepreneurship). They will also support NRP 3.91-3.102 (Protection of the environment and innovative use of resources).

Priority 4: Building sustainable communities

The aim of this priority is to help to develop sustainable communities, in order to improve the growth and productivity of local economies in order to promote the regeneration and renewal of disadvantaged areas. Examples of actions that may be supported include: promoting social enterprises; developing local connections, particularly in deprived areas, in order to increase access to opportunities, employment and public services; regenerating and increasing the attractiveness of areas suffering from severe social, economic and environmental deprivation, thereby contributing to the Government's liveability agenda; redeveloping brownfield land where this can support economic and social regeneration; supporting cultural regeneration; and improving the environment as a means of creating more attractive places to live and do business. Specifically, activities delivered in support of building sustainable communities will seek to promote social mobility and economic inclusion and thus contribute to economic cohesion.

These activities will support CSGs 1.1.2 (Strengthen the synergies between environmental protection and growth), 1.3.1 (Attract and retain more people in employment and modernise social protection systems), 1.3.2 (Improve adaptability of workers and enterprises and the flexibility of the labour market) and 1.3.3 (Increase investment in human capital through better education and skills). They will also support NRP 3.91-3.102 (Protection of the environment and innovative use of resources), 4.19-4.35 (Tackling obstacles to labour market participation).

ESF

There will be two main priorities for ESF spending under the Competitiveness and Employment Objective within the single England ESF Programme: first, extending employment opportunities; and secondly developing a skilled and adaptable workforce. The national ESF programme will tackle the problems of worklessness and low skills that exist in all regions of England, while taking account of distinctive regional and local needs.

Priority 1: Extending employment opportunities

The purpose of this priority will be to increase employment and thereby promote social inclusion. Examples of actions that may be supported include: developing the employability and skills of unemployed and economically inactive people, including supporting them, where appropriate, to become self employed; overcoming barriers to work faced by disadvantaged groups (for example, people with disabilities and health conditions, lone parents, older workers, ethnic minorities and young people amongst others), including where appropriate helping with caring responsibilities and working with the health sector; and supporting community projects to mobilise disadvantaged and excluded people and facilitate their integration into the labour market. The priority may also support actions to prepare young people for working life and reduce the numbers of young people not in education, employment or training, for example by increasing participation and attainment in learning, and reforming

vocational routes for 14 to 19 year olds.

These activities will support CSGs 1.3.1 (Attract and retain more people in employment and modernise social protection systems) and 1.3.2 (Improve adaptability of workers and enterprises and the flexibility of the labour market). They will also support NRP 4.1-4.51 (Delivering employment opportunity for all) and aspects of 3.77-3.90 (Skills).

Priority 2: Developing a skilled and adaptable workforce

This priority will focus on raising levels of skills in the workforce in order to increase productivity, enterprise and competitiveness. Examples of actions that may be supported include: improving basic literacy and numeracy skills among adults and supporting progression from foundation to level 2 learning; tackling the skills deficit in the workforce (for example, by helping workers to gain level 2 and 3 qualifications and improve their enterprise skills, especially workers who face redundancy, low skilled workers, and workers in sectors with skills gaps or weak training records); training men and women who want to enter occupations or sectors where they are underrepresented; and training managers and workers in small businesses who need to develop skills to compete in a knowledge-based economy.

There will also be scope for supporting some higher level skills activity in order to support the strategy for tackling low skills, including for example: training trainers to deliver basic skills to ESF target groups; supporting progression of disadvantaged groups to higher education; and providing technical, leadership, management and enterprise skills in small businesses.

These activities will support CSGs 1.3.2 (Improve adaptability of workers and enterprises and the flexibility of the labour market) and 1.3.3 (Increase investment in human capital through better education and skills). They will also support NRP 3.77-3.90(Skills).

The NSRF also notes that:

- Biodiversity issues are seen as more directly relevant to the Rural Development Plan for England (RDPE);
- The role of Environmental Sustainability Theme Managers (ESTMs) is highlighted as an aspect of good practice central to delivery of environmental aims under existing and future Programmes; and that
- Climate change is an increasingly important issue for the new Programmes.

2.3 Regional Economic Development Policy

The NSRF also emphasises the need for the new Programmes to contribute towards regional priorities, as set out in respective Regional Economic Strategies (RES). The South West has recently completed its RES. The RES is a comprehensive document, which identifies and addresses a wide range of generic, sectoral and spatial issues in the region under three Strategic Objectives:

1. Successful and competitive businesses
2. Strong and inclusive communities
3. An effective and confident region.

A strong sustainable development ethos underpins the RES, formalised in the concept of the Environment as an Economic Driver. This has six detailed components:

1. Conserving environmental assets
2. Environment sector business development
3. Attracting and retaining skills, business and investment
4. Environmental Management skills for business
5. Resource efficiency for competitiveness
6. Use of environment in branding and niche marketing

The implications for economic development of climate change and of the need for economic development to take place within environmental limits are both recognised as key issues in the RES.

2.4 The Scale of Resource and Key Challenges for the Programme

The South West England Objective 2 Programme, which ran from 2000-2006, had a combined ERDF and ESF allocation of some £135 million in total. In addition, further ESF resource over the same period is available through the English Objective 3 Programme. The Objective 2 Programme supported a mix of business development, capital, community economic development and training activities (the latter through the European Social Fund).

By comparison, the new Programme has an ERDF allocation of around €125, approximately £83m. The total ESF allocation is €120m, approximately £80m. In terms of ERDF – the focus of this SEA – Structural Funds represent only a small proportion of the domestic resource available through the South West of England Regional Development Agency (South West RDA) in support of the SW RES.

A key challenge for the Competitiveness Programme, against this background, has been to identify the areas where a relatively limited ERDF resource can make the greatest difference, taking into account the distribution of the existing resource. The process of drafting the new Programme has therefore been concerned, to a significant extent, with identifying and agreeing Priorities which reflect local circumstances as well as Government guidance.

On the basis of the above, the Operational Programme proposes the following Priorities and indicative financial allocations – these are total figures for the 2007-2013 period:

- Innovation and Knowledge (€45m);
- Enterprise and Growth (€45m); and
- Sustainable Communities (€30m).

Detail on the activities to be supported under these headings is provided in the Operational Programme.

3. Developing the SEA Process for the New Programme

3.1 Stages in SEA

The overall aim of SEA is to ensure a high level of environmental protection; SEA contributes towards this aim by providing the best possible environmental information to decision-makers and stakeholders involved in the development of plans, programmes or strategies. The SEA process involves a number of stages:

- Screening is undertaken to determine whether there are significant environmental effects⁶.
- Collation of baseline environmental information provides a background for further stages.
- A Scoping Report sets out the general approach to be taken, and is subject to consultation, to give stakeholders an opportunity to influence the process.
- An Environmental Report is produced, providing comment on the draft Plan. The main element of the Environmental Report is the assessing the likely effects of the plan on the environment.
- Public consultation on the draft plan and Environmental Report is undertaken to gather feedback from stakeholders.
- The plan is finalised. An SEA Statement, highlighting changes made to the Plan, taking into account the views expressed during the consultation, is required, and is provided separately. The option exists to update the Environmental Report, although this is not a formal requirement.
- Monitoring and review are undertaken throughout delivery of the plan to help identify adverse effects and to provide information for the next programming iteration.

The SEA process has been developed, to a large extent, for use in informing strategic plans with a strong physical component. In those cases, it is possible to describe in some detail the baseline situation with respect to the environment, and to consider different ways of meeting the aims of the plan against that setting.

While these principles clearly remain valid, there are detailed issues involved in following a similar approach in the case of revenue plans such as the OP. In particular:

- As discussed above, the OP represents only a very small proportion of the public sector resource available in the area. Its influence will therefore also be limited, and this needs to be taken into account when formulating the SEA approach, to ensure a realistic focus on key issues.
- The vast majority of the available resource (on the basis of Commission guidance and the UK NRSF proposals) will be targeted at revenue, rather than capital actions. So, while types of project will be

⁶ Screening is not required in this case – the European Commission has issued guidance confirming that SEA is required.

identified in the OP, the specific nature of those projects, and their locations, cannot be predicted or assessed. Detailed project selection which will to a large extent determine the environmental and economic impacts of the programme will take place at the level of regional decision making over the 7 years of operation of the Plan.

A tailored approach has been developed in order to meet both the detail and spirit of the SEA requirements in this context. Specifically:

The environmental context material has been expanded to cover the integration of the environment and economy, including, for example data on energy costs, and emerging studies on the likely impacts on the economy of climate change. There is also recognition that key issues for the environment in the region at times require 'translation', to ensure they are relevant to the activities which are likely to be supported by the Programme. The overall aim has been to reflect the approach, taken in the RES, of making explicit that the environment is an economic driver, not just the passive setting against which economic development takes place.

Although this is the first time that SEA has been formally required in the context of EU Structural Funds Programmes, it is important to note that a great deal of environmental integration work, some of which is very similar in scope to that required by SEA has, in practice, been undertaken and evaluated in the current 2000-06 programming period. Notably, this body of evaluation material shows that implementation and delivery arrangements are as important in determining eventual environmental impacts as are strategic aims. This finding has been reflected in the SEA approach, which examines and presents clear recommendations on these issues.

Monitoring indicators have been proposed which reflect the activities likely to be undertaken by the Programme, but which link to the strategic issues discussed in the context material. This has been done to ensure that the progress of the Programme in relation to SEA aims can be recorded clearly.

3.2 Process of Programme Development

The process of developing the OP is set out in the table below, with the relevant SEA steps set out in parallel. The process has run from August 2006 until May 2007.

Table 3.1: Process of Programme & SEA Development

Steps in Programme Development	Steps in SEA Process
EC documents and the (draft) NSRF set out the broad areas which can be covered by the OP, and also emphasise the need for connection to regional priorities as set out in the RES.	These documents provided context for the SEA Scoping Report.
The RDA and GOSW, together with regional partners, co-ordinated the production of detailed socio-economic material, with support from Ekos Consultants. A number of Task and Finish Groups were set up	A Steering Group was been set up to contribute to the environmental aspects of the Competitiveness Programme, and also to oversee the SEA process. Representatives from GOSW, South West RDA,

and provided input into the draft Programme. Consultation events were held in Exeter and Bristol in late September.	Environment Agency, English Heritage, Natural England, the Regional Environmental Network and Exeter University are involved.
The draft Operational Programme was developed, taking into account summary findings from the SEA process, and the finalised NSRF.	The Environmental Report has been produced, based on the actions set out in the draft OP, and taking into account responses on the Scoping Report.
A 12-week consultation on both the draft OP and Environmental Report ran from November 2006 until Mid-February 2007	
A revised OP, taking into account consultation responses, will be submitted to the European Commission.	The Environmental Report has been updated (this document). An SEA Statement has been produced; reference to the Statement is included in the final chapter of this update report, including feedback from the consultation, key questions raised, and the response to those questions on the part of the Managing Authorities. Both documents will accompany the final OP submission.

3.3 Partnership Involvement and Consultation

One of the strengths of EU Programmes often highlighted in evaluations is the degree of partnership. A steering group has been established to oversee the SEA. It involves representatives of the formal environmental sector, South West RDA, GOSW, Higher Education, and the Regional Environmental Network. The group has commented extensively on much of the material which has been used in the Environmental Report, and on the broad approach taken.

Only minimal formal comment on the Scoping Report and Environmental Report was received during both consultation phases; this reflects the close involvement of partners during drafting of the reports.

4. Policy Context

4.1 Approach to Determining Relevant Plans, Programmes and Policies

This section outlines the relevant plans, programmes and policies (PPPs) which provide the context for the OP. Its aim is to show how the OP has been developed, and the extent to which actions are informed, constrained or focused by that context.

It is not possible for this list to be exhaustive. The range of policies, plans and strategies which could potentially be relevant in some way to projects ultimately supported by the OP, could extend to virtually all of those with a bearing on economic, social and environmental issues affecting the SW. However, the extent to which many of those documents would influence the OP or individual projects supported by the OP, is likely to be marginal in many cases. Further, there would be considerable duplication between them, since many policies essentially focus on the same generic aims, albeit at different geographic or strategic levels, and many – for example the Regional Spatial Strategy – already summarise and take account of the considerable library of research and policy development in the South West. It is more appropriate for this SEA to refer to that work than to repeat it.

Accordingly, the documents below have been identified as the most directly relevant to the development of the Programme.

4.2 Key Strategic Documents

European Level

Lisbon (1997) and Gothenburg (2001) European Councils
Council Regulation (EC) on the European Regional Development Fund (ERDF), European Commission, 2006
Council Decision on Community Strategic Guidelines for Cohesion, European Commission, (2005)
6 th Environmental Action Programme (2002)
EU Sustainable Development Strategy (2005)
Water Framework Directive, European Commission, (2000)
Natura 2000: <ul style="list-style-type: none"> Habitats Directives (92/43/EEC) Birds Directive (79/409/EEC)
EU Landscape Convention

National Level

UK National Strategic Reference Framework (2006)
Securing the Future – delivering UK Sustainable Development Strategy (2005)
Climate Change: the UK Programme (2006)
Landscape Character Assessment: Guidance for England and Scotland (2002)

Regional Documents

Regional Economic Strategy for the South West (2006) and associated SEA
Regional Spatial Strategy (consultation draft, 2006) and associated SEA
Regional Sustainable Development Framework for the SW
SW Regional Environment Strategy & Implementation Plan
SW Regional Assembly Waste Strategy 'From Rubbish to Resource'
South West Biodiversity Implementation Plan (2004)
South West Nature Map
South West Historic Environment Strategy (2005)
The Way Ahead – Delivering Sustainable Communities in the South West (2005)
Just Connect – The Integrated Regional Strategy, SW Regional Assembly
Countryside Character Vol 8 – The South West Assessment

4.3 Environmental Context

As with policies, plans and strategies, a great deal of data is clearly available on different aspects of the state of the environment in the SW. However, much of the data is only indirectly, or not at all, relevant to the aims and activities which will be influenced by the Programmes.

The table below summarises the data which have been collated at present, and also describes the trends in those data, where available, together with policy pointers from the above list. Many data sets currently relate to the entire SW region, including Cornwall and the Isles of Scilly. However, the view of the steering group is that the relative scale of these areas is such that the broad trends are likely to be sufficiently similar to allow their use in developing environmental criteria. As noted above, the relatively small scale of the OP compared to other programmes with similar aims, means that the material will in any case provide context, rather than a baseline as such; the section on monitoring the SEA discusses this issue in more detail.

The table below shows the topics which are being considered, the types of data used, and, where available, the emerging trends.

Table 4.1: SEA Topics, Data Coverage, and Key Points from Initial Analysis

SEA Topic	Data	Trends, Key Points and Policy Highlights
Population	Extensive information on population estimates and trends is included in socio-economic data, as will data on demographic structures and trends.	The population of the SW has been rising at the fastest rate of all English regions. This trend is expected to continue, driven in part by the high quality of life in the region. The rising population is increasing demand for housing, for the use of transport infrastructure, and on environmental resources. Existing policy is to accommodate that growth in ways which minimise negative environmental impacts.
Human health	Data on life expectancy and morbidity is likely to be included in the socio-economic profile, along with wider information on aspects like Incapacity Benefit which are directly relevant to the Programme.	Life expectancy in the SW is among the highest in England, although with variation between socio-economic groups. Wider studies show a generally positive relationship between employment (and voluntary work) and health. Local environmental improvements can also be linked to health improvements, and to a number of key health aims, especially around promotion of active lifestyles.
Biodiversity, Flora and Fauna	Data on designated areas are likely to be included, together (where available) with assessment data on their condition. The SW Nature Map is also reproduced. Trend data on bird species, including farmland birds, is one of the government's headline indicators of sustainable development.	The majority of pressures on biodiversity are associated with agricultural practices, although climate change is also likely to have effects in the future. The proportion of SSSI's in target condition is continuing to increase, but a significant minority remain in poor condition. One of Defra's PSA targets is to have all SSSI's in favourable condition by 2010. In terms of the wider countryside, there has been a long-term decline in farmland bird numbers, although there is some evidence of populations stabilising more recently. Agri-environment schemes which have nature conservation as a central aim have been introduced and expanded in recent years, and take up of such schemes in the SW is proportionately the highest in England.
Landscape & cultural heritage	Maps on landscape designations such as National Parks and Areas of Outstanding Natural Beauty are available, as are data on the occurrence of historic and distinctive landscape features through the Countryside Quality Counts study. Information is also available on the built heritage of towns and villages across the region.	No trends are appropriate in respect of designated landscapes, but data from the Countryside Quality Counts study shows that there is significant change in landscape character, particularly around the Bristol conurbation. In addition to rural forms and countryside, the built heritage, urban form, distinctive buildings and building materials are all key elements of the landscape. The natural and historic landscapes of the SW form a significant part of the attraction for tourists.
Soil / Change of land use	Soil condition in the Programme area is closely associated with agriculture, and direct effects from the Programme are therefore unlikely. However, increasing development and expansion of urban areas implies a wider change in land use. The 'traditional' measure of sustainable development in this respect is the re-use of brownfield land.	The re-use of brownfield land within the SW is at lower levels than in England as a whole.
Water	Data are available on water quality, availability, and cost	Water quality has been improving in both biological and chemical terms, and is well above the English average in both cases. There is, however, increasing pressure on water use, and water availability may be a constraint on development in some areas in future. Water costs per unit have been rising in recent years,

		although standing charges have fallen to very low levels.
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Air quality	Local air quality data are limited; where problems exist, they are concentrated in urban centres, and are most closely associated with emissions from transport.	Local air quality has improved in recent years in line with technological advances in road transport engines and emissions. However, rising volumes of road transport and congestion mean that isolated issues remain, concentrated in urban centres.
Climatic Factors	Climate change emission data by source are available. Trend data on transport use, the fastest growing source of emissions, is available. Limited data exist on the generation of renewable energy in the region. Data from Devon are also available on energy costs as a proportion of all business costs.	The twin issues of reducing climate change emissions and adapting to unavoidable effects of climate change are highlighted across all policies, from EC to regional level. The issues are also recognised in the RES. Existing trends at UK level show a slight fall in emissions from industry, but a consistent rise in emissions from transport, and these trends are thought similar in the SW. Data show that a very significant scale of change of approach that would be necessary to reduce emissions, especially in relation to transport (including air travel, where emissions are increasing rapidly at present). Energy costs have risen consistently in recent years, and demand from business for energy efficiency services has also increased correspondingly.
Material assets	Data on waste arisings by source (domestic, industrial, commercial) are available, as are data on recycling. It is also hoped that data on the costs of waste disposal will be available. Data on the benefits from waste minimisation projects are also being sought.	Volumes of waste generated in the region are of comparable levels to those elsewhere in England. Construction waste forms the largest single component of all waste, and volumes are rising. Volumes of industrial waste are falling slowly. Landfill and recycling are the main method of disposal, and there is increasing pressure on landfill availability. Volumes recycled are rising. Costs of waste disposal are also rising, driven jointly by the need to meet higher standards and increases in landfill tax.
<i>The topics below are not included in SEA guidance, but were added with the agreement of the steering group as being relevant to the aims and activities of the Programme</i>		
Environmental performance of business	Some data are available on ISO14001 registrations..	No trend data are available. There is a greater concentration of ISO 14001 registrations in areas with large manufacturing industry bases such as the Midlands, than in the SW. Registrations overall represent a very low proportion of the business base.
Tourism	Data are included on the value of tourism, and the features which attract tourists to the SW.	The high significance of the natural and built environments is widely recognised in relation to tourism, as is the range of employment created as a result.
Skills, training & awareness	Although there are individual University departments and training organisations which specialise in environmental subjects, no substantive data is available on the extent to which mainstream training embeds environmental concerns.	In the longer term, higher levels of understanding of environmental issues and solutions will be critical to delivery of a more sustainable economy.
Local environmental quality	National, but not regional, studies are available on the extent to which local environmental improvements are associated with social and economic benefits, including health.	A number of case studies illustrate the contribution that environmental actions can make to local regeneration. Generally, activities relate either to local improvements, often with associated training activities and benefits, or to the development of social economy businesses which focus on recycling.

4.4 Issues in Data Availability

Government guidance on SEA recommends that gaps in data should be highlighted, so that data collection can be improved to better inform future environmental work. The data on the broad state of the environment is generally good in most cases, and it has been possible to find at least some material on environment / economy drivers. However, as noted in the table above, data is much less consistent in relation to a number of areas where the Programme may support project activity. For example:

- Information on the relative environmental performance of, and issues facing, different industry sectors is not available, beyond very broad categorisations.
- Systematic data on the quality of, and access to, greenspace in urban areas is not available.
- Data on the outcomes from environmental activities is available, but generally on the basis of case studies, rather than from consistent, large-scale evaluations.
- Data on the integration of environmental issues within training content is very limited.

4.5 Past Environmental Performance of Past European Structural Fund Programmes

As noted in the introduction to this paper, considerable work has been undertaken in respect of environmental integration into economic development in the context of all EU Structural Fund Programmes during the 2000-06 period. In 2005, Fraser Associates undertook a large scale study⁷ for Defra, which looked at all Programmes in England and which analysed:

- The depth and quality of environmental integration in written Programme materials;
- Centrally, the extent to which the environmental aims of the Programmes were delivered by projects in practice; and
- Based on extensive consultation, the reasons for variations in performance between regions.

The Cornwall and Isles of Scilly Objective 1 and SW Objective 2 Programmes were, respectively, the first and second most successful Programmes in England in delivering environmental integration through the projects supported by the Programmes.

This integration was evident in two types of project:

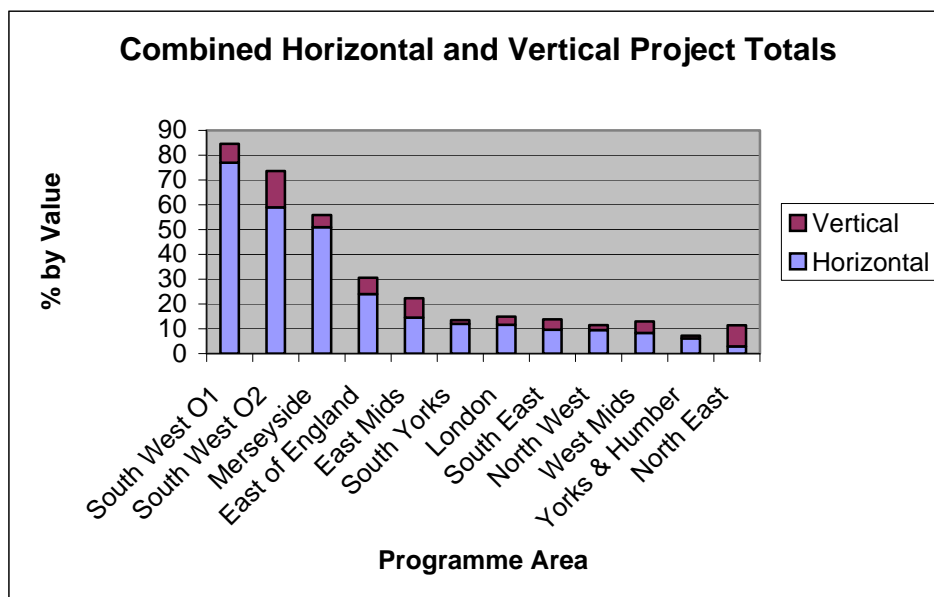
Vertical projects are those with an environmental theme, but which also deliver economic and social benefits. In the Programmes in the South West, these included a number of green tourism projects.

Horizontal projects have a mainstream, traditional economic development focus, but were delivered in ways which incorporated higher environmental standards. Examples are business development projects which encourage better environmental performance as an integral aim.

The chart below shows the incidence of vertical and horizontal projects in all English Programmes. A key point is that addressing issues like climate change in the context of climate

⁷ The Effectiveness of EU Structural Funds in Delivering the Government's Environmental Objectives, Fraser Associates with the Rural Development Company for Defra, 2005, <http://www.defra.gov.uk/rural/structure/default.htm>

change cannot be done by individual projects, but rather require smaller but more consistent actions – both South West Programmes have a strong track record in this respect.



Despite this strongly positive picture, it is worth noting that there are examples of projects elsewhere, particularly around the environmental and social economy aspects of the Sustainable Communities agenda, which were found much less commonly in the South West. Evaluations show that regeneration projects which combine environmental upgrading work with training and work experience schemes have benefits both in economic terms, and in improved quality of life for local residents. A significant proportion of social enterprises also have environmental benefits, for example through a focus on the re-use of furniture, or composting or recycling domestic waste.

Success Factors

The study found that the range of data used in preparing environmental profiles was similar in most Programme areas. While these data could provide a useful, if partial, outline of the environmental characteristics of Programme areas, the profiles were found not to have been a strong driver of Programme content.

Where integration in the aims of Programmes was more effective, it was generally as a result of the activities of environmental champions who understood the processes involved, and had promoted the greening of generic economic instruments.

Integration of environmental concerns into programme documents, application forms, specific guidance, and monitoring indicators was seen as a precondition for success, rather than being sufficient on its own. The findings from the consultation phase of the study, consistently across England, emphasised that the integration of environmental advice and expertise in decision-making processes, and during the development and delivery of projects, was the greatest single factor in achieving success.

This is consistent with the situation in the current Objective 1 and Objective 2 Programmes, both of which, in common with the majority of other Programmes in England, employ in-house Environmental Sustainability Theme Managers (ESTMs). The role of ESTMs is to translate

policy aims into actions on the ground for those delivering projects, thereby helping them meet the overall aims of the Programme in environmental as well as economic terms. The posts are funded jointly by Technical Assistance through the respective Programmes, matched by contributions from Environmental Agencies and other regional partners, and the unique contribution they make to the delivery of environmental integration is recognised in the NSRF as an element of good practice which should be maintained under the new Programme.

4.6 Developing SEA Criteria

Ultimately, the aim of considering the material above is to provide the best possible understanding of, in turn:

- The environmental situation in the region overall
- The likely areas of interaction between the environment and the Programme
- The extent to which past work around these areas of interaction has taken place.

Building on the above, SEA criteria have been developed which are used, below, in assessment matrices. Discussion with the SEA Steering Group suggested that two levels of criteria would be appropriate. These would assess:

Firstly, the likely impacts of individual elements and activities proposed. These will be linked to specific environmental issues, as developed above, and will be more closely related to SEA topics.

Secondly, and building on the above, the extent to which the overall proposals, and individual elements in combination, contribute towards agreed aims. These criteria should be closely linked to aims agreed in regional strategy material.

The criteria set out below were circulated in the Scoping Report, and reflect comments received. They have also been focused to reflect the conclusions from the policy review and profiling exercise. Discrete criteria have not been included on Population or on Human Health, as it is considered very unlikely that the Programme will have any measurable impacts on population structure, given its scale; and the evidence suggests that better health is generally associated with economic improvements. At strategic level, the impacts in relation to health would be expected to be positive but limited across the Programme.

It is, however, worth noting that there is a focus in the NSRF on the targeting of people currently dependent on Incapacity Benefit. This is of particular relevance to the SEA, as there are many examples of social economy and voluntary sector organisations which provide opportunities for this group, using environmental activities as a focus. Where appropriate, this has been mentioned in the assessment text.

The full list of specific criteria is presented in the table overleaf. In order to present the assessments in a more concise form, only the headline questions (those in bold, below) are reproduced in the individual tables; the full version is presented to make explicit the underlying aspects of the questions being asked of the Programme.

The following are proposed as criteria for higher-level assessment:

To what extent does the range of activities proposed within the Programme...

- Promote a sustainable approach to the use of environmental resources?

- Manage risks associated with future environmental change, especially in relation to climate change?
- Protect and enhance the natural environment?

Table 4.2: Detailed SEA Criteria

SEA Issue	Assessment questions
	<i>To what extent will the activities proposed under the programme...</i>
Climate change	<p>...address climate change by:</p> <ul style="list-style-type: none"> Reducing emissions associated with organisations receiving support through the Programme? Promoting the development and use of renewable energy? Supporting projects which reduce emissions? Affecting trends in transport use? <p>... include actions to mitigate the existing and predicted effects of climate change?</p>
Material assets	<p>...encourage greater efficiency in the use of materials by:</p> <ul style="list-style-type: none"> Promoting the efficient use of materials in (particularly) new and existing industrial processes? Encouraging organisations receiving support through the programme to move up the waste hierarchy? Promoting the use of recycled materials in construction projects?
Water quality and management	<p>...contribute towards improvements in water quality and management, by:</p> <ul style="list-style-type: none"> Promoting efficient use of water and improving the quality of waste water produced by organisations supported through the programme? Ensuring capital projects incorporate technique to minimise pollution from run off, and capture greywater? Contributing towards management of water catchments to reduce flood risks?
Climate change, air quality	<p>...reduce emissions and development impacts associated with transport by:</p> <ul style="list-style-type: none"> Encouraging developments in locations served by public transport? Promoting green transport plans as part of all developments? Reducing the need to travel through the use of ICT? Encouraging exports based on intellectual and high value, low bulk products and services? Encouraging local supply chains?
Landscape	<p>...consider landscape impacts by:</p> <ul style="list-style-type: none"> Ensuring built developments and their setting contribute to landscape character and local distinctiveness? Promoting the economic re-use of historic buildings? Managing tourism impacts associated with visits to historic sites and features?
Biodiversity, flora and fauna	<p>....contribute towards improvements in biodiversity, by:</p> <ul style="list-style-type: none"> Ensuring the setting of built development, and local environmental improvements incorporate habitat creation in line with biodiversity targets? Developing, through the promotion of sustainable purchasing, the market for local agricultural goods produced to high environmental standards?
Development of the environmental economy	...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?

Raising awareness of environmental issues and solutions	...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?
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5. Assessment of the Operational Programme

This chapter presents, in matrix form and using the criteria described above, the assessment of the most detailed level of information presented in the draft Operational Programme.

The overall structure of the Programme is set out in the table below, and a list of indicative activities are provided in the Programme which expand on each sub-heading. The box below (shaded) summarises the changes made between the draft Programme on which consultation was based, and the final version, and a comment on the implications of these changes is included in section 4.16.

The assessment process has been carried out by producing Individual impact matrices on the basis of each sub-heading and associated list of activities. In a few cases, sub-headings have been grouped together where the activities involved are, from an environmental perspective, very similar.

Table 5.1: Overview of the Competitiveness Programme

Priority	Sub-Heading
1. Knowledge and Innovation	Innovative new starts
	Supporting Ideas, innovation and knowledge
	Improving FE/HE interactions with SMEs
	Business/HE Technology Initiatives
	Environmental technologies and renewable energy
2. Enterprise and Growth	High growth new starts and accelerating business growth
	Environmental performance in business
	Internationalisation
	Improving the environmental efficiency of businesses
	Environmental Technologies and Renewable Energy
3. Urban Enterprise	Small scale infrastructure and facilities
	Promoting and encouraging the creation of new enterprises/social enterprises within under-represented groups.
	Access to targeted business support services in the community
	Enterprise opportunities from environmental improvements

Although there is no indicative balance of the likely level of resource allocated to each of the sub headings, a number of indicators, including environmental indicators, have been specified at the Priority level. By implication, these give an indication of the scale of activity expected, and are taken into account in the assessment processes.

Changes in the Programme Coverage Between Consultation Draft and Final Version

Changes made were:

Priority 1

- *Innovative New Starts* and
- *Business/HE Technology Initiatives* were added
- *Developing specialist infrastructure for innovation & research & development*, which had proposed an element of building construction, was removed

Priority 2

- *Develop a culture of enterprise/social enterprise* and
- *Promoting and encouraging the creation of new enterprises/social enterprises with high growth potential* were removed
- *High growth new starts and accelerating business growth* was added
- *Improving the environmental efficiency of businesses* was merged with an enlarged allocation (based on increased targets) for *Environmental Performance in Business*

Priority 3

- The title of this Priority changed from ***Sustainable Communities*** to ***Urban Enterprise***, and activity headings have been refined.
- The capacity to support *physical environmental improvements* has been removed, after consideration of the limited financial resource available, but a new heading of *Enterprise opportunities from environmental improvements* has been added.
- Innovative models for access to employment, enterprise and training initiatives have been removed. Activities under the heading of *access to finance* have been added.

Assessment Methodology

Conventionally, impacts are described in text, with impacts summarised by the use of symbols such as:

- | | |
|-----------|---|
| ++ | significant positive environmental impact |
| + | limited positive environmental impact |
| o | no impact |
| - | limited negative environmental impact |
| -- | significant negative environmental impact |
| ? | impact to be determined, but likely to be limited |
| ?? | impact to be determined, and likely to be significant |

The assessments show that the nature of likely impacts will vary depending on the precise projects supported, the detail of which is not determined during the OP process. Accordingly, some assessments combine symbols (? / + impacts probably positive but uncertain), and the 'mitigation' column in each matrix explores the conditions which would be necessary to ensure positive impacts at the delivery stage.

Determination of 'Significance'

The extent to which an impact is significant or not, especially in the situation where detailed impacts are very difficult to predict in the first place, is obviously difficult. In practice, the findings reflect the combined judgement of the consultants and SEA steering group. These judgements have been informed by previous, project and programme level evaluation work in EU Structural Funds.

Priority 1: Knowledge and Innovation

5.1 Innovative New Starts

This activity will focus on the provision of high quality support for new starts based on innovative development, products and process developments with considerable market potential.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	The extent of impacts on energy and resource will result from the activities proposed is uncertain at this stage. The overarching aim, from the SEA perspective, is to ensure that new products, technologies and techniques which are developed and commercialised are better, in environmental terms, than those they replace. Specific issues might include design for ease of recycling or minimising energy or water use during manufacture and lifespan. Possibility of significant, but uncertain impacts - / ?? / ++	Delivery will depend on the incorporation of environmental advice at appropriate stages during the appraisal of new products and services. Such advice should be delivered in ways which aim to enhance the quality of the product being developed, rather than slow or prevent development.
...encourage greater efficiency in the use of materials, including re-use of waste?		
...contribute towards improvements in water quality and management?		
...reduce emissions associated with transport?	Indirect impacts may ultimately be a growth in transport associated with the delivery of new products or demand for raw materials. Probability of limited, but uncertain impacts - / ? / +	An emphasis, where possible, on local supply chains and on exports based on low volume or knowledge-based products and services will minimise this effect.
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	Secondary impacts possible where products and services make use of agricultural inputs, most obviously in the food & drink industry. Possibility of limited, secondary impacts ? / +	New products which explicitly target green consumers will have positive benefits by increasing market demand for environmentally-friendly farming.
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	The development of sustainable technologies is a direct aim of a related heading under this Priority. Possible limited, positive effects ? / +	None necessary
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	An approach which actively considers the environmental implications of new products will help stimulate demand for advice services; involvement of environmental expertise in workshops and partnerships will also contribute towards this aim. Possible relatively significant effects ? / ++	Delivery will depend on the incorporation of environmental advice at appropriate stages during the appraisal of new products and services.

5.2 Supporting Ideas, innovation and knowledge

This activity will focus on helping companies to exploit their own knowledge and internal innovation capacity. It will focus on company-led innovation, product and process improvement, and the management and development of Intellectual Property Rights. It will also actively support developments in the environmental sector.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	The extent of impacts on energy and resource will result from the activities proposed is uncertain at this stage. The overarching aim, from the SEA perspective, is to ensure that new products, technologies and techniques which are developed and commercialised are better, in environmental terms, than those they replace. Specific issues might include design for ease of recycling or minimising energy or water use during manufacture and lifespan. Possibility of significant, but uncertain impacts - / ?? / ++	Delivery will depend on the incorporation of environmental advice at appropriate stages during the appraisal of new products and services. Such advice should be delivered in ways which aim to enhance the quality of the product being developed, rather than slow or prevent development.
...encourage greater efficiency in the use of materials, including re-use of waste?		
...contribute towards improvements in water quality and management?		
...reduce emissions associated with transport?	Indirect impacts may ultimately be a growth in transport associated with the delivery of new products or demand for raw materials. Probability of limited, but uncertain impacts - / ? / +	An emphasis, where possible, on local supply chains and on exports based on low volume or knowledge-based products and services will minimise this effect.
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	Secondary impacts possible where products and services make use of agricultural inputs, most obviously in the food & drink industry. Possibility of limited, secondary impacts ? / +	New products which explicitly target green consumers will have positive benefits by increasing market demand for environmentally-friendly farming.
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	The development of sustainable technologies is a direct aim under this heading. Likely positive effects +	None necessary
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	An approach which actively considers the environmental implications of new products will help stimulate demand for advice services; involvement of environmental expertise in workshops and partnerships will also contribute towards this aim. Possible relatively significant effects ? / ++	Delivery will depend on the incorporation of environmental advice at appropriate stages during the appraisal of new products and services.

5.3 Improving FE/HE interactions with SMEs

The overall aim is to improve the level of knowledge transfer between the region's HE/FE institutions and SMEs. It will explore new dissemination methods such as the use of Further Education Institutions and increasing collaboration with business, and will be particularly important in those parts of the region where productivity is low. A major theme will be increasing take-up and exploitation of new knowledge and technology by business.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	No direct impacts are likely 0 The extent to which secondary impacts are positive will be determined by the ways in which structures created incorporate environmental expertise into decision-making and support processes ? / +	Delivery of positive environmental impacts will depend on the incorporation of environmental advice at appropriate stages during the appraisal of new products and services. There will be opportunities, as new structures are put in place, to ensure that environmental expertise is included in the processes developed.
...encourage greater efficiency in the use of materials, including re-use of waste?		
...contribute towards improvements in water quality and management?		
...reduce emissions associated with transport?		
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	No direct impacts anticipated; secondary impacts possible associated with support for the food & drink sector ? / +	Delivery of positive environmental impacts will depend on the incorporation of environmental advice at appropriate stages during the appraisal of new products and services.
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	The development of sustainable technologies is a direct aim of a related heading under this Priority but would occur only as a secondary impact under this heading. Limited secondary impact ? / +	As above.
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	The extent to which secondary impacts are positive will be determined by the ways in which structures created incorporate environmental expertise into decision-making and support processes ? / +	Delivery will depend on the incorporation of environmental advice at appropriate stages during the appraisal of new products and services.

5.4 Business / HE Technology Initiatives

Support will be provided for a series of technology institutes based on proven business demand, focusing on technologies where there are clear opportunities, and links to supply chains.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	No direct impacts are likely 0 The extent to which secondary impacts are positive will be determined by the ways in which structures created incorporate environmental expertise into decision-making and support processes, including those relating to supply chain development ? / +	Delivery of positive environmental impacts will depend on the incorporation of environmental advice at appropriate stages during the appraisal of new products and services. There will be opportunities, as new structures are put in place, to ensure that environmental expertise is included in the processes developed.
...encourage greater efficiency in the use of materials, including re-use of waste?		
...contribute towards improvements in water quality and management?		
...reduce emissions associated with transport?		
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	No direct impacts anticipated; secondary impacts possible associated with support for the food & drink sector ? / +	Delivery of positive environmental impacts will depend on the incorporation of environmental advice at appropriate stages during the appraisal of new products and services.
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	The development of sustainable technologies is a direct aim of a related heading under this Priority but would occur only as a secondary impact under this heading. Limited secondary impact ? / +	As above.
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	The extent to which secondary impacts are positive will be determined by the ways in which structures created incorporate environmental expertise into decision-making and support processes ? / +	Delivery will depend on the incorporation of environmental advice at appropriate stages during the appraisal of new products and services.

5.5 Environmental technologies and renewable energy

The aim is to develop a major new industry with long term growth prospects, and where competitiveness is based on a innovation and a highly skilled workforce. Actions will focus on areas where the SW has competitive advantage. Actions are likely to include business networks, licensing and trade agreements, and proof of concept funding.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change? ...encourage greater efficiency in the use of materials, including re-use of waste? ...contribute towards improvements in water quality and management? ...reduce emissions associated with transport? ...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes? ...contribute towards improvements in biodiversity?	<p>Secondary impacts are likely to be significant and positive, as the technologies developed are specifically designed to provide environmental solutions.</p> <p>However, it is important to note that a product which addresses one environmental problem should not be exempt from consideration of impact on other areas. This potential conflict is most obvious in association with the renewable energy sector, with associated risks of landscape and biodiversity impact.</p> <p>Strong, positive, secondary impacts likely ++</p>	<p>Support should include training on appropriate environmental risks and management.</p>
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	<p>The development of sustainable technologies is a direct aim of a related heading under this Priority but would occur only as a secondary impact under this heading.</p> <p>Limited secondary impact ? / +</p>	As above.
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	<p>High quality buildings incorporating renewable energy can act as demonstration projects in their own right.</p> <p>Possible positive, secondary impacts ? / +</p>	Delivery will depend on the incorporation of environmental advice at appropriate stages during the appraisal of new products and services.

Priority 2: Enterprise and Growth

5.6 High growth new starts and accelerating business growth

The aim is to focus on quality new starts with growth potential and in knowledge based sectors; a closely targeted approach is envisaged.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	Impacts will depend upon the businesses selected, and the implications for resource use.	As high growth businesses are targeted, it is important to build in environmental management approaches from the start, to ensure that expansion proceeds along as sustainable a path as possible.
...encourage greater efficiency in the use of materials, including re-use of waste?	Likely significant impacts of uncertain magnitude -- / ?? /++	
...contribute towards improvements in water quality and management?		
...reduce emissions associated with transport?	Direct impacts unlikely; secondary impacts possible depending on business sector and supply chain demands, particularly in relation to the food & drink sectors where local produce is used.	
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	Uncertain secondary impacts likely - / ? / +	
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	The development of sustainable technologies is a direct aim of a related heading under this Priority but would occur only as a secondary impact under this heading. Very limited, direct impacts likely; Possible secondary impacts of uncertain impact ? / +	As above.
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	Secondary impacts will be possible, depending on the extent to which marketing and promotion activities incorporate environmental issues. Very limited, direct impacts likely; Possible secondary impacts of uncertain impact ? / +	As above

5.7 Internationalisation

The aim is improve the capacity of businesses to participate in international markets and become more outward looking, particularly in relation to exports focused on the US and Asian markets.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	<i>Direct, negative impacts on climate change emissions are likely, associated with increases in international travel --</i> <i>Other impacts in relation to resource use will depend on the products and services promoted - / ? / +</i>	Mitigation of CO2 emissions from air travel is unlikely to be possible in the context of the programme, other than by specific carbon offsetting activities.
...encourage greater efficiency in the use of materials, including re-use of waste?		Development of international markets for environmental technologies, for example, will ultimately have positive impacts.
...contribute towards improvements in water quality and management?		
...reduce emissions associated with transport?		
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	<i>Limited, indirect impacts possible, as above, including disturbance from noise associated with air transport growth - / ?</i>	Mitigation only possible through management of aircraft.
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	This is an aim of other headings under this Priority.	Development of international markets for environmental technologies, for example, will ultimately have positive impacts.
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	The extent to which this occurs will depend the integration of environmental advice, the delivery of which is also an aim of this Priority, into mainstream support services. <i>Limited impacts possible ? / +</i>	As above

5.8 Environmental performance in business

Environmental Technologies and Renewable Energy

These activities provide support both for making mainstream businesses more efficient, and also to support the expansion of businesses in the environmental sector, relating closely to the aims set out under Priority 1.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	Strong, positive impacts are likely against all headings associated with resource use.	Mitigation of CO2 emissions from air travel is unlikely to be possible in the context of the programme, other than by specific carbon neutralisation activities.
...encourage greater efficiency in the use of materials, including re-use of waste?	However, it is important to note that a product which addresses one environmental problem should not be exempt from consideration of impact on other areas. This potential conflict is most obvious in association with the renewable energy sector, with associated risks of landscape and biodiversity impact.	Development of international markets for environmental technologies, for example, will ultimately have positive impacts.
...contribute towards improvements in water quality and management?	Secondary transport impacts will be associated with the delivery of the services provided.	
...reduce emissions associated with transport?		
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?		
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	This is the headline aim of this heading. Strong, positive impacts likely ++	
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	The extent to which this occurs will depend the integration of environmental advice, the delivery of which is also an aim of this Priority, into mainstream support services. Limited impacts possible ? / +	As above

Priority 3: Urban Enterprise

5.9 Small scale infrastructure and facilities

Activities are likely to focus on the creation of premises (refurbishment rather than construction) to create multi-use/local enterprise facilities.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	Impacts will depend on the extent to which the refurbishment of buildings is delivered in line with existing good practice in relation to construction projects, for example through the application of BREEAM standards. Positive impacts on transport are also likely, as such buildings will be sited to maximise local access by public transport. Incorporating ICT capability in refurbished buildings will also help reduce demand for travel. Potential for locally significant positive impact ? / ++	Impacts will depend on the location and specification of the projects supported.
...encourage greater efficiency in the use of materials, including re-use of waste?		
...contribute towards improvements in water quality and management?		
...reduce emissions associated with transport?		
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	Positive impacts are likely, especially where the building to be refurbished has historic value ? / ++	None necessary
...contribute towards improvements in biodiversity?	Minimal impact likely, but possibly positive through small scale landscaping 0 / +	None necessary
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	Limited, direct impacts possible through use of sustainable technologies in building refurbishment ? / +	Impacts will depend on the specification of the projects supported.
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	High quality buildings help raise awareness through their existence Limited impacts possible ? / +	As above

5.10 Promoting and encouraging the creation of new enterprises/social enterprises within under-represented groups. Access to targeted business support services in the community

Activities under these headings will focus on local people with enterprise and social enterprise aspirations. Support will include mentoring and on-going coaching and management and leadership training. Young people and other identified groups will be targeted.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	Impacts will depend on the nature of the businesses developed, and the extent to which support provided incorporates appropriate environmental advice.	Support services should include environmental advice and management.
...encourage greater efficiency in the use of materials, including re-use of waste?	Possible significant impacts in the longer term -- / ?? / ++	
...contribute towards improvements in water quality and management?		
...reduce emissions associated with transport?		
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	Significant direct impacts unlikely 0	None necessary
...contribute towards improvements in biodiversity?	Significant direct impacts unlikely; secondary impacts possible depending on the businesses supported - / ? / +	Support services should include environmental advice and management.
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	Limited, direct impacts possible depending on the businesses developed ? / +	
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	Limited impacts possible depending on the support provided ? / +	Support services should include environmental advice and management.

5.11 Access to Finance

Innovative micro finance initiatives, including small scale loans and community finance facilities will be provided where clear market failure is identified.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	Impacts will depend on the nature of the enterprises support, but significant environmental impacts are unlikely; there is some potential for positive impacts where finance is linked to the environmental opportunity heading under this priority. Possible locally significant, positive impacts ? / ++	Impacts will be depend on the extent to which support is available for organisations using environmental issues as a focus for social and economic gain.
...encourage greater efficiency in the use of materials, including re-use of waste?		
...contribute towards improvements in water quality and management?		
...reduce emissions associated with transport?		None necessary
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?		None necessary
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	Likely positive impact from development of social businesses with an environmental focus ? / +	Impacts will be depend on the extent to which support is available for organisations using environmental issues as a focus for social and economic gain.
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	Limited impacts possible depending on the support provided ? / +	

5.12 Enterprise Opportunities From Environmental Improvements

Activities aim to develop opportunities around energy efficiency and recycling.

To what extent will the activities proposed under the programme...	Likely Impact	Mitigation issues / comment
...seek to reduce climate change emissions? ...include actions to mitigate the existing and predicted effects of climate change?	The aim of the activities under this heading is to deliver environmental improvements; impacts will depend on the specific activities undertaken.	None necessary, although there may be the opportunity for new enterprises to learn from existing good practice in the SW and elsewhere. This reflects the greater emphasis (through EU funds) placed on this type of activity in other regions in the past.
...encourage greater efficiency in the use of materials, including re-use of waste?	Likely, possibly significant, positive impacts ? / + / ++	
...contribute towards improvements in water quality and management?	No significant direct impacts likely 0	
...reduce emissions associated with transport?	Possible limited benefits from development of opportunities which reduce the need to travel 0 / +	
...ensure developments enhance and fit within both natural and built landscapes, including historic townscapes?	No significant direct impacts likely 0	
...contribute towards improvements in biodiversity?		
...seek to develop sustainable technologies, both as a sector in their own right, and as a tool for improving the wider environmental performance of the programme area?	Likely positive impact from development of social businesses with an environmental focus +	
...improve understanding of environmental issues and solutions among, and appropriate to, all organisations receiving support through the Programmes?	Limited impacts possible depending on the projects undertaken +	

5.13 Summary and Strategic Assessments

The use of the higher level questions provides an opportunity to summarise the above assessments and draw out key messages, taking into account the range, as well as the detail, of activities proposed. It is important to recognise that the NSRF provides the menu of options effectively open to the programme – it would not be appropriate to suggest the inclusion of activities which are environmentally beneficial but which fall outside that range.

To what extent does the Programme overall and do individual Priorities....

- Promote a sustainable approach to the use of environmental resources?
- Manage risks associated with future environmental change, especially in relation to climate change?
- Protect and enhance the natural environment?

Overall Programme Approach

The overall vision for the Programme is reproduced from that for the SW RES:

The Regional Economic Strategy sets out a vision to which the South West Competitiveness Programme will make an important contribution. The Vision is that:

South West England will have an economy where the aspirations and skills of our people combine with the quality of our physical and cultural environment to provide a high quality of life and sustainable prosperity for everyone

This vision will be realised when the South West has developed an economy where:

- *Prosperity is measured by wellbeing as well as economic wealth;*
- *Knowledge, service quality and performance are key to business success;*
- *More people can find jobs which fully utilise and reward their skills; and*
- *The natural advantage of the region's environment is used as an economic driver, providing sustainable employment in knowledge based and higher value added businesses.*

The recognition of the importance of the environment is clear in this vision; the challenge for the Programme is to 'translate' that commitment into actions which are meaningful and appropriate at the level of individual Priorities and activities. In particular, a commitment to exploring the implications of moving the Programme towards a carbon neutral position is set out in the OP, and is also developed further in the following Chapter of this draft Environmental Report.

Knowledge and Innovation

The focus on the development and commercialisation of new technologies clearly recognises the opportunities associated with environmental change. However, there is at present less explicit recognition of the need to ensure that new products and services which are supported assess, and if necessary are assisted to improve, their environmental impacts. This will be particularly

important in relation to energy use, in the context of the likely focus on reduction of carbon emissions. There are likely to be only quite limited, secondary opportunities to enhance the natural environment under this heading.

The assessments clearly show that impacts will depend upon the extent to which the structures employed seek to improve the environmental impact of individual products.

Enterprise and Growth

There is already a strong focus on business efficiency and the development of the environmental sector under this heading, which reflects the focus of the SEA. The key point here is to ensure that the expansion of business efficiency services are:

- Targeted at those sectors which will benefit to the greatest extent, such as those with higher energy requirements, or which depend on large volumes of water, for example those in the food and drink sector; and, in a related point,
- Integrated within mainstream services, so that all business advisors are aware of both issues and solutions, and, in line with the above, able to recommend their use as appropriate.

The outcomes of these actions will include both more efficient mainstream business, but also an expanding market for the environmental technology sector. Although the role of the Programme will be more limited in this respect due to its small scale, there may also be possibilities of supporting green procurement activities more widely, to further develop the market.

Some elements of this Priority also provide seek to encourage under-represented groups to start new businesses. Advice on environmental impacts is often most effective at this stage; it is generally easier to incorporate recommendations while other changes are happening in any case, than to seek to address issues once they are embedded.

Urban Enterprise

There are likely to be strong positive impacts associated with support for social economy organisations with an environmental focus, for example in relation to refurbishment of white goods or recycling activity, with associated social benefit when delivered as a focus for training.

5.14 Issues for Other EU Funding Streams

While this Environmental Report cannot directly influence other funding streams, it is appropriate to comment on issues raised here which are more appropriately addressed by those funding streams, and which complement the findings from the assessments above. In particular:

At the simplest level, environmental aims relevant to activities funded under European Social Fund fall under three headings:

- To ensure that environment (and wider sustainable development) issues are incorporated into all mainstream training, as appropriate;
- To seek to make available support for organisations which deliver social and economic benefits through environmental activities, accepting that this wider focus may incur additional costs as well as benefits; and
- To ensure that good practice in terms of environmental management is mainstreamed across all organisations.

The main focus of the Rural Development Plan for England is on agri-environment schemes, with a view to improving biodiversity and reducing agricultural pollution in the wider countryside. In addition, there will be (limited) funding available to support farm diversification and wider rural development, both of which will be delivered through Regional Implementation Plans.

Given the focus of the Competitiveness Programme, the NSRF suggests that biodiversity issues are more appropriately addressed, at significant level, through the RDPE.

5.15 Likely Evolution of the Environment in the Absence of the Programme

Given the very limited scale of the Programme, it is important to highlight that the impacts described above are relative rather than absolute in significance – that is, they are significant or not relative to the Programme itself. There are unlikely to be significant absolute environmental effects from the Programme, and therefore the evolution of the environment in its absence is unlikely to be significant.

However, EU Programmes have historically had a relatively higher profile than their financial weighting suggests, and they have also, in many cases, piloted activities which then are integrated more widely into mainstream funding. For example, EU Programmes were among the first to introduce evaluation and monitoring activities, and more recently supported integrated local economic regeneration. Programmes in the current period have also acted as pilots for the integration of both environmental sustainability and equal opportunities.

It is therefore possible that the long term impacts of the Programme, in acting as a pilot for the focus on carbon reduction, could be significant in a positive sense. By implication, the evolution of the environment without intervention would therefore be less positive in the absence of the Programme. However, it is emphasised that this depends entirely on the success of the Programme during its delivery phase, discussed further in Chapter 6.

4.16 Key Findings from the Assessment

Overall, the assessment process demonstrates that the type (positive or negative) and significance of the environmental impacts associated with the proposed activities are very difficult to predict with certainty at strategic level. In practice, impacts will depend on the specific, individual businesses and projects which are selected for support, and on the extent to which that support actively encourages or requires environmental considerations and action.

However, the assessments also show that it is possible to predict the *range* of impacts which are likely to arise, and to highlight, based on evaluation experience, those actions which have been found most likely to deliver integration.

At the strategic level, the issues which emerge are clear, and can be summarised as:

- Encouraging and supporting energy and resource efficiency in business development;
- Ensuring that new products and services are better, in environmental terms, than those they replace;
- Promoting awareness of environmental issues and solutions in training and skills, as appropriate to the sectors involved;
- Ensuring take-up of environmental good practice in all aspects of construction, from site selection to building quality and soft landscaping; and,
- Exploiting environmental opportunities to deliver social and economic gains, including those in the social economy as well as in mainstream business and technology.

Given this position, a bespoke approach has been developed to the consideration of alternatives, and to mitigation, and is discussed in the following Chapter.

Update on Key Findings Including Changes to the Programme

There are no significant changes to the likely environmental effects of the Programme under Priority 1, Knowledge & Innovation.

The targets for the number of businesses undertaking environmental management have been increased under Priority 2, Enterprise and Growth, and greater positive impacts are likely as a result. The loss of explicit support for social enterprises under that Priority may reduce the secondary benefits from supporting that sector.

Under Priority 3, the loss of capacity to undertake physical environmental upgrading will result in poorer environmental outcomes, but the scale of such work would have been very limited by resource constraints in any case. The explicit recognition of the role of social enterprises in the environmental sector is welcome and is likely result in improved impacts in terms of energy and resource use over the longer term, as well as providing positive examples of environment / economy interaction.

6. Implementation of the SEA

This chapter discusses the implications of the conclusions above, in relation to:

- Consideration of alternatives;
- Mitigation; and
- Monitoring.

6.1 Consideration of Alternatives

The SEA process requires consideration of alternatives as an integral component. The aim is to ensure that different ways of meeting agreed aims are discussed, and the decision is taken on the option to be selected with full understanding of the environmental implications.

It is possible to illustrate this process by taking the example of a proposal for the expansion of a transport network. Alternatives might include any, or a mix of, new road construction, improvements to public transport, or the re-location of services to reduce the need to travel. These have very different environmental implications, which can be modelled and discussed.

However, there is much less agreement about how this process might be translated into Structural Fund (or other economic development) Programmes. UK Government guidance, in line with the EC Directive, emphasises that the alternatives considered must be reasonable, and not simply constructed as an academic exercise. In practice, this does not always take place; for example, the alternatives considered during the SEA of the SW RES looked at the likely environmental impacts associated with different levels of economic growth, rather than different ways of delivering growth.

A different approach, in the context of this Programme, could focus on the balance of financial allocation between priorities, or on the broad selection of project-level activities under priorities. These approaches are realistic, but are still limited in scope, since the NSRF closely define the range of activities which can be included. The required minimum allocations towards activities focused on the Lisbon agenda also reduce the potential for variation between options.

Accordingly, an approach is proposed which, on the basis of the assessment process, comments on the range of activities, but which concentrates discussion on the basis of the depth with which environmental integration is delivered.

This approach is in line with past evaluation work which shows that a great deal of the environmental impact of the programme, particularly in the longer term, relates to how individual projects are developed and delivered. For example, the quality of materials and energy efficiency incorporated into a building at the time of construction has considerable influence over its environmental impact over its lifetime. Structural Funds Programmes were found to be very effective in improving environmental quality of mainstream projects in such cases.

This issue is particularly important to the broad aspirations, clearly highlighted in both Programmes, of moving towards sustainable economic development, in which the use of energy and material resources are addressed more clearly by all projects. The environmental context material prepared for the SEAs also highlights environment-economy factors, including rising costs of water, waste disposal and energy, which further enhance the business case for such actions.

In addition, there is a clear link between this approach and the section on mitigation. The assessment process shows clearly that mitigation in the case of most of the activities supported by the Programme relates to the depth with which environmental issues are embedded.

Proposed Options

Three approaches have been identified, and are set out below.

The first takes a hands-off approach to environmental integration, relying only on the implementation of existing regulations, with any further activity confined to existing market demands.

The second take a more proactive approach to environmental integration within individual projects, effectively seeking the wider replication of existing good practice wherever possible. This corresponds most closely to the approach taken under the 2000-06 Programmes in the SW Objective 2 Programme, highlighted in national evaluation as best practice across England.

The third approach outlines what would be necessary to move beyond this in the new Programme, based on the proposed aim of seeking to make the new Programme carbon neutral. *<Note that this aim has been refined, following further research and consultation feedback, and is now phrased in terms of moving the region towards a low carbon economy; an update to this section has been included accordingly.>*

Table 6.1: Alternative Approaches to Environmental Integration

Outline of Approach	Delivery implications	Comment
<p>1. Environmental activity is limited to:</p> <ul style="list-style-type: none"> that required by prevailing legal standards, i.e. planning permission, emissions control... Except where the market demands otherwise (e.g. energy saving services) 	<p>No staff resource or additional administration required. Application questions would seek only confirmation of legal compliance.</p>	<p>Although possible in theory, this option would be out of step with Commission and UK Government guidance, as well as the stated aims of the SW RES. This is effectively the position which existed in EU Programmes in 1994-99 and earlier.</p>
<p>2. Higher levels of environmental added value are sought on a project by project basis, where these represent the mainstreaming of existing good practice, such as:</p> <ul style="list-style-type: none"> BREEAM standards in building projects; Integration of environmental advice into business development projects, where possible Projects with a strong environmental theme are supported only where they, individually, generate social and economic outcomes. 	<p>A similar staff resource would be required to that under the current Objective 1 and 2 Programmes⁸.</p> <p>As now, application processes would include consideration of environmental issues as part of the decision-making process, and environmental expertise would be integrated into (and developed within) those processes.</p>	<p>This is essentially the current model. Evaluations⁹ show that it has been extremely effective in the SW and in other GB regions and nations, and that the staff resource is critical to delivery; programmes which relied only on administrative mechanisms were much less successful in embedding environmental sustainability in projects.</p> <p>The continuation of this approach in the new Programmes would represent consolidation, and possibly a limited progression compared to existing practice, especially if best practice lessons from elsewhere in the UK are replicated in the SW.</p> <p>It is worth noting that current Programmes which relied only on administrative mechanisms and which did not employ staff to work with partners, were considerably less successful in delivering environmental additionality.</p>
<p>3. The environmental impacts of the Programme as a whole are assessed and addressed; the most appropriate way to do this, given the focus of the</p>	<p>In addition to the above, it is likely that some form of mechanism would have to be created to oversee projects which compensate for the carbon emissions of</p>	<p>This approach would represent a considerable step forward for the Programme, and would be in line with the aspirations of the RES to develop economically within environmental limits. It is clear that emissions of CO2 are already higher than is</p>

⁸ As a rough guide, the staff resource at present equates to 1 Full Time Equivalent per £100m funding available.

⁹ The Effectiveness of EU Structural Funds in Delivering UK Government Environmental Aims, Fraser Associates & the Rural Development Company for Defra; executive summary at http://www.objectiveone.com/O1htm/01-cross-cutting/ES_intro.htm

proposed activities, would be to adopt the aim, if possible, of making the Programmes carbon neutral. In addition to the above activities, this would imply support for projects which explicitly deliver carbon positive activities.	mainstream activity. More detail on what this might mean is provided below.	sustainable; the opportunity exists to seek to develop the Programmes in ways which meet the UK Government's aim of decoupling economic growth from environmental impact.
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6.2 Mitigation

Mitigation can, similarly, be discussed at two levels.

In the current programme, mitigation takes place at the level of individual projects, which are encouraged and supported to explore the range of environmental effects associated with their work, and to seek both to minimise negative effects and enhance positive impacts. This relates most closely to the second of the alternatives explored above, and the South West Objective 1 and 2 Programmes are recognised as 'market leaders' in delivering this approach.

However, it is important to recognise that even this approach has limits in separating economic development from environmental impact. As an example, it is possible to consider mitigation at strategic level in relation to land take. It is accepted practice to set ambitious targets (perhaps 70-80% in urban areas) for the re-use of brownfield land in development, and there has been an increase in this proportion, following Government policy, in the SW in response. However, this still means that there is an ongoing loss of greenfield sites, and it is also clear that many existing brownfield sites are unlikely to be re-developed for economic end use.

Mitigation at strategic level might therefore seek to balance the loss of greenfield land by supporting the environmental upgrading of an equivalent area of brownfield land, especially where that upgrading maximises social as well as environmental benefit, as is the case with the creation of community woodland and urban greenspace.

It is possible to extend this discussion to consider the carbon footprint of the programme.

Implications of Carbon Neutral Economic Development

Climate change is arguably the most important single environmental issue for the Programme for two reasons. Energy use, and therefore generation of CO₂ emissions, is common to all projects to some extent. More widely, the scale of the changes required, given the current trends, are of considerable significance at global scale, with cuts of up to 90% of existing emissions required in the longer term. By implication, a step change in the nature of the economy is necessary.

There is increasing political and media attention on reduction of emissions – during the period in which this SEA has been undertaken, all three main UK Political Parties have discussed the role of new technologies and eco-taxation as central aspects of their 2006 conferences, and the publication of the Stern report has also highlighted the future - very large - costs of inaction, when compared to the sizeable but much smaller costs of action at the present time.

Against this background, it is clear that the incremental approach to energy efficiency and exploitation of green technologies which took place under the 2000-06 Programme represents a sound basis on which to build, but will not be adequate in the longer term. For example, Devon County Council quote savings of some 15,000 tonnes pa from energy efficiency work with 250

businesses; meeting Government targets imply annual reductions in the county of nearly two orders of magnitude higher, albeit from a much wider range of sources.

The opportunity therefore exists to use the programme to pilot work to investigate what would be required to make economic development carbon neutral – or, eventually even positive - in the South West.

There is not yet clear understanding about what that commitment might mean in practice. The discussion below explores some of the issues and possibilities. However, it is important to recognise that a greater focus on carbon is in line with many of the aims of the existing Programmes and RES. For example:

- Business efficiency work and the development of renewable energy technologies both address carbon emissions.
- Waste minimisation and the re-use of waste reduce emissions.
- The use of BREEAM standards reduces emissions during the life of buildings.
- The re-use of historic buildings has benefits in terms of embodied carbon.
- The use of local materials reduces emissions from transport, as well as maintaining distinctive built landscapes.

Moves towards Carbon Neutral should therefore be seen as a significant step forward, rather than a complete change of direction.

Defining Carbon Neutral

The majority of work under the carbon neutral heading has to date been focused on individual companies, government departments or discrete, high profile events (including, for example, BT, Defra, and the most recent Winter Olympics). In all cases, it is possible to describe clearly the boundaries of activity, and therefore quantify and address the associated emissions.

The process essentially follows three stages. For the organisation or event in question, the first step is to assess the levels of CO₂ currently produced. Typically, sources of CO₂ are direct energy use (heating, lighting, operation of equipment, transport) and indirect sources, such as emissions associated with waste.

The second step is that these emissions should be reduced as far as possible. This is in line with the existing approaches to business efficiency already undertaken in the South West. The literature is clear that **carbon offsetting should be seen as a complement to energy efficiency work, not an alternative to it.**

However, it is clear that, even after efficiency gains, significant levels of CO₂ emissions will remain, as almost all economic activity is dependent on fossil fuel to some extent. Therefore, carbon neutral implies that other, carbon positive, activities must be undertaken, in order at least to balance the programme or event as a whole.

At present, offsetting activities take one of three forms:

- Development of new renewable energy generating facilities.
- Projects, usually in developing countries, which introduce technologies to reduce emissions (for example, upgrading street lighting) – these have wider social and economic benefits in the countries concerned. This is the largest group of projects.
- Projects which fix carbon by planting trees; such projects also have the potential to contribute to biodiversity aims, or to the creation of community woodlands.

At least two commercial organisations¹⁰ offer carbon offsetting services in the UK, along the model described above, and it is clear that such organisations will continue to provide a solution for individual companies of small scale, or for those for which direct mitigation work would be beyond their area of expertise.

There are also advantages in terms of global sustainable development from delivering projects in developing countries; often, the technologies employed in those countries are significantly less energy efficient than those commercially available, so the efficiency gains (and associated benefits) are correspondingly larger than they would be in the UK for equivalent cost. Correspondingly, there are disadvantages from using tree planting as a method of carbon fixing, largely because the approach does not address the cause of the emissions in the first place, but also because the areas of land involved are much larger than are likely to be available.

However, a clear disadvantage from scaling up this approach to Programme level is that the fees paid are not retained within the South West, and would not bring any significant benefits to the region. The following approach is therefore suggested as basis for consideration in relation to the Programme.

Setting the Target for the Programmes

Current approaches, outlined above, determine the baseline by effectively including or excluding specific activities associated with an organisation's work. Activities are assessed on the extent to which they can be influenced by the organisation directly.

On this basis, it is clear that the establishment of a baseline for the Programme would be extremely complicated. However it was computed, it would involve numerous assumptions about the number of organisations involved, and the likely impact of each individual project on those organisations' emissions. To take an example, a single business support project might easily work with 50 SMEs, in different sectors, albeit to a limited extent with each one. A Structural Funds Programme might easily support 100 such individual projects. Assessing the carbon impacts of 5000 interventions would be extremely complex.

An alternative approach might be to take existing data on CO2 emissions for the SW and apportion an element of those emissions to economic activity, including a proportion of business-related transport, but excluding domestic emissions.

¹⁰ See <http://www.carbonneutral.com/> and <http://www.climatecare.org/index.cfm>

Since the headline aims of the Programmes are to increase economic activity, the extent to which they do so, based on past evaluations, could then be used as a guide as to the likely additional CO2 emissions. For example, if a region generated 1,000,000 tonnes of carbon associated with economic activity, and the programme aimed to increase that economic activity by 2% above projected estimates, the programme would have to demonstrate carbon savings from all projects of 20,000 tonnes.

This approach would have the advantage that lack of detailed baseline information would not be a barrier towards actions, outlined below, which are in most cases already well understood. However, it is recognised that this is an arbitrary approach, and that a more scientific version would be strongly desirable. It will also be important to develop an agreed mechanism for allocating funding, associated with individual projects, towards the carbon reduction goal.

Whichever method is chosen, it will be important to have a set target for carbon reduction associated with the Programme if this is to be a meaningful aspiration.

Supporting Projects to Reduce Emissions

Some projects supported through the programme already deliver carbon reductions, and these activities should be emphasised and enhanced as a first step. However, they are unlikely to be sufficient, on their own, to move towards a carbon neutral target for the Programmes as a whole – a parallel situation to that faced by individual companies.

Therefore, it will be necessary to develop a wider portfolio of activities designed specifically to reduce emissions. Early discussion with members of the SEA steering groups made it clear that such projects should also deliver clear social and economic benefits to the Programme areas during their delivery. Examples of projects which would meet such criteria might include:

- Training and employment creation schemes (supported by ESF elsewhere) which deliver energy efficiency work to improve standards in social housing; similar schemes could be subsidised for private homeowners.
- Schemes, probably building on existing government approaches, to further encourage the take up of household level renewable energy facilities – micro level wind or solar generation are most likely.
- Loan or grant schemes which bridge the gap for private sector developers, to ensure that (in line with the RSS) new developments are carbon neutral.
- Support for R&D and innovative products, techniques and services targeted at carbon reduction.
- Support for research to support the take up, in both public and private sector, of such techniques.
- To a more limited extent, the establishment of community woodlands associated with town and village regeneration – also contributing to local quality of life and healthy living aims.

In effect, the Programme would support a portfolio of projects which would, in turn, deliver 'carbon credits' to offset emissions from others.

The Approach To Carbon Management in the Programme – Update
(This issue is also explored in the SEA Statement)

The proposal set out in the draft OP, to which the material above related closely, was for the Programme as a whole to be made carbon neutral. In practice, consultation responses suggested that this approach would be difficult to deliver robustly without considerable emphasis on monitoring, and that there were also unresolved issues around the boundaries to be used.

For example, a single business development project might work with 40 companies, each of which would develop a new product or service. Carbon neutrality would imply knowledge of the workings of those companies, and of their products, and a decision would need to be taken on what to include or exclude when defining impacts – are impacts limited to materials used, or is company travel also relevant?

There is also an issue in terms of timescale – many new renewable energy developments will deliver benefits over the medium to long term, outwith the life of the Programme, but may use significant energy amounts of energy when in development and pilot stage.

The questions of the ability of the Programme to purchase offsetting credits, and the ethics of doing so were also concerns for many environmental partners.

For these reasons and others, there was much greater interest across all sectors in changing the Programme to reflect the aim of moving towards a low carbon economy.

6.3 Consideration of Alternatives & Mitigation: Conclusions

The assessment process and discussion above show that the main, realistic, options which can be considered by the Programme relate closely to mitigation aims. More advanced options, in environmental terms, are associated with more emphasis on mitigation at both project and strategic level.

It is therefore suggested that a process which sought to complement the existing, strong, approach to project level mitigation with a strategic aim of reducing the carbon footprint of economic development supported through the Programme, would have the greatest environmental benefits.

The Scoping Report, and the assessment process above, both highlight the importance of examining implementation arrangements as part of the SEA process. However, it is not possible to carry out that examination in this report, because the discussion around the management and delivery arrangements has not yet taken place. This will form an additional section in the final Environmental Report.

6.4 Monitoring the effects of implementing the Operational Programme

Ideally, it would be possible to use high level indicators, such as climate change emissions from industry, to monitor the environmental outcomes from the Programme. There are two clear difficulties in taking this approach:

- Context indicators are affected by a much wider range of activities than the OP alone. It would be very difficult to collect data on the emissions associated with projects – individual projects are only one influence among many on individual businesses. Further, even if those data were available, they would be difficult to interpret unless comparators were developed.
- There are significant lead times in establishing trends in the broad context indicators, together with requirements for large scale, primary research. This means that, in practical terms, it would not be possible to monitor the impact of the Programme until after its completion. This would make it impossible for Programme managers to implement recommendations which might emerge from the delivery of the SEA process.

These issues have been discussed in some depth in the context of the current Structural Fund Programmes, and a list of proven indicators developed which, for the most part, reflect environmental activities, rather than outcomes. On the basis of the activities described in the Programme, it is suggested that the following indicators might be appropriate.

It is important to note that it is not possible to construct indicators to monitor all of the proposed environmental activities; there is a continuing role for thematic monitoring and evaluation.

Knowledge and Innovation

- Number of new products and services in the environmental sector
- Number of new businesses / products integrating environmental management activities
- Area of brownfield land developed, and its proportion of the total
- *Area of buildings constructed or refurbished to BREEAM standards (this is no longer relevant as the capacity to fund construction projects has been removed from the updated Programme)*

The wider aim under this priority is to ensure that all new products and services incorporate appropriate environmental advice.

Enterprise and Growth

- Number of Businesses in the environmental sector supported.
- Number of (mainstream) Businesses undertaking environmental management, and results in both environmental and economic terms.
- Number of businesses achieving recognised environmental standards.

Urban Enterprise

- Brownfield land developed with EU support (*this is no longer relevant as the capacity to fund construction projects has been removed from the updated Programme*)
- Area of urban greenspace improved for community benefit
- Area of buildings constructed or refurbished to BREEAM standards or equivalent
- Number of environmental social economy businesses assisted
- Training & volunteering placements created with an environmental theme

A wider aim is to ensure that all locally-based regeneration partnerships take account of environmental issues during strategy development, and have appropriate environmental representation on steering groups.

These, or very similar, indicators and approaches have been successfully used in the context of existing EU Structural Funds programmes.

In addition, it is important to emphasise that thematic, one-off evaluation work is likely, in some cases, to be more effective than collection of data alone.

Monitoring Carbon Emissions

Although the aim of making the Programme Carbon Neutral has been changed, it remains the case that better understanding of the relationship between economic development and climate change emissions is necessary. The need for, and possible focus of such research is discussed in the SEA Statement.

6.5 Conclusions

This is the first time that Structural Funds Programmes have been subject to a formal SEA process, and to some extent it is necessary to adapt the SEA process to ensure it is commensurate with the wider Programme development process. However, it is important to emphasise that a great deal of work has already been undertaken in response to the introduction of environmental sustainability as a horizontal theme in the 2000-06 Programming period. The South West programmes, including the current Objective 2 Programme, have been externally evaluated as leaders in delivery of such integration.

It is also clear that the importance of the environment as an economic driver has increased considerably over the life of the current Programmes. In particular, the issue of climate change, and the consequent need to move towards a lower carbon economy, has moved much further up the agenda. Looking ahead, the new Programme will deliver projects which will continue to have impacts well past the formal end of the Programme itself, and that there will be a far greater emphasis on carbon reduction during that period.

Accordingly, this draft Environmental Report has sought to widen the discussion about what can be done in respect of mitigation. While the existing approach has been very positive by comparison with those taken elsewhere, it is suggested that, in order to maintain the SW's competitive advantage in

respect of the environmental sector, a step change will be required in relation to energy and resource use.