



**Scottish Lowlands and
Uplands ERDF Operational
Programme 2007-2013**

**Strategic
Environmental
Assessment (SEA)
Environmental Report**

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NON TECHNICAL SUMMARY

Introduction

Strategic Environmental Assessment (SEA) was originally introduced to Scotland by the Environmental Assessment of Plans and Programmes (Scotland) Regulations 2004 which came into force in July 2004 to implement European Directive 2001/42/EC, referred to as 'the Directive'. The above Regulations have since been superseded by the Environmental Assessment (Scotland) Act 2005.

SEA is a tool aimed at ensuring that the environmental implications of strategic policies and programmes are taken into account before decisions are taken to adopt them.

The principle purpose of this SEA is to identify, describe and evaluate in a systematic way, the likely significant effects on the environment of the European Regional Development Fund (ERDF) Programme for the period 2007-2013.

The ERDF Programme

The European Regional Development Fund is provided by the European Community to provide investment in socially and economically challenged areas of Europe. It was set up in 1975 to stimulate economic development in the less prosperous regions of the European Union (EU).

In the absence of the proposed ERDF Competitiveness Programme it is likely that development to be supported by the programme would not be possible. A key criterion for projects to be considered for inclusion in these programmes is that they would not be otherwise possible without funding from Structural Funds.

It is possible that alternative new development may take place in the absence of the ERDF programme that may be less well attuned to environmental and other strategic objectives and priorities.

Links to other Relevant Plans, Programmes and Strategies

Relevant plans, programmes and policies (PPPs) that provide the context for the ERDF Programme were considered. The purpose of this process is to identify the context within which the Operational Programme (OP) has been developed, the relationship it has to other PPPs and therefore the extent to which it is informed, constrained and/or enabled with regards to the impact it can have on the environment.

Environmental Baseline

Due to the size of the study area and the fact the Operational Programme (OP) has not yet been finalised (NB - it was out to consultation at the time this report was written), this section details those key environmental aspects considered to be relevant to the scope and potential influence of the Programme. It is recommended that when the OP is finalised and sites are identified, additional data is collected and analysed which will be more targeted toward the areas identified for development.

The establishment of an environmental baseline helps to establish the key environmental trends and issues in the region and therefore where there are either concerns regarding the Programme or where the Programme may have a positive environmental effect.

The area of the Lowlands and Uplands stretches from Aberdeenshire and Moray in the north east, in a south westerly direction through Angus, Stirlingshire, Fife, the Lothians and the Borders to Galloway and Ayrshire.

Data and information have been gathered through desk-based research. This has drawn on a range of sources, including Scottish Executive Publications and Statistics, Scottish Natural Heritage (SNH), the Scottish Environment Protection Agency (SEPA) and Historic Scotland (HS).

Due to the size of the study area and the strategic nature of the assessment it has not been possible to identify or describe all areas in detail. Only the general characteristics of the area are therefore discussed notably general landform, soil characteristics and land use. The general environmental issues affecting the study area are discussed in the following chapter.

Details of key environmental issues which would affect the ERDF Objectives are identified. These include: areas of contaminated land; lengths of downgraded watercourses, or areas which may not meet requirements under the Water Framework Directive; Air Quality Management Areas (AQMA); areas at risk of flooding, traffic congestion and noise impacts. Due to the size of the study area it was necessary to focus on only the key issues affecting a given area.

SEA Objectives

SEA objectives establish environmental markers that will be used as a benchmark for all aspects of the ERDF Programme. These objectives are overarching in terms of their influence on the ERDF programme and set the context for programme development.

The environmental objectives ensure that the key environment factors, identified in the Directive are priorities in the SEA and development of the ERDF programme.

Environmental Assessment

The Operational Programme is a high level strategic document however at the time of completing the SEA Environmental Report it was out to consultation and hence not yet finalised. The impact of the Programme will largely depend on the detail of the actual projects that are supported. As this is not known at this stage and there is limited scope to meaningfully assess specific environmental impacts the assessment identified ways in which the Programme could minimise negative impacts or maximise positive environmental impacts.

These issues were considered within the assessment process of the SEA. A matrix format was adopted with the inclusion of a column that provides an explanation of the assessment and the proposed mitigation measures.

To summarise, the whole Programme aims to achieve both the Lisbon and Gothenburg objectives, but different parts of the programmes will have varied impacts on environmental commitments. There are a number of objectives that would have a positive environmental impact and there is a particular emphasis on developing and implementing technologies that would reduce CO₂ emissions to reduce the region's contribution to climate change. The exact impacts however would still be affected by the area and location of development in addition to the type of development proposed.

The Environmental Assessment includes the following:

- Summary assessment of the overall impacts;
- Assessment of cumulative impacts;
- Assessment of alternatives; and
- Detailed assessment tables (provided in Appendix A).

Mitigation

It is considered unlikely that the Operational Programme will result in any significant negative impacts. Primarily through mainstreaming the horizontal theme of environmental sustainability, the Programme specifically incorporates a range of mitigation measures designed to minimise the negative environmental impacts of its support in conjunction with measures to optimise the potential benefits.

There are three main ways in which environmental sustainability will be mainstreamed into the Programme. These are key to ensuring the environment is considered at every step within the Programme delivery and therefore that the potential for negative impacts is minimised. The instruments for mainstreaming build on existing methods which have been tested and assessed under earlier programmes, not just in Scotland but elsewhere in the UK.

- Capacity. The experience of previous programmes has shown the importance of having equal opportunities champions and expertise in different parts of programme delivery. *Champions* will be designated for the different committees, particularly the Programme Monitoring Committee and advisory groups in the Programme, in many cases drawn from relevant Scottish organisations. The Programme's commitment to equal opportunities will not however be concentrated in individuals, but be a dimension to all delivery activities. Consequently, short-term *expertise* will be used for training different parts of the delivery system to mainstream equal opportunities on a continuing basis throughout the duration of the Programme. There is also a need for expert advice to be available to projects in terms of meeting their equal opportunities obligations. This will be provided through the 'delivery body' as well as core guidance and good practice material.
- Selection: To encourage projects to take full account of equal opportunities, the principle will be embedded in the application and selection system for projects. All projects will be required to demonstrate a commitment to equal opportunities as a core programme criteria at each part in the application form, showing – where relevant – how the issue has been taken fully into account at all stages of project design, implementation and evaluation. A minimum level of commitment needs to be demonstrated for project selection.
- Management: To assess the equal opportunities impact of the Programme, relevant indicators will be built into the project monitoring system. These will be reviewed annually for/by the Programme Monitoring Committee and independently assessed as part of a mid-term evaluation.

It is proposed that in order to maximise the environmental benefits of projects, an environmental checklist be developed which would consist of a range of criteria which must be met before funding under the Programme can be made available. The checklist should allow the economic priorities to be achieved while at the same time ensuring that any adverse environmental impacts are minimised.

Monitoring

The Scottish Executive are currently developing a wider approach to monitoring which will cover the whole programme and will take into account any such obligations under the Environmental Assessment (Scotland) Act 2005.

Proposed Consultation Timetables

The following table details the key milestones together with a proposed timescale for the final stages on the SEA and Operational Programme. It should be noted that these timescales may be subject to change.

Milestone	Dates
Environmental Report and draft OP made available for public consultation	Nov 2006
Consultation concluded	Jan 2007
Feedback on the Environmental Report incorporated into the draft Programme	Jan 2007
Monitoring programme finalised	Feb 2007
Final Environmental Report and Programme	Feb 2007
Report detailing how the SEA has been taken into account in the final OP	Feb 2007
Programme submitted to Brussels	Mar 2007
Programme approved and operational	June 2007

1 INTRODUCTION

1.1 Purpose of the SEA

Strategic Environmental Assessment (SEA) was originally introduced to Scotland by the Environmental Assessment of Plans and Programmes (Scotland) Regulations 2004 which came into force in July 2004 to implement European Directive 2001/42/EC, referred to as 'the Directive'. The above Regulations have since been superseded by the Environmental Assessment (Scotland) Act 2005.

SEA is a tool aimed at ensuring that the environmental implications of strategic policies and programmes are taken into account before decisions are taken to adopt them.

The principle purpose of this SEA is to identify, describe and evaluate in a systematic way, the likely significant effects on the environment of the European Regional Development Fund (ERDF) Programme for the period 2007-2013.

1.2 Structure of the SEA

The Environmental Report has been prepared in accordance with the requirements of the SEA Directive and relevant legislation and includes the following:

- Sections 2 and 3 provide an introduction to Strategic Environmental Assessment (SEA) and the ERDF Operational Programme.
- Section 4 identifies the links with other relevant and related plans, programmes, and strategies.
- The main aspects of the current state of the environment and environmental issues have been described in Sections 5 and 6. It should however be recognised that the size of the study area and the lack of detail regarding the Operational Programme restricted a detailed assessment therefore only the main characteristics have been described.
- The size of the study area may prevent a detailed assessment of current environmental issues being carried out. For the purposes of the assessment it was considered that where possible the main general issues, such as contaminated land or designated sites, would be assessed together with other areas particularly significant.
- Following a discussion with the consultation authorities it was considered that all environmental issues included in the Regulations should be scoped into

the assessment. As a result, a range of SEA Objectives have been developed for this purpose.

- A matrix analysis was used to assess each of the ERDF objectives against the SEA Objectives. In addition to the summary matrix, each ERDF Objective was subjected to a more detailed assessment, including a commentary outlining how decisions were made.
- In addition to the main environmental impacts, the potential non-direct, cumulative or synergistic impacts were, where possible, assessed.

1.3 Scoping of SEA Issues

Scoping is a key stage within the SEA Regulations. It is used to decide the boundaries and level of detail of an SEA including the environmental effects and alternatives that need to be considered, the assessment methods that are to be used and ultimately, the structure and content of the Environmental Report (ER) itself.

The scoping report was prepared in accordance with the Environmental Assessment (Scotland) Act 2005 to enable the Scottish Executive to provide the Consultation Authorities (Scottish Environmental Protection Agency (SEPA), Scottish Natural Heritage (SNH) and Historic Scotland) with sufficient details to enable them to form a view on the scope and information to be included in the ER.

Following discussions with the Consultation Authorities it was agreed that the entire suite of issues detailed in Schedule 2 of the Environmental Assessment (Scotland) Act 2005 would be included in the assessment since there was not enough information available to justify scoping out any issues. As a result the impacts on biodiversity, population, human health, fauna & flora, soil, water, air, climatic factors, material assets, and cultural heritage (which includes architectural and archaeological heritage) would be assessed through the SEA process.

1.4 Assessment of Alternatives

Regulation 14(2) of the Environmental Assessment (Scotland) Act 2005 requires that the environmental report:

Describe and evaluate the likely significant effects on the environment of implementing -

(b) reasonable alternatives to the plan or programme.

As detailed in the ODPM Practical Guide to SEA, it is not for the SEA to decide which alternatives should be chosen, or in fact the range of alternatives which should be

considered, rather it simply provides information on the relative environmental performance of the different programme and plan options which were actually considered by the Scottish Executive.

The ERDF OP priorities have been drafted by the Scottish Executive and are based on both European and national strategies. The scope and range of projects that can be supported by Structural Funds is to a large extent constrained by Europe and the designated criteria under which ERDF can be allocated. It is not anticipated that these overall programme priorities will change significantly as they are directly drawn from these overarching strategies. There has therefore been limited opportunity to assess alternative priorities and objectives.

Within this context the Scottish Executive have identified the following alternatives:

ALTERNATIVE 1	
'Soft' Support Business development schemes, marketing and community capacity building.	'Hard' Support Capital intensive, physical infrastructure development such as roads and business parks.
ALTERNATIVE 2	
Spatial Targeting Certain priorities and sub-objectives will be focused on specific areas and communities in the region.	No Targeting Even spread across the region with equal access to funding opportunities.
ALTERNATIVE 3	
Innovation Value-added focus for new, high risk but potential high return enterprises.	Standard Development Generic schemes and support for existing projects. Standard business development.
ALTERNATIVE 4	
Sector Targeting Specific targeting of emerging or growth sectors such as the knowledge-economy, food and drink and renewables etc.	Assistance for all Sectors General assistance for all business sectors regardless of growth potential.

It should be noted that the best environmental option may include a combination of alternatives. The alternatives are considered in more detail in Section 8 of this report.

1.5 Link between the SEA process and the Ex-Ante Evaluation

The following table highlights the similarities between the SEA steps and usual steps within ex-ante evaluations of Cohesion Policy programming documents:

SEA Steps	Typical Ex-ante Evaluation Steps
Determination of the environmental issues, objectives and indicators that should be considered during the SEA process.	Analysis of the previous evaluation results (which determines the critical factors affecting implementation and effectiveness of the policy and the types of problem in terms of policy evaluation and monitoring).
Evaluation of the current situation and trends and their likely evolution if the programming document is not implemented/	Analysis of the strengths, weaknesses and potential of the state, region or sector concerned.
Assessment of development objectives and priorities.	Assessment of the rationale and the overall consistency of the strategy.
Assessment of proposed measures and eligible activities. Assessment of cumulative effects of the entire programming document.	Evaluation of expected socio-economic impacts and justification of the policy and financial resource allocation.
Evaluation of proposed management system. Evaluation of proposed monitoring system.	Evaluation of the implementation and monitoring arrangements.
Compilation of Environmental Report.	Compilation of Report from Ex-ante evaluation.
Consultation.	Consultation.

2 THE ERDF PROGRAMME

2.1 Programme Subject

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the environmental report includes "*an outline of the contents and main objectives of the plan or programme*".

The European Regional Development Fund (ERDF) is provided by the European Community to provide investment in socially and economically challenged areas of Europe. It was set up in 1975 to stimulate economic development in less prosperous regions of the European Union (EU). As EU membership has grown, ERDF has developed into a major instrument to help redress regional imbalances.

The overall vision of the ERDF Programme for the Lowlands & Uplands Scotland area is to contribute towards the sustainable growth of the region's economy by balancing support for underlying sources of national as well as regional competitiveness. The Programme does not operate in isolation as Structural Funds are intended to complement key Scottish policies within the context of the Lisbon growth and jobs agenda. Furthermore, it does not intend to support all activities that can contribute to this goal and rather concentrates support on those areas where added value can be clearly demonstrated.

It also acts within a wider sustainable development context as set out in the *Scottish Sustainable Development Strategy*, in which the programme aims both to minimise any damaging environmental consequences of supported activities as well as support measures that will increase environmental sustainability - again particularly where such measures are directly linked to the Lisbon agenda.

The strategic vision of the Programme operates through three sets of interlocking objectives namely RTD and enterprise development; community regeneration, particularly in urban areas; and rural development. The former will have a region-wide focus and concentrate on the key areas of economic competitiveness, while the later two address the spatially distinctive needs of different parts of the study region.

2.2 Programme Period

The proposed Lowlands and Uplands Scotland ERDF Operational Programme is intended to run from January 2007 to the end of 2013 however spending under the programme will continue until 2015. The programme, as managed by the Scottish Executive, will set out the priorities for the ERDF allocated to Lowlands and Uplands Scotland and provides aims and objectives to guide how the funds should be spent across the region.

2.3 Programme Area

The area covered by the programme corresponds to all the land to the south and east of Highland Council and Argyll and Bute Council plus the eastern half of Moray Council. The Isle of Arran, which falls under the jurisdiction of North Ayrshire Council, is included in the Highlands and Islands programme.

The 2007-2013 Lowlands and Uplands programme area is shown below.

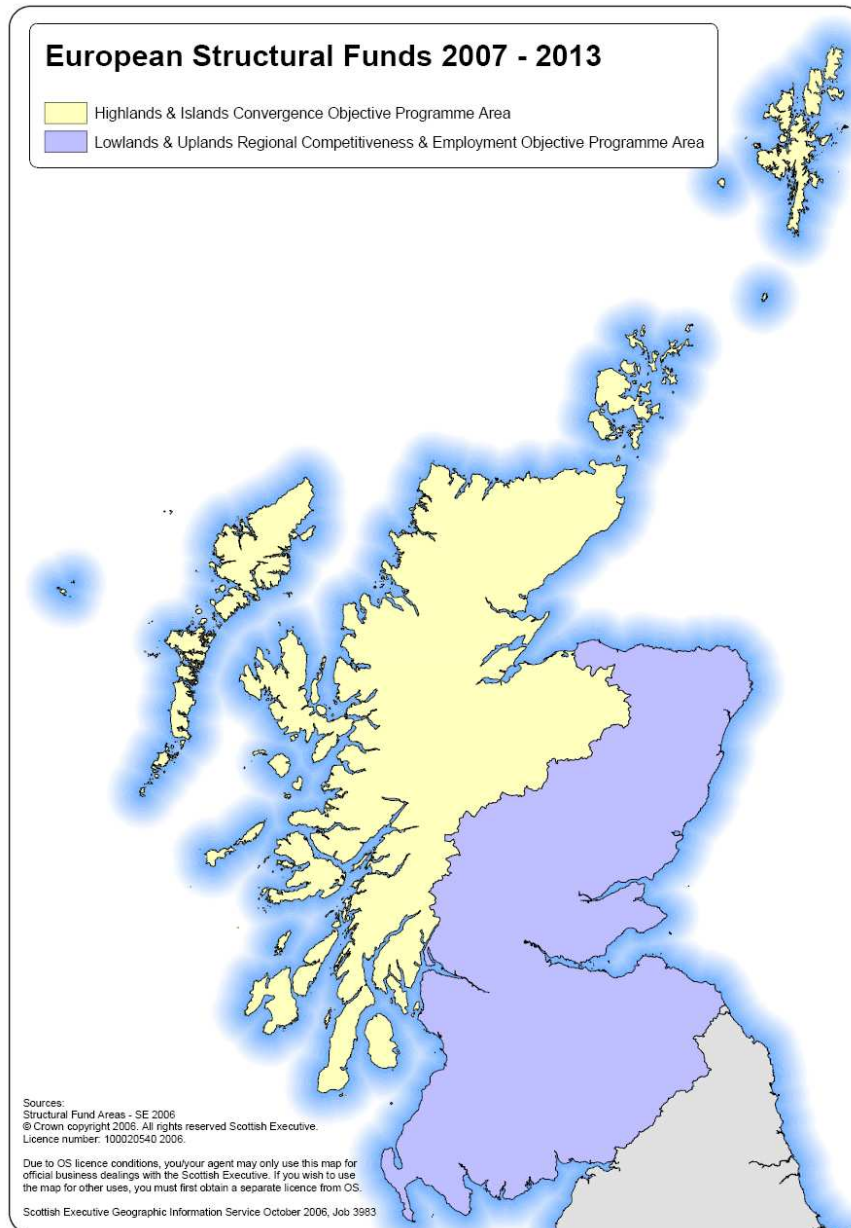


Figure 1: Structural Funds Map 2007-2013

2.3.1 Funding

The Lowlands & Uplands region has been awarded £223m for the period 2007-2013. The programme value is variable relative to current exchange rates.

As the funding is considerably less than previous Programmes there is consequently an accepted need to concentrate the limited resources and to work closely with partner organisations. It is possible that this could be the last cohesion programme for the region and hence the Programme therefore aims to support activity of potential benefit to the region beyond 2013.

2.3.2 Delivery

The Scottish Executive will take responsibility for the majority of required roles, specifically:

- Managing the Programme and ensuring it is run in accordance with Community and national rules;
- Certifying the Programme with regard to expenditure and payments; and
- Acting as Auditing Authority.

Certain organisations will be designated as 'Intermediate Delivery Bodies' to deliver parts of the Programme. In all cases, Structural Funds will be supporting activity that is clearly additional to a given bodies' existing activities and fully eligible with the scope of the Programme. The designated Intermediate Delivery Bodies are:

- Scottish Enterprise;
- Local partnerships, including the Community Planning Partnerships.

At the Programme level partnership will be embodied in the Programme Monitoring Committee (PMC). The PMC will be responsible for monitoring the implementation of the Programme across the region. Although this has still to be established, its membership will be drawn from representatives reflecting the regional and sectoral interests in the Programme and will include the economic and social partners, along with the Scottish Executive. Full details are given in the Programme document.

As the Managing Authority, the Scottish Executive will receive applications and select projects and activities for funding. The Scottish Executive will therefore ultimately be responsible for mitigation and for ensuring that the environmental benefits and opportunities of the Programme are maximised.

2.3.3 *The Previous 2000-2006 Programme*

Structural Funds programming in Scotland has always been built on the experience of previous programmes which have maintained good practice while adapting to new circumstances. In developing the ERDF Programme for the Lowland and Uplands (LUPS) region for 2007-13, the lessons of the 2000-06 process of European Regional Development Funding in Scotland were examined from a number of different perspectives.

This section summarises the key studies notably:

- The mid-term evaluation updates of the Scottish Objective 2 programmes for 2000-06; and
- The 2005 report 'Adding Value, Keeping Value' conducted by an internal Value Added Group on how to increase the benefits gained from future Structural Funds programmes.

and draws on the key lessons learnt.

For the 2000-06 programming period mid-term evaluation updates were conducted on the three Objective 2 programmes namely the Western Scotland, the East of Scotland and the South of Scotland. The conclusions and recommendations from these reports have informed the development of the ERDF Programme for the LUPS region.

The mid-term evaluation update of these Programmes made several important points most notably :

- The development of City Regions and further business tourism was identified as playing a key role in future economic development terms;
- The Programme was seen as having had notable successes in a range of complementary and very successful risk capital products;
- The important role of spatial targeting in reconciling the balance between need and opportunity was noted;
- The need to focus on competitiveness was acknowledged, with greater attention paid to rural competitiveness and supporting ambition;
- Provision of greater access to risk funding for priority sectors as well as increases in generic capital support;
- More emphasis was placed on exit strategies for community regeneration and the delivery of those strategies; and
- Flexibility was important to ensure the changing needs of the regional economies can be addressed.

2.4 ERDF Draft Priorities & Objectives

Three key Objectives and seven associated sub-objectives have been developed under the Programme and are detailed below. A full and detailed analysis justifying support for these is given in the Programme document.

2.4.1 *Priority 1 - Enterprise Development*

Aim: To enable Scotland to make full economic use of its RTD base by enhancing research-business links, the business support environment for entrepreneurship and the development of new and high-growth enterprises:

- To support the commercialisation of the region's RTD base and stimulate and develop enterprises in key sectors to grow through innovation;
- To increase enterprise formation, survival and growth rates in Scotland by improving the new firm formation rate and access to finance to high-growth potential enterprises; and
- To improve the resource efficiency and commercial use of new environmental technologies within the context of the formation and survival of enterprises.

2.4.2 *Priority 2 – Community Regeneration*

Aim: To support the ability of the most disadvantaged urban communities in the region to contribute to Lisbon goals by supporting their regeneration:

- To encourage enterprise start-ups and attract and sustain small-medium enterprise (SME) activity into disadvantaged urban communities; and
- To ensure that people living in those communities can take advantage of the employment and training opportunities offered while complementing the social inclusion activity under the region's ESF programme

2.4.3 *Priority 3 - Rural Development*

Aim: To maximise the contribution of rural areas to achieving Lisbon goals with a view to developing sustainable economic growth:

- To strengthen and renew key rural industries and support the development of alternative sustainable activities; and

- To support development of key shared rural services to underpin economic and community sustainability.

2.4.4 Horizontal Themes

In the 2000-06 programming period, horizontal themes were defined to act as underpinning policy priorities and be applied across all programmes. These horizontal themes were embedded at all stages of programming from project design and application, through project selection to implementation and finally, to project monitoring and evaluation. As the 'Adding Value, Keeping Value' report discussed in the section above made clear, this commitment to a series of overarching policy objectives running through the programmes should be maintained into the 2007-13 period.

As the Lowlands & Uplands Scotland ERDF Programme has been developed with a view to supporting sustainable development in Scotland, the horizontal themes to be supported in the 2007-13 period reflect the commitment to achieving that goal. Sustainable development consists of three key elements: the sustainable growth of the Scottish economy in a way that does not compromise the environmental resources of future generations; the inclusion of as much as Scottish society as possible in the achievement and benefits of that growth; and the conservation of Scotland's environmental assets in pursuing sustainable development.

The OP already has as its central aim of contributing towards the sustainable growth of the region's economy by balancing support for underlying sources of both national and regional competitiveness, therefore the economic growth strand of sustainable development is already recognised. To ensure that the other two elements are mainstreamed effectively in the programme, two horizontal themes have also been identified:

- equal opportunities; and
- environmental sustainability.

For the purposes of the SEA, it is the horizontal theme of environmental sustainability which is most relevant. The following table illustrates how the environmental sustainability will be addressed across the three objectives.

Horizontal Theme – Environmental Sustainability	
<p>Aim: To ensure that Structural Funds programmes contribute to the sustainable use and conservation of Scottish environmental assets by enhancing the role of environmental sustainability in economic and social development policy-making.</p> <p>This translates into two distinct objectives governing Programme activities:</p> <ul style="list-style-type: none"> • To strengthen the mutual contributions of environmental sustainability and economic and social development in Structural Funds-supported activities; and • To raise awareness of the role of environmental sustainability in project planning and policy development. 	
Priority 1	<p>The sustainable commercial use of renewables technologies is supported under this Priority with the aim of promoting the development of a thriving new energy sector that would bring together economic development and climate change goals.</p> <p>A specific objective of the Priority is to encourage the 'greening' of businesses through improved resource efficiency. Eligible activities include environmental and carbon-use audits, more environmentally-sustainable production systems and business processes and plans for energy and resource efficiency.</p> <p>The potential for a cultural change in environmental sustainability is more likely to develop with new rather than existing businesses this is particularly the case where energy and resource efficiency processes are mainstreamed into their practices from the start. In supporting new firm start-ups, the Priority will link business development support be it advice or financial, with requirements for adoption of baseline environmental processes.</p>
Priority 2	<p>Community regeneration can be taken forward in the context of environmental sustainability through funding of small-scale infrastructure developments for businesses that comply with sustainable development goals – for example, the application of environmental building standards and the use of derelict/brownfield sites for development.</p> <p>Activities to raise environmental awareness in communities and businesses can be directly supported through the Programme.</p> <p>Support for small-scale renewables in local energy generation will contribute to the local dimension of the wider Scottish sustainable development agenda.</p>
Priority 3	<p>The economy of rural areas depends more clearly on use of environmental assets. The Priority will support key environmentally based activities such as wildlife/wilderness tourism.</p> <p>Potential new sources of economic activity will be funded including renewables.</p> <p>The goal of the Priority is to increase local economic activity and limit out-migration and commuting to congested urban growth poles. This will contribute to a longer-term aim of reducing carbon emissions as a result of the transport needs of the current Scottish labour market and economy.</p>

2.5 How the environment may evolve in the absence of the ERDF Competitiveness Programme

In the absence of the proposed ERDF Competitiveness Programme it is likely that development to be supported by the programme would not be possible. A key criterion for projects to be considered for inclusion in Structural Funds programmes is that they would not otherwise be possible without such funding.

It is possible that alternative new development may take place in the absence of the ERDF programme that may be less well attuned to environmental and other strategic objectives and priorities. It is anticipated that alternative new development would be strongly focused on the most economically buoyant parts of the study area and particularly those locations not constrained by lack of physical infrastructure, aggravating problems of congestion and intensifying pressures on areas of environmental quality and Greenfield land. Progress on restoring vacant and derelict land and improving environmental quality in areas requiring regeneration may be more limited.

Alternative new development may be less well related to public transport infrastructure and opportunities to improve access to public transport than development under the proposed ERDF programme, thus limiting the scope for both reducing car dependency and promoting sustainable transport patterns.

In rural Scotland alternative new development relating to renewable energy would focus more closely on areas with existing grid networking capabilities than development under the proposed ERDF programme which could have potentially adverse environmental impacts.

Overall it is anticipated that the Scottish Lowlands and Uplands ERDF Programme would ensure that development of strategic importance is located in the most environmentally appropriate locations. It is envisaged that a more strategic and sustainable approach will benefit the environment and the economy and subsequently the country as a whole.

3 LINKS TO OTHER RELEVANT PLANS, PROGRAMMES AND POLICIES (STRATEGIES)

3.1 Introduction

The Environmental Report must provide information on the plan's or programme's relationship with other relevant plans and programmes. Schedule III of the Environmental Assessment (Scotland) Act 2005 specifically states that the report must include detail on the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.

The following Chapter describes the policy context within which the Programme operates, and the extent to which it is informed, constrained and/or enabled with regards the impact that it may have on the environment.

It is not intended that the table below be exhaustive. Due to the large number of plans, programmes and policies (PPP's) applying to the programme area it was deemed inappropriate to list all pieces of legislation that may influence the Programme. The extent to which many of those would change the OP is negligible and in many cases there is considerable duplication. Furthermore, many of the PPP's state similar environmental and sustainability aims many of which can be addressed through the consideration of a few key documents.

Accordingly only key pieces of legislation and policy have been analysed however a list of further PPP's applicable to the Programme are provided in Appendix B. Many of the key documents listed have already been taken into account during the Programme development and are referenced in the actual Programme document itself or in higher level documentation.

3.2 List of Relevant Plans, Programmes and Policies

The following table details those key PPP's which influence the Programme and summarises the main objectives and links.

<p>PLAN (Programme, Strategy etc.)</p>	<p>Summary and Objectives</p>	<p>Relationship to the Lowlands & Uplands Operational Programme</p>
<p>Lisbon (1997) and Gothenburg (2001) European Councils</p>	<p>Through these two Councils the EU embedded respect for the environment and sustainable development at the core of growth, job generation and competitive advantage.</p>	<p>These are the highest level agendas that set the context for all economic development policy in the EU. The Programme must therefore meet the requirements for job creation, economic growth and sustainability.</p>
<p>Community Strategic Guidelines (CSGs) 2007-2013</p>	<p>These provide guidance on the priorities, which will be funded under Structural Funds and therefore OPs:</p> <ul style="list-style-type: none"> • Increasing competitiveness; • Increasing growth potential; • Increasing productivity; and • Strengthening social cohesion. <p>A number of sections in the CSGs are environmental notably: support for investment in infrastructure to comply with environmental legislation; careful use of natural and cultural resources; meeting Kyoto commitments; risk prevention and the use of renewable / alternative technologies.</p>	<p>The CSGs stipulate what Structural Funds can be used for. The Programme must address the key themes of the CSGs namely competitiveness, growth and productivity, but the guidelines also illustrate how the environment can play its part as an economic driver.</p>
<p>National Strategic Reference Framework (NSRF) in particular the Scottish Chapter</p>	<p>The NSRF translates the key themes of the CSGs to be relevant to the national context and economic and development aims of individual Member States.</p> <p>In terms of the environment the key concern is climate change and the need for the UK to become more resource and energy efficient. Environmental technologies and innovation are seen as key to this and sustainable development in general.</p>	<p>This provides the main framework for the development of the Programme. Within the Scotland Chapter key issues are productivity, enterprise, knowledge and innovation, transport, skills, employment and the environment, specifically waste and renewables.</p>

<p>Framework for Economic Development in Scotland (FEDS) 2000 and FEDS 2 2004</p>	<p>FEDS sets out the Executive's vision for economic development in Scotland. The focus is on achieving:</p> <ul style="list-style-type: none"> • Economic growth through competitiveness; • Inclusion for all regions of Scotland; • Benefits to all in society; and • Sustainable development. <p>FEDS states that economic development must be pursued on a socially and environmentally sustainable basis and recognises that, <i>“the interaction between the economy and the environment is of vital significance to long-term prosperity”</i>.</p>	<p>FEDS is a strategic document. It does not consider specific initiatives for implementation but it will drive thinking in future economic priority areas for Scotland. This is the key national economic document with which the OP should accord. It stresses increased productivity and sustainable development.</p>
<p>Smart Successful Scotland (SSS) 2001</p>	<p>SSS is the Enterprise Network's main strategy linked to FEDS. It also has 4 strategic objectives:</p> <ul style="list-style-type: none"> • Strengthening communities; • Developing skills; • Growing businesses; and • Making global connections. <p>This document is fundamentally about economic development. There is very little direct mention of the environment, although the link to other Government policies, specifically sustainable development is made.</p>	<p>SSS is the key economic strategy document for Scottish Enterprise and Highlands and Islands Enterprise. It provides the specific enterprise development context within which the OP must sit. Again, growth and jobs are key requirements.</p>
<p>Green Jobs Strategy (GJS) (2005)</p>	<p>This strategy sets out how business opportunities arising from the commitments made to sustainable development in FEDS and SSS can be exploited.</p> <p>The overall aim is to encourage the creation of jobs through the promotion of sustainable growth in terms of new markets, technologies, products and business performance.</p>	<p>This strategy directly demonstrates how environmental concerns can complement and enhance the Lisbon Agenda. The OP could deliver on the GJS through activities such as the commercialisation of environmental technologies.</p>

<p>People and Place: Regeneration Policy Statement (launched 2006)</p>	<p>Document launched by the Scottish Executive detailing proposed policies and priorities for regenerating Scotland's most disadvantaged communities and for achieving successful regeneration throughout the country. Target issues are social inclusion and employability.</p> <p><i>"Successful regeneration - the lasting transformation for the better of places and communities - is central to achieving the Executive's main goal of sustainable economic growth".</i> The environment is seen as central to successful regeneration.</p>	<p>The ERDF Programme has a community regeneration priority. This should reflect current thinking on regeneration including the important role of the environment.</p>
<p>National Transport Strategy draft due Dec 2006 and forthcoming Regional and Local Transport Strategies</p>	<p>This strategy will map out transport options for Scotland in the future. Regional and local plans will provide a local focus.</p> <p>The consultation states that the transport system must be sustainable as well as effective and efficient.</p>	<p>The Programme should take account of the current National Transport Strategy (NTS) consultation and the need for a more sustainable approach to transport.</p>
<p>Securing A Renewable Future: Scotland's Renewable Energy</p>	<p>The strategy seeks to encourage the development of renewable energy within Scotland.</p> <p>Outlines commitments to a wide range of renewable energy technologies as part of efforts to tackle climate change and as a measure to promote economic growth, particularly in remote areas. Commitment to generating 17-18% of energy in Scotland by Renewables by 2010. An ultimate target of 40% by 2020 has been stated.</p>	<p>Due to funding limitations, the Programme has chosen to target climate change as a priority and has included specific objectives regarding the development of renewables. This should take account of this strategy and wider commitments to tackle climate change. Development of more predictable sources such as wave, tidal and biomass are promoted.</p>

<p>A Tourism Framework for Change (2006)</p>	<p>This took forward recommendations from the New Strategy for Scottish Tourism from 2000 and sets the context for developing tourism in Scotland to make it more competitive and successful.</p> <p>It acknowledges tourist development has to be sustainable with specific mention of the pressure on natural heritage sites and the use of resources. It also encourages green tourism. The Framework also links to the GJS, which reinforces that there are business opportunities in eco-tourism and outdoor recreation.</p>	<p>The OP has a sub-objective looking at tourism. This should take account of pressures on resources and appropriate actions and the potential to link specifically with green-tourism and eco-friendly business development.</p>
<p>Planning (Scotland) Bill 2005</p>	<p>The aim of the Bill is to establish a new planning system in Scotland that is quicker and more efficient.</p> <p>Sustainable development is mentioned specifically with regard to development plans and reference is also made to EIA. It is proposed that planning authorities be required to consider sustainable development, similar to the duty requiring public officials to consider biodiversity concerns.</p>	<p>The planning process controls what can actually physically be built and where which will apply to certain developments funded under the OP. Sustainable development is fundamental to the planning agenda.</p>
<p>6th Environmental Action Programme (6EAP) (2002)</p>	<p>This programme sets out the EU priorities for action on the environment for the next ten years. It provides the environmental component of the EU's strategy for sustainable development.</p> <p>The main 4 priorities for action are:</p> <ul style="list-style-type: none"> • Climate change; • Nature and biodiversity; • Environment and health; and • Natural resources and waste. 	<p>This sets the basic environmental context of all EU policy and includes economic instruments such as Structural Funding. Legislation including the Habitats Directive stem from this programme. As a European Programme the OP has an economic remit but which it must deliver in a sustainable manner and therefore give due regard to issues such as climate change.</p>

<p>Water Framework Directive (WFD) (2000/60/EC)</p>	<p>The WFD establishes a new legal framework for the protection, improvement and sustainable use of surface waters, transitional waters, coastal waters and groundwater across Europe.</p> <p>The WFD is designed to:</p> <ul style="list-style-type: none"> • Prevent deterioration and enhance the status of aquatic ecosystems; • Promote sustainable water use; • Reduce pollution; and • Contribute to the mitigation of floods and droughts. 	<p>This is the key EU legislation on the water environment to which member states must accord. The OP should as a minimum not support or encourage developments that contravene this. The OP could also be used to help deliver on the WFD where this also generates jobs and economic growth – for example new water treatment infrastructure.</p>
<p>European Landscape Convention (signed by the UK 21/02/06)</p>	<p>The aims of the convention are to promote European landscape protection, management and planning and to organise European co-operation on landscape issues.</p> <p>Member states will be required to ensure the protection, management and planning of landscapes through the adoption of national measures and cross Europe co-operation.</p>	<p>This convention is likely to be ratified during the life of the Programme. The impact of the OP on landscape should be a consideration particularly with regard to the cumulative impact of developments.</p>
<p>Changing Our Ways: Scotland's Climate Change Programme (March 2006)</p>	<p>Commitment to addressing contributions to climate change and ensuring that a long-term response to the changes caused by climate change is established.</p> <p>Sets out Scotland's goal for reducing carbon emissions as well as maximising opportunities for mitigation and adaptation to climate change through technology development, green jobs, renewables, flood management etc.</p>	<p>Climate change is the key current environmental issue that needs to be addressed. The Scottish Programme provides a strong basis for pursuing innovative projects which is something the OP could be used to deliver on. Limiting carbon emissions may also be an appropriate OP criterion for projects.</p>

<p>Choosing Our Future: Scotland's Sustainable Development Strategy)</p>	<p>This strategy explores sustainability issues within Scotland. Examples of which are: the social and environmental consequences of purchasing choices and use of resources; and the human consequences of global issues such as climate change.</p> <p>The key priorities for the UK as a whole:</p> <ul style="list-style-type: none"> • Sustainable consumption and production; • Climate change and energy; • Natural resource protection and environmental enhancement; and • Sustainable communities. 	<p>This document defines sustainable development in Scotland. If the OP is to be sustainable, economic development should be delivered with respect the key priorities listed. Many of these also provide potential economic opportunities.</p>
<p>Scottish Biodiversity Strategy (SBS) <i>"Scotland's Biodiversity: It's in Your Hands"</i> (2004)</p>	<p>The Scottish Biodiversity Strategy aims to conserve biodiversity for the health, enjoyment and wellbeing of the people of Scotland. The strategy covers the period up to 2030.</p> <p>The strategic objectives are:</p> <ul style="list-style-type: none"> • Halt the loss of biodiversity; • Increase awareness, understanding and enjoyment; • Restore and enhance biodiversity in all environments; and • Develop effective management and knowledge. 	<p>While Structural Funds are limited in their pro-active contributions to direct conservation work, the principles of the strategy underpin the Programme with respect to proofing all funded project activity so that there is as a minimum a neutral, if not positive impact of Structural Funds support on biodiversity within the region.</p>

<p>National Waste Strategy (1999) including relevant Area Waste Plans</p>	<p>The strategy sets out how waste is to be dealt with in Scotland and includes a series of mandatory and voluntary targets for waste minimisation, re-use and recycling over the next 15 - 20 years. The overall aim of the strategy is to make waste management sustainable. Eleven Waste Strategy Areas (WSA) have been established in Scotland each of which has an Area Waste Plan assessing the strategic options for the management of all controlled wastes in each area.</p>	<p>Waste is a key environmental issue mentioned in the NSRF. Developments in the waste sector present an opportunity for economic growth and this is an area the OP may be able to deliver on.</p>
<p>Passed to the Future (2002)</p>	<p>This document contains the Scottish Ministers policy for the Historic Environment.</p> <p>Protection and sustainable management of the historic environment</p>	<p>The OP must give due regard to the historic environment. Through specific projects it may be able to deliver economic objectives through utilising historic assets.</p>
<p>Forests For Scotland: Scottish Forestry Strategy 2000 and the Scottish Forestry Strategy Review 2005 – 2006</p>	<p>The Strategy guides the development of Scotland's forest and woodland areas. Integration with other aspects of land use policy, such as agriculture and rural development is key to the strategy's success.</p> <p>A key underlying principle is sustainability. Forestry should integrate with other rural activities in Scotland namely agriculture, conservation, deer management, recreation and tourism.</p>	<p>There are a number of strategies for different sectors and assets within the Scottish economy all of them now require sustainable development and combining economic imperatives with social and environmental interests. The OP could help to deliver on all of these depending on the final projects supported.</p>
<p>Environmental Protection Act 1990</p>	<p>Key legislation designed to prevent pollution (primarily from industrial processes) from emissions to air, land or water.</p> <p>General legislation ensuring protection of the environment.</p>	<p>As a minimum, the OP should not support any activities which contravene existing environmental legislation – namely that which covers, water, air, land, human health and biodiversity. This is stipulated in a raft of additional legislation.</p>

4 ENVIRONMENTAL BASELINE

4.1 Introduction

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires that the environmental report includes a description of "*the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme*", and "*the environmental characteristics of areas likely to be significantly affected*". The following two Chapters provide an illustration of environmental context and constraints within which the Programme operates. It should be borne in mind that the size of the programme area does not allow for detailed descriptions of all environmental characteristics at this level.

Due to the size of the study area and the fact the Operational Programme has not yet been finalised (the document was out for consultation at the time of writing this report), this section details those key environmental aspects considered to be relevant to the scope and potential influence the Programme. It is recommended that when the Operational Programme is finalised and sites are identified, additional data is collected and analysed which will be more targeted toward the areas identified for development.

The environmental baseline will help to establish the key environmental trends and issues in the region and in particular where the Programme may have a positive environmental effect. Furthermore, the baseline should provide details on appropriate environmental aspects which can be monitored and through which the impact of the Programme can be evaluated.

4.2 Data to be Addressed

The area of the Lowlands and Uplands stretches from Aberdeenshire and Moray in the North East, in a south westerly direction through Angus, Stirlingshire, Fife, the Lothians and the Borders to Galloway and Ayrshire.

Data and information have been gathered through desk-based research. This has drawn on a range of sources, including Scottish Executive Publications and Statistics, Scottish Natural Heritage (SNH), the Scottish Environment Protection Agency (SEPA) and Historic Scotland (HS).

Due to the size of the study area and the strategic nature of the assessment it has not been possible to identify or describe all areas in detail. The general characteristics of the area are therefore discussed notably general landform, soil characteristics and land use. The general environmental issues affecting the study area are discussed in the following chapter.

It is recommended that a further review of the SEA is carried out when the Operational Programme has been finalised and the sites have been identified. At that stage it will

be possible to focus the SEA on specific areas and identify the environmental characteristics and issues relevant to the programme.

The baseline data that has been used to inform the SEA was gathered from a number of sources. The most important of these was SEPA's recent State of the Environment Report for Scotland that essentially forms the basis of the environmental baseline for the Programme area.

4.3 Geographical Area

Geographically Scotland can be divided into three distinct areas: the Southern Uplands, the Central Lowlands (or Central Belt) and the northern Highlands and Islands. For the purposes of this study the East Coast Belt has been included with the Central Lowlands. The Highlands and Islands have been considered in a separate assessment.

4.3.1 *The Southern Uplands*

In general terms the Southern Uplands are the fertile plains and hills bordering England. The region boasts magnificent scenery, albeit of a gentler nature than that found in the Highlands with the highest peak in the area being only 2763 feet (815 m) high.

There are a number of large waterbodies in the Southern Upland area many of which have been dammed for the purposes of water supply or power generation. The largest of these include Lochs Doon, Ken and Bradan, Clatteringshaws Loch and Daer Reservoir in the west and Talla, Fruid, Megget, Gladhouse and Whiteadder Reservoirs in the east. In addition there are a number of important rivers notably the Tweed, Border Esk, Annan and Nith which have significant numbers of migratory salmonids.

Several different soil patterns are found in the Southern Uplands. These result both from natural processes and human influence. The patterns are reflected in a variety of habitat types and land uses. One of the main controlling factors is altitude. In the east of the region the soils gradually change with increasing height. Further west, soil patterns are often more complicated. This is typified in lowland Galloway where glacial deposition greatly influences the character and composition of the soils. The Galloway Hills are more similar to parts of the Highlands and Islands than the easterly hills in being more rugged with large areas of bare rock, thin covers of glacial deposits and shallow soils.

Land use in the Southern Uplands is governed by certain limiting factors namely slope, temperature and wetness. The altitude at which good quality pasture is possible declines from east to west as rainfall increases. Soils in the western Southern Uplands may be stonier and shallower than their eastern counterparts. Agriculture is by far the biggest land use in the Southern Uplands although forestry has undergone a significant expansion in recent decades.

4.3.2 The Central Lowlands

The cities of Edinburgh, Glasgow and Dundee together with numerous towns, mean that most of the population and the majority of Scotland's industry are located within the Central Lowlands. This broad valley averages 50 miles across and runs WSW to ENE across the centre of the country. It is geologically distinct from the surrounding regions in that it is composed of Devonian Old Red Sandstone, peppered with ancient volcanoes compared with the older sedimentary rocks forming the Southern Uplands or the ancient metamorphic melange comprising the Highlands to the north.

The Central Lowlands extend across Scotland between the mountains of the Highlands and the hills of the Southern Uplands. The soil distribution is influenced mainly by the material deposited following the last period of glaciation and frequently contains many smaller particles and poorly drained soils, especially in the west where rainfall is higher. Moving towards the drier east the soils gradually change in their composition. This is typified with Gleys first, then brown forest soils with gleying and furthest east, freely drained brown forest soils as found on coarser sandy material and are particularly evident in river valleys. On the higher ground, such as the moorlands and upland areas of Cumnock and around Muirkirk, peats and peaty gleys are in evidence.

Human activity has significantly influenced the vegetation found within the central lowlands. This is typified by the widespread planting of non-native plantation woodland both coniferous (for commercial forestry) and deciduous (in estates). Following the decline of heavy industry, grasses, herbs and rushes have invaded former mining and industrial areas between Edinburgh and Glasgow.

There are a number of significant river catchments within the Central Lowlands. The most notable being the Rivers Clyde and Forth and the lower reaches of the River Tay, which open into significant estuaries and support three of the major cities of Scotland (Glasgow, Edinburgh and Dundee respectively).

Apart from agriculture and forestry, the major land use in the Central Belt is urban and industrial. The two largest conurbations, Edinburgh and Glasgow, accommodate a substantial proportion of the Scottish population. The legacy of land use for mining and other industry is evident and has transformed the nature of the landscape. Towns, buildings and roads are often located on the best quality soils in a given area as the soils are usually associated with other environmental factors such as good drainage.

For the purposes of this assessment the eastern coastal belt which passes from the north east, around Fraserburgh, down the east coast of Scotland, has been incorporated into the Central Lowlands area. This region has few major population centres apart from the cities of Aberdeen and Dundee.

The Eastern Belt forms the main agricultural zone in Scotland. Cereals and root crops are grown in many parts of the region and market gardening is also common. On parts of the coast itself there are large areas of windblown sand. In these locations the soil

profile development is limited due largely to the effects of continual deposition of sand. Where the soils have been longer established, a greater variety of grasses can survive, making the land suitable for grazing or for use as golf links. The main restrictions on land use in the coastal strip are periodic drying out (due to free draining soils and low rainfall levels) and exposure to strong winds. Where these limitations cause particular problems the land is generally used for pasture rather than crop production. There are further pressures associated with the use of the dune soils for recreational activities, namely camping and caravanning, as these can result in compaction and increase the susceptibility to erosion.

4.4 Population

In terms of population, Scotland has one of the most urbanised and unevenly distributed populations in Europe with around 80% of the population located within the Central Belt and a third of the population living within the main population centres of Glasgow, Edinburgh, Aberdeen and Dundee. The rural areas of Scotland, which account for 89% of the land mass are inhabited by just one third of the population.

Details of the population changes for the period 1995 to 2005 for administrative areas are shown in the table below¹.

	Estimated population 30 June 1995	Estimated population 30 June 2005	Population change	
			Number	%
Aberdeen City	219,880	202,370	-17,510	-8.0
Inverclyde	88,640	82,130	-6,510	-7.3
Dundee City	152,460	142,170	-10,290	-6.7
West Dunbartonshire	95,870	91,400	-4,470	-4.7
Glasgow City	604,080	578,790	-25,290	-4.2
Renfrewshire	176,430	170,000	-6,430	-3.6
East Dunbartonshire	109,850	105,960	-3,890	-3.5
East Ayrshire	122,790	119,400	-3,390	-2.8
Angus	111,560	109,170	-2,390	-2.1
South Ayrshire	113,620	111,780	-1,840	-1.6
North Ayrshire	137,800	135,830	-1,970	-1.4
Dumfries & Galloway	148,520	148,340	-180	-0.1
North Lanarkshire	323,450	323,420	-30	0.0
Clackmannanshire	48,570	48,630	60	0.1
Moray	87,870	88,120	250	0.3

¹ GROS, 2005, Components of population change by administrative area: 1995-2005, data accessed at: <http://www.gros-scotland.gov.uk/statistics/library/mid-2005-population-estimates/list-of-tables.html#table6>

Midlothian	78,860	79,190	330	0.4
South Lanarkshire	304,930	306,280	1,350	0.4
Fife	349,720	356,740	7,020	2.0
East Renfrewshire	87,530	89,600	2,070	2.4
Edinburgh, City of	443,860	457,830	13,970	3.1
Scottish Borders	105,940	109,730	3,790	3.6
Perth & Kinross	133,220	138,400	5,180	3.9
Aberdeenshire	226,070	235,440	9,370	4.1
Falkirk	142,680	149,150	6,470	4.5
Stirling	82,420	86,930	4,510	5.5
East Lothian	86,600	91,800	5,200	6.0
West Lothian	148,710	163,780	15,070	10.1
SCOTLAND	5,103,690	5,094,800	-8,890	-0.2

Aberdeen City (-8.0%), Inverclyde (-7.3%), Dundee City and West Dunbartonshire (-4.7%) show the greatest percentage decreases for Council areas. The largest absolute reduction in numbers was for Glasgow City (-25,290). Conversely, West Lothian (+10.1 per cent), East Lothian (+6.0 per cent) and Stirling (+5.5 per cent) show the greatest percentage increases.

4.4.1 Population projections

The following table shows the projected population change over the next 25 years (in thousands).

	1994	2004	2011	2021	2031
England	48229	50094	51967	54605	56832
Scotland	5102	5078	5120	5127	5065
Wales	2887	2952	3037	3165	3256
Northern Ireland	1644	1710	1767	1830	1860
United Kingdom	57862	59835	61892	64727	67013

The table shows that although Scotland's projected population is expected to remain reasonably constant over the next 25 years it will decrease by around 0.72%.

4.4.2 Influence of the Operational Programme on Population

The Programme may potentially have a positive impact on some of the problems experienced by both the fast growing population centres and the more remote and fragile communities in the more rural parts of the study area. Sustainable economic development is fundamental to maintaining population in such communities and also

ensuring growing population centres do not have a negative impact on the environment.

4.5 Human Health

It has been recognised that the environment plays a significant part in the health and quality of health life of individuals and communities in Scotland however, the relationship between environmental pollutants and health is complex and uncertain. Other factors also affect health and further work is required to fully investigate environmental impacts. There is growing evidence that environmental factors affect both our health and wellbeing and contribute to environmental injustice. Air pollutants such as nitrogen dioxide, sulphur dioxide and small particulates make respiratory and cardiovascular illnesses worse and, in some circumstances, hasten death in vulnerable people.

The following tables represent the local authority areas with the lowest life expectancy at birth².

	MALES			
	2002-04	1992-94	Difference (yrs)	% Change
Glasgow City	69.3	68.2	1.1	+1.61
Inverclyde	70.3	69.2	1.1	+1.59
West Dunbartonshire	70.7	70.2	0.5	+0.71
Renfrewshire	71.8	70.7	1.1	+1.56
North Lanarkshire	72.4	70.6	1.8	+2.55

	FEMALES			
	2002-04	1992-94	Difference (yrs)	% Change
Glasgow City	76.4	75	1.4	+1.87
North Lanarkshire	77.4	76.3	1.1	+1.44
West Dunbartonshire	77.6	77.2	0.4	+0.52
West Lothian	78	77.7	0.3	+0.39
Inverclyde	78.1	76	2.1	+2.76

In general terms the lowest life expectancy is in the urban areas of the central belt whilst the highest life expectancy is within the rural areas of Aberdeenshire, Perth & Kinross, East Renfrewshire and East Dunbartonshire.

² Registrar General for Scotland, 2005, *Life expectancy for administrative areas within Scotland, 2002-2004*, National Statistics Publication

4.5.1 Life Expectancy Trends

Compared with data for the years 1992-1994:

- Life expectancy at birth for the whole of the study area has improved from 72.1 years to 74.1 years for males and 77.6 years to 79.1 years for females;
- The gap between highest and lowest areas for male life expectancy at birth is increasing (from 6.1 years in 1992-1994 to 7.7 years in 2002-2004) and for females, the gap is increasing (from 3.6 to 4.4 years).

4.5.2 Levels of Deprivation

The Scottish Index of Multiple Deprivation 2004 identifies the most deprived areas across Scotland. It is based on 31 indicators in the six individual domains of Current Income, Employment, Housing, Health, Education, Skills and Training and Geographic Access to Services and Telecommunications³. The results of the analysis indicate that those areas identified as the most deprived are to be found in Scotland's urban centres, particularly within Glasgow.

The following table represents the most deprived 10% across Scotland, by local authority area.

	No. of Data Zones	% of Total for Scotland
Glasgow City	324	49.8
Edinburgh, City of	44	6.8
North Lanarkshire	44	6.8
South Lanarkshire	40	6.1
Dundee City	34	5.2

4.5.3 Influence of the Operational Programme on Human Health

The Programme has the potential to impact on human health for example by supporting projects that lead to reduced levels of deprivation, improvement in air quality and the remediation of contaminated land. These impacts will depend on the nature of the projects supported but it is likely these impacts will be indirect. The issue of human health however is complex and is influenced by a number of factors out with the scope of the Programme. The potential of the Programme to significantly impact on human health is therefore considered to be out with the scope of this study.

³ Scottish Executive, 2004, *Scottish Index of Multiple Deprivation 2004: Summary Technical Report*, The Stationary Office: Edinburgh

4.6 Biodiversity, Flora and Fauna

Intensive land use in the last 250 years has led to significant declines in Scotland's biodiversity. In 2005 nearly 32% of habitats and 18% of species identified under the UK Biodiversity Action Plan were declining, although around 32% of habitats and 39% of species were either stable or showing signs of recovery. The impact of climate change is already evident with some species ranges being reduced, others extended and food chains being disrupted. This makes the attainment of the EU target to halt loss of biodiversity by 2010 a significant challenge and active management will be necessary to maintain many habitats and species in Scotland. The Scottish Biodiversity Strategy provides a framework for this.

SNH has a responsibility for ensuring the conservation and enhancement of habitats, species and landscapes in Scotland. One mechanism to facilitate this is the system of 'protected' areas which operate on both a UK and an international basis. The following table shows the number of sites and total number and area of designated sites within the Lowlands and Uplands study area.

	No. of Sites	Area (ha)
SSSI	766	320993
CSAC	102	203565
SPA	39	164854
Ramsar	24	55005
Gardens & Designed Landscapes	259	55939
National Scenic Areas	12	198000
National Parks	1	304811
Country Parks	36	6481
Local Nature Reserve	34	7965
National Nature Reserve	28	38084

4.6.1 Sites of Special Scientific Interest

Scotland has over 1400 sites designated as Sites of Special Scientific Interest (SSSI), which represents approximately 12.6% of the total land area of Scotland. Approximately half of these sites are located in the Lowlands and Uplands area. The following table represents the local authorities with the largest total area of designated sites⁴. These five areas contain almost three quarters of Scotland's SSSIs, collectively representing almost 3% of the total land area of Scotland.

⁴ SNH, 2004, SNH Facts and Figures: Designated Areas and Sites, data accessed at: www.snh.org.uk/pdfs/publications/corporate/factsandfigures/0304/contrents.pdf

	Total area of Local Authority (ha)	No. of Sites	SSSI Area (ha)
Dumfries & Galloway	667297	96	75384
Perth & Kinross	541890	113	69167
Aberdeenshire	633881	82	39805
Scottish Borders	474263	91	28523
North Ayrshire	90384	28	23247

In addition to a significant proportion of designated SSSIs, the above council areas also contain the majority of cSAC (candidate Special Area of Conservation), SPA (Special Protection Area) and Ramsar sites located in Scotland. In general terms the main urban centres tend to have a much lower percentage of designated sites in comparison with rural areas.

It is recognised that natural heritage interests do not solely relate to designated SSSIs. The analysis of SSSIs is intended to illustrate the most significant Local Authority areas in terms of natural heritage interests and further detailed studies should be carried out as more information becomes available on specific projects. In addition, the health of such habitats and populations should also be assessed once the Operational Programme is finalised.

4.6.2 Status of Species and Habitats

Scotland has some 90,000 species. The majority (99%) are species of virus, bacteria, invertebrates, plants and fungi. There are 242 species of birds, 63 different mammals and ten species of reptiles and amphibians.

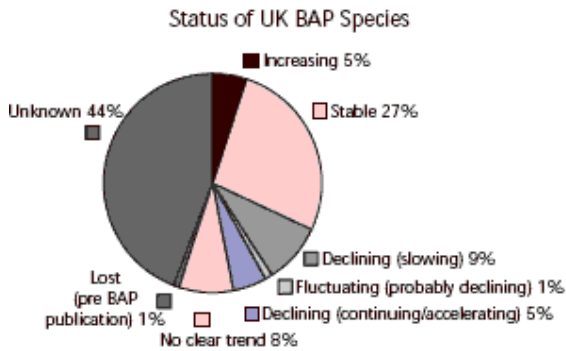
Scotland has 65 out of the total 159 conservation priority habitats listed in the European Habitats Directive and according to the Scottish Biodiversity list, which contains flora, fauna and habitats considered to be of principal importance for biodiversity conservation, within Scotland there are:

- 1,806 important terrestrial and freshwater species; several are threatened and 117 have shown a decline in the last 25 years;
- 177 important terrestrial and freshwater habitats, 11 are rare and 18 unique to Scotland; and
- 197 important marine habitats and species, 12 of which have declined in the last 25 years.

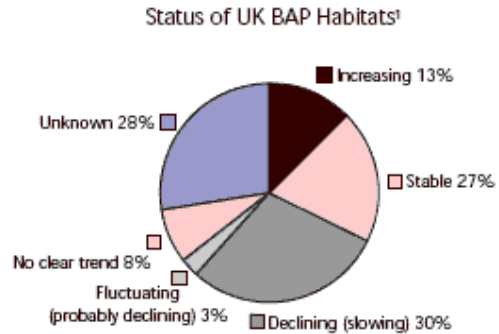
The Scottish Biodiversity Forum is responsible for implementing the objectives of the UKBAP in Scotland and by 2001 action plans had been developed for all the priority habitats and species.

Between 1995 and 1999 action plans were developed for 45 habitats and 391 species in the UK. Of these 41 UKBAP priority habitats and 261 species either occur in, or have recently been lost from Scotland. The following table and charts show the status of species and habitats in Scotland⁵:

	Number of Species	Number of Habitats
Increasing	11	5
Stable	56	8
Declining (slowing)	18	12
Fluctuating (probably declining)	3	1
Declining (continuing/accelerating)	11	0
No clear trend	17	3
Lost (pre UK BAP publication)	3	0
Unknown	90	11
Total	209	40



Based on 209 UK BAP priority species in Scotland²



Based on 40 UK BAP priority habitats in Scotland²

By 2005, 32% of the species considered were stable or increasing, while 14% were in decline. Figures for habitats indicate that 33% of those considered were stable or increasing while 30% were in decline.

4.6.3 Influence of the Operational Programme on Biodiversity

Under existing legislation the Programme should not support projects that will cause harm to biodiversity in the Lowlands and Uplands, specifically with regard to protected species and designated areas. Beyond this statutory requirement the horizontal theme

⁵ Scottish Executive, 2006, Key Scottish Environmental Statistics 2006, data accessed at: www.scotland.gov.uk/Publications/2006/08/15095714/38

of environmental sustainability explicitly states that economic and social development should be fully in line with the conservation of the surrounding environment and its biodiversity. There is therefore scope for the Programme to enhance or improve biodiversity through the specific projects that are ultimately funded.

4.7 Air Quality

Overall air quality in Scotland is improving with statistics showing it is generally good. Further improvements are however needed to reduce the adverse health effects and the number of deaths advanced by air pollution in urban areas. In rural areas poor air quality has the potential to damage ecosystems and to contribute to acidification and nutrient enrichment.

The main sources of air pollution include transport, energy generation, industry, waste and agriculture. With reductions in large-scale industrial emissions, transport is rapidly becoming an increasingly significant source. The continual increase in demand for energy may also give rise to increased emissions. In relation to specific pollutants, emissions of nitrogen oxides and sulphur dioxide from large industrial sources have declined. The decrease in domestic coal use has also led to significant reductions in emissions of sulphur dioxide whilst emissions of particulates and volatile organic compounds are also showing a general downward trend. These improvements contrast with a general increase in ground-level ozone concentrations which have the potential to harm humans, crops and ecosystems. Furthermore, a decline in stratospheric ozone levels over Scotland has the potential to increase levels of exposure to harmful ultraviolet radiation.

4.7.1 Key Areas

The pollutants determining air quality in Scotland include the gases sulphur dioxide and oxides of nitrogen from combustion processes, ammonia from agriculture and volatile organic compounds from motor vehicles and industrial processes.

Although pollutants present in Scotland's atmosphere are emitted from sources both within Scotland and elsewhere in Europe, it is the localised concentration of pollutants, for example as a result of high levels of traffic congestion, which are highlighted for the purposes of this study.

Efforts to improve in air quality in certain areas has resulted in a number of Air Quality Management Areas (AQMAs) being declared across Scotland. These include:

- An area of Aberdeen city centre which covers Market St, Union St, King St (between Castle St and Roslin Terrace), Virginia St, Commerce St, Guild St (between Market St and Stirling St) and Holburn St (between Great Southern Road and Union St).

Designated due to elevated levels of both nitrogen dioxide (NO₂) and Particulate Matter < 10 µm (PM₁₀).

- An area of Chapelhall extending along Main Street, Bellside Road and Lauchope Street and extending to cover a number of properties close to the junctions of these roads.

Designated due to elevated levels of Particulate Matter < 10 µm (PM₁₀).

- An area of Coatbridge, extending along Whiflet Street and North Road and encompassing buildings fronting the road.

Designated due to elevated levels of Particulate Matter < 10 µm (PM₁₀).

- An area covering Edinburgh city centre, including the main link roads in to the city centre.

Designated due to elevated levels of Nitrogen dioxide (NO₂).

- An area of Glasgow city centre bounded broadly by the M8 motorway to the north and west, the River Clyde to the south, and the High Street and Saltmarket to the east.

Designated due to elevated levels of Nitrogen dioxide (NO₂).

- An area encompassing a 60m wide corridor along the A803 Kirkintilloch Road, Bishopbriggs between the council's border with Glasgow city and a point 30m north of Cadder Roundabout.

Designated due to elevated levels of Nitrogen dioxide (NO₂).

- An area encompassing part of the centre of Motherwell to the north of the civic centre in the vicinity of Merry Street, Menteith Road and Arbles Road.

Designated due to elevated levels of Particulate Matter < 10 µm (PM₁₀).

- An area encompassing part of Central Road, Paisley between Smithhills Street and County Square and the service road for the Piazza Shopping Centre adjacent to Central Road.

Designated due to elevated levels of Nitrogen dioxide (NO₂).

In addition to the designated AQMAs, the following table indicates the sites routinely monitored under Local Air Quality Management schemes

Location	Monitoring parameters
Aberdeen	CO, NO, NO ₂ , O ₃ , GE10, SO ₂ , NO _x as NO ₂ , PM ₁₀
Bush Estate	NO _x as NO ₂ , O ₃ , NO ₂ , NO
Dumfries	CO, NO, NO ₂ , NO _x as NO ₂ , GR10
Edinburgh Centre	CO, NO, NO ₂ , O ₃ , GE10, SO ₂ , NO _x as NO ₂ , PM ₁₀
Edinburgh St Leonards	CO, NO, NO ₂ , O ₃ , GE10, SO ₂ , NO _x as NO ₂ , PM ₁₀
Eskdalemuir	NO _x as NO ₂ , O ₃ , NO ₂ , NO
Glasgow Centre	CO, NO, NO ₂ , O ₃ , GE10, SO ₂ , NO _x as NO ₂ , PM ₁₀
Glasgow City Chambers	CO, NO, NO ₂ , NO _x as NO ₂
Glasgow Kerbside	CO, NO, NO ₂ , GE10, NO _x as NO ₂ , PM ₁₀
Grangemouth	CO, NO, NO ₂ , GE10, SO ₂ , NO _x as NO ₂ , PM ₁₀

It is recognised that there are other areas which have not been declared AQMAs but nevertheless may have reduced air quality or which may be declared an AQMA if a further reduction in air quality is observed. Furthermore it is recognised that the presence of an AQMA should not be used as the only tool in assessing the significance of air quality in a given area.

4.7.2 Influence of the Operational Programme on Air Quality

In general terms, areas with reduced air quality tend to be caused by increased traffic congestion. It is therefore possible that development resulting from the OP which may cause an increase in traffic levels may hence impact on air quality. This is particularly the case if development is focused on areas with existing air quality issues or within areas which are at risk of being designated AQMA. This would generally be an indirect effect however the Programme is in a position to impact on more direct effects - for example by being able to fund the development of low emission public transport. The inclusion of horizontal themes within the Programme should however go some way to ensuring that such issues do not occur.

4.8 Land Contamination

Contaminated land poses risks to people, plants, animals and property and may also leach out to surface and ground waters. The area of contaminated land in Scotland is relatively small but of significant local importance. In 2005 the Scottish Vacant and Derelict Land Survey recorded 171 derelict sites (total area 1,186 hectares) with known contamination and 18 derelict sites (total area 144 hectares) brought back into use.

Land contamination in Scotland is mainly a result of historical practices at industrial sites, gasworks and mines and can sometimes involve radioactivity. The contamination of soil with toxic chemicals may have direct effects on human health particularly if houses and gardens are built on the land in question. For example, vegetable gardens or allotments sited on polluted land may result in contaminated produce from the direct

uptake of toxins or the deposition of contaminated particles on the growing plants. Given that it is largely industrial processes that give rise to land contamination, the majority of contaminated land is typically located within the industrial centres of the Central Belt and other larger conurbations.

Approximately 0.12% of Scotland's land is classed as vacant or derelict. The table below represents the ranking of local authority areas by area of total vacant and derelict land. Cumulatively this represents approximately half of Scotland's vacant and derelict land and hence represents a significant proportion of contaminated sites⁶.

	Total Area of Council (ha)	No. of Sites	Area of V&D Land (ha)	% of Council Area Classed as V&D
North Lanarkshire	47213	380	1315	2.79
Glasgow City	17736	853	1313	7.40
Renfrewshire	26875	170	1002	3.73
Fife	137385	224	897	0.65
West Lothian	43162	67	653	1.51

In addition the Councils above, South Lanarkshire, North & East Ayrshire and Midlothian have significant areas of vacant and derelict land, as do the main urban centres of the central belt and along the east coast.

The following table represents known contaminated land by Local Enterprise Company area. The term 'contamination' differs from the statutory definition in the Environmental Protection Act 1990 and refers simply to the presence or absence of a number of potential contaminants. Scottish Enterprise Fife contains 337 hectares of known contaminated land, representing 28 per cent of the total of land that is known to be contaminated in Scotland. The Scottish Enterprise Ayrshire area has 210 hectares of known contaminated land, representing 18 per cent of the national total. This area also has the largest number of contaminated sites (75) accounting for over 40 per cent of all derelict sites with known contamination in Scotland. In addition Glasgow, Dunbartonshire and Lanarkshire have significant amounts of contaminated land.

⁶ Scottish Executive, 2006, *Vacant & Derelict Land Survey 2005 (ENV/2006/1)*, National Statistics Publication: Edinburgh

	Area (ha)	% by area	No of Sites
Fife	337	28	6
Ayrshire	210	18	75
Glasgow	154	13	23
Dunbartonshire	121	10	25
Lanarkshire	92	8	18
Forth Valley	56	5	2
Edinburgh & Lothian	55	5	4
Dumfries & Galloway	49	4	2
Renfrewshire	17	1	4
Tayside	1	-	2
Borders	-	-	1
Grampian	-	-	-

Of the 1,186 hectares of derelict land in Scotland that is known to be contaminated, coal is the most common contaminant as it affects 443 hectares (48%) of known contaminated derelict land. Other significant contaminants include gases (7%), asbestos (3%), Chromium (3%) and other combustible materials (10%).

Over the past 10 years in Scotland there has been a decrease in the amount of derelict and urban vacant land recorded in the Vacant & Derelict Land Survey from 13,571 hectares in 1995 to 10,570 hectares in 2005. This is partly attributable to land being brought back into productive use, and partly due to land being removed for definitional reasons or due to naturalisation. The 2005 survey recorded an overall increase of 41 hectares compared with 2004, the area of urban vacant land increased by 82 hectares and derelict land decreased by 41 hectares.

4.8.1 Influence of the OP on Contaminated Land

Part of the Programme's horizontal theme of environmental sustainability includes a specific objective supporting the reclamation of Brownfield and contaminated sites. Depending on the projects supported this could have a positive impact on soils through remediation and re-use of designated contaminated land.

4.9 Water Quality

Scotland has a generally high quality water environment. The condition in which this resource is maintained has major implications for biodiversity, health and ultimately the performance of the Scottish economy.

Scotland's reputation for a high quality water environment provides many social and economic benefits including good quality drinking water, high 'brand value' for Scottish

products like whisky, beer, spring water, shellfish and salmon and opportunities for tourism and recreation.

Other important benefits include energy generation. Scotland generates approximately 3,000 gigawatt hours (GWh) of renewable electricity from hydropower each year. This accounts for almost 10% of the country's needs and over 20% of the UK's renewable electricity generation.

4.9.1 Sources of Water Pollution in Scotland

The major causes of pollution in Scottish rivers are sewage effluent, diffuse agricultural pollution, acidification, urban drainage, mine drainage and point source agricultural pollution.

Based on SEPA's water quality data for 2004, 72% of Scotland's rivers were classed as either excellent or good water quality (A1 or A2)⁷. A further 10% were classed as Fair (B) while just under 3% were classed as poor (C). In addition 50km or 0.2% of watercourses were seriously polluted (D) and a further 15% of watercourses are currently unclassified.

In general terms, sewage effluent and urban drainage affect the larger population centres particularly those in the central belt and on the east coast. Mine drainage affects areas of former coal mining activity, and is of particular note within southern and central Scotland whilst diffuse and point source agricultural pollution is most prevalent in predominantly rural areas.

Acidification is a significant pressure on water quality in Scotland and is caused by emissions of sulphur and nitrogen from industry and motor vehicles. Acidification is a problem over wide areas of Scotland where geology and soils are base poor and are unable to neutralise acid deposition. For the purposes of the study area, acidification is a particularly significant issue throughout Dumfries and Galloway and parts of the Trossachs.

In the Central Belt the water quality of the previously heavily polluted rivers such as the Almond, Clyde, North & South Calder and Kelvin have dramatically improved mainly as a result of upgrades to sewage treatment works or closure of polluting industries. The improvement in the South Calder Water at Motherwell following upgrades in sewage treatment and the closure of Ravenscraig steelworks is indicative of improving water quality trends throughout the central belt.

From a Scotland wide context, the net length of poor quality rivers and streams in classes C & D was reduced by 36 km in 2004 giving a total reduction of 402 km since

⁷ Scottish Environment Protection Agency, 2005, *National Water Quality Classification 2004*, data accessed at: www.sepa.org.uk/pdf/data/classification/water_qual_class_2004.pdf

1999. It is now clear that the improvement target for the period 1999 – 2006, a 351 km reduction in class C&D waters, will be comfortably exceeded.

4.9.2 Water Quality Trends

In summary water quality in Scotland is generally good and is improving due to a reduction in point source (end-of-pipe) discharges. As a result there have been major improvements in the quality of bathing, shellfish and freshwater fish waters and diffuse pollution, from farmland and roads, is now the largest problem. Water is generally abundant but increased demand is likely to put pressure on levels in groundwater, lochs and rivers. Changes in river flow patterns may increase the risk of flooding and rivers in the east may experience lower flows in summer. Impacts on the physical structure of rivers, estuaries and coastal waters are also widespread.

Nutrient enrichment (eutrophication) of rivers, lochs and groundwater can damage ecosystems and is a significant problem in some areas although the effects on estuarine and coastal waters are generally limited. Discharges of nutrients to water from sewage treatment works are being reduced and better targeting (application) and supply of nutrients in fertilisers can prevent nutrient enrichment.

Acidification can damage ecosystems and is a potential problem across upland Scotland. There is evidence of ecological damage in Galloway, the Cairngorms and the western and central Highlands. Between 1986 and 1997 deposition of sulphur dioxide declined by 52%, and nitrogen oxides by 16%. Impacts on vegetation, soil and freshwater habitats show a slight decrease and there is some evidence that soils are becoming slightly less acidic. Some areas are showing signs of recovery but some watercourses remain devoid of acid-sensitive plants, invertebrates and fish. Recovery may take decades and climate change may slow or halt this.

4.9.3 Influence of the OP on Water Quality

The Programme is unlikely to negatively impact on water quality as this is closely monitored and controlled under existing legislation. There is however the opportunity for the Programme to include measures to avoid an increase in diffuse pollution loading as a result of development. This could be applied by ensuring that new developments include proposals for sustainable drainage systems (SUDs).

4.10 The Historic Environment

Scotland has a rich heritage of ‘ancient monuments’ - archaeological sites, ruins, structures and buildings - which include the settlements, temples, tombs and forts of the early inhabitants, the remains of the Roman occupation, the humble dwellings and

great church buildings of the middle ages, the remains of Scotland's industrial heritage and the defences erected against invasion in the 20th century.

The historic environment is defined by the Public Appointments and Public Bodies etc. (Scotland) Act 2003 as any or all of the structures and places in Scotland of historical, archaeological or architectural interest or importance. These include:

- Scheduled Ancient Monuments;
- Historic Buildings;
- Designed Gardens and landscapes;
- Archaeological sites;
- Townscapes;
- Historic landscapes; and
- The wider setting of the features listed above.

Due to the scale of the study it has not been possible to identify all sites at this stage. It is envisaged that appropriate sites will be identified and considered in greater detail throughout future development of the programme.

4.10.1 World Heritage Sites

There are two world heritage sites within the study area namely Edinburgh Old & New Towns and New Lanark. It is not however anticipated that the ERDF Programme would be focused on these areas.

4.10.2 Listed Buildings & Conservation Areas

Scotland has a large number of listed buildings and conservation areas; around 45,000 and 650 respectively⁸. The vast majority of the listed buildings, just over 87% of the total number, are located within the study area. The table below represents the ranking of local authority areas by number of listed buildings. Cumulatively this represents 50.8% of the total number of listed buildings within the Lowlands and Uplands area.

	No. of Listed Buildings	As % of Total for Study Area
Fife	4912	12.5
City of Edinburgh	4889	12.4
Aberdeenshire	3682	9.3
Dumfries & Galloway	3412	8.7
Perth & Kinross	3121	7.9

⁸Data collected from Historic Scotland website (www.historic-scotland.gov.uk)

In addition to the above local authority areas Scottish Borders, Angus and the City of Glasgow have a significant percentage of the total number of listed buildings within the study area: 7.6%, 5.5% and 4.7% respectively.

There are over 650 conservation areas in Scotland. Local authorities have a duty to identify and designate areas of historic or architectural interest. The designation aims to safeguard and enhance the sense of place, character and appearance of Scotland's most valued historic places.

Conservation Areas can include:

- building groups, where the whole is more than the sum of the parts;
- visible archaeology, such as historic street, plot layouts, and town walls;
- important set pieces of public realm (squares, railings, setted street surfaces);
- trees, rivers, lades, for both amenity and cultural value;
- open spaces, public parks, designed gardens and landscapes;
- places of memory, such as the Culloden battlefield.

4.10.3 Scheduled Ancient Monuments

Scotland as a whole has a large number of scheduled ancient monuments; around 7,786. The majority of the scheduled monuments, just over 61.9% of the total number, are located within the study area. The table below represents the ranking of local authority areas by number of scheduled ancient monuments. Cumulatively this represents 66.3% of the total number of listed buildings within the Lowlands and Uplands area.

	Scheduled Ancient Monuments	As % of Total for Study Area
Dumfries & Galloway	932	19.3
Perth & Kinross	751	15.6
Scottish Borders	723	15.0
Aberdeenshire	398	8.3
Angus	393	8.2

In addition to the above local authority areas, East Lothian (6.1%), Fife (5.4%), Stirling (4%), and South Lanarkshire (3.7%) contain a significant number of scheduled ancient monuments when shown as a percentage of the total number within the study area.

4.10.4 Influence of the OP on the Historic Environment

The Programme should not support projects that will negatively impact on the historic environment in the region. Beyond this statutory requirement, there is scope for the

Programme to ensure no deterioration and to ideally enhance or improve cultural heritage through the specific projects which are ultimately funded.

4.11 Climatic Factors

Scotland's climate is generally cool and wet and is influenced by the North Atlantic Drift, a warm sea current from the Caribbean, which keeps Scotland's coast ice free in winter. The east coast has a marginally more continental climate than the west which comprises drier weather, sunnier summers and colder winters. The prevailing winds are from the west and southwest.

4.11.1 Rainfall

Rainfall in Scotland varies widely, with a distribution closely related to the topography, ranging from over 3000 mm per year in the western Highlands to under 800 mm per year on the east coast.

Typically, measurable rainfall (an amount of 0.2 mm or more) occurs on over 250 days per year over much of the Highlands, decreasing to around 175 days per year on the Angus, Fife and East Lothian coasts. In comparison, the driest part of Britain, the Thames Estuary in southeast England, averages around 150 days per year of measurable rainfall.

Figures obtained from the Met Office⁹ show that average rainfall in the region is approximately 1100 mm per year (for Glasgow over the period of 1961-1990) with the majority of the rain falling during the period from September to January. April to July are the driest months.

4.11.2 Sunshine

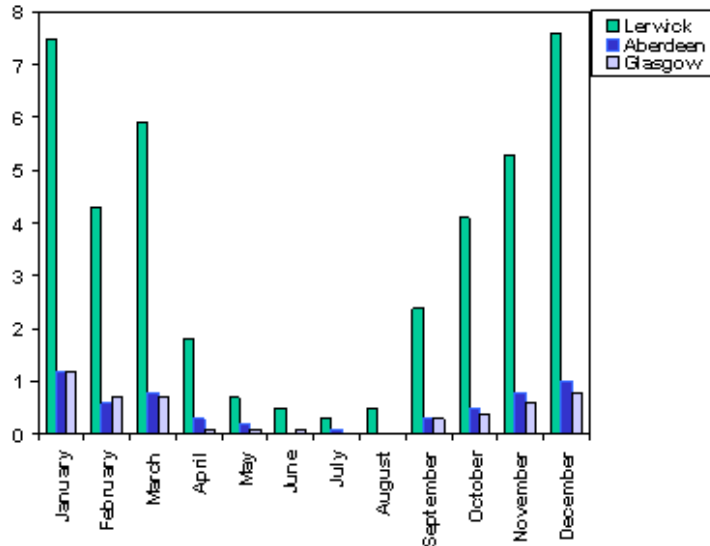
Mean daily sunshine figures reach a maximum in May or June, and are at their lowest in December. Wind and cloud play their part, but the key factor is the variation in the length of the day through the year.

4.11.3 Wind

The prevailing wind direction in Scotland is predominately from the south-west, however the wind direction often changes markedly from day to day with the passage of weather systems. There is a close relationship between surface isobars and the

⁹ Met Office, 2006, Scottish Climate, data accessed at: www.metoffice.gov.uk/climate/uk/location/scotland/

wind speed and direction over open, level terrain. In mountainous areas local topography also has a significant effect, with winds tending to blow along well-defined valleys.



Since many of the major Atlantic depressions pass close to or over Scotland, the frequency of strong winds and gales is higher than in other parts of the United Kingdom. Over low ground, the windiest areas are the Western Isles, the north-west coast and Orkney and Shetland (not within the LUPS area) with over 30 days with gales per year in some places. The graph above compares the wind in Glasgow, Lerwick and Aberdeen.

4.11.4 Temperature

Over Scotland the mean annual air temperature at low altitude ranges from about 7 °C on Shetland in the far north, to 9 °C on the coasts of Ayrshire and Dumfries and Galloway in the south-west.

To a large extent, winter temperature in the British Isles is influenced by the surface temperature of the surrounding sea. Since the North Sea is cooler than the waters off the west coast, the east coast is generally slightly cooler in winter than the west coast. In general, January and February are the coldest months. The daytime maximum temperatures over low ground in Scotland in January and February average around 5 to 7 °C.

In summer, the effect of latitude on the amount of heat received from the sun plays a major role in determining the temperature. Thus, temperatures in Scotland are generally a few degrees cooler than in England. For example, the average daily maximum temperature at Glasgow in July is 19 °C compared with 22 °C in London.

July and August are normally the warmest months in Scotland. The highest temperatures normally occur inland, away from the moderating influence of the cooler sea.

4.11.5 Climate Trends

The global climate naturally exhibits long-term fluctuations. Current trends are unlikely to be entirely natural in origin and there is evidence that human activities are having an impact. These bring wide-ranging implications for Scotland and could affect a whole range of aspects from flood risk, water resources, agriculture, tourism, habitats and species to health.

In Scotland:

- 1901-2000 surface temperature rose by 0.61°C;
- By 2100, temperatures are predicted to rise by 3.5°C in summer and 2.5°C in the winter; and
- Rainfall patterns will change to considerably wetter winters and drier summers.

4.11.6 Carbon Dioxide and Energy Use

Emissions of carbon dioxide (CO₂) contribute to global warming. In 2002, Scotland emitted 44 million tonnes of CO₂ resulting from the production and consumption of energy. CO₂ can also be emitted from other activities such as land use activity which disturbs peaty soils. Relative to 1990 overall energy consumption fell in 2002 by just over 2%, partly due to improvements in energy efficiency and the move towards less energy-intensive sectors. This has however been largely balanced by the increased use of energy for transport. High CO₂ emissions are concentrated in the main urban areas where houses, traffic, businesses and factories are located.

4.11.7 Renewable Energy

The Executive is committed to having 18% of electricity generated in Scotland from a range of renewable sources, including biomass by 2010. This is to rise to 40% by 2020. By 2002 renewable contributions had increased by around 13% since 1990. This is primarily from existing hydroelectric generators but wind, newer small-scale hydro schemes and thermal renewable sources are now beginning to contribute.

4.11.8 Influence of the OP on Climatic Change

The Programme seeks to reduce carbon emissions and encourage energy efficiency and renewable energy development. One of the overarching principles is found in the Scottish Sustainable Development Strategy, which aims to secure a profound change in the way in which energy is both generated and used with the ultimate aim being to reduce greenhouse gas emissions.

One of the key mechanisms within the Programme to address environmental issues is the horizontal theme of environmental sustainability. This theme is applied by for example, supporting the sustainable commercial use of renewables technologies with the aim of promoting the development of a thriving new energy sector that would bring together economic development and help meet climate change goals. This could be achieved through encouraging the 'greening' of businesses through improved resource efficiency, support for small-scale renewables in local energy generation or funding potential new sources of economic activity will be funded which include renewable technologies.

5 STRATEGIC ENVIRONMENTAL ASSESSMENT OBJECTIVES

SEA objectives establish environmental markers that will be used as a benchmark for all aspects of the ERDF Programme. These objectives are overarching in terms of their influence on the ERDF programme and set the context for programme development.

The environmental objectives ensure that the key environment factors as identified in the Directive are priorities in the SEA and development of the ERDF programme. The following table identifies the SEA objectives together with a selection of key criteria.

SEA Topic (most relevant)	SEA Objective	Key Criteria for Assessment
Biodiversity, Flora and Fauna	1 Protect, enhance and where necessary restore biodiversity	Recognise the importance of biodiversity in the region. Support projects that meet biodiversity aims. Not contribute to fragmentation of habitats.
Population and Human Health	2 Protect and enhance human health	Recognise the link between environmental degradation and human health. Contribute to a cleaner, healthier environment for the benefit of the local population.
	3 Encourage walking, cycling and use of public transport	Provide required infrastructure and locally accessible facilities. Provide measures which discourage car use.
Water	4 Protect and enhance the water environment	Recognise the importance of water quality in the region. Support development of infrastructure to improve water quality. Discourage the proliferation of private sewage treatment particularly in rural areas. Support projects which meet the requirements of the WFD. Include sustainable urban drainage (SUDS) methods as part of new development. Promote the efficient use of water in businesses and in the construction and operation of new developments.
	5 No increase in development at risk of flooding and no decrease in area of functional flood plain	Recognise that development should not contribute to a reduction in flood storage. Ensure development is out with the 1:200 year flood plain.

Soil	6	Regenerate degraded environments	Encourage the remediation of contaminated sites. Protect quality of existing land. Promote pollution prevention. Encourage the use of Brownfield land over Greenfield sites.
Waste	7	Reduce waste	Encourage and promote waste minimisation. Provide waste infrastructure and alternatives to landfill. Promote recycling.
Air	8	Protect and enhance air quality particularly within urban areas	Contribute towards an improvement in air quality. Reduce congestion particularly from cars. Contribute to lower emission public transport.
Climate Factors	9	Reduce the contribution to climate change	Encourage reduction in fossil fuel use. Promote energy efficiency. Promote appropriate levels and types of renewable development. Encourage a reduction in CO ₂ emissions or other Greenhouse Gases (GHGs). Encourage a higher proportion of electricity generated from renewable sources.
Cultural Heritage	10	Protect, enhance and where necessary restore building character and townscape	Promote the protection and enhancement of buildings and their environs as well as the valuable aspects of the existing townscape.
	11	Protect, enhance and where necessary restore the historic environment	Recognise the importance of the historic environment in the region and support projects that protect or enhance historical assets.
	12	Respect urban form, settlement pattern and identity	Promote land use that respects the existing urban form and valuable aspects of existing townscape.
Landscape	13	Protect and enhance landscape character, particularly within designated areas	Recognise the importance of landscape character in the region. Support projects that reclaim derelict and/or vacant land. Promote landscape design as a key part of all developments.

6 ENVIRONMENTAL ASSESSMENT

The assessment has been undertaken using the appraisal table format shown in Appendix A together with accompanying summary tables. An indication of the decision making process has been provided together with suggested mitigation measures where appropriate.

The Environmental Assessment includes the following:

- Summary assessment of the overall impacts;
- Assessment of cumulative impacts;
- Assessment of alternatives; and
- Detailed assessment tables (provided in Appendix A).

Key to Symbols used in the Assessment	
+	Likely positive environmental impact
-	Likely negative environmental impact
o	Likely to have a neutral environmental impact
?	Impact unknown (more information required)

6.1 Summary Assessment

	Objective 1 – Enterprise Development	Objective 2 – Community regeneration	Objective 3 – Rural Development
Overall Impact of the Objective	<p>There is a general lack of information regarding the nature and location of projects which would receive funding however the programme has gone some way in addressing issue by incorporating the horizontal theme of environmental sustainability. This should ensure that projects granted funding would not have a negative effect on the surrounding environment, including water quality, biodiversity, and landscape character. The support of renewable energy development may result in a positive contribution to climate change as a result of the Programme. In summary, the horizontal theme of environmental sustainability should ensure at least a neutral impact with the possibility of improvements in areas such as climate change and land quality.</p>	<p>Again there is a general lack of information regarding the nature and location of projects which would receive funding. However the horizontal theme of environmental sustainability should ensure no negative effect on the surrounding environment, including water quality, biodiversity, and landscape character. In terms of human health it is likely that investment and sustainable economic growth would contribute to reduced levels of deprivation and hence improved health within areas targeted. The impacts of Objective 1 on car travel would depend on the location of development. It is possible that more 'local' development may reduce need to travel to alternative locations for employment and alternatives to the car may be more acceptable to the public. Furthermore there is a possibility that funding may result in the re-use or remediation of contaminated, vacant or derelict land, which would in turn have a positive environmental benefit. Finally the support of small scale renewables may result in a positive contribution to climate change as a result of the Programme. In summary, the horizontal theme of environmental sustainability should ensure at least a neutral impact with the possibility of improvements in areas such as climate change and land quality.</p>	<p>Similarly the general lack of information limits the assessment however the horizontal theme of environmental sustainability should help address this. This should ensure that projects granted funding would not have a negative effect on the surrounding environment, water quality, biodiversity, and landscape character. In terms of human health it is likely that investment and sustainable economic growth would contribute to reduced levels of deprivation and hence improved health within areas targeted. The impacts of Objective 1 on car travel would depend on the location of development. It is possible that more 'local' development may reduce need to travel to alternative locations for employment and alternatives to the car may be more acceptable to the public. Furthermore the goal is to increase local economic activity to limit congestion in urban growth poles and a longer term aim of reducing carbon emissions. Finally the support of renewable energy development may result in a positive contribution to climate change as a result of the Programme. In summary, the horizontal theme of environmental sustainability should ensure at least a neutral impact with the possibility of improvements in areas such as climate change, land quality, air quality.</p>

	Objective 1 – Enterprise Development	Objective 2 – Community regeneration	Objective 3 – Rural Development
<p>Cumulative and Synergistic Impacts</p>	<p>There is a degree of uncertainty in predicting cumulative impacts and it is recognised that the level of risk and uncertainty increases at a strategic level because scales are broader and issues are generally larger. Due to the limited funding available a decision was made to target funding towards reducing Scotland's contribution to climate change. Therefore the Programme introduced measures to promote the development of a thriving new energy sector that would bring together economic development and climate change goals. Furthermore the encouragement to 'green' businesses through improved resource efficiency, including environmental and carbon-use audits, more environmentally-sustainable production systems and business processes and plans for energy and resource efficiency will contribute to increased awareness of environmental issues and climate change in particular.</p> <p>There is further support for small-scale renewables in local energy generation and which will contribute to the local dimension of the wider Scottish sustainable development agenda. Potential new sources of economic activity will be funded, which will include renewables.</p> <p>Finally one of the goals is to increase local economic activity and limit out-migration and commuting to congested urban growth poles, which will contribute to a longer-term aim of reducing carbon emissions as a result of the transport needs of the current Scottish labour market and economy.</p> <p>In summary, the environmental aspect of the Lowlands & Uplands Operational Programme has been specifically targeted to address climate change and is ideally placed to address climate change at a strategic level. In terms of negative cumulative impacts the horizontal theme of environmental sustainability should ensure that the Programme does not adversely impact on the environment.</p> <p>Therefore it is envisaged that the Programme could have a net positive effect, both directly and indirectly, on Scotland's contribution to climate change. This would mainly be a result of increased awareness of the issues together with the development of renewables and a reduction in emissions from transport.</p>		

6.2 Assessment of Alternatives

Regulation 14(2) of the Environmental Assessment (Scotland) Act 2005 requires that the environmental report:

Describe and evaluate the likely significant effects on the environment of implementing-

(b) reasonable alternatives to the plan or programme.

As detailed in the ODPM Practical Guide to SEA, it is not for the SEA to decide which alternatives should be chosen, or in fact the range of alternatives which should be considered, rather it simply provides information on the relative environmental performance of the different programme and plan options which were actually considered by the Scottish Executive.

SEA can be used to help guide the selection of alternatives with the aim of ensuring that the best practical environmental option is the one adopted by the Programme. In the case of the ERDF Operational Programme however, the assessment of alternatives is limited by economic requirements and constraints already established at the European and national level notably:

- The scope and range of aspects, which Structural Funds can support, is heavily constrained by European Regulations. Activities must relate directly to the Lisbon Agenda, which prioritises economic growth and jobs.
- The priorities taken from Europe have been developed to sit with existing UK and Scottish strategies. These focus primarily on aspects such as economic growth and competitiveness and the NSRF is very prescriptive about the types of activities which should be supported - e.g. research and development, innovation, entrepreneurship, business development etc.
- The proposed 2007-2013 Programme has evolved from previous Programmes and, in many cases, seeks to build on previous activities where appropriate to help maintain the momentum and impact of Structural Funding.
- The proposed 2007-2013 Programme will have considerably reduced funding compared to previous years. With reduced funding, the Executive has decided it is critical that the Funds are concentrated on fewer activities rather than spread more thinly over a range.

Taking all these factors into account, the scope for setting alternatives in programming is considerably smaller than has been the case in previous programming periods. Within this context, some level of options appraisal is still appropriate and the alternative of not implementing the Programme, i.e. 'business as usual', is covered in the consideration of the evolution of the environment in the absence of the Programme in Section 2.5.

For the purposes of the SEA, reasonable alternatives are defined as:

- Broad delivery options considered early in the Programme preparation; and
- Changes to the detailed wording of priorities and sub-objectives.

The environmental consequences of broad options within the overall Programme delivery are assessed in the following table.

Programme Delivery Alternatives Assessment

Proposed	Alternative	Assessment of Alternative		Comments
'Soft' Support Business development schemes, marketing and community capacity building.	'Hard' Support Capital intensive, physical infrastructure development such as roads and business parks.	-	The alternative option has the potential for more direct negative impacts on a range of environmental aspects resulting from physical construction works e.g. buildings and roads, however this would be dependant on location and project specifics.	Previous ERDF Programmes have focused on the development of large infrastructure projects, which have generally now been completed. This approach is no longer appropriate, especially within the context of reduced funding.
Spatial Targeting Certain priorities and sub-objectives will be focused on specific areas and communities in the region	No Targeting Even spread across the region with equal access to funding opportunities	-	This option may spread the potential negative and positive environmental impacts of funding across the entire region. In practice however, the funding may be targeted in those areas most able to access it rather than those necessarily in most need. This may keep activities in the urban settlements and away from fragile communities, which often coincide with the most sensitive natural environments.	Although this approach may result in funding being concentrated in areas where the capacity to apply for funding is greater, there is scope to target certain Objectives to certain areas. For example funding aimed at the remediation of contaminated land would be best targeted at areas, for example, in the central belt with the most contaminated land. Similarly proposals that indirectly aim to reduce congestion on the roads would be best targeted at areas with existing problems.
Innovation Value-added focus for new, high risk but potential high return enterprises	Standard Development Generic schemes and support for existing projects. Standard business development.	?	There is growing commercial and legislative drive for businesses to address environmental issues. However the impact of continuing standard business development schemes would be maintain the status quo which is still having both a positive and negative impact on the environment.	The Programme is looking to specifically assist innovation and high value enterprises many of these directly relate to areas and sectors which are beginning to use the environment as economic driver - e.g. renewables and resource efficiency etc. Therefore targeting funding to these areas would help maximise the positive environmental impact.

<p>Sector Targeting Specific targeting of emerging or growth sectors such as the knowledge-economy, food and drink and renewables etc.</p>	<p>Assistance for all Sectors General assistance for all business sectors regardless of growth potential</p>	<p>-</p>	<p>In assisting all types of industry and sectors it is possible that a range of businesses with less favourable environmental approaches and/or outcomes would be assisted, however this should be addressed under the horizontal themes and by regulatory regimes. Therefore this alternative should still have at least a neutral impact.</p>	<p>Sector targeting within the Programme specifically looks to assist keys sectors offering both economic and environmental benefits, such as renewables and energy efficiency. Considerably less support would be available to these types of businesses if the assistance were spread across all sectors in the region. Therefore to maximise the environmental benefits, specific sectors should be targeted which would offer the best environmental return for the limit funding available.</p>
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6.3 Suggested Mitigation Options

Schedule 3 of the Environmental Assessment (Scotland) Act 2005 requires an explanation of "*the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.*"

It is considered unlikely that the Programme will result in any significant negative impacts. In addition, primarily through mainstreaming the horizontal theme of environmental sustainability the Programme specifically incorporates a range of mitigation measures designed to minimise the negative environmental impacts of its support in conjunction with measures to optimise the potential benefits.

There are three main ways in which environmental sustainability will be mainstreamed into the Programme. These are key to ensuring the environment is considered at every step within the Programme delivery and therefore that the potential for negative impacts is minimised. The instruments for mainstreaming build on existing methods which have been tested and assessed under earlier programmes, not just in Scotland but elsewhere in the UK.

- **Capacity.** The experience of previous programmes has shown the importance of having equal opportunities champions and expertise in different parts of programme delivery. *Champions* will be designated for the different committees, particularly the Programme Monitoring Committee and advisory groups in the Programme, in many cases drawn from relevant Scottish organisations. The Programme's commitment to equal opportunities will not however be concentrated in individuals, but be a dimension to all delivery activities. Consequently, short-term *expertise* will be used for training different parts of the delivery system to mainstream equal opportunities on a continuing basis throughout the duration of the Programme. There is also a need for expert advice to be available to projects in terms of meeting their equal opportunities obligations. This will be provided through the 'delivery body' as well as core guidance and good practice material.
- **Selection:** To encourage projects to take full account of equal opportunities, the principle will be embedded in the application and selection system for projects. All projects will be required to demonstrate a commitment to equal opportunities as a core programme criteria at each part in the application form, showing – where relevant – how the issue has been taken fully into account at all stages of project design, implementation and evaluation. A minimum level of commitment needs to be demonstrated for project selection.
- **Management:** To assess the equal opportunities impact of the Programme, relevant indicators will be built into the project monitoring system. These will be reviewed annually for/by the Programme Monitoring Committee and independently assessed as part of a mid-term evaluation.

Further comments on mitigation measures in the Programme are detailed in the assessment matrices (Appendix A).

A 2nd horizontal theme workshop will be held in November 2006 to establish the delivery mechanisms which will ensure that environmental sustainability is integrated into the Programme as detailed above.

In summary, the main mitigation measures the Programme will incorporate are:

- The development of environmental criteria to be considered when evaluating applications for funding; and
- Further development of the horizontal theme of environmental sustainability that aims to address environmental consequences of implementing the Programme.

Furthermore the Programme could specifically allocate a proportion of support and financial assistance towards projects and initiatives that directly seek specific environmental improvements and benefits. The following list, although not exhaustive, represents some key criteria that could be considered when deciding whether a project should receive funding:

- Built development should be sited on 'lower' quality land where practical. Ensure that development will have no negative impacts on biodiversity or habitats, including designated sites. Development should not cause or contribute to the fragmentation of habitats;
- Support the provision of improved public transport links, paths, cycleways etc which provide alternatives to car travel;
- Innovation assistance should be targeted where possible at environmental technologies. This could include such things as waste recycling or waste minimisation practises;
- Built development should be located out with the 1:200 yr flood plain;
- Development will comply with existing regulatory controls relating to the protection of the environment;
- The re-use of contaminated sites, in preference to Greenfield or other land, should be seen as a priority for all new development . Similarly the re-use of Brownfield sites is preferable to developing on Greenfield land. Remediation and re-use of all contaminated land sites should be supported, not just strategic small-scale sites. Where the sites fall within the 1:200 year flood envelope, sites should be remediated for environmental benefit rather than for built development;

- Avoid an increase in traffic congestion as a result of promoting more sensitive locations public transport provision. Aim to upgrade public transport to 'low emission' where possible and aim for an actual increase in sustainable, low emission transport in active use;
- Promote efficient energy use within buildings and support use of renewable energy; and/or
- Ensure that suitable design, in keeping with the townscape, urban form and landscape, is a pre-requisite of funding.

7 MONITORING

7.1 Introduction

Regulation 19 of the Environmental Assessment (Scotland) Act 2005 requires the Responsible Authority to monitor significant environmental effects of the implementation of the plan or programme to enable them to identify unforeseen adverse effects and to take appropriate remedial action. A key recommendation highlighted in the mid-term evaluation of the 2000-2006 Programme was the need for monitoring indicators in any subsequent programmes to be: relevant for programme purposes; limited in number; readily understandable and easily collectable.

European guidance already requires that the impact of Structural Fund programmes is monitored. This is largely focussed on economic and social criteria, however included within this there are a number of high level environmental indicators. DTZ Pbeda (DTZ) are developing the indicators and monitoring schedule for the ERDF Programme as a whole.

The monitoring requirements for SEA are slightly different to those required for Structural Funds. A range of SEA specific indicators are therefore proposed in the table below. These are designed to sit alongside the wider environmental Programme monitoring proposed by DTZ.

7.2 Suggested Indicators

SEA Topic	Proposed Indicator
Biodiversity, Flora and Fauna	Number of businesses* assisted undertaking wildlife habitat/greening activities which contribute to LBAPs Area of habitat created/maintained/upgraded in line with LBAP aims
Population and Human Health	Life expectancy from birth and population figures by area
Water	Number of businesses assisted implementing SUDS Area treated / volume of run-off attenuated by SUDS Number of businesses assisted undertaking activities which contribute to WFD aims Number of projects requiring authorisation under CAR Number of water/ improvement projects
Soil	Area of contaminated land remediated Number of businesses assisted aiming for pollution prevention standards which exceed minimum requirements (to be defined)
Waste	Number of resource efficiency projects/measures implemented (e.g. waste minimisation, recycling, green design) Percentage of waste reduced or materials recycled Number of waste improvement projects (to be defined)
Air	Number of air quality improvement projects
Climatic Factors	kWh per annum / proportion of energy sourced from renewables Number of projects where energy is saved Number of projects focussed on climate change adaptation Number of renewable energy projects Additional capacity of renewable energy production (MWh) Greenhouse emissions CO2 and equivalents (reduction in greenhouse emissions kiloton)
Cultural Heritage	Number of listed buildings upgraded/brought back into viable use
Landscape and Land Use	Number of projects with specific landscape objectives Hectares of derelict/vacant land reused
	Number of projects ensuring sustainability and improving the attractiveness of towns and cities (to be defined)
	Area rehabilitated (km2)
General Environmental Management Measures	Number of businesses implementing Environmental Management Systems Number of businesses achieving accreditation to ISO14001 Number of premises/floor space refurbished/constructed to BREEAM Standards

The details of monitoring for the SEA will be developed prior to the implementation of the Programme. The horizontal theme workshop and feedback from the consultation process will be used to refine the list of indicators considered appropriate for the SEA.

8 PROPOSED CONSULTATION TIMESCALES

The following table details the key milestones together with a proposed timescale for the final stages on the SEA and Operational Programme. It should be noted that these timescales may be subject to change.

Milestone	Dates
Environmental Report and draft OP made available for public consultation	Nov 2006
Consultation concluded	Jan 2007
Feedback on the Environmental Report incorporated into the draft Programme	Jan 2007
Monitoring programme finalised	Feb 2007
Final Environmental Report and Programme	Feb 2007
Report detailing how the SEA has been taken into account in the final OP	Feb 2007
Programme submitted to Brussels	Mar 2007
Programme approved and operational	June 2007

APPENDIX A: ASSESSMENT MATRICES

APPENDIX A: ASSESSMENT MATRICES

The following tables, based on the example table set out in the SEA Handbook Cohesion Policy 2007-2013, have been used to provide a more detailed assessment of the ERDF Objectives together with account of how decisions were reached. The assessment was generally influenced by the horizontal theme of environmental sustainability and as such a number of Objectives have similar comments.

Objective 1 – Enterprise Development					
1. To support the commercialisation of the region's RTD base and stimulate and develop enterprises in key sectors to grow through innovation.					
2. To increase enterprise formation, survival and growth rates in Scotland by improving the new firm formation rate and access to finance to high-growth potential enterprises.					
3. To improve the resource efficiency and commercial use of new environmental technologies within the context of the formation and survival of enterprises.					
SEA Objective	Likely Significant Impacts			Summary Description	Suggested measures to minimise negative and maximise positive effects
	1	2	3		
1. Protect, enhance and where necessary restore biodiversity	0	0	0	A key theme of the Scottish Biodiversity Strategy is that there should be no net loss in biodiversity. However there may inadvertently be instances where development may impact on or cause fragmentation of habitats if unsuitable sites are put forward. It is likely that investment in hard infrastructure would have more of an impact than investment in soft support. The horizontal theme of environmental sustainability should however ensure that projects granted funding would not have a negative effect on the surrounding environment and its biodiversity.	Development should be encouraged on lower quality sites. Development should be discouraged close to or adjacent to designated sites unless it can be proven that the development would improve the quality of such sites and that development will have zero net reduction/deterioration in biodiversity/habitats.
2. Protect and enhance human health	0	0	0	Although levels of deprivation tend to be highest in urban areas, it is likely that investment and sustainable economic growth would contribute to reduced levels of deprivation and hence improved health within areas targeted.	Contribute to reducing levels of deprivation by targeting areas with lowest life expectancy. This would be particularly relevant in Glasgow, which has the highest levels of deprivation and lowest life expectancy of any area in the Lowlands and Uplands.
3. Encourage walking, cycling and use of public transport	0	0	0	The impacts of these objectives would depend on the location of development however it is possible that more 'local' development may reduce need to travel to alternative locations	Targeted investment to areas identified as having a significant number of commuters travelling to work elsewhere. This would generally focus on smaller urban and rural settlements within

				for employment and alternatives to the car may be more acceptable to the public.	commuting distance of the major towns and cities.
4. Protect and enhance the water environment	0	0	0	There is insufficient information on the types of projects to allow prediction of impacts. Again it is likely that investment in hard infrastructure would have more of an impact than investment in soft support. However the horizontal theme of environmental sustainability should ensure that projects granted funding would not have a negative environmental effect.	In sewerred areas, development should not be encouraged in areas with current sewerage constraints unless it is shown that the development can be connected to the public sewer or contributions made to facilitate connection. In general works liable to pollute the water environment are heavily controlled under existing legislation.
5. No increase in development at risk of flooding and no decrease in area of functional flood plain	0	0	0	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However the horizontal theme of environmental sustainability should ensure that projects granted funding would not have a negative environmental effect.	It is now becoming more evident that climate change would lead to an increase in rainfall and hence flood events and as a consequence the current policy (SPP7) to not allow development within the 1:200 yr flood envelope may have to be tightened to account for the effects of climate change. Therefore investment should be directed to projects which would not have a significant effect on the storage capacity of the functional flood plain or affect local flooding problems.
6. Regenerate degraded environments	0	0	0	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However there is a possibility that funding may result in the re-use or remediation of contaminated, vacant or derelict land.	Development should be encouraged in areas of contaminated, vacant or derelict land and development which proposed to remediate and re-use such land should be given priority in any given area.
7. Reduce waste	0	0	0	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However the horizontal theme of environmental sustainability should ensure that projects granted funding would not have a negative environmental effect.	Encourage investment in technologies offering possibilities for waste re-use and recycling.
8. Protect and enhance air quality, particularly within urban areas	0	0	0	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However the horizontal theme of environmental sustainability should ensure that projects granted funding would not have a negative environmental effect.	Targeted investment in areas identified as having a significant number of commuters travelling to work elsewhere and therefore reducing the need to travel to work. Avoid an increase in traffic congestion as a result of siting developments in inappropriate locations and creating or exacerbating

					congestion problems.
9. Reduce the contribution to climate change	+	+	+	There is Insufficient information on types of projects at this stage to allow prediction of impacts however the type and location of such development would determine whether there was a positive or negative contribution to climate change. However the horizontal theme of environmental sustainability supports the sustainable commercial use of renewables technology and energy efficiency projects, which could make a positive contribution to climate change.	Investment focusing on the commercial use of key environmental technologies. Development of more local enterprises may reduce need to travel to alternative locations for employment and hence may reduce vehicle emissions. Ensure the efficient energy use within buildings. Encourage the use of renewable energy suppliers.
10. Protect, enhance and where necessary restore building character, and townscape	0	0	0	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. It is likely that investment in hard infrastructure would have more of an impact than investment in soft support.	Ensure that suitable designs, in keeping with townscape, are a pre-requisite of funding. The sympathetic restoration and/or re-use of listed buildings should be encouraged where appropriate.
11. Protect, enhance and where necessary restore the historic environment	0	0	0	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However the horizontal theme of environmental sustainability should ensure that projects granted funding would not have a negative environmental effect.	Ensure sites will not impact on the historic environment and that suitable design, in keeping with the historic environment, is a pre-requisite of funding
12. Respect urban form, settlement pattern and identity	0	0	0	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However the horizontal theme of environmental sustainability should ensure that projects granted funding would not have a negative environmental effect.	Ensure suitable design, in keeping with urban form, is a pre-requisite of funding

13. Protect and enhance landscape character, particularly within designated areas	0	0	0	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However the horizontal theme of environmental sustainability should ensure that projects granted funding would not have a negative environmental effect.	Encourage potential projects to include measures to enhance landscape character where appropriate rather than simply ensuring a neutral impact.
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Objective 2 – Community regeneration				
1. Support locally-based community regeneration initiatives				
2. To complement the social inclusion activity under the ESF programme with appropriate infrastructure investments in the most vulnerable communities				
SEA Objective	Likely Significant Impacts		Summary Description	Suggested measures to minimise negative and maximise positive effects
	1	2		
1. Protect, enhance and where necessary restore biodiversity	o	o	A key theme of the Scottish Biodiversity Strategy is that there should be no net loss in biodiversity. However there may inadvertently be instances where development may impact on or cause fragmentation of habitats if unsuitable sites are put forward. It is likely that investment in hard infrastructure would have more of an impact than investment in soft support. The horizontal theme of environmental sustainability should however ensure that projects granted funding would not have a negative effect on the surrounding environment and its biodiversity.	Development should be encouraged on lower quality sites. Development should be discouraged close to or adjacent to designated sites unless it can be proven that the development would improve the quality of such sites and that development will have zero net reduction/deterioration in biodiversity/habitats.
2. Protect and enhance human health	o	o	Levels of deprivation tend to be highest in urban areas and it is likely that investment and sustainable economic growth would contribute to reduced levels of deprivation and hence improved life expectancy within areas targeted. However the issue of human health is a complex one and the actual impact of the funding may have a negligible overall effect on human health.	Contribute to reducing levels of deprivation by targeting areas with lowest life expectancy. This would be particularly relevant in Glasgow, which has the highest levels of deprivation and lowest life expectancy of any area in the Lowlands and Uplands.
3. Encourage walking, cycling and use of public transport	+	+	The impacts of these objectives would depend on the location of development however it is possible that more 'local' development may reduce need to travel to alternative locations for employment and alternatives to the car may be more acceptable to the public.	In addition to targeting areas of high unemployment investment should also be directed to areas where the workforce would have to travel to work elsewhere. This would generally focus on smaller urban and rural settlements within commuting distance of the major towns and cities.
4. Protect and enhance the water environment	0	0	The impacts of these objectives would depend on the location and type of development. In general works liable to pollute the water environment are heavily controlled under existing legislation. The	In sewered areas, development should not be encouraged in areas with current sewerage constraints unless it is shown that the development can be connected to the public sewer or contributions

			horizontal theme of environmental sustainability should however ensure that projects granted funding would not have a negative effect on the surrounding environment and its biodiversity	made to facilitate connection.
5. No increase in development at risk of flooding and no decrease in area of functional flood plain	?	?	The impacts of these objectives would depend on the location of development	It is now becoming more evident that climate change would lead to an increase in rainfall and hence flood events and as a consequence the current policy (SPP7) to not allow development within the 1:200 yr flood envelope may have to be tightened to account for the effects of climate change. Therefore investment should be directed to projects which would not have a significant effect on the storage capacity of the functional flood plain or affect local flooding problems.
6. Regenerate degraded environments	+	+	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However horizontal theme of environmental sustainability encourages the re-use or remediation of contaminated, vacant or derelict land.	Development should be targeted in areas with high levels of contaminated, vacant or derelict land and development proposing to remediate and/or re-use such land should be given priority in any given area. Carry out remediation of land rather than simply disposal.
7. Reduce waste	?	?	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However raising awareness of environmental issues may encourage businesses to adopt more sustainable waste policies.	Provide infrastructure for waste recycling. Encourage waste minimisation. Encourage investment in technologies offering, for example, possibilities for waste re-use and recycling. Encourage alternatives to 'dig and dump' when dealing with contaminated sites.
8. Protect and enhance air quality, particularly within urban areas	?	?	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts.	Targeted investment in areas identified as having a significant number of commuters travelling to work elsewhere and therefore reducing the need to travel to work. Avoid an increase in traffic congestion as a result of siting developments in inappropriate locations and creating or exacerbating congestion problems.
9. Reduce the contribution to climate change	+	+	The horizontal theme of environmental sustainability specifically supports the development of small scale renewables which could make a positive contribution to climate change.	Investment focusing on the commercial use of key environmental technologies. Development of more local enterprises may reduce need to travel to alternative locations for employment and hence may reduce vehicle

				emissions. Ensure the efficient energy use within buildings. Encourage the use of renewable energy suppliers.
10. Protect, enhance and where necessary restore building character, and townscape	?	?	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts.	Ensure that suitable designs, in keeping with townscape, is a pre-requisite of funding. This could include the sympathetic restoration and/or re-use of listed buildings should be encouraged where appropriate.
11. Protect, enhance and where necessary restore the historic environment	?	?	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts.	Ensure sites will not impact on the historic environment and that suitable design, in keeping with the historic environment, is a pre-requisite of funding
12. Respect urban form, settlement pattern and identity	?	?	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts.	Ensure suitable design, in keeping with urban form, is a pre-requisite of funding
13. Protect and enhance landscape character, particularly within designated areas	o	o	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However the horizontal theme of environmental sustainability should ensure that projects granted funding would not have a negative environmental effect.	Encourage potential projects to include measures to enhance landscape character where appropriate rather than simply ensuring a neutral impact.

Objective 3 – Rural Development				
1. To strengthen and renew key rural industries and support the development of alternative sustainable activities				
2. To support development of key shared rural services to underpin economic and community sustainability				
SEA Objective	Likely Significant Impacts		Summary Description	Suggested measures to minimise negative and maximise positive effects
	1	2		
1. Protect, enhance and where necessary restore biodiversity	o	o	A key theme of the Scottish Biodiversity Strategy is that there should be no net loss in biodiversity. However there may inadvertently be instances where development may impact on or cause fragmentation of habitats if unsuitable sites are put forward. It is likely that investment in hard infrastructure would have more of an impact than investment in soft support. The horizontal theme of environmental sustainability should however ensure that projects granted funding would not have a negative effect on the surrounding environment and its biodiversity.	Development should be encouraged on lower quality sites. Development should be discouraged close to or adjacent to designated sites unless it can be proven that the development would improve the quality of such sites and that development will have zero net reduction/deterioration in biodiversity/habitats.
2. Protect and enhance human health	o	o	Levels of deprivation tend to be highest in urban areas and it is likely that investment and sustainable economic growth would contribute to reduced levels of deprivation and hence improved life expectancy within areas targeted. However the issue of human health is a complex one and the actual impact of the funding may have a negligible overall effect on human health.	Contribute to reducing levels of deprivation by targeting areas with lowest life expectancy. This would be particularly relevant in Glasgow, which has the highest levels of deprivation and lowest life expectancy of any area in the Lowlands and Uplands. Similarly urban areas are more at risk from airborne pollutants therefore the benefits of low-emission public transport would be more keenly felt in urban areas, particularly those areas with potential air quality issues.
3. Encourage walking, cycling and use of public transport	o	o	The impacts of these objectives would depend on the location of development however it is possible that more 'local' development may reduce need to travel to alternative locations for employment and alternatives to the car may be more acceptable to the public.	In addition to targeting areas of high unemployment investment should also be directed to areas where the workforce would have to travel to work elsewhere. This would generally focus on smaller urban and rural settlements within commuting distance of the major towns and cities.

4. Protect and enhance the water environment	o	o	The impacts of these objectives would depend on the location and type of development. In general works liable to pollute the water environment are heavily controlled under existing legislation. The horizontal theme of environmental sustainability should however ensure that projects granted funding would not have a negative effect on the surrounding environment and its biodiversity	In sewered areas, development should not be encouraged in areas with current sewerage constraints unless it is shown that the development can be connected to the public sewer or contributions made to facilitate connection.
5. No increase in development at risk of flooding and no decrease in area of functional flood plain	?	?	The impacts of these objectives would depend on the location of development	It is now becoming more evident that climate change would lead to an increase in rainfall and hence flood events and as a consequence the current policy (SPP7) to not allow development within the 1:200 yr flood envelope may have to be tightened to account for the effects of climate change. Therefore investment should be directed to projects which would not have a significant effect on the storage capacity of the functional flood plain or affect local flooding problems.
6. Regenerate degraded environments	o/+	o/+	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However the horizontal theme of environmental sustainability encourages the re-use or remediation of contaminated, vacant or derelict land.	Development should be targeted in areas with high levels of contaminated, vacant or derelict land and development proposing to remediate and/or re-use such land should be given priority in any given area. Carry out remediation of land rather than simply disposal.
7. Reduce waste	?	?	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However raising awareness of environmental issues may encourage businesses to adopt more sustainable waste policies.	Provide infrastructure for waste recycling. Encourage waste minimisation. Encourage investment in technologies offering, for example, possibilities for waste re-use and recycling. Encourage alternatives to 'dig and dump' when dealing with contaminated sites.
8. Protect and enhance air quality, particularly within urban areas	+	+	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts however the horizontal theme of environmental sustainability includes a aim of reducing carbon emissions from transport. As transport is a major contributor to air quality issues, reduction in emissions from this source would have a positive benefit.	Targeted investment in areas identified as having a significant number of commuters travelling to work elsewhere and therefore reducing the need to travel to work. Avoid an increase in traffic congestion as a result of siting developments in inappropriate locations and creating or exacerbating congestion problems.

9. Reduce the contribution to climate change	+	+	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts however the horizontal theme of environmental sustainability will support the development of renewables in addition to a longer term aim of reducing carbon emissions from transport.	Investment focusing on the commercial use of key environmental technologies. Development of more local enterprises may reduce need to travel to alternative locations for employment and hence may reduce vehicle emissions. Ensure the efficient energy use within buildings. Encourage the use of renewable energy suppliers.
10. Protect, enhance and where necessary restore building character, and townscape	o	o	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts.	Ensure that suitable designs, in keeping with townscape, is a pre-requisite of funding. This could include the sympathetic restoration and/or re-use of listed buildings should be encouraged where appropriate.
11. Protect, enhance and where necessary restore the historic environment	o	o	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts.	Ensure sites will not impact on the historic environment and that suitable design, in keeping with the historic environment, is a pre-requisite of funding
12. Respect urban form, settlement pattern and identity	o	o	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts.	Ensure suitable design, in keeping with urban form, is a pre-requisite of funding
13. Protect and enhance landscape character, particularly within designated areas	o	o	There is insufficient information on the types and locations of projects to allow accurate prediction of impacts. However the horizontal theme of environmental sustainability should ensure that projects granted funding would not have a negative environmental effect.	Encourage potential projects to include measures to enhance landscape character where appropriate rather than simply ensuring a neutral impact.

***APPENDIX B: EXPANDED LIST OF RELEVANT
PLANS, PROGRAMMES AND STRATEGIES***

European Context	
EU Sustainable Development Strategy (2005)	Outlines priorities in four key areas: climate change, transport, public health and natural resources
EC Urban Waste Water Treatment Directive (91/271/EEC)	Provides appropriate sewage treatment for settlements and prohibits dumping of sewage sludge at sea.
Air Quality Framework Directive (96/62/EC)	Establishes a framework which sets limits for the concentrations of specified air pollutants in ambient air
EU Habitats Directive (92/43/EEC)	To ensure bio-diversity through the conservation of natural habitats and of wild fauna and flora; (ii) to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora; (iii) to take account of economic, social and cultural requirements and regional and local characteristics.
EU Birds Directive (79/409/EEC)	To preserve, maintain or re-establish a sufficient diversity and area of habitats for all species of birds;
Integrated Pollution Prevention and Control Directive (96/61/EC)	Employs an integrated approach to regulating certain industrial activities and installations that may cause pollution or have other environmental effects
EU Waste Directive (75/442/EEC)	Establishes general rules for waste management
EU Landfill Directive (99/31/EC)	To reduce methane emissions To ensure high standards for the disposal of waste; To stimulate recycling and recovery of waste and energy; To reduce the amount of biodegradable municipal waste going to landfill to 35% of the 1995 levels by 2020.

The plans, programmes and strategies that are linked to the ERDF vary in their importance both in terms of the level at which they are prepared and their implications for the ERDF Programme. At National level, Scottish Planning Policy (SPP), National Planning Policy Guidance (NPPG) and Planning Advice Notes (PAN) provide guidelines for development relating to a wide range of topics, including housing, retail development and the environment.

Although the specific range of guidance applicable will be determined by the exact nature of a particular project, the following areas of guidance are likely to be of particular importance to the ERDF programme:

National Context	
Scottish Biodiversity Strategy “ <u>Scotland's Biodiversity: It's in Your Hands</u> ” (2004)	The strategy presents a vision, aim, objectives and broad directives for action to deliver the 25 year strategy to conserve and enhance biodiversity in Scotland
River Basin Planning Strategy for the Scotland River Basin District	Prevent deterioration in the status of water bodies and protect, enhance and restore all water bodies water with the aim of achieving good surface water status by 2015; Prevent or limit the input of pollutants to groundwater and reverse any significant and sustained upward trend in the concentration of pollutants in groundwater; Comply with European wide measures against priority and priority hazardous substances; and Achieve compliance with any relevant standards and objectives for protected areas
National Planning Framework for Scotland	The framework describes Scotland as it is in 2004, identifies key issues and drivers of change, sets out a vision to 2025, and identifies priorities and opportunities for different parts of the country in spatial perspectives for the Central Belt, East Coast, Ayrshire and the South-West and Rural Scotland. The final section sets out the action which will be taken by the Executive and public agencies to progress the framework.
National Air Quality Strategy	Reduce the impact that pollutants in the air have on public health and to meet national objectives and limits set by European Legislation
Nature Conservation (Scotland) Act 2004	Places duties on public bodies in relation to the conservation of biodiversity, increased protection for designated sites and strengthens wildlife enforcement legislation
Water Environment and Water Services Act 2005	Implements the WFD in Scotland and sets out to improve the water environment beyond the requirements of WFD
The Ancient Monuments and Archaeological Areas Act 1979	Provides for nationally important sites to be protected as scheduled ancient monuments
The Protection of Wrecks Act 1973	Provides protection for designated wrecks which are deemed to be important by virtue of their historical, archaeological or artistic value or are dangerous by virtue of their contents.

The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997	Provides a requirement to list buildings of special architectural or historical interest and restricts development which may affect listed buildings
Environmental Protection Act 1990: Part IIA Contaminated Land (Scottish Executive Circular 1/2000)	To identify and remove unacceptable risks to human health and the environment and to bring damaged land back into beneficial use;
The Pollution Prevention and Control (Scotland) Regulations 2000	Transposes IPPC Directive into PPC employs an integrated approach to regulating certain industrial activities and installations that may cause pollution or have other environmental effects
The Environmental Impact Assessment (Scotland) Regulations 1999	Requires the developer to compile detailed information on the likely environmental effects of certain projects prior to development consent being granted.
Scottish Planning Policy (SPP) 1: The Planning System	<p>Promote regeneration and the full appropriate use of land, buildings and infrastructure;</p> <p>Promote the use of previously developed land and minimise Greenfield development;</p> <p>Conserve important historic and cultural assets;</p> <p>Protect and enhance areas of recreation and natural heritage;</p> <p>Support better access by foot, cycle and public transport, as well as by car;</p> <p>Encourage energy efficiency through the layout design of development.</p>
Scottish Planning Policy (SPP) 2: Economic Development	<p>To secure new economic development in sustainable locations, to improve integration between transport and locations for such development and to encourage more sustainable forms of development;</p> <p>Safeguard and enhance the environment.</p>
Scottish Planning Policy (SPP) 3: Planning for Housing	<p>Encourage good quality, well designed new housing development and to encourage energy efficiency as an important element of good design in new housing developments;</p> <p>Encourage the efficient use of resources in construction and encourage developers to avoid waste, recycling material generated during demolition or on other construction sites;</p> <p>Promote and increase the attractiveness of walking and cycling, to encourage increased public transport and to reduce the demand and need for travel by private car;</p> <p>Safeguard networks of open space and recreation and sports facilities from development and to provide for the long term</p>

	management of open space, landscaping, drainage systems and other common facilities proposed as part of residential developments.
National Planning Policy Guideline (NPPG) 4: Mineral Working	<p>(i) to identify preferred areas for mineral extraction and to safeguard deposits of minerals from permanent development that would prevent or hinder their subsequent extraction;</p> <p>(ii) to protect areas of importance to natural and built heritage from inappropriate mineral development;</p> <p>(iii) to achieve improved operating standards and sensitive working practices in order to reduce the impact of mineral extraction;</p> <p>(iv) to achieve a high standard of restoration and aftercare and to provide for beneficial after-uses when mineral working has ceased; and</p> <p>(v) to facilitate the recycling and reuse of material in waste tips and construction wastes where this is environmentally acceptable.</p>
National Planning Policy Guideline (NPPG) 5: Archaeology and Planning	<p>(i) to protect, preserve and, where appropriate, enhance of all nationally important sites of archaeological interest and their settings as well as other unscheduled remains and their settings identified as particularly worthy of preservation; and</p> <p>(ii) to protect and, where appropriate, enhance landscapes of historic importance including Historic Gardens and Designed Landscapes and their settings.</p>
National Planning Policy Guideline (NPPG) 6: Renewable Energy	<p>(i) to provide positively for the development of renewable energy development;</p> <p>(ii) to define specific sites or broad areas of search suitable for wind and other renewable energy developments and to safeguard, where appropriate, areas with potential for renewable energy projects against sterilisation by inappropriate development; and</p> <p>(iii) to indicate areas or sites where, for environmental reasons, renewable energy developments would not be considered appropriate</p>
Scottish Planning Policy (SPP) 7: Planning and Flooding	<p>(i) to ensure that new development is free from significant flood risk from any source and does not increase the probability of flooding elsewhere;</p> <p>(ii) to indicate areas where a degree of flood risk exists, to define or identify areas where development is unlikely to be acceptable and areas where flood risk can be managed.</p>
National Planning Policy Guideline (NPPG) 8: Town Centres and	(i) to sustain, enhance and promote the vitality, viability and design quality of town centres, as the most appropriate location for

Retailing	retailing and other related activities;
National Planning Policy Guideline (NPPG) 10: Planning and Waste Management	<p>(i) to encourage development which assists in the reduction, re-use and recovery of waste;</p> <p>(ii) to provide waste management facilities as close as is reasonable to the source of waste production, taking into account the safeguarding of the natural and built environment;</p> <p>(iii) to provide guidance on appropriate locations for differing waste management facilities including special and clinical wastes and wastewater treatment plants; and</p> <p>(iv) to provide standards for all landfill site restoration, aftercare and after-use and the proper landscaping of all waste sites.</p>
National Planning Policy Guideline (NPPG) 14: Natural Heritage	<p>To protect and, where appropriate, enhance all internationally and nationally designated areas and sites (including potential SPAs and SACs);</p> <p>To safeguard and manage any landscape features of major importance for nature conservation or amenity;</p> <p>To make appropriate provision for Local Nature Reserves and the protection and enhancement of open space of natural heritage value;</p> <p>To provide for the conservation of biodiversity and the protection and enhancement of the natural heritage out with designated areas; and</p>
Scottish Planning Policy (SPP) 15: Planning for Rural Development	<p>To allow for sensitive new development, appropriate in scale, kind and location, within more accessible and densely populated rural areas;</p> <p>To encourage diversification, distinctiveness and individuality of developments in less populated rural areas,</p> <p>To protect prime quality agricultural land except where the land is required to meet strategic development objectives;</p> <p>To support a wide range of economic activity in rural areas and seek environmental enhancement through development;</p> <p>To support the development of the tourism and leisure industry, particularly addressing the issues of siting and design for such developments;</p> <p>To encourage diversification of the rural economy, particularly where this brings additional economic benefit to the area through increased employment and community benefit through the reuse of previously used land or buildings.</p>

Scottish Planning Policy 17: Planning for Transport	To meet European and UK commitments and targets on greenhouse gases and local air quality; To maintain and enhance the natural and built environment; To ensure that the impact of development proposals on transport networks does not compromise their safety or efficiency.
National Planning Policy Guideline (NPPG) 18: Planning and the Historic Environment	Protects, conserves and enhances the historic environment and its setting, including listed buildings, unlisted buildings in conservation areas, conservation areas, scheduled monuments, historic gardens and designed landscapes;
Scottish Planning Policy (SPP) 20: Role of Architecture and Design Scotland	Promotes the qualities and benefits of good design in new developments.

At a local level there are a number of plans, programmes and strategies which are linked to the ERDF and which vary in their importance in terms of the level at which they are prepared and their implications for the ERDF. Due to the strategic nature of the ERDF Programme it has been considered that the study would not be continued down to local level however, the following Structure Plans and Area Waste Plans would have to be considered at the project stage:

Relevant Structure Plans	
Ayrshire Joint Structure Plan	Dumfries & Galloway Structure Plan
Clackmannanshire & Stirling Structure Plan	Dundee & Angus Structure Plan
Edinburgh and The Lothians Structure Plan	Fife Structure Plan
Glasgow & Clyde Valley Joint Structure Plan	North East of Scotland Structure Plan
Perth & Kinross Structure Plan	Scottish Borders Structure Plan

Relevant Area Waste Plans	
Lothian & Borders Area Waste Plan	Glasgow & Clyde Valley Area Waste Plan
Ayrshires & Dumfries & Galloway Area Waste Plan	Forth Valley Area Waste Plan
Tayside Area Waste Plan	Aberdeen & Aberdeenshire Area Waste Plan

APPENDIX C: SELECTED ENVIRONMENTAL DATA

	Total area of Local Authority (ha)	Vacant/Derelict Land		SSSI		cSAC		SPA	
		No. of Sites	Area (ha)	No. of Sites	Area (ha)	No. of Sites	Area (ha)	No. of Sites	Area (ha)
Aberdeen City	20561	50	187	3	47				
Aberdeenshire	633881	46	36	82	39805	18	35334	10	29611
Angus	220415	51	172	34	8610	3	5841	4	5886
City of Edinburgh	27303	64	179	6	1239				918
Clackmannanshire	16392	33	91	9	801				249
Dumfries & Galloway	667297	45	255	96	75384	17	91960	6	48713
Dundee City	6222	213	216	1	621		197		266
East Ayrshire	127033	117	332	16	18223	1	2739	1	16663
East Dunbartonshire	17461	42	120	4	138				
East Lothian	70092	51	84	15	4716			1	1963
East Renfrewshire	17379	43	61	4	81				
Falkirk	31489	99	195	7	1843		3		1439
Fife	137385	224	897	48	7702	2	3244	2	4342
Glasgow City	17736	853	1313	5	151				
Inverclyde	17356	147	153	4	885				107
Midlothian	35528	108	317	15	1205	1	53	2	504
North Ayrshire	90384	225	547	28	23247	3	143	1	10737
North Lanarkshire	47213	380	1315	10	526	3	213		
Perth & Kinross	541890	65	73	113	69167	18	39271	5	30803
Renfrewshire	26875	170	1002	7	1099	8		1	614
Scottish Borders	474263	79	65	91	28523	12	13141	4	4090
South Ayrshire	123469	46	132	31	6689	6	1576	1	2713
South Lanarkshire	177405	236	550	38	9239	8	1093		4420
Stirling	225481	56	191	70	18513		8564		212
West Dunbartonshire	18278	113	210	13	1219		47	1	458
West Lothian	43162	67	653	16	1320	2	146		146
TOTAL	3831950	3623	9346	766	320993	102	203565	39	164854

	Ramsar		GDL		NSA		NP		CP	
	No. of Sites	Area (ha)	No. of Sites	Area (ha)	No. of Sites	Area (ha)	No. of Sites	Area (ha)	No. of Sites	Area (ha)
Aberdeen City										
Aberdeenshire	4	1239	27	5745	1	43300		144833	4	276
Angus	3	1528	11	1727		7800		32390	3	259
City of Edinburgh		913	20	2853					1	271
Clackmannanshire		249							1	68
Dumfries & Galloway	5	33705	20	5706	3	19100				
Dundee City		266	1	185					2	216
East Ayrshire			3	1064					1	81
East Dunbartonshire										
East Lothian	1	1934	26	4766					1	675
East Renfrewshire			1	8						
Falkirk		1439	2	312					1	61
Fife	1	4270	31	4179					3	489
Glasgow City			3	510					1	146
Inverclyde		107	2	245						
Midlothian	2	504	12	2547					2	143
North Ayrshire			3	1011	1	23800			2	477
North Lanarkshire			2	224					3	1016
Perth & Kinross	4	7252	34	9486	4	69400		4104		
Renfrewshire		558	1	158					3	692
Scottish Borders	3	348	30	7832	2	14100				
South Ayrshire			8	1883					1	229
South Lanarkshire			5	2210					2	616
Stirling		116	11	2412	1	17300	1	117926	1	206
West Dunbartonshire	1	431	2	209		3200		5558	1	81
West Lothian		146	4	667					3	479
TOTAL	24	55005	259	55939	12	198000	1	304811	36	6481
	LNR		NNR							

	No. of Sites	Area (ha)	No. of Sites	Area (ha)
Aberdeen City	4	126		
Aberdeenshire	2	28	6	14318
Angus	1	1024	1	3168
City of Edinburgh	4	136		
Clackmannanshire	1	44		
Dumfries & Galloway	2	2982	4	9961
Dundee City	2	180		
East Ayrshire				
East Dunbartonshire	1	21		
East Lothian	1	582		
East Renfrewshire				
Falkirk				
Fife	4	1613	3	
Glasgow City	2	70		596
Inverclyde	1	44		
Midlothian	1	5		
North Ayrshire	1	12	1	10
North Lanarkshire	2	59		
Perth & Kinross	1	1003	5	7833
Renfrewshire	2	10		
Scottish Borders			3	106
South Ayrshire				
South Lanarkshire	1	20	2	138
Stirling	1	6	1	1687
West Dunbartonshire			1	198
West Lothian			1	69
TOTAL	34	7965	28	38084