Clackmannanshire Environment & Sustainability Framework

Strategic Environmental Assessment

Environmental Report

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Submitted By:

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Section 1.0: Non Technical Summary

1.1 Introduction

Consistent with paragraph 10 of Schedule 3 of the Environmental Assessment (Scotland) Act 2005, Clackmannanshire Council (the Council) have prepared this non-technical summary for the Environment & Sustainability Framework (the Framework) covering the key issues, outcomes, topics and processes of the Strategic Environmental Assessment (SEA) process listed at paragraph 1-9 of Schedule 3.

This non-technical summary summarises the contents and outcome of the strategic environmental assessment of the Framework. The assessment has been undertaken to consider the environmental effects of the Framework on Clackmannanshire and to consider the priority action options to be undertaken as part of the Framework. This should ultimately improve the Framework document in respect to its effects on the environment.

1.2 The Framework

The Environment and Sustainability Framework is a "daughter document" of the Clackmannanshire Community Plan. Community planning is a requirement of the Local Government in Scotland Act 2003. In Clackmannanshire it is led by the Clackmannanshire Alliance, whose role is to provide the strategic vision and direction for community planning.

The Framework's intended purpose is to guide and co-ordinate key community and agency initiatives to promote sustainability in Clackmannanshire and will cover the period from 2007 to 2010. It identifies priority actions to be taken in terms of environmental and sustainability issues in Clackmannanshire, particularly those that require a multi-agency approach.

The Framework is influenced by a wide range of international, European, national and local Plans, Programmes or Strategies (PPS's) which contain environmental objectives that the Framework must take into account. Therefore, a policy review of the relevant PPS's has been undertaken and a full list of the PPS's used in the preparation of the Framework has been produced (Appendix A).

1.3 Why SEA?

The Environmental Assessment (Scotland) Act 2005 requires that Local Councils undertake a Strategic Environmental Assessment for any Plans, Programmes or Strategies which are likely to have significant environmental effects (positive and/or negative).

As part of the preparation of the Clackmannanshire Environment & Sustainability Framework, Clackmannanshire Council is carrying out a Strategic Environmental Assessment (SEA). SEA is a systematic method for considering the likely environmental effects of the Framework. SEA aims to:

- integrate environmental factors into the Framework preparation and decision-making;
- improve the Framework and enhance environmental protection;
- increase public participation in decision making; and
- facilitate openness and transparency of decision-making.

1.4 Screening, Scoping and the Environmental Report

The Framework was initially screened and found likely to have significant environmental effects by the Council. The statutory consultation authorities (Scottish Environment Protection Agency (SEPA), Historic Scotland and Scottish Natural Heritage (SNH)) were in agreement with the Councils judgment and the Council subsequently produced a scoping report identifying the level of detail the Environmental Report was to contain. Consultation authority responses were received with regard to the level of detail and their comments were taken into account when undertaking the SEA and producing this Environmental Report.

The purpose of this Environmental Report is to:

- provide information on Clackmannanshire and the Environment & Sustainability Framework;
- identify, describe and evaluate the likely significant effects of the Environment & Sustainability Framework and its reasonable alternatives;
- provide an early and effective opportunity for the Consultation Authorities and the public to offer views on any aspect of this Environmental Report.

1.5   Environmental Baseline and Existing Issues

Clackmannanshire is the smallest mainland authority in Scotland however it still displays a rich diversity of species and habitats however it is evident that there are trends of declining biodiversity in Scotland and therefore in the region.

Air quality in Clackmannanshire is generally of a good quality and the same can be said about water quality. Out of the 8 key pollutants identified in the national air quality strategy, only one air quality objective is of concern with respect to exceeding the national 2010 objectives i.e. particular matter (PM10 levels). Watercourses flowing through Clackmannanshire are classed excellent to fair standards by SEPA however the Forth Estuary is classified as poor.

Clackmannanshire exhibits a carbon footprint and ecological footprint below that of the Scottish average however energy consumption continues to increase. Over 85% of Clackmannanshire's population lives in urban areas or accessible small towns so there is an increasing traffic occurrence.

In Clackmannanshire the low lying floodplains of the Rivers Devon and Black Devon are two key areas where the risk of inundation is important. Areas adjacent to the Forth Estuary may be at risk from tidal flooding and extensive parts of Clackmannanshire are areas of flood plain. The potential for flooding is greatest alongside the rivers Devon and Black Devon.

Waste generation continues to grow in Clackmannanshire although the rate of this growth has slowed from 2001 to 2007 and Clackmannanshire can boast some of the best municipal recycling rates in Scotland in 2007.

Clackmannanshire is an important cultural and historic area in Scotland however it is being affected by the Scotland-wide issues of neglect of historically valuable buildings.

The land cover of Clackmannanshire is predominantly agricultural, but characterised also by its high degree of urbanisation and its heavily wooded nature. There is a degree of landscape character disruption due to wind farms, major developments and infrastructure planned for Clackmannanshire.

A detailed view of the environmental baseline of Clackmannanshire can be seen in Section 4.

It is acknowledged that without the Framework the environmental receptors identified would be unlikely to suffer any deterioration. Their condition is likely to improve or remain the same in the absence of the Framework, because the public bodies in the Clackmannanshire Alliance, particularly, but not exclusively, Clackmannanshire Council, have statutory duties with regard to environmental protection.

1.6   Summary of SEA Findings

Due to the positive nature of this Framework and its priority actions, overall environmental effects will be largely positive. It is likely that significant positive environmental effects will be seen in the following areas;

- Protection and enhancement of areas of greenspace
- Regeneration of existing urban land - safeguarding soil resource
- Sustainable use of material resources and management of waste
- Encouragement of sustainable travel - reducing car use
- Improvement of air quality - reduced vehicular emissions
- Enhanced health of local population – more active community
- Preservation and enhancement of local cultural heritage and landscape

There was also some level of uncertainty of likely effects of the Framework priority actions which included:

- Potential impacts on the local distinctiveness of Clackmannanshire
- Potential disruption to local species and habitats due to new infrastructure
- Potential use of Greenfield land for new infrastructure
- Potential increased use of the water resources
- Potential increased generation of waste

These uncertainties are to be addressed through mitigation measures at project level by the appropriate planners and project managers.

1.7   Mitigation and Monitoring

Due to the overall positive environmental effects of the Framework and its priority actions there are minimal mitigation measures proposed in this environmental report.

Due to the level of uncertainty with some of the priority actions in respect to project location and other factors which will influence the environmental effects, it has been proposed that mitigation measures be addressed by the appropriate council planners and project managers at project level.

The environmental baseline and the SEA objective indicators will form the basis of future monitoring of the potential effects that this Framework may have on Clackmannanshire's environment. The monitoring framework can be seen in Appendix I.

1.8   Next Steps

The next step will to be to consult widely on the Framework and this Environmental Report. The Council will also engage with SEPA, SNH and Historic Scotland to seek their advice on finalising this report in accordance with current best practice. All these comments will be taken into account and amendments may be made accordingly.

Any significant change to the Framework in response to consultation may require further consideration in terms of the environmental implications. In coming to a decision to approve the Framework for submission to Scottish Ministers the Council will be required to demonstrate that they have taken all the relevant environmental issues into account.

The Draft Framework and the Environmental Report may be subject to change as the Council proceed towards finalisation for submission to Scottish Ministers. You may disagree with some of the conclusions to date or consider that other reasonable alternative projects should be considered. This report has been prepared to inform this stage in the process and as the basis for consultation.

If you would like to express your views on this environmental report, please send your comments to:

- *Niall Urquhart, Sustainability Team Leader*
  Clackmannanshire Council, Kilncraigs, Greenside Street, Alloa, U.K., FK10 1EB

Section 2.0: Introduction and Summary

2.1 Timescale and Address for Comments

The consultation period for this Environmental Report is 6 weeks. All comments should be sent to Niall Urquhart, Sustainability Team Leader, Clackmannanshire Council, Kilncraigs, Greenside Street, Alloa, FK10 1EB.

2.2 Purpose of this Environmental Report

As part of the preparation of the Clackmannanshire Environment & Sustainability Framework ('the Framework'), Clackmannanshire Council is carrying out a Strategic Environmental Assessment (SEA). SEA is a systematic method for considering the likely environmental effects of certain Plans, Programmes or Strategies (PPS). SEA aims to:

- integrate environmental factors into the Framework preparation and decision-making;
- improve the Framework and enhance environmental protection;
- increase public participation in decision making; and
- facilitate openness and transparency of decision-making.

SEA is required by the Environmental Assessment (Scotland) Act 2005. The key SEA stages are:

Screening   Determining whether the Framework is likely to have significant environmental effects and whether an SEA is required.

Scoping   Deciding on the scope and level of detail of the SEA, and the consultation period for the Environmental Report - this is done in consultation with Scottish Natural Heritage (SNH), Historic Scotland and the Scottish Environment Protection Agency (SEPA).

Environmental   Publishing an Environmental Report on the Framework and its environmental
Report   effects, and consulting on that report as part of the Framework process.

Adoption   Finalising the Environmental Report in the context of the Framework as it will be submitted to the Scottish Ministers. This will include details of the consultation/comments received and how these have been taken into account; as well as the methods for monitoring the significant environmental effects of the implementation of the Framework.

Monitoring   Monitoring significant environmental effects in such a manner as to also enable the Responsible Authority (Clackmannanshire Council) to identify any unforeseen adverse effects at an early stage and undertake appropriate remedial action.

The purpose of this Environmental Report is to:

- provide information on Clackmannanshire and the Environment & Sustainability Framework;
- identify, describe and evaluate the likely significant effects of the Environment & Sustainability Framework and its reasonable alternatives;
- provide an early and effective opportunity for the Consultation Authorities and the public to offer views on any aspect of this Environmental Report.

This current report accompanies the Framework as the basis for public consultation.

2.3 Legislative Requirement to do SEA

The requirement to undertake Strategic Environmental Assessment (SEA) is established by the European Directive 2001/42/EC, 'the Assessment of the Effects of Certain Plans and Programmes on the Environment' (the SEA Directive). SEA was introduced into Scottish legislation through the Environmental Assessment of Plans and Programmes (Scotland) Regulations (the 2004 Regulations). These Regulations came into force on 20 July 2004. The Environmental Assessment (Scotland) Act 2005 extends the scope of the earlier Regulations to cover all policies, plans and programmes and strategies and came into force on 20th February 2006.

2.4 SEA Guidance

This Environmental Report has been prepared with reference to the following SEA legislation and guidance:

- Scottish Executive (2003) Environmental Assessment of Development Plans, Interim Planning Advice;
- European Commission DG Environment (2004) Implementation of Directive 2001/42 on the Assessment of the Effects of Certain Plans and Programmes on the Environment;
- Office of the Deputy Prime Minister (ODPM) (2005) A Practical Guide to the Strategic Environmental Assessment Directive;
- Environmental Assessment (Scotland) Act 2005;
- Scottish Executive (2006) SEA Toolkit, and
- Guidance on the SEA Directive produced by the Office of the Deputy Prime Minister (ODPM) identifies a series of requirements for the SEA, these are summarised in Table 2.1 below.

Table 2.1: SEA Directive Guidance

Requirements of the Environmental Assessment (Scotland) Act 2005
a. Outline of the contents, main objectives of the plan and relationship with other relevant plans.
b. Relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan.
c. Environmental characteristics of areas likely to be significantly affected.
d. Existing environmental problems which are relevant to the plan.
e. Environmental protection objectives established at international, community or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation.
f. Likely significant effects on the environment.
g. Measures envisaged to prevent, reduce and as fully as possible offset significant adverse effects on the environment of implementing the plan.
h. Outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties.
i. Description of measures envisaged concerning monitoring in accordance with Article 10.
j. Non-technical summary of the information provided under the above headings.

2.5 SEA Activities on the Framework to Date

The following activities have been undertaken to date on the Framework SEA:

- Screening to determine whether the Framework is likely to have significant environmental effects;
- Preparation of a Scoping Report setting out the proposed approach to the environmental assessment of the Framework and the proposed period for public consultation;

- Submission of the Scoping Report to the Consultation Authorities (statutory consultation with the SEA Consultation Authorities was undertaken in November 2007, via the SEA Gateway, through submission of the SEA Scoping Report).
- Review of Consultation Authorities' responses on the Scoping Report; Comments received from the Authorities were reviewed by Clackmannanshire Sustainability Team and incorporated where possible into the SEA process. These included amendments on the proposed SEA objectives, baseline information, and issues to take into account in the assessment.
- Undertaking the assessment of the environmental effects of the Framework, including alternatives and cumulative effects; and
- Reporting on the SEA in this Environmental Report and highlighting mitigation measures and monitoring of the implementation of the Strategy.

The next steps for the SEA, including those for public consultation and finalisation and adoption of the Framework are set out in Section 9 of this report.

2.6 Key Facts about the Environment & Sustainability Framework

The Environment and Sustainability Framework is a "daughter document" of the Clackmannanshire Community Plan. Community planning is a requirement of the Local Government in Scotland Act 2003. In Clackmannanshire it is led by the Clackmannanshire Alliance, whose role is to provide the strategic vision and direction for community planning, as well as to monitor the implementation of the Community Plan and the Regeneration Outcome Agreement.

The Clackmannanshire Alliance is comprised of senior representatives of: Clackmannanshire Council, Scottish Enterprise Forth Valley, NHS Forth Valley, Central Scotland Police, Central Scotland Fire and Rescue Service, Tourist Board, Scottish Environment Protection Agency (SEPA), Scottish Natural Heritage (SNH), Communities Scotland and Clackmannan College. The Alliance also has representation from community, voluntary and business sectors.

The Clackmannanshire Community Plan was published in 2006 and covers the period 2006-2009:
a copy of it can be found on Clackmannanshire Council's website, at
http://www.clacksweb.org.uk/community/communityplan/

The stated aim of the community planning partnership is to promote the regeneration and development of Clackmannanshire; the Community Plan identifies four inter-linked themes which summarise the aims of the partnership:

- Economic Development
- Community Safety
- Health Improvement
- Environment and Sustainability

The Community Plan sets out the strengths, weaknesses, opportunities and threats associated with each of these themes in Clackmannanshire. These themes have each been allocated to a "Theme Team" to develop a framework for action to achieve the aims of the Community Plan.

Although Clackmannanshire Council is the responsible authority for SEA of the Clackmannanshire Environment and Sustainability Framework, the Framework will be a joint output of the Environment and Sustainability Theme Team, which is made up of representatives from the following organisations:

- Scottish Enterprise Forth Valley (representing the Economic Development Theme Team).
- NHS Forth Valley (representing the Health Improvement Theme Team).
- Central Scotland Police (representing the Community Safety Theme Team).
- Scottish Environment Protection Agency.
- Scottish Natural Heritage.
- Historic Scotland.
- Community Councils.
- Youth Council.

- Council for Voluntary Services.
- Clackmannanshire Biodiversity Forum.
- Clackmannanshire Access Forum.
- Clackmannanshire Heritage Trust.
- Clackmannanshire Business.

As a partnership document, the emphasis for the Environment and Sustainability Framework is to identify those projects and actions which are best implemented through a multi-agency approach.

The Clackmannanshire Community Plan identifies a number of priorities for action for the environment and sustainability; these priorities set the context in which the Environment and Sustainability Framework is being developed:

- Promotion of sustainable transport and access
- Dealing with the effects of climate change
- Community engagement and awareness raising.
- Natural and built environment
- Waste management
- Renewable energy sources

As well as the influence of the Community Plan and the Local Government in Scotland Act, the SEA and the preparation of the Framework will also take into account Clackmannanshire Council's emerging Sustainability Strategy and Corporate Plan.
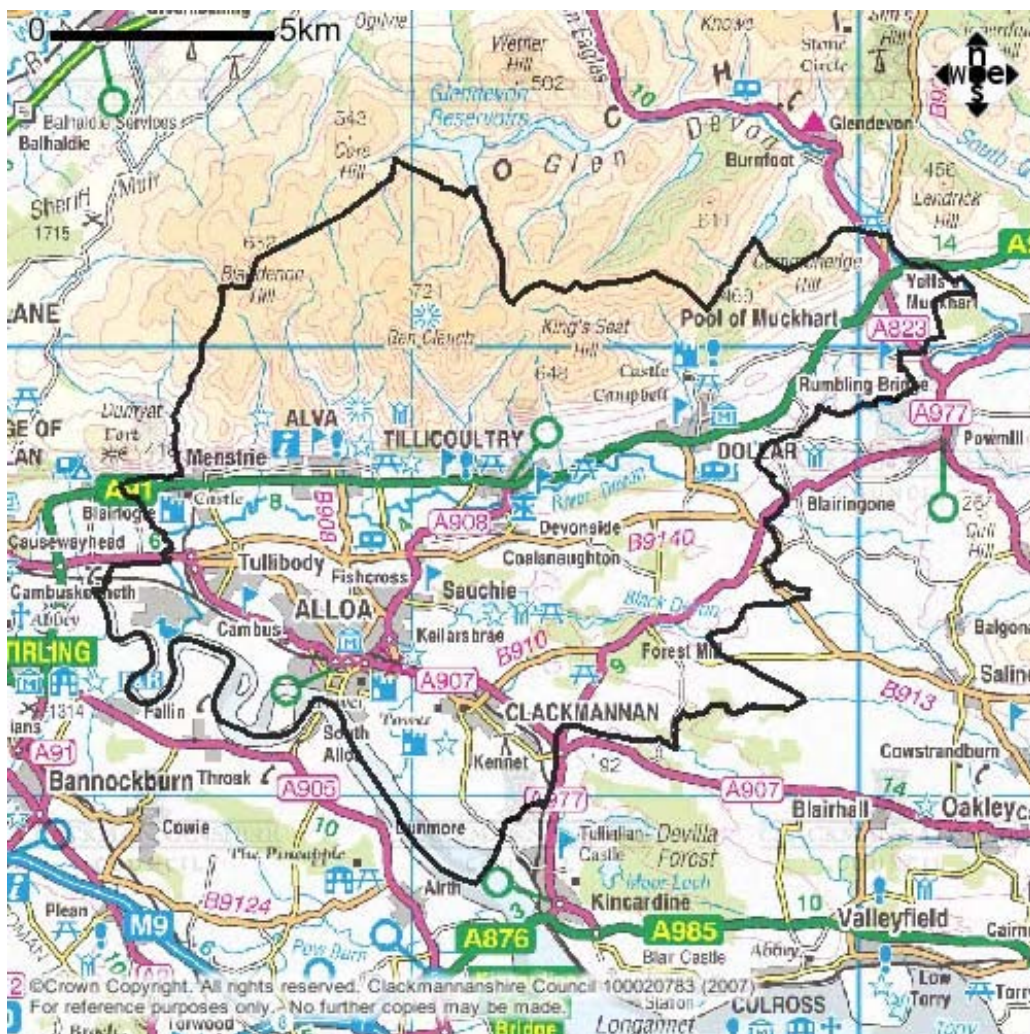

Figure 2.1: Total area to which the Framework relates

Figure 2.1 indicates the total area to which the Framework relates. The current Framework covers the period up to 2010 and is expected to be updated every three years.

Section 3.0: Clackmannanshire Environment & Sustainability Framework and Relevant PPS

3.1 Hierarchy of Plans, Programmes and Strategies

The Clackmannanshire Environment & Sustainability Framework sits within a hierarchy of Plans, Programmes and Strategies (hereafter referred to as PPS).

The Framework is influenced by a wide range of international, European, national and local PPS which contain environmental objectives that the Framework must take into account. Therefore, a policy review of the relevant PPS has been undertaken and a full list of the PPS used in the preparation of the Framework, which can be seen below and also in more detail in Appendix A for reference. Below is a list of the relevant PPS.

International

- Convention on Biodiversity (1992)
- United Nations Framework Convention on Climate Change (1992)
- Kyoto Protocol on Climate Change (1997)
- Johannesburg Declaration on Sustainable Development (2002)

EU

- European Climate Change Programme (ECCP)
- Council Directive on the Assessment and Management of Environmental Noise 2002/49/EC
- Water Framework Directive 2000/60/EC
- The Sixth Environmental Action Programme of the European Community (2002) and related Programmes and Plans
- European Union Strategy for Sustainable Development (2001)
- European Biodiversity Strategy (1998)
- Ambient Air Quality Assessment and Management Framework Directive 1996/62/EC
- The Pan-European Biological and Landscape Diversity Strategy (1995)
- Habitats Directive 1992/43/EEC
- Conservation of Wild Birds Directive 1979/409/EEC
- Bern Convention on European Wildlife and Natural Habitats (1979)
- EU Waste Framework Directive (1975/442/EEC as updated by 91/156/EEC)
- National Planning Framework for Scotland

National

- Framework for Economic Development in Scotland (FEDS)
- A strategy for the conservation and enhancement of biodiversity in Scotland
- The Air Quality Strategy for England, Scotland, Wales and Northern Ireland
- The UK Programme for Climate Change
- Scottish Climate Change Programme (SE/2000/208)
- National Waste Plan (Scotland), 2003
- National Waste Strategy Scotland 1999 (NWSS 99)
- Securing a Renewable Future: Scotland's Renewable Energy (2003)
- Scotland's Renewable Energy Potential: realising the 2020 target (2005)
- UK Sustainable Development Strategy, March 2005
- Scottish Sustainable Development Strategy, December 2005
- Water Environment and Water Services (Scotland) Act 2003 (WEWS)
- Water Environment (Controlled Activities) Regulations 2005 (CAR)
- Environmental Impact Assessment (Scotland) Regulations 1999
- Wildlife & Countryside Act 1981 (amended by Wildlife and Countryside Amendment Act 1991).
- Local Government in Scotland Act 2003

- Nature Conservation Act (Scotland) 2004
- UK Biodiversity Action Plan
- Scottish Biodiversity Strategy
- The Land Reform (Scotland) Act 2003
- SPP7 - Planning and flooding
- NPPG 5 Archaeology and planning
- NPPG 14 - Natural Heritage
- NPPG 18 Planning and the historic environment
- SEPA Groundwater Protection Policy for Scotland (Policy 19)
- SEPA Policy on the Culverting of Watercourses (Policy 26)
- SEPA Waste water drainage Policy on Provision of Waste Water in Settlements (Policy 55)
- Conservation (Natural Habitats, and c.) Regulations 1994 (as amended)
- Scottish Historic Environment Policy: SHEP 1. Scotland's Historic Environment
- Scottish Historic Environment Policy: SHEP 2. Scheduling: Protecting Scotland's Nationally Important Monuments
- Passed to the Future

Local

- Forth Valley Area Waste Plan
- Local Biodiversity Action Plan
- Community Safety Strategy
- Joint Health Improvement Plan
- Economic Development Framework
- Community engagement framework
- Flood Prevention & Land Drainage Plan
- Fuel Poverty Strategy
- Future Directions
- Local Plan
- Local Transport Strategy
- Regeneration Outcome Agreement
- Road Safety Plan
- Road Traffic Reduction Plan
- Clackmannanshire and Stirling Structure Plan
- Clackmannanshire Landscape Character Assessment. No 96 (ASH Consulting Group) 1998, SNH.

Section 4.0: Clackmannanshire Environmental Baseline and Existing Environmental Problems

4.1   Relevant Aspects of the Current State of the Environment

Schedule 2 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 collation of this baseline data is an important part of the SEA assessment process as it provides a snapshot of the Clackmannanshire environment at that point in time; highlights existing environmental problems and issues; and can be used to predict the future impacts that the implementation of the Framework will have on the environment.

The priority actions of the Framework are for the most part wide ranging in their nature although on a project level their actions may be more location specific. As the Framework is based on the entire Clackmannanshire authority area, it is appropriate that the baseline data that is collected represents the entire area.

The information that is provided in this sub-section is collated in line with the issues that have been scoped into the assessment and provides a snapshot of the state of the environment in Clackmannanshire. A synopsis of the current state of the environment is presented below. Any difficulties or issues in collecting the baseline data, or deficiencies in the data collected, will be highlighted in the environmental report.

Clackmannanshire is the smallest mainland authority in Scotland, and is situated on the North of the River Forth bordering the Councils of Stirling, Perth & Kinross, Fife and Falkirk and covers roughly 15,864 hectares of land. Bounded by the Ochil Hills to the north and the River Forth to the south, the district comprises a number of small towns and villages. Clackmannanshire's main urban area is Alloa with other settlements including Sauchie, Alva, Clackmannan, Tillicoultry, Menstrie, Dollar, Muckhart, Devonside & Coalsnaughton and Tullibody & Cambus.

The relevant aspects of the current environment and a summary of environmental baseline data for Clackmannanshire can be seen in Table 4.1 below.

Table 4.1: Relevant Aspects of the Environmental Baseline Data

Biodiversity, Flora & Fauna
Protected Sites There are several different types of protected sites within the Clackmannanshire area. Clackmannanshire contains 10 SSSIs. Roughly 249 hectares of Clackmannanshire are within the Firth of Forth Special Protection Area (SPA) and Ramsar Site. The area was designated primarily for the protection of migratory bird species visiting the Forth Estuary. The area was recently designated primarily for the protection of migratory bird species visiting the Forth Estuary. Within the Council area is Gartmorn Dam, the site of the Country Park and Local Nature Reserve, which overlap. Of specific note in the Clackmannanshire area are the following designated areas which have specific significance for conservation. Special Protection Area/Ramsar Site: ▪   Firth of Forth

Biodiversity, Flora & Fauna (Cont'd)

Sites of Special Scientific Interest:
- Back Burn Wood and Meadows
- Craig Leith and Myreton Hill
- Craigmad Wood
- Damhead Wood
- Devon Gorge
- Dollar Glen
- Firth of Forth
- Gartmorn Dam
- Linn Mill
- Mill Glen

Country Park and Local Nature Reserve:
- Gartmorn Dam

Priority Habitats
The Local Biodiversity Action Plan (LBAP) identifies eleven U.K. priority habitats within the Clackmannanshire area with woodland (accounts for 2446 ha or 16.2% of the total land area of Clackmannanshire, which is a significant proportion in comparison with national averages) and Upland Healthland being the most abundant. Other priority habitats present include types of grassland and a loch. The extent of these across Clackmannanshire is recorded in the Clackmannanshire Local Biodiversity Action Plan (LBAP).

LBAP bog inventories identify the presence of three Lowland Raised Bogs and three Blanket Bogs, mostly present in northern areas. There are no Intermediate Bogs within Clackmannanshire.

Priority Species
The Local Biodiversity Action Plan (LBAP) identifies 21 U.K. priority species within Clackmannanshire. The Local Biodiversity Action Plan (LBAP) prepared by Clackmannanshire Council has identified 14 species for which Priority Action Plans have been prepared. The LBAP also identified another 30 species groups in Clackmannanshire.

Fish Stocks
Fish stocks are monitored across the Rivers Devon and Black Devon by the Clyde River Foundation. They have identified an encouraging mix of local fish species and a notable absence of foreign species.

Population & Human Health

Population Data & Trends
Clackmannanshire is 15,809ha in area, with population density over four times higher than Scotland (308 persons per square km for Clackmannanshire: 66 persons per sq km for Scotland) - 13th out of the 32 Council areas. In 1991, Clackmannanshire's population stood at approximately 48,400 and it reached a peak of 48,900 in 1994 before falling to under 48,000. In recent years there has been an increase in the population to 48,900 in the 2006 mid-year population estimates. Data on Clackmannanshire's population identifies there will be an increase in the projected population of 8.9% to 2025.

Age Data & Trends
The life expectancy of the Clackmannanshire population based on 2004-2006 figures is estimated at 73.43 years for men and 78.8 years for women. Clackmannanshire has the lowest life expectancy in Forth Valley and is below average with respect to Scotland.

Population & Human Health (Cont'd)

The recent release by the GROS of the "Population Projections for Scottish Areas (based on 2006 statistics) 2006 to 2031 highlighted the projected changes in age band structures

- the 0-15 population is projected to decrease by -4.1%
- the working age group is expected to increase slightly by +3.1%
- the 60/65+ population is expected to increase in all council areas with Clackmannanshire having the 7 highest of all council areas of +42.4%
- the population projections indicate that there will be a lower ratio of the working population supporting the older population. Improved life expectancy and a decrease in the number of births are factors in this change of the age structure of the population.

Recent statistics released by the GROS on "Life Expectancy at Birth 2003-2005", showed that of the 32 Scottish councils, Clackmannanshire has a ranking of 25 for males and 24 for females in 2003-05, compared to 13 for males and 22 for females in 1993-95 ("1" is the area with the highest life expectancy and "32" to lowest). This significant drop in rankings is due to some of the other councils in Scotland improving their life expectancy age.

Location of Population
Over 85% of Clackmannanshire's population lives in urban areas or accessible small towns. .
The highest populations are located in the main settlements of Alloa & Sauchie, Tillicoultry, Devonside & Coalsnaughton and Tullibody & Cambus.

Air Quality

The air quality in Clackmannanshire is generally of a high standard in terms of meeting national air quality targets. For this reason, there is no Air Quality Management Areas (AQMA) in Clackmannanshire.

Nitrogen Dioxide (NO_2**) Limits**
NO_2 annual mean levels from 2001-2007 in Clackmannanshire are found to be quite variable however based on the 2007 monitoring data and updated information of residential, commercial and industrial emissions sources, it is considered unlikely that the nitrogen dioxide air quality objectives will be exceeded in the Clackmannanshire Council area.

PM10 limits
There was a positive decreasing trend in PM10 annual mean levels from 2001-2005 however based on 2007 levels, PM10's are of concern and are subject to on going monitoring, the result of which will determine if additional actions are required.

Sources of Air Pollution
The main source of air pollution in Clackmannanshire is traffic. Between 2000 and 2006, the Scottish National Transport Statistics estimate a 6% increase of traffic on the roads of Clackmannanshire.

During 2007 one new road opened in the Clackmannanshire Council area, namely, the Alloa Eastern Relief road (B909) however it is concluded that there have been no significant changes to road traffic emissions during 2007.

Within Clackmannanshire there is little industrial activity which is mainly focused in Alloa with the majority of the county being rural in nature. In 2007 there have been no significant changes to emissions from existing installations resulting in an increase in emissions.

Water Quality

Water Sources
Clackmannanshire is supplied with water from two sources. The main supply to the district is through Loch Turret which is located outside the boundary of the authority. In Clackmannanshire surface water catchments in the district include the River Devon, River Black Devon and Upper Forth Estuary. Clackmannanshire is relatively poorly served by open water and Gartmorn Dam is the single largest area of open water. Clackmannanshire Council manages Gartmorn Dam as part of the Gartmorn Dam Country Park.

Watercourse Classification
Watercourses flowing through Clackmannanshire are classed excellent (A1) to fair (B) according to SEPA's classification system. There is approximately 19km of A1 watercourse, 44km of A2 watercourse and 36km of B watercourse flowing through Clackmannanshire. SEPA's work has been significantly aimed at eliminating the most seriously polluted class C and D waters, and the incidence of these is steadily declining.

From Alloa to just east of Stirling the Forth Estuary is classified as class C, due to the low levels of dissolved oxygen in this low salinity section of the estuary. However the Forth Estuary is not expected to achieve class A because of its inherently turbid nature and the large number of industrial and domestic discharges it receives. Overall monitored watercourses within Clackmannanshire are of a better water quality than the Scottish average. Clackmannanshire has no seriously polluted watercourses.

Sustainable Urban Drainage Systems
The Council will promote the use of Sustainable Urban Drainage Systems (SUDS), in association with SEPA. Information on the number of developments incorporating SUDS is not available as of yet but there are plans to monitor this.

Groundwater
Little information is currently held by the Council about Clackmannanshire's groundwater quality as this data is held at national level by SEPA. No data was available at the time of collating baseline data for the report.

Soil Quality

The industrial past of Clackmannanshire's towns and villages would point to an inheritance of a certain degree of contaminated land however those traditional industries are now being replaced with newer service orientated businesses present in Clackmannanshire resulting in decreasing presence of industrial activities.

Vacant or Derelict Land
In 2007 the Scottish Vacant and Derelict Land Register (SVDLS) contain records of 97 hectares of vacant or derelict land (52 ha urban vacant and 45 ha derelict) in the Clackmannanshire area. This represented an increase of 21 ha (or 28%) in Clackmannanshire since 2002.

Contaminated Land
Under Part IIA of the Environmental Protection Act of 1990, each Council has a duty to identify contaminated land in their area. Clackmannanshire Council's Contaminated Land Inspection Strategy (2000) identified 260 High Priority sites, 320 Medium Priority sites and 329 Low Priority sites, and the Council are developing a system to identify the total area of land in each of the categories. The priority of sites can change as a result of further investigation works and they can move either up or down the priority list. The strategy is currently being updated and is due to be complete in 2008.

Soil Quality (Cont'd)

Restoration
Many of the significantly contaminated sites in Clackmannanshire have received remediation including Old Town gas works, the Tullis Factory in Tullibody, the Old Burgh in Dollar and most recently Bankhead on the outskirts of Fishcross.

Prime Agricultural Land
There are only a few small pockets of prime agricultural land in Clackmannanshire. However the importance of soil as a non-renewable resource essential to a sustainable environment must be recognised.

Soil
On the highest ground of the upper plateau-like surface of the Ochils, the effect of poor drainage dominates the influence of the underlying lava parent material, resulting in the formation of blanket peats, while on the same parent material on adjoining hill slopes, soils of the Sourhope series occur, ranging from peaty podzols to brown forest soils on the most freely-draining areas.

Climatic Factors

Domestic Energy Consumption
Clackmannanshire fares well in terms of average domestic energy consumption per household per year, slightly less than the Scottish Council average. Energy usage in the council public building stock has fluctuated between 2003 and 2007. Electricity use has increased overall by 18% whereas gas use has increased by 2% in this time.

Renewable Energy
Clackmannanshire Council has increased its 'Green' Energy purchase from 30% to 75% on small electricity sites. Large electricity sites are already supplied with 75% Green Energy from renewable sources. Planning permission has been recently approved for a 13 turbine wind farm in the Ochil hills area of Clackmannanshire.

Carbon Dioxide Emissions
Clackmannanshire Council established their Local Authority Carbon Management programme in 2008, the overall goal of which is to reduce the Authority's carbon output by 15% over the next five years. As part of this Clackmannanshire Council have signed up to meet the targets of Scotland's Climate Change Declaration. The Council's total CO_2 emissions amounted to 46,584 tonnes based on the financial year 2006-07.

Total Carbon Footprint and Total Ecological Footprint
Both Clackmannanshire's carbon footprint and ecological footprint is lower per capita than that of the Scotland average i.e. Clackmannanshire's carbon footprint and ecological footprint are 11.15 tonnes per capita and 5.08 global hectares per capita respectively as opposed the Scottish average of 11.80 tonnes per capita and 5.33 global hectares per capita.

Transport Infrastructure
There are several A class roads which pass through Clackmannanshire, principally A991, the A977 and the A907. There are numerous other A and B roads that link Alloa and the surrounding towns. The new passenger rail link to Alloa and rail freight link to Kincardine are nearing completion, and services commenced in May 2008. During 2007 one new road opened in the Clackmannanshire Council area, namely, the Alloa Eastern Relief road (B909) and the new Upper Forth Crossing is due to open in late 2008.

Climatic Factors (Cont'd)

Sustainable transport developments have seen progress made on both the national cycle network and the local Devon Way mixed leisure route in Clackmannanshire. Efforts have been made to integrate the rural and urban path networks through the Core Path Planning process. Additionally a bicycle pool has been provided for Council staff at each of the main offices and certain rural roads have been designated as 'quiet roads' to encourage motorists to be more considerate of cyclists and walkers.

Flooding and Areas of Flood Risk
In Clackmannanshire the low lying floodplains of the Rivers Devon and Black Devon are two key areas where the risk of inundation is important. Areas adjacent to the Forth Estuary may be at risk from tidal flooding, caused by a combination of sea level rise, high tides and high rainfall. Flooding can also occur in the higher areas as burns overtop their banks, due to heavy rainfall. Extensive parts of Clackmannanshire are areas of flood plain.

There has been a significant reduction in flooding incidents largely due to the planned maintenance works. Although a "year to year" direct comparison can be misleading as weather is changeable, this general improvement suggests that the adverse flooding effects of severe weather events have been minimised since the implementation of regular inspection and clearance works.

Flood Prevention Infrastructure
Between 1997 and 2002 the entire lengths of all watercourses that could potentially affect non-agricultural land were inspected once each year. From this a Prioritised Watercourse Inspection and Clearance Regime was developed and initiated during 2004/05. This regime is continually monitored and where necessary amended to ensure that all watercourses receive optimum attention.

During 2007 Watercourse Audit and Works Implementation Plans were produced for the Principal burns in the Council area, which itemise all necessary structural maintenance works required. The Council continues to operate its Flood Liaison and Advice Group (FLAG) as encouraged by the Scottish Executive policy document, *Scottish Planning Policy 7 - Planning and Flooding*.

Material Assets

Minerals

Opencast Mining
Shallow coal reserves that may be suitable for opencast working are found across much of Clackmannanshire, extending along the Forth and Devon valleys to the eastern extremity of Clackmannanshire. Currently there is no active working, although there has been considerable recent exploitation of the reserves in East Clackmannanshire and it is expected that pressure for working will continue for the foreseeable future. The main market for locally sourced coal is Longannet Power Station. Within Clackmannanshire, an area of low constraint has been identified to the south of Clackmannan. Subject to detailed assessment, there may be community benefit in exploiting the shallow coal resource.

Waste
Clackmannanshire is currently ahead of the municipal waste national targets and continuing to improve rapidly. The percentage of municipal waste recycled or composted has risen from below five per cent in 2001/2002 to 41.3% in 2006/2007. In terms of household waste, figures from 02/2003 to 06/2007 show generation in Scotland has risen slightly and this trend is followed by the Clackmannanshire area.

Material Assets (Cont'd)

Landfill Sites
There are no landfill sites within the area licensed to accept non-inert waste (household, commercial and industrial waste). For inert waste a major new facility has planning permission at Muirpark, Tullibody and this is expected to provide sufficient inert capacity to serve the area for a number of years.

Historic & Cultural Heritage

Clackmannanshire is an important cultural and historic area in Scotland.

Conservation Areas
There are 7 conservation areas in total located in the Clackmannanshire district.

Listed Buildings
There are 301 listed buildings in Clackmannanshire (of which 17 are A, 133 are B and 151 are C listed).

Buildings at Risk
There are 4 buildings at risk in Clackmannanshire, namely Old Paton's Mill School, Inglewood House East Lodge, North Street Printworks (Former) and Alva House Icehouse.

Archaeological Sites
There are 588 recorded archaeological sites in Clackmannanshire.

Scheduled Ancient Monuments (SAM)
There are 17 Scheduled Ancient Monuments within Clackmannanshire, which include many churches and towers amongst others.

Gardens and Designed Landscapes
Castle Campbell in Clackmannanshire has been given full inventory status on the Historic Sotland Inventory of historic gardens and designed landscapes in Scotland.

Landscape

Landscape Use and Character
Clackmannanshire may be broadly characterised as rural in terms of landscape and settlement pattern, but with the bulk of the population, employment and development activity concentrated in a small number of the larger urban communities. Agriculture is the most extensive land use within the area and is very diverse, reflecting the area's varied topography, climate and soils.

The landscape of Clackmannanshire has been divided into three landscape types. The Ochils fall within the type termed Hills. The River Valleys consist of three separate Character Areas, ranging in nature from the broad agricultural flatlands of the Carse of Forth to the narrow gorge-like Middle Devon. The third Landscape Type, Valley Fringes, includes the transitional landscapes of generally subdued relief, which link together the adjoining Forth and Devon valleys.

In summary, from a national perspective, the land cover of Clackmannanshire is predominantly agricultural, but characterised also by its high degree of urbanisation and its heavily wooded nature.

Landscape (Cont'd)
Green Belt Area Clackmannanshire contains areas of Green Belt, namely; ▪ between Alloa and Clackmannan, ▪ Tullibody and ▪ Along the Hillfoots. **Open Space** Clackmannanshire has a quality heritage of open spaces of all types that reflect the typology of current national planning guidance i.e. including amenity verges and space, public parks and gardens, recreational playing fields, civic spaces, green corridors, woodlands, country park and natural green spaces. Urban green spaces nationally are under a degree of pressure from development, however this is not significant in Clackmannanshire, due to the planning policies in place which protect public open space. The Council is to prepare an Open Space Strategy with an audit of existing facilities, their condition and characteristics.

4.2 Context of the Environmental Baseline Data

Table 4.1 above summarises the environmental baseline data that has been gathered for Clackmannanshire. It provides a snapshot of the current condition of the environment of Clackmannanshire, in order to inform the assessments of the impacts of the Framework.

The environmental baseline data has been presented thematically in order to assist the identification of key issues and potential opportunities for the area. The data collection process has provided an indication of some key trends, indicators, current targets, areas of uncertainty and current data gaps.

The quality and quantity of information available for each theme varies due to differences in the way data is collected and held, and the availability of local authority-level data from national bodies. Some difficulty has been encountered in obtaining environmental baseline data. Even when certain baseline data was obtained, it did not necessarily identify trends. As a result there are some gaps in the baseline data, in most cases either incomplete or dated information. Because data collection is dependent on sources within and outwith the Council, this caused some delay because some sources did not have the resource to put the information together for this report.

Within this report where significant information gaps are present this has been highlighted to the relevant department and future monitoring will be implemented where possible with the intention to capture data.

4.3 Environmental Problems

Schedule 2 of the Environmental Assessment (Scotland) Act 2005 requires that the Environmental Report includes a description of existing environmental problems, in particular those relating to any areas of particular environmental importance. The purpose of this section is to explain how existing environmental problems will affect or be affected by the Framework, and whether the Framework is likely to aggravate, reduce or otherwise affect existing environmental problems.

Many of Clackmannanshire's environmental problems are common to Scotland as a whole, although it performs comparatively well in terms of air quality and waste management. Clackmannanshire has areas of deprivation, with consequent social problems such as poor health; its natural heritage is vulnerable to development pressures and to the threat of global climate change.

Environmental problems which have been identified are:

- **_Biodiversity, Flora and Fauna_**: Decline in biodiversity in the region; lack of information on European protected species; impacts of climate change on biodiversity.

- **_Population and Human Health_**: Predicted population decline, ageing population, health inequalities. The Scottish Indices of Multiple Deprivation have targeted areas of Alloa South and East and Tullibody, and parts of Sauchie, Coalsnaughton and Devonside as needing support.

- **_Water_**: Areas of the Forth Estuary are classed as poor by SEPA. Scotland wide issues of erosion, climate change affecting organic content.

- **_Soil_**: Potentially sizeable amount of contaminated land and although there is not a considerable amount of urban vacant and derelict land present in Clackmannanshire, it is on the increase.

- **_Material Assets_**: Household waste generation increases every year, however Clackmannanshire recycling levels are higher than Scottish average figures. Scotland wide issues of poor building maintenance.

- **_Air_**: Air quality in the region is generally of a high quality in terms of national air quality objectives although there are some concerns over PM10 levels. There are no Air Quality Management Areas in Clackmannanshire and little industrial activity. However the rural regions are poorly serviced by public transport which encourages private car use.

- **_Climatic Factors_**: Flood risk in many areas. SEPA's State of Scotland's Environment 2006 identifies climate change as Scotland's most significant environmental problem although Clackmannanshire's Carbon Footprint and Ecological Footprint is lower than Scotland's average.

- **_Cultural Heritage_**: Scotland wide issues of neglect of buildings. Unused and derelict properties detract from the character and appearance of the townscape.

- **_Landscape_**: The landscape's capacity to absorb development is an issue although landscape capacity studies have been carried out to inform development plan allocations. There is a degree of landscape character change due to wind farms, major developments and infrastructure planned for Clackmannanshire.

Section 5.0: Evolution of Clackmannanshire's Environment without Implementation of the Framework

Whilst the purpose of SEA is to assess the impact that the provisions of the Framework will have on the environment, the SEA process also requires, for comparison purposes, an assessment to be made as to how the environment is likely to evolve without the Framework and the effects it will have on the environment.

Although it is recognised that the community of Clackmannanshire would have some involvement in environmental and sustainability issues to some degree, the Clackmannanshire Environment & Sustainability Framework will fulfil an important role in guiding and co-ordinating key community and agency initiatives to promote environmental protection and sustainability in Clackmannanshire, as part of the Community Planning Process.

Without the Framework the environmental receptors identified would be unlikely to suffer any deterioration. Their condition is likely to improve or remain the same in the absence of the Framework, because the public bodies in the Clackmannanshire Alliance, particularly, but not exclusively, Clackmannanshire Council, have statutory duties with regard to environmental protection. The purpose of the Environment and Sustainability Framework is to integrate the delivery of these duties to provide added benefit and, consequently, demonstrate best value for the people of Clackmannanshire.

Section 6.0: SEA Objectives and the Framework

6.1 SEA Objectives and the Framework

The Environmental Assessment (Scotland) Act 2005 does not require the generation of SEA objectives by Clackmannanshire to appraise the potential effects of its Environment & Sustainability Framework. However, environmental protection objectives from other policies, plans and programmes and strategies should be taken into consideration where they are appropriate.

Establishing identifiable SEA objectives and indicators is an accepted method by which environmental effects can be described, analysed and compared. SEA objectives will describe the intent and desired direction of environmental change, whilst indicators will measure the performance of the Framework against these objectives.

To fulfil the requirements of the Environmental Assessment (Scotland) Act 2005 the SEA objectives should encompass '…. biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage, landscape and the interrelationships between them.'

Table 6.1 identifies the Framework SEA objectives. These have been created as a result of considering the following relevant information:

- Schedule 3 of the Environmental Assessment (Scotland) Act 2005 as seen above;
- SEA objectives listed in ODPM (2005:66-67);
- the four key action areas identified within the Framework;
- consideration of local environmental issues and pressures (see Section 4 above) and
- objectives from other relevant plans and programmes such as Scotland's Sustainable Development Strategy (see Appendix A for further details).

The SEA objectives and criteria have been created in order to assess what environmental effects the Framework will have, be it positive, negative, neutral or unknown impacts on the existing baseline state of the environment and whether the Framework will worsen, neutralise or improve the environmental issues and problems related with Clackmannanshire.

The SEA objectives and criteria have been created to assess the Framework against those issues which have been scoped into the assessment (see Section 7) and are fully compliant with the requirements of the Environmental Assessment (Scotland) Act 2005.

Table 6.1: SEA Objectives and Appraisal Criteria

SEA Topic	SEA Objective	SEA Criteria (Checklist of Questions)
Biodiversity, Flora and Fauna	1. Ensure the sustainable management of, and avoid damage to, designated wildlife sites and protected species.	Does it have significant implications for the conservation and/or enhancement of biodiversity? Will it proactively conserve and enhance protected species? Does it encourage the protection and/or enhancement of natural and semi-natural habitats? Does it promote the proper assessment of the biodiversity implications of future housing developments?
	2. Maintain biodiversity, avoiding irreversible losses.	
	3. Provide opportunities for people to come into contact with and appreciate wildlife and wild places.	
Population and Human Health	4. Promote healthy living.	Does it improve the quality of services available within communities? Is it likely to ensure that the same level of service (or better) will be available for future generations? Is it likely to provide a safe, quality environment for the community? Is it likely to contribute to the improvement of human health in the community?
	5. Reduce and prevent crime; reduce fear of crime.	
	6. Improve quality of life for present and future generations.	
Soil	7. Reduce contamination and safeguard soil quality and quantity	Does it lead to the improvement of soils within the area? Does it protect vulnerable soil resources in the area?
Water	8. Maintain and restore key ecological processes; promote sustainable water use and reduce pollution.	Is it likely to result in improvements to the quality of water courses and bodies in the area?
Material Assets	9. Minimize waste, then re-use or recover it through recycling, composting or energy recovery.	Does it minimise the amount of waste produced? Does it increase the amount of waste which is recycled or re-used?
	10. Make best use of existing infrastructure.	Does it improve access across the authority, particularly by active or public transport?

SEA Topic	SEA Objective	SEA Criteria (Checklist of Questions)
Air	11. Reduce the need to travel.	Is it likely to lead to improvements in air quality?
	12. Reduce private car use.	Is it likely to lead to a reduction in car use and the need to travel?
Climatic Factors	13. Reduce greenhouse gas emissions.	Is it likely to lead to a reduction in energy consumption within the area?
		Is it likely to reduce the CO_2 and other greenhouse gas emissions into the atmosphere?
	14. Reduce vulnerability to the effects of climate change.	Is it likely to mitigate vulnerability to flooding?
		Is it likely to contribute to adaptation to climate change?
Cultural Heritage	15. Protect and, where appropriate, enhance the historic environment.	Is it likely to protect listed buildings within the area?
		Is it likely to have impacts on the setting of Conservation Areas and Listed Buildings?
		Is it likely to affect the setting of a Scheduled Ancient Monument?
		Is it likely to have any impact on archaeological resources in the area?
		Does it protect archaeological resources in the area?
Landscape	16. Protect and enhance the landscape.	Is it likely to cause changes to the landscape environment that are completely at variance with the character of the area?
	17. Improve quality of publicly accessible open space.	Is it likely to improve and enhance the quality and amount of accessible open space within the area?

Section 7.0: Methodology

7.1 Scoping of Issues to be considered in the Assessment

SEA is about assessing the likely significant impacts (positive or negative) that a PPS will have on the environment. In accordance with Schedule 2 of the Environmental Assessment (Scotland) Act 2005 Clackmannanshire Council has considered whether the environmental effects (positive and negative) of the Clackmannanshire Environment and Sustainability Framework are likely to be significant. Despite this, there is no statutory definition of what 'significance' is or comprises of, which makes it difficult to determine what constitutes a significant impact.

Clackmannanshire Council has carefully considered the methodology for determining significance, which is contained in Schedule 2 of the 2005 Act. The Council have adapted the criteria utilising best practice guidance and experience from other SEAs carried out to develop a comprehensive approach that will determine whether the potential environmental effect is significant, and whether positive or negative. The process for assessing significance uses several criteria which include:

- Probability and duration of impacts
- Scale of the impacts
- Duration of the impacts (short, medium or long term)
- Environmental issues and/or sensitivities of the area
- Environmental value of the area;
- Potential for cumulative, secondary and synergistic impacts

Schedule 3 of the 2005 Act requires the Framework to be assessed against the following environmental issues if they are likely to be significant:

- Biodiversity
- Fauna
- Water
- Air
- Cultural Heritage
- Landscape
- Population
- Flora
- Soil
- Climatic Factors
- Material Assets
- Human Health

Clackmannanshire Council has decided that there are likely to be significant impacts on all of the SEA issues above, therefore these issues will all be scoped into the SEA.

7.2 Assessing Environmental Effects

The 2005 Act requires the Environmental Report to assess and evaluate the likely significant impacts that the Clackmannanshire Environmental & Sustainability Framework will have on the environment. It is fundamental to the SEA that the assessment method and reporting of the findings are clear, objective, transparent, robust, impartial and easy to understand for the reader.

The methodology to be used in the assessment of the Framework has been developed from best practise advice offered within the SEA Toolkit, the ODPM guidance and from existing Environmental Reports produced by other Scottish Councils for similar PPS's. In order to objectively and rigorously assess the Framework, a set of objectives and criteria have been created as seen in Section 6.

The environmental assessment was carried out using a matrix to record results. Each project was assessed for whether it is likely to have an impact on the following groupings of receptors and, if so, whether the impact is likely to be beneficial or adverse:

- Biodiversity, Flora and Fauna
- Water
- Material Assets
- Air
- Cultural Heritage
- Soil
- Climatic Factors
- Landscape
- Population and Human Health

The priority actions of the Framework along with reasonable alternatives have been assessed against the range of environmental issues set out Schedule 2 of the Environmental Assessment (Scotland) Act 2005. Responses received from the Consultation Authorities (Historic Scotland, SEPA and SNH as seen in Appendix H) have been taken into account regarding the methods, scope and level of detail in this Environmental Report.

The findings of each assessment are set out in a matrix table like that seen below in Table 7.1.

Table 7.1: Template of Assessment Matrix used for Assessing Environmental Effects of Framework Priority Actions

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, Flora and Fauna						
- Water						
- Soil						
- Climatic Factors						
- Material Assets						
- Air						
- Cultural Heritage						
- Landscape						
- Population and Human Health						
Comments:						

This matrix-based approach to the assessment of the Framework against the stated objectives aims to explain the assessment of environmental effects process as follows:

Impact: A judgement was made on whether the priority action will have a potential impact by looking at the relevant assessment criterion against the relevant SEA Objectives. The results are expressed using the following symbols, supported by a brief explanation:

Table 7.2: Key to Assessment of Environment Effects

Symbol	Significance
✓✓	Significant beneficial impacts
✓	Beneficial impacts
N	Neutral/No impacts
-	Negative impacts
--	Significant negative impacts
?	Unknown impacts/Dependent on implementation
?✓	Positive impacts but element of uncertainty/Dependent on implementation
?-	Negative impacts but element of uncertainty/Dependent on implementation

Temporary/Permanent and Short/Medium/Long Term: The short term, medium term and long-term effects are also scored using the above symbols. Impacts are also assessed for whether they will likely be temporary or permanent.

Justification: A brief summary highlighting the main justification for the predicted impact of each priority action on each relevant SEA environmental criteria is explained in this section.

Comments: Any additional justification of assessment regarding the following criteria which adds transparency and clarity to the assessment is highlighted in this comment section, for instance;

- Probability of impacts.
- Scale of the impacts.
- Duration of the impacts (short, medium or long term).
- Environmental issues and/or sensitivities of the area.
- Environmental value of the area.
- Potential for cumulative, secondary and synergistic impacts.
- Required mitigation and/or enhancement.

The potential for cumulative environmental effects of each priority action option for the Framework has been evaluated as seen in appendix F.

Although the Framework identifies specific priority actions, they are not all location specific; this makes it difficult to predict whether and how the Framework will affect specific receptors, such as designated sites or protected species. For this reason predicted environmental impacts are occasionally uncertain; it is anticipated that the impacts will be assessed in more detail and with more accuracy at project planning level by planners and project managers.

7.3   Development of Alternatives

As mentioned the Clackmannanshire Environment and Sustainability Framework is a supplementary document to the Clackmannanshire Community Plan. It is required by the community planning partnership, and therefore alternatives to the Framework have not been considered. However, Framework priority action alternatives within the document have been considered.

The Environment and Sustainability Theme Team met for a workshop which generated a number of priority action options i.e. environmental and sustainability projects potentially to be undertaken in Clackmannanshire under the Framework. These ideas were refined by a focus group drawn from members of the Theme Team, and summarised into twelve project options:

1. Community involvement in the emerging Clackmannanshire Greenspace Strategy.
2. Town centre regeneration in Alloa, Hillfoots/Dollar, Sauchie and Clackmannan.
3. Sustainable design and construction.
4. Alloa Docks masterplan.
5. Demonstration eco-housing project.
6. Public art.
7. Enhancement of property.
8. Sustainable transport improvements.
9. Sustainable energy.
10. Civic pride.
11. Food production.
12. Education and awareness raising.

Summaries of each of the proposed projects can be seen in Appendix B.

The assessment of the projects was carried out as per methodology mentioned above and the results are summarised below in Table 7.3. The assessments can be seen in further detail in Appendix E.

Table 7.3: Summary of Framework Assessments

Project Name	Summary of Assessment Findings
1. Community involvement in the emerging Clackmannanshire Greenspace Strategy.	This project displayed overall positive environmental effects with significant beneficial effects on environmental topics; ▪ Biodiversity, flora and fauna ▪ Soil and ▪ Landscape The project is predicted to have an overall positive cumulative effect.
2. Town centre regeneration in Alloa, Hillfoots/Dollar, Sauchie and Clackmannan.	This project displayed overall positive environmental effects with significant beneficial effects on material assets. There is some uncertainty to the effect the project will have on cultural heritage but it is expected to be positive. The project is predicted to have an overall positive cumulative effect.
3. Sustainable design and construction.	This project displayed overall positive environmental effects with significant beneficial effects on environmental topics; ▪ Climatic factors ▪ Material assets and ▪ Population and human health The project is predicted to have an overall positive cumulative effect.
4. Alloa Docks masterplan.	This project displayed an overall neutral environmental effect with no significant beneficial effects on environmental topics; There is a level of uncertainty to the effect that the project will have on environmental topics; ▪ Water and ▪ Cultural heritage The project is predicted to have an overall neutral cumulative effect on the environment.
5. Demonstration eco-housing project.	This project displayed overall positive environmental effects with significant beneficial effects on environmental topics; ▪ Climatic factors and ▪ Material assets The project is predicted to have an overall positive cumulative effect.

Table 7.3: Summary of Framework Assessments (Cont'd)

Project Name	Summary of Assessment Findings
6. Public Art.	This project displayed an overall neutral environmental effect with no significant beneficial effects on any environmental topics. There is a level of uncertainty as to the effect on material assets and cultural heritage however it is assumed public art projects will take these environmental topics into consideration resulting in positive effects. The project is predicted to have an overall neutral cumulative effect on the environment.
7. Enhancement of property.	This project displayed an overall neutral environmental effect with no significant beneficial effects on any environmental topics. The project is therefore predicted to have an overall neutral cumulative effect on the environment.
8. Sustainable transport improvements	This project displayed overall positive environmental effects with significant beneficial effects on environmental topics; ▪ Climatic factors ▪ Air and ▪ Population and health There is also an element of uncertainty of effects on the following; ▪ Biodiversity, flora and fauna ▪ Soil and ▪ Landscape However it is likely effects will be positive. The project is predicted to have an overall positive cumulative effect.
9. Sustainable energy	This project displayed overall negative/unknown environmental effects with negative effects likely to be experienced by; ▪ Biodiversity, flora and fauna ▪ Soil ▪ Landscape However there were also significant positive environmental effects predicted for the following; ▪ Climatic factors and ▪ Air The project is predicted to have an overall negative/unknown cumulative effect.
10. Civic Pride	This project displayed an overall neutral environmental effect although it presented significant beneficial effects on the following environmental topics; ▪ Cultural heritage and ▪ Population and health The project is predicted to have an overall neutral cumulative effect on the environment.

Table 7.3: Summary of Framework Assessments (Cont'd)

Project Name	Summary of Assessment Findings
11. Food Production	This project displayed overall uncertain/positive environmental effects with significant beneficial effects observed for the following; ▪ Population and health There is an element of uncertainty of effects on the following; ▪ Water ▪ Soil ▪ Material assets and ▪ Landscape However it is likely effects will be positive. The project is predicted to have an overall positive cumulative effect.
12. Education and Awareness Raising	This project displayed overall positive environmental effects although without any significant beneficial effects The project is predicted to have an overall positive cumulative effect.

7.4 Alliance Project Options Appraisal

The SEA assessment methodology is an integral part of the options appraisal process which has been used to select the projects to be taken forward under the Environment and Sustainability Framework. This is considered to be appropriate because the aim of the Framework is to promote the environment and sustainability in Clackmannanshire, and therefore it is intended that all projects selected will have a net beneficial impact on the environment.

The SEA assessment methodology identified in this report forms the bulk of the first stage of the options appraisal process[1]; after this stage, the projects which are considered likely to have the most beneficial effect on the environment will proceed to the second stage of the process, which considers whether they are suitable for taking forward through the community planning process. Projects which are considered unlikely to have a beneficial impact on the environment (that is, those that are likely to have a significant negative impact on any receptor, or those that have a mostly neutral environmental impact) are rejected after Stage 1.

The criteria to determine whether a project is suitable for taking forward through the community planning process are whether the project has the following attributes:

▪ Unique (not being addressed at all/partially or adequately).
▪ Strategic (important to the people of Clackmannanshire).
▪ Impact (action will deliver significant benefits).
▪ Participation (requires multi-partner involvement).
▪ Delivery capability (we can actually take this on).

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[1] As well as consideration of the impacts of each project on the SEA issues, stage 1 will also consider each project's contribution to a sustainable economy; a "sustainable economy" is defined, following Therivel (2004:79), as one which provides access to satisfying and rewarding work; has low unemployment; has high investment in people, equipment, infrastructure and other assets; and has efficient transport and economic activities. We recognise that economic considerations are not appropriate to SEA, but consider that, since the focus of the Framework is towards benefiting the environment, any economic benefits will be considered as added value, rather than a means of justifying projects that might have harmful environmental implications.

Four of the projects were rejected after Stage 1 because they were considered to be the least environmentally beneficial: (6) Public Art; (7) Enhancement of Property; (9) Sustainable Energy; and (10) Civic Pride. A further two were rejected as a result of the Stage 2 assessment: (3) Sustainable Design and Construction; and (4) Alloa Docks Masterplan. These two were rejected because it was considered that they would not be unique and would not require multi-partner involvement, and therefore could be best progressed outside the community planning process.

This means that the projects selected for inclusion in the Framework are:

- Community involvement in Greenspace Strategy (1)
- Town Centre regeneration in Alloa, Hillfoots/Dollar, Clackmannan and Sauchie (2)
- Demonstration Eco-housing project (5)
- Sustainable transport improvements (8)
- Food production (11)
- Education and awareness (12)

A table summarising the results of the assessments at both stages can be found in Appendix G.

Section 8: Mitigation and Monitoring

8.1 Mitigation

Due to the overall positive environmental effects of the Framework and its priority actions there is minimal mitigation measures proposed in this environmental report.

However the following mitigation and enhancement measures have been highlighted in the assessment matrices of the priority actions:

- Brownfield sites should be chosen over Greenfield sites for projects requiring new land to safeguard Clackmannanshire's soil resources, reduce urban sprawl and derelict land whilst improving urban amenity value.
- Projects should be located in easily accessible areas where feasible i.e. aligned with promotion of sustainable travel options e.g. walking, cycling etc.
- Promoting management of material resources in a sustainable manner to reduce waste.
- Increased awareness in the population of existing environmental sensitivities and problems.

Due to the level of uncertainty with many of the priority actions in respect to project location and other factors which will influence the environmental effects it has been proposed that mitigation measures be addressed by the appropriate Council planners and project managers at project level.

It has been stressed that the relevant Council planners and project managers should follow the mitigation hierarchy i.e. avoid, reduce, remedy or compensate for negative effects.

8.2 Monitoring

The Environmental Assessment (Scotland) Act 2005 requires the Clackmannanshire Environment & Sustainability Framework to monitor significant environmental effects of the implementation of the Framework to enable them to identify unforeseen adverse effects and to take appropriate remedial action.

The requirements for monitoring under the Act will be integrated with the monitoring framework developed for the Framework itself. In addition future monitoring will also be facilitated by the development and updating of the Council's State of the Environment Report.

A set of indicators have been identified in the SEA Objectives table in Appendix C, many of which relate to environmental issues. In terms of monitoring for the Environmental Report these indicators relate specifically to the SEA objectives and enable Clackmannanshire to measure and report on the environmental effects of the Framework and whether these are more or less significant than predicted.

These indicators will be developed as the Framework and environmental assessment process proceeds and have been produced in draft form in this environmental report for comments and observations. It is hoped that the Consultation Authorities can give guidance on the development of these indicators during the Framework and SEA process. It is recognised that targets for indicators will have to be developed and refined once the Framework progresses and the data available improves.

The monitoring framework will be developed as part of the process to finalise the Framework. The post-adoption SEA statement will provide further details of the monitoring framework in relation to the Environmental Report. Appendix I sets out the framework for monitoring the Clackmannanshire Environment and Sustainability Framework.

Section 9.0: Next Steps

9.1   Proposed Consultation Timescales and Methods

The proposed consultation period for the SEA of the Environment and Sustainability Framework is six weeks. Clackmannanshire Council will make a copy of the SEA available and publicised in accordance with the Environmental Assessment (Scotland) Act 2005. It is anticipated that each member of the Environment and Sustainability Theme Team will take steps to publicise the SEA and make it available to the individuals and groups that they represent.

9.2   Anticipated Milestones in the SEA and Planning Processes related to this PPS

Once the options appraisal process (including the SEA) has been carried out, the results will be circulated to the Theme Team for validation and approval. This will be an opportunity for the Theme Team (and the people its members represent) to comment on both the SEA and the projects selected for inclusion in the framework. Once this consultation process is complete, a draft Environment and Sustainability Framework and the Environmental Report will be prepared. These will be made available for public consultation as stated above. Once the final version of the Framework is prepared and adopted, a post-adoption statement will be published, in accordance with the requirements of the Environmental Assessment (Scotland) Act 2005.

APPENDIX A

Relevant PPS

Indicative List of Plans, Programmes and Strategies (PPS) to be analysed for their relationship to the Clackmannanshire Environment and Sustainability Framework

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
International	Convention on Biodiversity (1992)	Biodiversity	Article 6a - Requires each contracting party to develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity.	Protect the biological diversity of Clackmannanshire.
	United Nations Framework Convention on Climate Change (1992)	Climatic Factors	Main objective was reducing greenhouse gas concentrations to a level that would prevent and mitigate climate change.	Priority actions in the Environment & Sustainability Framework should help to limit greenhouse gas emissions and impacts on climate change. In particular, promotion of sustainable transport and renewable energy for new developments.
	Kyoto Protocol on Climate Change (1997)	Climatic Factors	Commits developed countries to reducing their emissions of six greenhouse gases by 5.2% from 1990 levels averaged over period 2008-2012. As part of the EU burden sharing the U.K. has undertaken to achieve a reduction of 12.5%.	Priority actions in the Environment & Sustainability Framework should help to limit greenhouse gas emissions and impacts on climate change. In particular, promotion of sustainable transport and renewable energy.
	Johannesburg Declaration on Sustainable Development (2002)	All	Accelerate the shift towards sustainable consumption and production, ten year framework of programme of action, reverses trend in loss of natural resources.	The Environment & Sustainability Framework should reflect the sustainable development agenda.
European	European Climate Change Programme (ECCP)	Climatic Factors	The goal of the ECCP is to identify and develop all the necessary elements of an EU strategy to implement the Kyoto Protocol. As part of the EU burden sharing the U.K. has undertaken to achieve a reduction of 12.5% in necessary greenhouse gases.	Priority actions in the Environment & Sustainability Framework should help to limit greenhouse gas emissions and impacts of climate change. In particular, promotion of sustainable transport and renewable energy for new development.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
European	Council Directive on the Assessment and Management of Environmental Noise 2002/49/EC	Population and human health	This Directive seeks to limit people's exposure to environmental noise, in particular in built-up areas, public parks or other quiet areas, and in noise sensitive buildings such as schools and hospitals. The Directive requires Member States to produce noise maps no later than 30 June 2007 and action plans by 18 July 2008.	Framework to support overall objectives and requirements of the Directive.
	Ambient Air Quality Assessment and Management Framework Directive 1996/62/EC	Air, population and human health	This Directive is concerned with the principle of defining and establishing objectives for air quality management to avoid, prevent or reduce harmful effects on human health and the environment; assessing ambient air quality in Member States by establishing common methods and criteria; obtaining information about ambient air quality and ensuring it is available to the public; and, overall, maintaining and improving ambient air quality. The Directive is concerned with 12 pollutants that are subject to four daughter directives.	Framework to support overall objectives and requirements of the Directive.
	Water Framework Directive 2000/60/EC	Water	To prevent deterioration and enhance the status of aquatic ecosystems; promote sustainable water use; reduce pollution and contribute to the mitigation of floods and droughts.	The Environment & Sustainability Framework should as a minimum not support or encourage developments which contravene this.
	The Sixth Environmental Action Programme of the European Community (2002)	All	Sets the basic environmental context of all European Union policy including economic instruments. Legislation such as Habitats Directive stem from The Sixth Environmental Action Programme of the European Community (2002)	While the Environment & Sustainability Framework may have an economic remit, it must also deliver this sustainably and give due regard to the priority action areas.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
European	Related Programmes/ Plans: European Union Strategy for Sustainable Development (2001) European Biodiversity Strategy (1998) Habitats Directive 1992/43/EEC Conservation of Wild Birds Directive 1979/409/EEC			
	The Pan-European Biological and Landscape Diversity Strategy (1995)	Landscape	The purpose of the Strategy is to maintain and enhance Europe's biological and landscape diversity through the achievement by 2015 of four specific aims: ▪ that threats to Europe's biological and landscape diversity are reduced substantially ▪ that the resilience of Europe's biological and landscape diversity is increased ▪ that the ecological coherence of Europe as a whole is strengthened ▪ that full public involvement in the conservation of biological and landscape diversity is assured	The impact of the Framework should be considered in particular with regard to potential cumulative impacts.
	EU Waste Framework Directive (1975/442/EEC as updated by 91/156/EEC)	Climatic Factors, Material Assets, Population and Human Health.	This Directive requires Member Status to establish both a network of disposal facilities and competent authorities with responsibility for issuing waste management authorisations and licences.	Environment & Sustainability Framework should consider these impacts with respect to actions affecting waste management.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
European	EU Waste Framework Directive (Cont'd)		Member states may also introduce regulations which specify which waste recovery operations and businesses are exempt from the licensing regimes and the conditions for those exemptions. An important objective of the directive is the ensure recovery of waste or its disposal without endangering human health and the environment. Greater emphasis is also placed on the prevention, reduction, re-use and recycling of waste. Member States shall take the necessary measures to ensure that waste is recovered or disposed of without endangering human health and without using processes or methods which could harm the environment.	This would feed into objectives for noise, air, landscape, and biodiversity. The Waste Management Strategy needs to consider these requirements within its own priority actions and be carefully integrated with the Environment & Sustainability Framework.
	Bern Convention on European Wildlife and Natural Habitats (1979)	Flora and Fauna	The convention sets out to: ▪ conserve wild flora and fauna and their natural habitats; ▪ promote co-operation between states; ▪ monitor and control endangered and vulnerable species; ▪ assist with the provision of assistance concerning legal and scientific issues. The convention lead to the creation in 1998 of the Emerald network of Areas of Special Conservation Interest (ASCIs) throughout the territory of the parties to the convention, which operates alongside the European Union's Natura 2000 programme. It also provides for the monitoring and control of endangered species, and the provision of assistance concerning legal and scientific issues.	Environment & Sustainability Framework priority actions must protect wildlife, habitats and biodiversity.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
European	EU Directive 2007/60/EC on the assessment and management of Flood Risk	Climatic Factors	The European Directive on the Assessment and Management of Flood Risks (**2007/60/EC)** is designed to help Member States prevent and limit floods and their damaging effects on human health, the environment, infrastructure and property.	Environment & Sustainability Framework actions should consider the Directive's management requirements of flood risk issues.
	EU Noise Directive 2002/49/EC	Population and Health	The Noise Directive was adopted in 2002 and sets out four main objectives; Monitoring the environmental problem, Informing and consulting the public, Addressing local noise issues, Developing a long-term EU strategy.	Environment & Sustainability Framework actions should consider the Directive's four main objective requirements of noise issues.
National	Framework for Economic Development in Scotland (FEDS)	All	The primary challenge in the Scottish economy is to establish an accelerated and sustainable rate of economic growth. FEDS is focussed on achieving four key outcomes that are fundamental to Executive policy: ▪ economic growth; ▪ regional development; ▪ closing the opportunity gap; ▪ sustainable development.	Environment & Sustainability Framework priority actions concerning economic development within the region should enable achievement of FEDS objectives.
	A strategy for the conservation and enhancement of biodiversity in Scotland	Biodiversity	The aim of the strategy is to conserve biodiversity for the health, enjoyment and wellbeing of the people of Scotland now and in the future. **Objectives** ▪ Species & Habitats: To halt the loss of biodiversity and continue to reverse previous losses through targeted action for species and habitats.	Environment & Sustainability Framework priority actions must protect habitats and biodiversity of Clackmannanshire.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
National	A strategy for the conservation and enhancement of biodiversity in Scotland (Cont'd)		- People: To increase awareness, understanding and enjoyment of biodiversity, and engage many more people in conservation and enhancement - Landscapes & Ecosystems: To restore and enhance biodiversity in all our urban, rural and marine environments through better planning, design and practice - Integration & Co-ordination: To develop an effective management framework that ensures biodiversity is taken into account in all decision making - Knowledge: To ensure that the best new and existing knowledge on biodiversity is available to all policy makers and practitioners.	
	The Air Quality Strategy for England, Scotland, Wales and Northern Ireland	Air, Population and Human Health	To reduce the impact that pollutants in the air have on public health and to meet national objectives and limits set by European Legislation.	Framework to support overall objectives and requirements of the strategy.
	The UK Programme for Climate Change	Climatic Factors	The goal of the U.K. Programme for Climate Change is to identify and develop all the necessary elements of a national strategy to implement the Kyoto Protocol/EU Climate Change Programme. The U.K. has undertaken to achieve a reduction of 12.5% of greenhouse gases.	Priority actions set out in the Environment & Sustainability Framework should help to limit greenhouse gas emissions and impacts of climate change. In particular, promotion of sustainable transport and renewable energy for new development.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
National	Scottish Climate Change Programme (SE/2000/208)	Climatic Factors	Scotland's Climate Change Programme (SCCP) **Changing Our Ways** was published by the Executive in March 2006. The Programme sets a framework which aims to deliver carbon savings through the setting of Scotland's first carbon target, and to reduce Scotland's vulnerability to climate change. The SCCP is one of the main delivery programmes for Choosing our Future: Scotland's Sustainable Development Strategy. Scotland's Climate Change Programme also recognises that local government is Scotland's largest public sector employer and, as such, has the potential to play a key role in tackling climate change through both its own activities and its influence on the wider community. Development of Scotland's Climate Change Declaration and support mechanism, initially aimed at Scottish local authorities, is a commitment in the SCCP and supports a longer term commitment to develop a climate change programme for local government in Scotland.	Priority actions in the Environment & Sustainability Framework should help to limit greenhouse gas emissions and impacts. In particular, promotion of sustainable transport and renewable energy for new developments.
	National Waste Plan (Scotland), 2003	Climatic Factors, Material Assets, Population and Human Health.	Outlines how Scotland can achieve increased levels of recycling and an overall reduction in the amount of waste we produce by 2020.	The SEA will identify areas of focus for reducing waste and increasing recycling within the Environment & Sustainability Framework priority actions.
	National Waste Strategy Scotland 1999 (NWSS 99)	Climatic Factors, Material Assets, Population and Human Health.	This set out a framework for change in the way in which Scotland deals with its waste and highlighted the partnerships that would be necessary to achieve such change. It also set out the statutory and policy framework for waste.	The SEA will identify measures for reducing the amount of waste going to landfill and increasing recycling within Clackmannanshire.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
National	National Waste Strategy (Cont'd)		NWSS 99 acknowledged the need to take full account of local needs and circumstances, in order to identify the best solutions for waste management across the country. To this end, 11 Waste Strategy Areas were identified within which plans would be developed by partnerships of local interests.	
	Securing a Renewable Future: Scotland's Renewable Energy (2003)	Climatic Factors	The Executive has already set a target for electricity generated within Scotland by renewable means. The Scottish target is 18% by 2010. Thereafter Scotland should aspire to generate 40% of its electricity from renewable sources by 2020.	Priority actions in the Environment & Sustainability Framework should help to promote renewable energy developments and to limit greenhouse gas emissions and impacts of climate change where feasible.
	Scotland's Renewable Energy Potential: realising the 2020 target (2005)	Climatic Factors	Considers in particular how the above 2020 target might be met, both in terms of technologies and the installed capacity that might be necessary. Issues such as security of electricity supply, transmission infrastructure and Scotland's contribution to the U.K. renewable electricity targets, should be taken into account.	Priority actions in the Environment & Sustainability Framework should help to promote renewable energy developments and to limit greenhouse gas emissions and impacts of climate change.
	UK Sustainable Development Strategy, March 2005	All	This strategy aims to promote sustainable development. It contains five principles (with a more explicit focus on environmental limits); four agreed priorities (sustainable consumption and production, climate change, natural resource production and sustainable communities).	To implement the new strategy the Environment & Sustainability Framework should aim to promote sustainable development in its priority actions.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
National	UK Sustainable Development Strategy (Cont`'d)		A new indicator set with new indicators such as on well being. The new objectives included within the strategy are: ▪ Living within environmental limits ▪ Promoting good governance ▪ Using sound science responsibly	
	Scottish Sustainable Development Strategy, December 2005	All	It provides the strategic framework for a number of the Executive's new and emerging strategies on climate change, transport, renewable energy, energy efficiency, green jobs and biodiversity.	To implement the new strategy the Environment & Sustainability Framework should aim to promote sustainable development in its priority actions.
	Water Environment and Water Services (Scotland) Act 2003 (WEWS)	Water	This act is the enabling legislation for the Water Framework Directive. It identifies SEPA as the competent authority.	The Environment & Sustainability Framework should as a minimum not support or encourage developments which contravene this Act.
	Water Environment (Controlled Activities) Regulations 2005 (CAR)	Water, Soil	Discharges to surface and groundwater, abstractions, impoundments, and work in or near the water environment are controlled by CAR. Without authorisation from SEPA, it is an offence for anyone to abstract or impound water. CAR provides for three levels of authorisations: 1. General Binding Rules (GBRs) for specified low risk activities 2. Registrations; for controlled low risk activities. 3. Licences where environmental risk is deemed higher.	The Environment & Sustainability Framework should as a minimum not support or encourage developments which contravene this.
	Environmental Impact Assessment (Scotland) Regulations 1999	All	Under these regulations certain public or private works must be assessed for their environmental implications. Projects for which an environmental impact assessment (EIA) is mandatory are listed in Schedule 1 of the regulations.	EIA and SEA have similar objectives and should closely relate to each other within the same process.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
National	Environmental Impact Assessment (Scotland) Regs 1999 (Cont'd)		Schedule 2 lists those projects for which in an EIA will be required if certain thresholds are exceeded or if they are likely to have an impact on the environment.	
	Wildlife & Countryside Act 1981 (amended by Wildlife and Countryside Amendment Act 1991).	Flora and Fauna	The Act implements the Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention') and the European Union Directives on the Conservation of Wild Birds and Natural Habitats. The Act is concerned with the protection of wildlife and their habitat (countryside, national parks and designated protected areas). Addresses the problem of species protection and habitat loss by setting out the protection that is afforded to wild animals and plants in Britain.	Environment & Sustainability Framework priority actions must protect wildlife, habitats and biodiversity.
	Nature Conservation Act (Scotland) 2004	Flora, Fauna and Biodiversity	Nature Conservation (Scotland) Act 2004 delivers the legislative components for a new system of nature conservation. It has three key Parts, reflecting the three central themes of that new system: Part 1: Conservation of biodiversity. Part 2: A system for protecting Scotland's most precious natural places. Part 3: Further effective action to combat wildlife crime.	There is likely to be interaction between certain priority actions of the Framework and wildlife and different types of land use therefore the SEA should consider the effects on biodiversity.
	Scottish Biodiversity Strategy	Flora, Fauna and Biodiversity	To conserve Scotland's biodiversity for future generations by conserving habitats and species and raising public awareness on the importance of biodiversity.	The Environment & Sustainability Framework priority actions should promote the maintenance and enhancement of Clackmannanshire's biodiversity. The SEA should consider the effects on biodiversity.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
National	UK Biodiversity Action Plan	Flora, Fauna and Biodiversity	The plan assesses the current status of the U.K.'s habitats and species and sets out a strategy for their future conservation and enhancement. Communities Scotland's activities must promote the maintenance and enhancement of Scotland's biodiversity.	The Environment & Sustainability Framework priority actions should promote the maintenance and enhancement of Clackmannanshire's biodiversity. The SEA should consider the effects on biodiversity.
	Conservation (Natural Habitats, and c.) Regulations 1994 (as amended)	Flora, Fauna and Biodiversity	The Conservation (Natural Habitats &c) Regulations 1994 transposed into UK legislation the provisions of the European Union's 'Habitats Directive' on the conservation of natural habitats and of wild fauna and flora (ref 92/43/EEC). The principal aim of this Directive is to sustain biodiversity through the conservation of natural habitats and wild fauna and flora in the territory of European Member States. These targets are principally being met through the establishment of Special Areas of Conservation (SACs).	Biodiversity, Flora & Fauna are parameters which the SEA uses for assessment of the Framework.
	Local Government in Scotland Act 2003	Population and Health	The key policy aim of the Local Government in Scotland Act 2003 is to enable the delivery of public services which better meet the expectations of those who pay for and use them.	Population and Health is a parameter which the SEA uses for assessment of the Framework.
	The Land Reform (Scotland) Act 2003	Landscape	The Land Reform (Scotland) Act 2003 establishes statutory rights of access to land and inland water for outdoor recreation.	Landscape and Cultural heritage is a parameter which the SEA uses for assessment of the Framework.
National Planning Policy Guidance - all NPPG's. SPP's , & other formal policy statements	SPP7 - Planning and flooding	Population, Human Health, Water	The central purpose of this SPP is to prevent further development which would have a significant probability of being affected by flooding, or which would increase the probability of flooding elsewhere.	The Framework should consider how development impacts might heighten associated flood risks.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
National Planning Policy Guidance - all NPPG's. SPP's & other formal policy statements	NPPG 5 Archaeology and planning	Cultural Heritage	Sets out the Government's planning policy on how archaeological remains and discoveries should be handled under the development plan and development control systems, including the weight to be given to them in planning decisions and the use of planning conditions.	Cultural heritage is a parameter which the SEA uses for assessment of the Framework.
	NPPG 14 Natural Heritage	Biodiversity, Cultural Heritage, Landscape	Gives guidance on how the Government's policies for the conservation and enhancement of Scotland's natural heritage should be reflected in land use planning. In this context, Scotland's natural heritage includes its plants and animals, its landforms and geology, and its natural beauty and amenity.	The Framework should encourage the duty to protect and enhance natural heritage and this duty will be guided by the local biodiversity action plans.
	NPPG 18 Planning and the historic environment	Cultural Heritage	This NPPG sets out the Government's planning policies in relation to the historic environment with a view to its protection, conservation and enhancement.	The Framework should encourage the duty to protect and enhance cultural heritage and this duty will be guided by the local biodiversity action plans.
	SEPA Groundwater Protection Policy for Scotland (Policy 19)	Water	This policy aims to provide a sustainable future for Scotland's groundwater resources by protecting legitimate uses of groundwater and providing a common SEPA framework to: ▪ Protect groundwater quality by minimising the risks posed by point and diffuse sources of pollution; ▪ Maintain the groundwater resource by influencing the design of abstractions and developments, which could affect groundwater quantity.	Groundwater impacts are assessed as part of the SEA.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
National Planning Policy Guidance - all NPPG's. SPP's & other formal policy statements	SEPA Policy on the Culverting of Watercourses (Policy 26)	Water	This document explains SEPA policy on culverting of watercourses which is to take account of SEPA's new duties and responsibilities under the Water Environment (Controlled Activities) (Scotland) Regulations 2005.	Watercourse impacts are assessed as part of the SEA.
	SEPA Waste water drainage Policy and Supporting Guidance on Provision of Waste Water in Settlements (Policy 55)	Water	This document provides the policy principles and guidance to which SEPA will operate when it is consulted on a development proposal. It sets out how SEPA will approach discussions with developers, local authorities and Scottish Water to ensure whenever possible eventual connection to the public sewerage system and to support sustainable development of communities.	The Framework should encourage the duty to prevent increased risk of flood risks which will be considered within priority actions.
	Passed to the Future, Historic Scotland's Policy for the Sustainable Management of the Historic Environment (2002)	Cultural Heritage	Scottish Executive policy for the sustainable management of the historic environment is set out in Passed to the Future, published by Historic Scotland in 2002. This policy recognises the role of strategic environmental assessment in managing adverse impact on the historic environment, and it's potential for minimising conflict by adopting an integrated approach to decision-making.	Cultural heritage is a parameter which the SEA uses for assessment.
	Scotland's Historic Environment Policy (SHEP) 1: The Historic Environment	Cultural Heritage	*The Historic Environment* is the overarching policy statement for the historic environment. It provides a framework for more detailed strategic policies and operational policies that inform the day-to-day work of a range of organisations, including the Scottish Executive, local authorities and the range of bodies that have a role and interest in managing the historic environment. It is also intended to inform the Strategic Environmental Assessment (SEA) processes.	Cultural heritage is a parameter which the SEA uses for assessment.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
National Planning Policy Guidance - all NPPG's. SPP's & other formal policy statements	Scotlands's Historic Environment Policy: SHEP 2 - Scheduling: Protecting Scotland's Nationally Important Monuments.	Cultural Heritage	Scottish Executive policy for protecting nationally important monuments of Scotland's historic environment is set out in this policy. This policy recognises the role of strategic environmental assessment in managing adverse impact on nationally important monuments.	Cultural heritage is a parameter which the SEA uses for assessment.
Local Plans	Clackmannanshire and Stirling Structure Plan and its alterations.	All	This Structure Plan sets out the long-term vision for sustainable development. Its strategic framework seeks to deliver enhanced access to housing, jobs and local facilities, integration of land use with transport, and a high quality of development; all within the overall context of caring for the environment. The Plan recognises that this can only be achieved by the Councils, key agencies, local communities and the private and voluntary sectors working in partnership.	The Structure Plan and alterations should be considered and influence the Environment & Sustainability Framework, which is influenced by the SEA.
	Forth Valley Area Waste Strategy and Plan	Climatic Factors, Material Assets, Population and Human Health	The aim of the Area Waste Plan (AWP) is to contribute to the sustainable development of the Forth Valley area by developing waste management systems that will control waste generation, reduce its environmental impact, improve resource efficiency, stimulate investment and maximise the economic opportunities arising from waste. The AWP covers all types of waste (household, commercial, industrial) but focuses on municipal solid waste (MSW). The AWP sets targets of 19% recycling and 19% composting of MSW by 2010, with the remainder going to landfill. By 2020, it calls for 28% recycling, 25% composting, 17% energy recovery and 30% to landfill.	The importance of reducing waste could be reflected in SEA objectives and should be a key issue for consideration throughout the process.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
Local Plans	Local Biodiversity Action Plan	Biodiversity	The biodiversity action plan is instrumental in maintaining and enhancing habitats and species through focussed local action. In addition, the plan will promote increased awareness of local biodiversity in the communities.	The Framework should encourage the duty to protect and enhance biodiversity and this duty will be guided by the local biodiversity action plans.
	Local Plan	All	The Local Plan sets out the specific planning policy advice and guidance, in conformity with the Structure Plan. This Local Plan amplifies the Structure Plan strategy into more detailed and site specific guidance. It also brings together all policies and proposals for the use of land and other developments into one document.	The Local Plan helps to deliver the Environment & Sustainability Framework which is influenced by the SEA.
	Road Safety Plan	Air Quality, Climatic Factors.	The objective of this Road Safety Plan (RSP) is to identify and manage road issues in the Clackmannanshire area.	Transport will be a key issue for the SEA, in particular reducing traffic congestion and increasing safety and sustainable travel.
	Road Traffic Reduction Plan	Air Quality, Climatic Factors.	The objective of this Road Traffic Reduction Plan (RTRP) is to identify, manage and reduce road traffic issues in the Clackmannanshire area.	Transport will be a key issue for the SEA, in particular reducing traffic congestion and increasing safety and sustainability.
	Joint Health Improvement Plan Community Plan (Draft)	Population and Human Health	The Joint Health Improvement Plan for Clackmannanshire Working Together for a Healthier Clackmannanshire has three main aims: ▪ To raise awareness of the many factors that can determine the health of local populations. ▪ To make reference to the (inter) national and local policies, strategies and planning processes that respond to these factors. ▪ To list the actions that local partner agencies will take forward in the first year of the Joint Health Improvement Plan in response to national and local needs and priorities.	The SEA addresses population and human health objectives and thereby assesses the Environment & Sustainability Frameworks impacts.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
Local Plans	Community Plan	Population and Human Health	The Community Plan sets out those partners will work together, with collective resources, skills, knowledge and expertise to progress the vision and the eight shared strategic priorities. These priorities provide the focus for the work of the Steering and Functional Groups. The priorities: ▪ Health improvement ▪ Community safety ▪ Regeneration ▪ Economic development ▪ Sustainable development ▪ Lifelong learning ▪ Citizenship Community engagement	The SEA addresses population and human health objectives and thereby assesses the Environment & Sustainability Frameworks impacts.
Local Strategies	Community Safety Strategy	Population, Human Health	Community Safety Strategy has been prepared by multi-agency Community Safety Partnership. The strategy reflects local partners' desire for improved joint working through information sharing and developing joint responses to problems. The document sets out key themes across which progress will be monitored.	The SEA addresses population and human health objectives including provision of community safety, which the Environment & Sustainability Framework must take into account.
	Local Transport Strategy	Air Quality, Climatic Factors, Population, Human Health	The Transport Strategy covers the period. This document sets out the aims, objectives, policies and strategies for the next three years addressing transport issues. It covers a wide range of topics from individual modes such as cycling to groups of people including the disabled to more general transport issues such as roads maintenance.	Transport will be a key issue for the SEA, in particular reducing traffic congestion and increasing safety and sustainability.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
Local Strategies	Procurement Policy	Population and Human Health	The objective of the Procurement Policy Strategy is to improve procurement effectiveness across the Council, while seeking procurement excellence as a long-term objective.	The key objectives of the Procurement Policy and Economic Development Strategy need to be considered in relation to the Framework and impacts on the environment and are assessed by the SEA.
	Economic Development Framework	Population and Human Health	The Economic Development Framework lays out the rationale and approach to the economic development for the Clackmannanshire area. It provides a framework for action to support the areas future economic prosperity and long-term fiscal competitiveness.	The key objectives of the Procurement Policy and Economic Development Strategy need to be considered in relation to the Framework and impacts on the environment and are assessed by the SEA.
	Community Engagement Framework	Population and Health	The purpose of the Community Engagement Framework is to ensure that citizens, visitors and other key stakeholders in Clackmannanshire have a voice to influence the development of policies and strategies that will affect their lives and to inform the way in which services are planned and delivered. The Community Engagement Framework provides an overarching framework for community engagement in Clackmannanshire together with a best practice guide.	The SEA addresses population and human health objectives and thereby assesses the Environment & Sustainability Frameworks' impacts.
	Flood Prevention & Land Drainage Plans	Climatic Factors, Landscape	These plans are published to meet Clackmannanshire Council's duty under section 6A of the Flood Prevention (Scotland) Act 1961 as inserted by section 3 of the Flood Prevention & Land Drainage (Scotland) Act 1997.	The SEA addresses climatic factors and water objectives and thereby assesses the Environment & Sustainability Framework in relation to the Flood Prevention & Land Drainage Plans' aims.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
Local Strategies	Flood Prevention & Land Drainage Plans (Cont'd)		The plans specify: ▪ all known occurrences of flooding of land, not being agricultural land, within the Council area ▪ the measures that the Council has taken to prevent or mitigate flooding of such land; and ▪ the measures that the Council considers it requires to take to prevent or mitigate the flooding of land in the Council area.	The SEA addresses climatic factors and water objectives and thereby assesses the Environment & Sustainability Framework in relation to the Flood Prevention & Land Drainage Plans' aims.
	Fuel Poverty Strategy	Energy	The strategy sets out how the Council working in partnership with others will tackle the challenge set by the Scottish Executive to eradicating fuel poverty in our area by 2016. This is broken down into five main aims; ▪ Improvement of housing stock. ▪ Reduction of Energy Costs. ▪ Provide Quality Advice. ▪ Investigate renewable energy sources and alternative technologies. ▪ Implementation of the fuel poverty strategy.	The SEA addresses climatic factors (energy), population and human health objectives and thereby assesses the Environment & Sustainability Framework in relation to the fuel strategy aims.
	Future Directions	All	"Future Directions" offers a vision of how Clackmannanshire and its Council might develop over the next decade. It does not offer a detailed plan but instead, a sense of direction which should guide the day-to-day work of Council managers and staff. It aims to give a clear sense of purpose and establish strategic objectives.	The key priorities of the Councils Future Directions vision need to be considered in relation to the Framework objectives and actions which will be assessed by the SEA.

Level of Origin	Plan/Programme/Policy	Environmental Issue	Objectives, Requirements and Summary of Key Areas	Content of Plan/Programme/Policy in relation to Environment & Sustainability Framework
Local Strategies	Future Directions (Cont'd)		The environmental priorities are, • Protect and enhance the landscape and natural environment • Ensure an attractive built environment • Ensure effective transport links and access • Manage waste and energy production and usage in sustainable ways • Take local action on climate change.	
	Clackmannanshire Landscape Character Assessment. No 96 (ASH Consulting Group) 1998, SNH.	Landscape, soil	This assessment identifies the types and trends of landscape character observed in Clackmannanshire and over its history.	This assessment details the land character and land use present across Clackmannanshire.

APPENDIX B

Summary of Framework Priority Action Options

1. **Community involvement in the emerging Clackmannanshire Greenspace Strategy**
   - Green Mapping.
   - Specific priority projects to be identified - the group highlighted Delph Pond (Rotary Club) and Cowpark Pond (CVS) as priorities.
   - Linking in to Woodlands In and Around Towns work and Landscape Partnership.
   - Suggested objective of every village or town to have a community woodland.

2. **Town Centre Regeneration in Alloa, Hillfoots/Dollar, Sauchie and Clackmannan**
   - Community focus in production of strategies, area action and regeneration plans.
   - Associated regeneration issues such as involvement in the Bowmar Masterplan and ROAs.

3. **Sustainable Design and Construction**
   - Community and partner involvement in the implementation of the Guidelines at Alloa North West and Forestmill.
   - Community and partner involvement in the promotion of the Guidelines and their adoption in new developments across Clackmannanshire.

4. **Alloa Docks Masterplan**
   - Accepted that this is an initiative already being undertaken by the Council but strong interest in community and partnership involvement.
   - Considerable interest in community and partnership involvement in the potential new cycle-pedestrian bridge between Alloa Harbour and South Alloa.
   - Links to Bowmar regeneration plans and the new Alloa Academy and its important role as a community facility.

5. **Demonstration Eco-Housing Project**
   - Possibly at Alloa North West but support for focus on a demonstration project in Clackmannanshire which could both inspire/educate local residents about eco-housing but also act as a project of national significance, placing Clackmannanshire at forefront of eco-housing.

6. **Public Art**
   - Building on the success of the Council's Public Art Project.

7. **Enhancement of Property**
   - Allied to regeneration.
   - Support for the idea of a shop frontage improvement scheme for town centres.
   - Belief in property enhancement as means of kick-starting regeneration.
   - Strong links with Economic Development Theme Team objectives.

8. **Sustainable Transport Improvements**
   a) Public transport improvements.
   b) Provision of cycling and walking facilities and promotion of cycling and walking.
   c) Community transport.
   d) Green transport (car sharing, car clubs, etc):
      - very strong area of interest at Workshop 1.
      - seen as fundamental to delivery of environmental sustainability.
      - improving cycle-pedestrian links: support for Council priorities involving upgrade of Devon Way, completion of Alloa-Stirling National Cycle Route, and improved cycle/pedestrian links in the Hillfoots (e.g. - Alva-Tillicoultry cycle route/safe route to school).
      - Need to ensure sustainable transport links to new hospital in Larbert (rail and bus service; provision of cycle/pedestrian bridge to South Alloa).

- (Agreed that idea of freight transport depot should be supported but should be dealt with by Economic Development Theme Team).
- Promotion of cycling through training (Council are already piloting this for own employees but strong support for this to be rolled out to community in general - essential to encourage use of the facilities being provided). Particular interest in community based "try cycling" days to encourage people (including the disabled) to learn to cycle.
- Support for provision of more cycle facilities (e.g. - cycle parking as recently provided at Council offices) and improved cycle connections to schools and workplaces.
- Provision of bus priority at congestion points.
- Re-opening of rail passenger services to Clackmannan, and if possible to Dunfermline/Edinburgh (considered essential to ensure sustainable development at Forestmill).
- Provision of cycle hire facilities (preferred location at Alloa Station to enable/encourage more sustainable travel).
- Encouraging car clubs, community car pool and car sharing (through greater promotion of Tripshare Clacks and Council allocating greater resources to promote these).
- Stronger emphasis on community transport in rural areas.
- Promotion of more facilities to improve tourist appeal and encourage outdoor access (emphasis on parking/laybys with toilets in rural areas).

9. Sustainable Energy

- Boosting renewable energy use through raising awareness and demonstration projects.
- Encouraging the introduction of turbines on Scottish Water dams.
- Investigating the scope for small scale hydro on the Hillfoots Burns (which also has the potential to contribute to sustainable flood management).

10. Civic Pride

- Strong support for Civic Pride initiatives - community driven with partnership support.
- Adoption of streets and other public spaces by community organisations.
- Suggestion of Council match funding to be granted to community organisations to carry out local projects.

11. Food Production

- Promotion of healthy eating, shopping locally, reducing food miles.
- Supporting practical projects to achieve these objectives (e.g. allotments, Orchard Project).

12. Education and Awareness Raising

- Campaign to raise awareness of actions required by individuals and groups to deliver environmental sustainability, particularly focused on the next generation.

APPENDIX C

SEA Objectives

SEA Topic	SEA Objective	SEA Criteria (Checklist of Questions)	Indicator
Biodiversity, Flora and Fauna	1. Ensure the sustainable management of, and avoid damage to, designated wildlife sites and protected species.	Does it have significant implications for the conservation and/or enhancement of biodiversity? Will it proactively conserve and enhance protected species?	Reported condition of locally and nationally important wildlife sites.
	2. Maintain biodiversity, avoiding irreversible losses.	Does it encourage the protection and/or enhancement of natural and semi-natural habitats?	Achievement of Local Biodiversity Action Plan targets.
	3. Provide opportunities for people to come into contact with and appreciate wildlife and wild places.	Does it promote the proper assessment of the biodiversity implications of future housing developments?	Number of people actively engaged in biodiversity conservation and events.
Population and Human Health	4. Promote healthy living.	Does it improve the quality of services available within communities? Is it likely to ensure that the same level of service (or better) will be available for future generations?	Years of healthy life expectancy/infant mortality rate. SIMD
	5. Reduce and prevent crime; reduce fear of crime.		Recorded crime. Fear of crime surveys.
	6. Improve quality of life for present and future generations.	Is it likely to provide a safe, quality environment for the community? Is it likely to contribute to the improvement of human health in the community?	Resident perception surveys.
Soil	7. Reduce contamination and safeguard soil quality and quantity.	Does it lead to the improvement of soils within the area? Does it protect vulnerable soil resources in the area?	Contaminated land. Amount/loss of greenfield/ brownfield land and proportion available for re-use.
Water	8. Maintain and restore key ecological processes; promote sustainable water use and reduce pollution.	Is it likely to result in improvements to the quality of water courses and bodies in the area?	River quality. Groundwater quality. Otter status.

SEA Topic	SEA Objective	SEA Criteria (Checklist of Questions)	Indicator
Material Assets	9. Minimize waste, then re-use or recover it through recycling, composting or energy recovery.	Does it improve access across the authority by all modes of transport? Does it minimise the amount of waste produced?	Household waste produced per household. Household waste recycled per household. Council waste arisings and percentage recycled/composted.
	10. Make best use of existing infrastructure.	Does it increase the amount of waste which is recycled or re-used?	Source of water supply and its local capacity. Proximity to community hall.
Air	11. Reduce the need to travel.	Is it likely to lead to improvements in air quality?	Access to key services.
	12. Reduce private car use.	Is it likely to lead to a reduction in car use and the need to travel?	Mode of Transport (public transport, cycling, walking, car). Road traffic reduction.
Climatic Factors	13. Reduce greenhouse gas emissions.	Is it likely to lead to a reduction in energy consumption within the area? Is it likely to reduce the CO2 and other greenhouse gas emissions into the atmosphere?	Net GHG emissions. Energy consumption. Percentage energy consumption from indigenous renewables.
	14. Reduce vulnerability to the effects of climate change.	Is it likely to militate against the effects of areas liable to flooding? Is it likely to contribute to adaptation to climate change?	Flood risk. Number of road and rail closures due to weather events.
Cultural Heritage	15. Protect and, where appropriate, enhance the historic environment.	Is it likely to protect listed buildings within the area? Is it likely to have impacts on the setting of the Conservation Area and Listed Buildings? Is it likely to affect the setting of a Scheduled Ancient Monument? Is it likely to have any impact on archaeological resources in the area? Does it protect archaeological resources in the area?	Percentage of listed buildings and archaeological sites 'at risk'.

SEA Topic	SEA Objective	SEA Criteria (Checklist of Questions)	Indicator
Landscape	16. Protect and enhance the landscape.	Is it likely to cause changes to the landscape environment that are completely at variance with the character of the area?	Perceptions survey responses.
	17. Improve quality of publicly accessible open space.	Is it likely to improve and enhance the quality and amount of accessible open space within the area?	Perceptions survey responses.

APPENDIX D

Compatibility of SEA Objectives

The table below compares each SEA objective against each other in order to assess whether they are compatible with each other. Objectives are numbered as in Appendix C.

SEA objective	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1																	
2	✓																
3	✓	✓															
4	✓	✓	✓								✓ Objectives are compatible						
5	✓	✓	✓	✓													
6	✓	✓	✓	✓	✓						**?** Objectives may be incompatible						
7	✓	✓	✓	✓	✓	✓											
8	✓	✓	✓	✓	✓	✓	✓										
9	✓	✓	✓	✓	✓	✓	✓	✓									
10	✓	✓	✓	✓	✓	✓	✓	✓	✓								
11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓							
12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
13	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
15	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
16	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
17	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

SEA Objective

APPENDIX E

Assessment Matrices - Environmental Effects

Summary of Framework Project Options

Environmental Criteria	Predicted Environmental Effects of Project Options 1-12											
	1	2	3	4	5	6	7	8	9	10	11	12
- Biodiversity, Flora and Fauna	✓✓	N	✓	N	✓	N	N	?✓	?-	N	✓	✓
- Water	✓	N	✓	?-	✓	N	N	✓	?	N	?✓	✓
- Soil	✓✓	✓	✓	✓	✓	N	N	?✓	?-	N	?✓	✓
- Climatic Factors	✓	✓	✓✓	N	✓✓	N	N	✓✓	✓✓	N	✓	✓
- Material Assets	N	✓✓	✓✓	✓	✓✓	?N	✓	✓	?✓	✓	?✓	✓
- Air	✓	✓	✓	N	✓	N	N	✓✓	✓✓	N	✓	✓
- Cultural Heritage	✓	?✓	✓	?✓	✓	✓	✓	✓	?-	✓✓	N	✓
- Landscape	✓✓	N	✓	N	✓	N	N	?✓	?-	N	?✓	✓
- Population and Human Health	✓	✓	✓✓	✓	✓	✓	✓	✓✓	✓	✓✓	✓✓	✓
Project Option Chosen?	**YES**	**YES**	**NO**	**NO**	**YES**	**NO**	**NO**	**YES**	**NO**	**NO**	**YES**	**YES**

Project 1: Community Involvement in Greenspace Strategy

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	✓✓	Permanent	✓	✓✓	✓✓	Priority action will provide opportunities for people to come in contact with wildlife. It will maintain and promote sustainable management of biodiversity sites. Projects to include remediation of woodland which would benefit local biodiversity, flora and fauna.
- Water	✓	Permanent	✓	✓	✓	Priority action should limit water pollution and maintain key hydrological processes through pond improvement works.
- Soil	✓✓	Permanent	✓	✓✓	✓✓	Promotes the safeguarding of soil quality and limits contamination of greenspaces.
- Climatic factors	✓	Permanent	✓	✓	✓	Carbon sequestration by plants and trees. Greenspaces will reduce risk of flooding.
- Material assets	N	Permanent	N	N	✓	No effect predicted although greenspaces should limit waste generation in area in long term.
- Air	✓	Permanent	✓	✓	✓✓	Utilisation of greenspaces should reduce pollution from reduced vehicle use. Natural filters of trees etc should absorb CO2 emissions to a certain extent.
- Cultural heritage	✓	Permanent	✓	✓	✓	Community woodlands will contribute to enhancing cultural heritage of area.
- Landscape	✓✓	Permanent	✓	✓✓	✓✓	Added landscape value of greenspace growth and protection of local distinctiveness.
- Population and human health	✓	Permanent	✓	✓	✓✓	Promotes community involvement/ healthy living offering increased opportunities for exercise.
Comments	Greenspace strategy affects the whole of Clackmannanshire, so potential for all areas of community to become involved. Increased capacity for community to make environmental improvements across the range of SEA topics which will have an largely positive effect. Positive effects are likely to become more significant in the long term when greenspaces are more established. No mitigation is required as effects are largely positive. Secondary and cumulative impacts should be substantial and positive if project actions are ambitious enough.					

Project 2: Town Centre Regeneration in Alloa, Hillfoots/Dollar, Clackmannan and Sauchie

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	N	Permanent	N	N	N	Effects will be minimal as limited biodiversity present in target areas/town centres.
- Water	N	Permanent	N	N	N	Minimal change to current water resource in areas of regeneration.
- Soil	✓	Permanent	✓	✓	✓	Regeneration safeguards virgin soils and potential for restoration of derelict (brownfield) sites.
- Climatic factors	✓	Permanent	✓	✓	✓	Reduces need to travel so reduces emissions of greenhouse gases.
- Material assets	✓✓	Permanent	✓	✓✓	✓✓	Makes best use of existing resources and infrastructure.
- Air	✓	Permanent	N	✓	✓	Reduces need for travel, reducing exhaust pollutant emissions.
- Cultural heritage	?✓	Permanent	?✓	?✓	?✓	Depends upon implementation but should be guided toward protecting cultural heritage.
- Landscape	N	Permanent	N	N	✓	Will safeguard other landscape by regenerating existing brownfield/urban sites.
- Population and human health	✓	Permanent	✓	✓	✓	Increased well-being due to living in pleasant surroundings. Likely reduction in crime.
Comments	The priority action is to be on a large scale as impacts on Alloa, Hillfoots/Dollar, Clackmannan and Sauchie. Secondary and cumulative impacts should be substantial and positive if actions of project are ambitious enough. Enhancement can be promoted by management of material resources in a sustainable manner. Mitigation may be required to maintain cultural heritage (local distinctiveness). This should follow planning policy and adhere to the Local Plan and should be addressed by planners at project stage. Planners should follow the mitigation hierarchy: avoid, reduce, remedy or compensate for negative effects.					

Project 3: Sustainable Design and Construction

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	✓	Permanent	?N	✓	✓	Explicitly considers biodiversity - likely to enhance greenspaces. Initial stages may disrupt local biodiversity.
- Water	✓	Permanent	✓✓	✓	✓	Aims to reduce use of water at construction stage and enhance development water efficiency.
- Soil	✓	Permanent	✓✓	✓	✓	Aims to reduce use of soil at construction stage.
- Climatic factors	✓✓	Permanent	✓✓	✓✓	✓✓	Aims for energy efficient buildings and reducing car use Reduction in risk of flooding.
- Material assets	✓✓	Permanent	✓✓	✓✓	✓✓	Makes use of existing infrastructure and material resource in a sustainable manner.
- Air	✓	Permanent	?✓	✓	✓	Aims to reduce car use. Initial stages may impact air quality.
- Cultural heritage	✓	Permanent	✓	✓	✓✓	Construction is tailored to consider sensitive cultural heritage and preserve local distinctiveness.
- Landscape	✓	Permanent	✓	✓	✓	Construction is tailored to consider sensitive cultural heritage and preserve local distinctiveness.
- Population and human health	✓✓	Permanent	✓	✓✓	✓✓	Aims to create pleasant living conditions which should promote healthy living and community well-being.
Comments	Priority action potentially reaching Clackmannanshire-wide. Secondary and cumulative impacts should be substantial and positive if actions of project are ambitious enough. Sustainability will be a key requirement from cradle to grave of action and should play a key role in ensuring positive effects on all environment topics in long term. Largely positive effects, however mitigation may be required at project level but this should be addressed on a case-by-case basis by planners. Planners should follow the mitigation hierarchy: avoid, reduce, remedy or compensate for negative effects.					

Project 4: Alloa Docks Masterplan

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	N	Permanent	N	N	N	No/minimal impacts predicted by development as limited biodiversity in location.
- Water	?-	Permanent	?-	?-	?-	Development and increased activity along river may lead to pollution and disturbance of aquatic environment.
- Soil	✓	Permanent	✓	✓	✓	Regeneration will promote use of derelict (brownfield) land.
- Climatic factors	N	Permanent	N	N	N	Will eventually encourage sustainable travel through walking and cycling opportunities but may bring added traffic to area.
- Material assets	✓	Permanent	✓	✓	✓	Makes use of existing infrastructure.
- Air	N	Permanent	N	N	N	Will eventually encourage sustainable travel via walking and cycling opportunities but may bring added traffic to area.
- Cultural heritage	?✓	Permanent	?✓	?✓	?✓	Aims to enhance Alloa's heritage, but ultimately depends on implementation.
- Landscape	N	Permanent	N	N	N	Should not affect sensitive landscape, therefore limited impact predicted.
- Population and human health	✓	Permanent	✓	✓	✓✓	Contributes to better living conditions. Offers more opportunity for healthy modes of transport.
Comments	Priority action to be localised therefore likely small scale.					
	Secondary and cumulative impacts should be neutral in light of overall neutral effects of the project.					
	Relevant mitigation will have to be ensured on a project level by the planning process by relevant planners. Planners should follow the mitigation hierarchy: avoid, reduce, remedy or compensate for negative effects.					

Project 5: Demonstration Eco-Housing Project

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	✓	Permanent	✓	✓	✓	Eco-housing will be sensitive to local biodiversity.
- Water	✓	Permanent	✓	✓	✓	Should have lower impact on water resource than conventional housing.
- Soil	✓	Permanent	✓	✓	✓	Should have lower impact on soil resource than conventional housing - depending on whether site is green field or brownfield.
- Climatic factors	✓✓	Permanent	✓	✓✓	✓✓	More energy-efficient housing reduces climate change impact.
- Material assets	✓✓	Permanent	✓	✓✓	✓✓	Will use material resources in a sustainable manner and make best use of existing infrastructure.
- Air	✓	Permanent	✓	✓	✓	Will reduce need to travel.
- Cultural heritage	✓	Permanent	✓	✓	✓	Will be sensitive to cultural heritage.
- Landscape	✓	Permanent	✓	✓	✓	Will be sensitive to cultural heritage.
- Population and human health	✓	Permanent	✓	✓	✓	Improved living environment enhances healthy living.
Comments	Priority action proposed for one site therefore effects are localised and small-scale. Secondary and cumulative impacts should be substantial and positive if actions of project are ambitious enough. Effects are largely positive compared to conventional housing development, but mitigation may be required at the project level. Brownfield sites should be chosen over Greenfield sites for projects requiring new land to safeguard Clackmannanshire's soil resources, reducing urban sprawl and derelict land whilst improving urban amenity value.					

Project 6: Public Art

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	N	Permanent	N	N	N	No/minimal effects predicted.
- Water	N	Permanent	N	N	N	No/minimal effects predicted.
- Soil	N	Permanent	N	N	N	No/minimal effects predicted.
- Climatic factors	N	Permanent	N	N	N	No/minimal effects predicted.
- Material assets	?N	Permanent	?N	?N	?N	No/minimal effects predicted although may promote generation of waste through advertisement/promotion of public art and also during production of art.
- Air	N	Permanent	N	N	N	Increased movements but should promote sustainable travel in urban areas.
- Cultural heritage	?✓	Permanent	?✓	?✓	?✓	Contributes to the community's cultural heritage.
- Landscape	N	Permanent	N	N	N	Will be sensitive to landscape.
- Population and human health	✓	Permanent	✓	✓	✓	Increases well-being and encourages active involvement of community.
Comments	Potentially Clackmannanshire-wide or localised to urban areas so likely large scale. There is a level of uncertainty about the effect the project will have on cultural heritage and material assets. Project should aim to use material resources in a sustainable manner following the waste hierarchy. This should be addressed by project managers and organisers. It is assumed that public art projects will take into consideration the cultural heritage value and distinctiveness of the area which will ensure they have positive effects. Secondary and cumulative impacts should be neutral in line with the project's overall neutral effect on the environment. Public art should be located in easily accessible areas i.e. where sustainable travel such as walking, cycling is feasible. Relevant mitigation will have to be ensured on a project level by the planning process by relevant planners. Planners should follow the mitigation hierarchy: avoid, reduce, remedy or compensate for negative effects.					

Project 7: Enhancement of Property

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	N	Permanent	N	N	N	No/minimal effects on biodiversity predicted as likely that only existing buildings/urban area will be affected.
- Water	N	Permanent	N	N	N	No/minimal effects on water predicted as likely that additional water use will be limited.
- Soil	N	Permanent	N	N	N	No/minimal effects predicted on soil as likely that only existing buildings/urban land-use will be affected.
- Climatic factors	N	Permanent	N	N	N	No/minimal effects on climate change predicted from enhancement of property.
- Material assets	✓	Permanent	?✓	✓	✓	Makes best use of existing infrastructure.
- Air	N	Permanent	N	N	N	No/minimal effects on air predicted from enhancement of property.
- Cultural heritage	✓	Permanent	✓	✓	✓	Improvement of building appearance enhancing local distinctiveness and should be sensitive to area's cultural heritage.
- Landscape	N	Permanent	N	N	N	No/minimal effects predicted on soil as likely that only existing buildings/urban land-use will be affected.
- Population and human health	✓	Permanent	✓	✓	✓	Enhanced properties should increase well-being in the community.
Comments	Potentially large scale as localised to urban areas/town centres.					
	Secondary and cumulative impacts should be neutral in line with the project's overall neutral effect on the environment.					
	Early life of project should aim to use material resources in a sustainable manner following the waste hierarchy - to be addressed by organisers of project(s).					
	Relevant mitigation will have to be ensured on a project level by the planning process by relevant planners. Planners should follow the mitigation hierarchy: avoid, reduce, remedy or compensate for negative effects.					

Project 8: Sustainable Transport Improvements

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	?✓	Permanent	?✓	?✓	?✓	Reduced vehicular travel results in less road kill and disturbance to habitats and species but may require new sites for public/active transport infrastructure.
- Water	✓	Permanent	✓	✓	✓✓	Less run-off from vehicles and future additional road infrastructure required for increased vehicles.
- Soil	?✓	Permanent	?✓	?✓	?✓	Less run-off from vehicles but may require new sites for infrastructure.
- Climatic factors	✓✓	Permanent	✓	✓✓	✓✓	Reduction in greenhouse gas emissions from vehicles.
- Material assets	✓	Permanent	✓	✓	✓✓	Better use of existing infrastructure and material resources.
- Air	✓✓	Permanent	✓	✓✓	✓✓	Improvement of local air quality.
- Cultural heritage	✓	Permanent	✓	✓	✓✓	Less damage from vehicular emissions and improved image of areas.
- Landscape	?✓	Permanent	?✓	?✓	?✓	Reduces need for additional roads but may require new sites for public/active transport infrastructure, potentially impacting on landscape.
- Population and human health	✓✓	Permanent	✓	✓✓	✓✓	Brings together community and encourages healthy travel, enhancing health. Additional transport routes may incorporate better access to medical facilities for non-car users.
Comments	Potentially covers the whole of Clackmannanshire, therefore large scale. Secondary and cumulative impacts should be substantial and positive if actions of project are ambitious enough. For instance, avoidance of urban sprawl and keeping infrastructure close to needs helps to reduce motorised vehicle needs for the area. New infrastructure should aim to utilise brownfield sites as opposed to green field sites to enhance safeguarding of soil and biodiversity - this should be addressed by planners. Planners should ensure new infrastructure will not have any unwanted implications for environment. Relevant mitigation will have to be ensured on a project level by the planning process by relevant planners. Planners should follow the mitigation hierarchy: avoid, reduce, remedy or compensate for negative effects.					

Project 9: Sustainable Energy

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	?-	Permanent	?-	?-	?-	Technologies may have disruptive impact on habitats and species depending on locations.
- Water	?	Permanent	?	?	?	Dependent on technologies utilised.
- Soil	?-	Permanent	?-	?-	?-	Likely to require green field sites.
- Climatic factors	✓✓	Permanent	✓	✓✓	✓✓	Will reduce greenhouse gases through reduced dependence on traditional electricity generation.
- Material assets	?✓	Permanent	?✓	?✓	?✓	Should make best use of existing resources and likely to produce less waste than traditional energy generation but may need new sites or expanded infrastructure.
- Air	✓✓	Permanent	✓	✓✓	✓✓	Reduce air pollution with cleaner sources of energy than traditional energy generation.
- Cultural heritage	?-	Permanent	?-	?-	?-	May have adverse visual impacts on cultural heritage.
- Landscape	?-	Permanent	?-	?-	?-	May have adverse visual impacts on landscape.
- Population and human health	✓	Permanent	✓	✓	✓✓	Sustainable energy should promote healthier environment and enhance healthy living.
Comments	Potentially Clackmannanshire-wide therefore large scale.					

Comments

Potentially Clackmannanshire-wide therefore large scale.

New infrastructure should aim to utilise brownfield sites as opposed to green field sites to safeguard soil resources and biodiversity – this should be addressed by planners. Planners should also ensure new infrastructure will not have any unwanted implications for environment.

Biofuel-related sustainable energy technologies may require land for crops or importing of biofuel which may potentially have secondary environmental implications on air quality and landscape.

There is a level of uncertainty concerning the cumulative effects of project as there is a large degree of uncertainty about effects of project on several environmental topics therefore the likely cumulative effects will be negative/unknown.

Relevant mitigation will have to be ensured on a project level by the planning process by relevant planners. Planners should follow the mitigation hierarchy: avoid, reduce, remedy or compensate for negative effects.

Project 10: Civic Pride

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	N	Permanent	N	N	N	No/minimal effect on environment predicted.
- Water	N	Permanent	N	N	N	No/minimal effect on environment predicted.
- Soil	N	Permanent	N	N	N	No/minimal effect on environment predicted.
- Climatic factors	N	Permanent	N	N	N	No/minimal effect on environment predicted.
- Material assets	✓	Permanent	✓	✓	✓	Should make best use of existing resources.
- Air	N	Permanent	N	N	N	Reduce air pollution with cleaner sources of energy than traditional energy generation.
- Cultural heritage	✓✓	Permanent	✓	✓✓	✓✓	Enhancement of cultural heritage of community.
- Landscape	N	Permanent	N	N	N	No/minimal effect on environment predicted.
- Population and human health	✓✓	Permanent	✓	✓✓	✓✓	Involves community and improves relations/well-being as well as making locality more pleasant.
Comments	Potentially Clackmannanshire-wide therefore large scale Secondary and cumulative impacts should be neutral in line with the project's overall neutral effect on the environment. Mitigation may be required in the promotion of the civic pride events to manage resource use and waste generation in a sustainable manner. This should be addressed by the project managers. Planners should follow the mitigation hierarchy: avoid, reduce, remedy or compensate for negative effects.					

Project 11: Food Production

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	✓	Permanent	✓	✓	✓	Better farming methods benefits local flora and fauna.
- Water	?✓	Permanent	?✓	?✓	?✓	Increased demand on water may occur in conjunction with increased food production demands.
- Soil	?✓	Permanent	?✓	?✓	?✓	Fewer chemicals used on soils but increased demand on soil resources may occur in conjunction with increased food production demands.
- Climatic factors	✓	Permanent	✓	✓	✓✓	Reduction in transport of food reduces greenhouse gas emissions.
- Material assets	?✓	Permanent	?✓	?✓	?✓	Makes use of existing infrastructure but waste may increase locally.
- Air	✓	Permanent	✓	✓	✓✓	Reduction in transport/traffic results in lower air pollutant emissions.
- Cultural heritage	N	Permanent	N	N	N	No/minimal effect on environment predicted.
- Landscape	?✓	Permanent	?✓	?✓	?✓	Sustainable land-use but changes to landscape may be incurred if food production demand requires additional sites.
- Population and human health	✓✓	Permanent	✓	✓✓	✓✓	Health benefits should be realised from healthier foods and community relations enhanced through better shopping.
Comments	Potentially Clackmannanshire-wide therefore large scale initiative.					
	The effects of the project are largely positive, however project managers and planners should ensure any increase in land use, water demand and/or waste is managed in a sustainable manner. Secondary and cumulative impacts should be substantial and positive if actions of project are ambitious enough.					
	Planners should follow the mitigation hierarchy: avoid, reduce, remedy or compensate for negative effects.					

Project 12: Education and Awareness Raising

Environmental Criteria	Impact	Temporary or Permanent	Short/ Medium and Long Term Effect			Justification for Assessment
			S	M	L	
- Biodiversity, flora and fauna	✓	Permanent	?✓	✓	✓✓	Will raise awareness of issue reducing potential impact on environment.
- Water	✓	Permanent	✓	✓	✓✓	Will raise awareness of issue reducing potential impact on environment i.e. reduced water use.
- Soil	✓	Permanent	?✓	✓	✓✓	Will raise awareness of issue reducing potential impact on environment i.e. reduced strain on soil resources.
- Climatic factors	✓	Permanent	?✓	✓	✓✓	Will raise awareness of issue reducing potential impact on environment i.e. reduced energy use and car use.
- Material assets	✓	Permanent	✓	✓	✓✓	Will raise awareness of issue reducing potential impact on environment i.e. increased emphasis on the waste hierarchy and sustainable resource management.
- Air	✓	Permanent	?✓	✓	✓✓	Will raise awareness of issue reducing potential impact on environment i.e. reduced vehicle use will decrease level of air pollutants.
- Cultural heritage	✓	Permanent	?✓	✓	✓✓	Will raise awareness of issue reducing potential impact on environment i.e. an increased respect of the community's cultural heritage.
- Landscape	✓	Permanent	?✓	✓	✓✓	Will raise awareness of issue reducing potential impact on environment i.e. increased respect for landscape character and local distinctiveness.
- Population and human health	✓	Permanent	✓	✓	✓✓	Will raise awareness of issue reducing potential impact on environment i.e. improved connection between the environment and the community.
Comments	Clackmannanshire-wide initiative therefore large scale effects. The community should have a basic grasp of some of the environmental topics (waste, water and health) here but other topics will be less familiar, meaning the short term effect may be negligible. However medium and long term effects are predicted to be significantly positive as education and awareness is developed and passed on through the community. Secondary and cumulative impacts should be substantial and positive if actions of project are ambitious enough. No mitigation required as effects are largely positive in nature.					

APPENDIX F

Summary of Cumulative Environmental Effects

Cumulative Environmental Effects Summary Assessment Table

SEA Environmental Topic	Project Number												Cumulative effects for each SEA Topic area
	1	2	3	4	5	6	7	8	9	10	11	12	
Biodiversity, Flora and Fauna	✓✓	N	✓	N	✓	N	N	?✓	?-	N	✓	✓	✓
Water	✓	N	✓	?	✓	N	N	✓	?	N	?✓	✓	✓
Soil	✓✓	✓	✓	✓	✓	N	N	?✓	?-	N	?✓	✓	✓
Climatic Factors	✓	✓	✓✓	N	✓✓	N	N	✓✓	✓✓	N	✓	✓	✓✓
Material Assets	N	✓✓	✓✓	✓	✓✓	?N	✓	✓	?✓	✓	?✓	✓	✓
Air	✓	✓	✓	N	✓	N	N	✓✓	✓✓	N	✓	✓	✓
cultural heritage	✓	?✓	✓	?✓	✓	?✓	✓	✓	?-	✓✓	N	✓	✓
Landscape	✓✓	N	✓	N	✓	N	N	?✓	?-	N	?✓	✓	N
population and human health	✓	✓	✓✓	✓	✓	✓	✓	✓✓	✓	✓✓	✓✓	✓	✓✓
Cumulative effect for each Project	✓	✓	✓	N	✓	N	N	✓	?-	N	?✓	✓	

The table above shows the combined cumulative effects for the Framework project options. The scoring of each project can be seen in detail in Section 7. The table here identifies the predicted cumulative effects of the Framework which overall are expected to be positive for the majority of the projects and SEA environmental topics. In a few instances it can be seen that an overall neutral cumulative effect is anticipated for certain projects and in one instance a negative effect is predicted. The overall cumulative effect of the Framework is predicted to be positive.

APPENDIX G

Summary of Alliance Project Selection Results

Summary of the Alliance's project selection

		Project number											
		1	2	3	4	5	6	7	8	9	10	11	12
STAGE 1	**1. Living within Environmental Limits**												
	- Biodiversity, Flora and Fauna	✓✓	N	✓	N	✓	N	N	?✓	?-	N	✓	✓
	- Water	✓	N	✓	?-	✓	N	N	✓	?	N	?✓	✓
	- Soil	✓✓	✓	✓	✓	✓	N	N	?✓	?-	N	?✓	✓
	- Climatic Factors	✓	✓	✓✓	N	✓✓	N	N	✓✓	✓✓	N	✓	✓
	- Material Assets	N	✓✓	✓✓	✓	✓✓	?N	✓	✓	?✓	✓	?✓	✓
	- Air	✓	✓	✓	N	✓	N	N	✓✓	✓✓	N	✓	✓
	- Cultural Heritage	✓	?✓	✓	?✓	✓	✓	✓	✓	?-	✓✓	N	✓
	- Landscape	✓✓	N	✓	N	✓	N	N	?✓	?-	N	?✓	✓
	2. Ensuring a Strong, Healthy and Just Society												
	- Population and Human Health	✓	✓	✓✓	✓	✓	✓	✓	✓✓	✓	✓✓	✓✓	✓
	3. Achieving a Sustainable Economy												
	- contribution to a sustainable economy	-	✓✓	✓	✓	✓	✓	✓✓	✓	✓✓	✓	✓✓	✓
	PROCEED?	✓	✓	✓	✓	✓	✗	✗	✓	✗	✗	✓	✓
STAGE 2	**4. Promoting Good Governance and Engagement with Communities and Partners**												
	- Unique (not being addressed at all/partially or adequately)	-	✗	✗	✗	✓			✓			✗	✗
	- Strategic (important to the people of Clacks)	✓	✓	?	✓	✓			✓			✓	✓
	- Impact (action will deliver significant benefits)	✓	✓	✓	✓	✓			✓			✓	✓
	- Participation (requires multi-partner involvement)	✓	✓	-	-	✓			✓			✓	✓
	- Delivery Capability (we can actually take this on)	✓	✓	✓	✓	?			✓			?	✓
	PROCEED?	✓	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✓

APPENDIX H

Consultation Authorities' Responses

Consultation Authorities' Responses - SEPA

Niall Urquhart
Team Leader Sustainability
Clackmannanshire Council
Kilncraigs
Greenside Street
Alloa
FK10 1EB

By email: sea.gateway@scotland.gsi.gov.uk   13 December 2007

Dear Mr Urquhart

Environmental Assessment (Scotland) Act 2005
Clackmannanshire Environment and Sustainability Framework - Scoping Consultation

I refer to your Scoping consultation submitted under the above Act in respect of the Clackmannanshire Environment and Sustainability Framework. This was received by SEPA via the Scottish Government SEA Gateway on 12 November 2007. As required under Section 15(2) of the Act, SEPA has considered the document submitted and comments as follows in respect of the scope and level of detail to be included in the Environmental Report.

Generally, the scoping report provides clear and detailed information on the proposed scope and level of detail of the assessment and covers most of the aspects that SEPA would wish to see addressed at this stage. SEPA has made some specific comments on the content of the report which can be found as an Annex to this letter.

The Scottish SEA Toolkit (available for download at: www.scotland.gov.uk/Publications/2006/09/13104943/0) provides guidance to Responsible Authorities about the type of information that is expected to be provided at each SEA stage. SEPA has used the toolkit to inform this scoping response.

On completion, the Environmental Report and the Framework to which it relates should be submitted to the Scottish Government SEA Gateway (sea.gateway@scotland.gsi.gov.uk) which will forward it to the Consultation Authorities. If you wish to discuss any of the content of this response, please do not hesitate to contact me on 0131 4497296 or via SEPA's SEA Gateway at sea.gateway@sepa.org.uk .

Yours sincerely,

SofaBillett

Dr Sofia Billett
Senior Planning Officer (SEA)
Encs

Annex 1: Comments on the Scoping Report

1. General Comments

Generally, the scoping report provides clear and detailed information on the proposed scope and level of detail of the assessment and covers most of the aspects that SEPA would wish to see addressed at this stage. Further comments are provided below. For ease of reference we have used the same structure of the scoping report.

2. Detailed Comments

Introduction, Key facts and Description of PPS Content

SEPA found the information provided in this section very useful in relation to the background to the Clackmannanshire Environment and Sustainability Framework and considers that all the relevant background information is presented.

Plan, Programme or Strategy Context

A comprehensive list of the plans, programmes and strategies to be analysed for their relationship with the Framework has been provided in the scoping report (Appendix 1). SEPA would welcome the inclusion in the Environmental Report of a summary of the environmental objectives and requirements of the plans, programmes and policies that are pertinent to the SEA of the Framework.

The Council may also wish to consider whether the Scottish Planning Policies and advice notes including SPP7 -Planning and Flooding should be taken into account in the preparation of the Framework. Consideration should also be given to the environmental objectives of the EU Directive 2007/60/EC on the assessment and management of Flood Risk and the Noise Directive 2002/49/EC. The following SEPA policies may also be of relevance to the Framework: Groundwater Protection Policy for Scotland (Policy 19), Waste water drainage Policy and Supporting Guidance on Provision of Waste Water in Settlements (Policy 55) and Policy on the Culverting of Watercourses (Policy 26) available on SEPA's website: http://www.sepa.org.uk/policies/index.htm.

Appendix 2 provides the relevant aspects of the current state of environmental baseline data. There is no baseline data on the water environment, on air quality and climatic factors. SEPA would expect further information on the baseline for these SEA issues to be included in the Environmental Report.

In relation to the topic soil, consideration should also be given to potential impacts on areas of prime agricultural land, areas of mineral resources and areas of peatland. Areas of peatland perform an important carbon sink role and support important habitats. For information on soils please refer to the "Land Capability for Agriculture Maps" produced by the Macaulay Institute for Soil Research.

No baseline data is provided on flooding however the need to avoid areas of flood risk is an important consideration in terms of sustainable development. Please refer to the Indicative River and Coastal Flood Map (Scotland) which provides an indication of the 1 in 200-year (0.5% annual probability) return period flood extent for both riverine and coastal flooding. The Flood Map has been produced following a consistent, nationally-applied methodology for catchment areas equal to or greater than $3km^2$ using a Digital Terrain Model (DTM) to define river cross-sections and low-lying coastal land. The outlines do not account for flooding arising from sources such as surface water runoff, surcharged culverts or drainage systems.

The methodology was not designed to quantify the impacts of factors such as flood alleviation measures, buildings and transport infrastructure on flood conveyance and storage. The Flood Map is designed to be used as a national strategic assessment of flood risk to support planning policy in Scotland is available on SEPA's website http://www.sepa.org.uk/flooding/mapping/index.htm.

For data on the water environment please refer to SEPA's website on http://www.sepa.org.uk/data/index.htm and to the River classification- interactive map on water quality: http://www.sepa.org.uk/data/classification/index.htm. Please also refer to the new classification scheme introduced by the Water Framework Directive and to the report "Characterisation and impacts analyses required by Article 5 of the Water Framework Directive - Scotland River Basin District" which provides information on the watercourses at risk of failing the Directive on the WFD webpage: http://www.sepa.org.uk/publications/wfd/index.htm.

The Water Framework Directive implemented through the Water Environment and Water Services (Scotland) Act 2003 also requires the production of River Basin Management Plans (RBMP) with environmental objectives for each waterbody to protect and improve the water environment; and a Programme of Measures to progress towards achieving these environmental objectives. These RBMP will integrate the management of land and water within River Basin Districts and Clackmannanshire is part of the Scotland River Basin District.

It may also be relevant to include data on drainage and waste water treatment capacity for Clackmannanshire.

For air quality data the Air Quality Archive website may provide some useful data: www.airquality.co.uk/archive/index.php and http://www.scottishairquality.co.uk/index.php. Local air quality reports will also be a good source of local air quality data.

Data on Climatic Factors is available in SNIFFER's recently published handbook of climate trends across Scotland which provides data setting out recorded climate patterns from 1961 to 2004/05 and provides a benchmark against which future climate change can be measured. This is available at: www.sniffer.org.uk/climatehandbook/. The Scottish Climate Change Impacts Partnership (SCCIP) website (www.sccip.org.uk) also offers free access to data on climate trends and their impacts on Scotland which might be helpful.

The Environmental Report should also describe the likely change to the environment without the implementation of the Framework.

Scope and Level of Detail Proposed for the Environmental Assessment

The scoping report proposes that the SEA addresses all the criteria in Schedule 3 of the Act and SEPA supports this approach. SEPA supports the development of SEA objectives and sub-objectives and notes that the ODPM guidance was used in the assessment. Please also refer to the Scottish Government Strategic Environmental Assessment Toolkit (Chapter 10) for further guidance on developing and applying SEA objectives and developing SEA indicators.

SEPA supports the use of assessment matrices and welcomes the use of a commentary box proving justification/explanation for the identified effect. Please note that it is a requirement of the Act to assess cumulative, synergistic and secondary effects and the possible short, medium, long-term, temporary or permanent nature of the impacts.

In terms of the framework for assessing environmental effects please note that SEPA considers that assessing the SEA receptors "soil" and "water" separately would make the assessment clearer and would allow impacts on each receptor to be better understood.

In relation to the sub-objectives for "water", it could better reflect the requirements of the Water Framework Directive (WFD) to ensure no deterioration in the status of waterbodies, enhance the status of aquatic ecosystems (including surface waters, coastal waters, transitional waters and groundwater); promote sustainable water use; reduce pollution; and contribute to the mitigation of floods and droughts. Good ecological status includes not only water quality but also water quantity, ecology & habitat and morphology/physical impacts (such as culverts or engineering works on waterbodies).

In relation to the sub-objective for soil -"reduce contamination, and safeguard soil quality and quantity" - please note that the soil function should also be safeguarded as well as its quantity and quality.

The scoping report does not include any SEA objectives for material assets. SEPA would welcome objectives in relation to the sustainable use of resources, protection of mineral assets and the effective use of existing infrastructure.

SEPA understands that the assessment will cover the projects to be included in the Framework described in Appendix 3. The environmental assessment should be carried out on all aspects of the Framework that are likely to result in significant environmental impacts such as the Framework's objectives, principles, policies and proposals/actions and alternatives.

SEPA notes that the SEA will be integrated into the options appraisal process which will also assess economic and community planning considerations. Please refer to Chapter 6 of the SEA Toolkit (paragraph 6.3.19) for further guidance on consideration of social or economic issues in relation to SEA. Please note that SEPA will only comment on environmental issues. The Environmental Report should ensure that the requirements of the SEA Act are met and that the results of the environmental assessment are a discrete and easily identified component in the Environmental Report.

Schedule 3 of the Act requires that measures are identified to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan. SEPA considers that mitigation measures are a crucial part of SEA in that they offer an opportunity to not only address potential adverse effects of a plan, but also to make a plan even more positive than it already may be. These should follow the mitigation hierarchy: avoid, reduce, remedy or compensate for negative effects, and enhance where appropriate for positive effects. It would be extremely helpful to set out all mitigation measures in a way that clearly identified: (1) the measures required, (2) when they would be required and (3) who will be required to implement them.

There is no reference in the scoping report to an approach for the monitoring of significant environmental effects from the implementation of the Framework. Although not specifically required at this stage, monitoring is a requirement of the Act and early consideration should be given to a monitoring approach particularly in the choice of indicators.

Next Steps

It is noted that a consultation period of 6 weeks is being proposed and SEPA is satisfied with the proposed timescale.

TAYSIDE & CLACKMANNANSHIRE

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Niall Urquhart   Our ref: CNS/EIA/SEA (PF 156/07-08)
Team Leader Sustainability
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FK10 1EB   10 December 2007

Dear Mr Urquhart

Environmental Assessment (Scotland) Act 2005: Clackmannanshire Council Environment and Sustainability Framework Scoping Request

I refer to your scoping report, sent to the Scottish Executive SEA Gateway on November 2007. In accordance with Section 15(2) of the Environmental Assessment (Scotland) Act 2005, Scottish Natural Heritage has considered the report in its role as a Consultation Authority under the above Act. Our comments on the scope and level of detail to be included in the Environmental Report and on the duration of the proposed consultation period are set out below. Detailed comments are provided in the annex to this letter.

SCOPE OF ASSESSMENT AND LEVEL OF DETAIL

Subject to the specific comments set out below and in the annex to this letter, SNH is content with the scope and level of detail proposed for the environmental report.

Consultation period for the Environmental report
SNH notes that a period of 6 weeks is proposed for consultation on the Environmental Report and is content with this proposed period.

It is important to ensure that the SEA process and Environmental Report is separate from other considerations such as the economic and community planning elements outlined in the scoping report.

Concluding remarks
I hope that these points are of assistance to you. Please note that this response is in the context of the Environmental Assessment (Scotland) Act 2005 and our role as a Consultation Authority. We understand that we will be separately consulted on our views regarding the Environmental Report and on the Environment and Sustainability Framework in due course.

Yours sincerely

Denise Reed(Mrs)
Operational Manager

Enc Annex: SNH response to Clackmannanshire Council Environment and Sustainability Framework Scoping Report - PF 156 07/08.

cc Scottish Executive SEA Gateway
Historic Scotland SEA Gateway
SEPA Gateway

Annex: SNH SEA Scoping response for the Clackmannanshire Council Environment and Sustainability Framework PF 156 07/08

General approach

We support the general approach as outlined in the scoping report, although the SEA process and Environmental Report should be kept distinct from other aspects such as economic and community planning. We recommend consideration of the relationship of the proposals with designated sites including the Firth of Forth SPA and Ramsar site. Key projects proposed may affect this site. If likely to have a significant effect, an appropriate assessment will be required.

Current state of the environment - Baseline information

We note the draft Current State of the Environment report provided in Appendix 2. However, we recommend that baseline information is needed on the natural heritage affected by the Strategy in order to understand the current environmental characteristics of the area. Data can be obtained by accessing SNH's Natural Spaces system on our website (www.snh.org.uk). This aims to help with provision of information for SEA and other requirements by giving access to SNH's data holdings; please see link: http://gateway.snh.gov.uk/pls/htmldb_ddtdb1/f?p=100:1:6843962037165663595

Datasets can be searched for local authority areas, and through three broad dataset categories: Habitats and Species; Landscape, Open space and Access and Protected Areas. We also refer to our Site Link system which may be helpful: http://www.snh.org.uk/snhi/

This aims to provide easy access to data and information about sites designated for their natural heritage value across Scotland. The information displayed about each site comes from our corporate databases.

The Environmental Report should include a description of the likely evolution of the environment without the plan to provide a frame of reference for the assessment of the plan.

Environmental Problems:

Biodiversity, flora and fauna

Attention should be given to protected species, designated sites and nationally and internationally protected areas in considering specific environmental problems relevant to biodiversity. The issues of sustainable use of biodiversity, ecosystem level diversity, networks and wildlife corridors (in accordance with Article 10 of the Habitats Directive), threats of alien species and the importance of non-protected biodiversity should also be given attention.

We support reference to national and local BAP species and habitats. It is possible that significant effects in relation to locally valued landscape and wildlife sites may also be identified.

We recommend specific reference to European Protected Species such as bats, great crested newts and otters. European Guidance (available at: http://europa.eu.int/comm/environment/eia/030923_sea_guidance.pdf notes that any effects on protected sites and on selected species in accordance with the Habitats Directive should be part of the Environmental Report. The guidance recommends that these effects might be described in a separate chapter as the findings on such effects are binding for the decision of the competent authorities on the plan or programme.

We agree with the environmental problems that the scoping report identifies for biodiversity, flora and fauna. The decline of biodiversity and associated habitats is a key issue for Clackmannanshire, particularly through development pressure, land management practices and intensification of farming. Significant habitat losses have occurred in relation to native woodlands, species rich grassland and hedgerows.

Water and soil

We would add development pressure along watercourses and within floodplains, and the need for sustainable flood alleviation schemes. The spread of non-native invasive species along watercourses is also an issue for Clackmannanshire. Specific attention should be given to the Firth of Forth SPA and Ramsar site.

Cultural heritage and landscape

We recommend reference to the Areas of Great Landscape Value (AGLV) in Clackmannanshire, access and the developing Core Path Plan and Access Strategy. Inappropriately sited/designed development can impact negatively on the landscape and also on historic settlement patterns such as in the hillfoot villages.

Scoping of issues

We support the scoping in of biodiversity, flora and fauna, soils, landscape, population and human health and cumulative effects. We would highlight that the inter-relationship between these issues should be considered.

SEA objectives

We note the assessment methodology proposed in Appendix 4, and the intent to consider the objectives and local environmental issues and pressures under the receptors listed. We would expect the impacts and assessment findings against the objectives and local environmental impacts to be clearly identified and reported in the Environmental Report.

Assessment Methodology

We note the intention to integrate SEA into the options appraisal process and matrix, which will also assess economic and community planning considerations. However, we recommend the SEA process is kept distinct from consideration of other impacts of the proposed projects; the Environmental Report should be a discreet and easily identified component.

The justification for assessment in the matrix proposed is important in ensuring the adequate detail of the assessment is recorded and in demonstrating a transparent process for project selection - please refer to our comments under 'SEA objectives.'

We suggest consideration is made of monitoring arrangements to be put in place for the significant environmental effects of implementing the PPS e.g. timescales. We encourage the use of indicators which can measure progress towards or away from the objectives. We would be pleased to comment on these prior to the Environmental Report.

Cumulative effects
We recommend consideration of cumulative effects in the Environmental Report, and following this assessment, any consideration of secondary or synergistic impacts which may arise.

Alternatives and Mitigation

We suggest further information identifying the type and range of reasonable alternative options and mitigation/enhancement measures is provided in the Environmental Report.

Consultation Authorities' Responses - Historic Scotland

HISTORIC ⚑ SCOTLAND

We safeguard the nation's historic environment and promote its understanding and enjoyment

Niall Urquhart
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HSSEA.gateway@scotland.gsi.gov.uk

Our ref: AMN/23/212/JLC
Your ref:

5 December 2007

Dear Mr Urquhart

Environmental Assessment (Scotland) Act 2005
Clackmannanshire Environment and Sustainability Framework
Scoping Report

Thank you for consulting Historic Scotland on the Scoping Report prepared for the environmental assessment of the Clackmannanshire Environment and Sustainability Framework, received by the Scottish Government SEA Gateway on 12 November 2007.

I have reviewed the Scoping Report on behalf of Historic Scotland in its role as a Consultation Authority under the above Act (Section 15). This letter contains the views of Historic Scotland on the scope and level of detail of the information to be included in the Environmental Report (part 1), and the duration of the proposed consultation period (part 2). I have also provided detailed comments on the Scoping Report in the annex to this letter.

1. **Scope of assessment and level of detail**

1.1 I found the Scoping Report to be helpful and, subject to the specific comments set out below and in the annex, I am content with the scope and level of detail proposed for the environmental assessment.

1.2 My understanding from the Scoping Report is that the environmental assessment will include assessment of the projects and actions that may be included within the framework.

1.3 I note that the environmental assessment will consider the likely effects of the framework on the historic environment. Simply for information, the "historic environment" is defined in Section 16(3) of 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". SHEP 1 (Section 2)[1] builds on this definition by identifying that the historic environment encompasses built heritage features (ancient monuments, archaeological sites and landscapes, historic buildings, townscapes, parks, gardens and designed landscapes, as well as marine heritage) and the context or setting in which they sit, and the patterns of past use, in landscapes and within the soil, and also in our towns, villages and streets. The historic environment also has less tangible aspects recognised as the historical, artistic, literary, linguistic and scenic associations of places and landscapes.

The environmental assessment should take cognisance of these features, both in the collection of baseline data and in considering the likely impact of the framework on the historic environment.

1.4 When undertaking the environmental assessment, you may find that some impacts are uncertain at the strategic level, for example due to dependence on locational factors. Where this is the case it is important to identify these issues and to be clear how they will be taken into account at the lower level, for example at project level, and who will be responsible for following them through.

2. Consultation period for the Environmental Report

2.1 I am content with the six-week period proposed for consultation on the Environmental Report. Please note that, for administrative purposes, Historic Scotland consider that the consultation period commences on receipt of the relevant documents by the SEA Secretariat.

2.2 At the Environmental Report stage, I would prefer to receive paper copies of the report and the draft Environment and Sustainability Framework, both of which should be sent via the Scottish Government Gateway in line with the procedures set out in the SEA Tool Kit (available at www.scotland.gov.uk/Publications/2006/09/13104943/45).

None of the comments contained in this letter should be construed as constituting a legal interpretation of the requirements of the SEA Act. They are intended rather as helpful advice, as part of Historic Scotland's commitment to capacity-building in SEA. Should you wish to discuss this response please do not hesitate to contact Jennifer Craig on 0131 668 8832.

Yours sincerely

Amanda Chisholm
Strategic Environmental Assessment Team Leader

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[1] Historic Scotland are developing a new series of policy documents (Scottish Historic Environment Policy (SHEP)) that both sets out Scottish Ministers' vision and strategic policies for the wider historic environment, and provides greater policy direction for Historic Scotland. SHEP 1 is the overarching policy statement for the historic environment (http://www.historic-scotland.gov.uk/shep1-3.pdf).

Annex: Detailed comments on the Scoping Report

For ease of reference the comments in this annex follow the same order as the Scoping Report.

Plan, programme or strategy context

Relationship with other plans, programmes or strategies (PPS) and environmental objectives

1. Appendix 1 set out the plans, programmes and strategies that will be reviewed for their relationship with the framework, and I note that this includes Scottish Historic Environment Policy 1 and Passed to the Future. As part of this review you may also wish to consider the following documents that contain environmental protection objectives for the historic environment:

   - *Scottish Historic Environment Policy 2.* Scheduling: protecting Scotland's nationally important monuments (available at http://www.historic-scotland.gov.uk/shep2.pdf)
   - NPPG 5 Archaeology and Planning
   - NPPG 18 Planning and the Historic Environment

2. In summary, the key environmental protection objective of the legislation and policy framework for the historic environment is 'to protect and, where appropriate, enhance the historic environment'.

Relevant aspects of the current state of the environment

3. Appendix 2 provides a draft state of the environment report to be used to inform the environmental assessment. The section on the historic environment provides information on the numbers of scheduled ancient monuments and listed buildings in Clackmannanshire. This should also include information on gardens and designed landscapes included in the Inventory of Gardens and Designed Landscapes, Conservation Areas and archaeological sites included in the Sites and Monuments Record.

4. Historic Scotland can provide GIS datasets under licence for scheduled ancient monuments, listed buildings, and gardens and designed landscapes (contact hsgimanager@scotland.gsi.gov.uk). Information on Conservation Areas and archaeological sites in the Sites and Monuments Record is held by your council.

5. Please note that our records on the number of listed buildings in Clackmannanshire differs from those given in the report, however I note that the figures are provided from 1 July 2007 and this may account for the difference. For information, our records indicate the following:

   - 17 Category A
   - 133 Category B
   - 151 Category C(S)

6. Simply for information, Historic Scotland is in the process of undertaking an audit of the historic environment in Scotland (http://www.heritageaudit.org.uk). Although the results are not available for this assessment, the audit will likely assist in identifying trends, problems and issues in future assessments.

Environmental problems

7. I have no comments on this section.

Scope and level of detail proposed for the environmental assessment

Alternatives

8. I note that a workshop was used to generate ideas for projects and actions to be included in the framework and that twelve projects are being considered. My understanding is that the SEA will be used to appraise these twelve options to help select the projects that will be included in the finalised framework. I am content with this approach.

Scoping in/out of SEA issues

9. I note that the historic environment is scoped in to the assessment and am content.

Assessment methodology

10. I am content that SEA objectives will be used to assess the environmental effects of the twelve projects that could be included in the framework.

11. I note that the historic environment and landscape are grouped as an assessment topic. While we encourage an holistic, landscape-scale approach to integrated land management, we consider that the effects on the historic environment should be assessed separately from those on landscape. We have found that the conjoining of the assessment in other Environmental Reports makes it difficult to ascertain the impacts on the historic environment.

12. The proposed SEA objective for the historic environment is to "preserve historic buildings, archaeological sites and other culturally important features". You may wish to rephrase this to "protect and, where appropriate, enhance the historic environment" to ensure that all of the features of the historic environment identified in point 1.3 of the accompanying letter are considered in the assessment.

13. When documenting the environmental assessment, it would be helpful to set out any assumptions that are made during the assessment. I note that the assessment will be reported using a matrix approach, and welcome the inclusion of a commentary box in the proposed assessment matrix. This will assist in making the assessment transparent and the results accessible to the general reader.

14. As you will be aware, the Environmental Report should describe the measures proposed to mitigate the significant environmental effects of the framework. Mitigation may involve making changes to the framework and/or developing more detailed

mitigation proposals to be implemented as the framework is delivered. It would be helpful in the Environmental Report to clearly describe any changes made to the framework as a result of the environmental assessment, and to clearly set out any recommendations/expectations for lower level plans, projects or activities that are identified as mitigation measures. It would also be helpful to identify in the report who will be responsible for ensuring that the mitigation measures are taken forward as the framework is implemented.

15. The Environmental Report should include information on the measures proposed to monitor the significant environmental effects of the framework. I would be happy to discuss this further if you would find it helpful.

Next steps

16. Please see comments at point 2.1 of the accompanying letter.

APPENDIX I

Monitoring Framework

Environmental Topic	SEA Objective	Indicator	Source of Baseline Information	Responsibility for undertaking the monitoring.
Biodiversity, Flora and Fauna	Ensure the sustainable management of, and avoid damage to, designated wildlife sites and protected species	Reported condition of locally and nationally important wildlife sites.	Designated special protection areas; priority habitats and species of conservation concern; SEPA; state of the Environment reports; SNH; SNHi - attribute files; SSSI, Forestry Commission Scotland; Local Biodiversity Action Plan.	Clackmannanshire Sustainability Team Clackmannanshire Biodiversity Partnership
	Maintain biodiversity, avoiding irreversible losses.	Achievement of Local Biodiversity Action Plan targets.	Clackmannanshire Biodiversity Partnership Scottish Natural Heritage Reports	Clackmannanshire Sustainability Team and Clackmannanshire Biodiversity Partnership
	Provide opportunities for people to come into contact with and appreciate wildlife and wild places.	Number of people actively engaged in biodiversity conservation and events.	Clackmannanshire Council; The Clackmannanshire Sustainability Initiative and The Sustainability Team. Eco-Schools, Clackmannanshire Biodiversity Partnership and Grounds for Learning. All voluntary programmes within Clackmannanshire.	Clackmannanshire Biodiversity Partnership Clackmannanshire Community Services
Population & Human Health	Promote healthy living.	Years of healthy life expectancy/infant mortality rate. Scottish Index of Multiple Deprivation (SIMD)	Clackmannanshire Council Research and Information Section for Clackmannanshire life-expectancy rates; General Registry Office Scotland (GROS) publication Life expectancy for administrative areas within Scotland. The Scottish Government statistics infant mortality. The Scottish Government statistics on SIMD	Clackmannanshire Council Demographics Department/ Research and Information Team
	Reduce and prevent crime; reduce fear of crime.	Crime rates Perception of safety in Clackmannanshire	Clackmannanshire Council Research and Information Section - Scottish Executive Statistical Bulletin Criminal Justice Series. Clackmannanshire Alliance; Attitudes to Clackmannanshire - Clackmannanshire's Citizen Panel.	Clackmannanshire Alliance

Environmental Topic	SEA Objective	Indicator	Source of Baseline Information	Responsibility for undertaking the monitoring.
	Improve quality of life for present and future generations.	Perception of quality of life in Clackmannanshire	The Scottish Government; Building Strong, Safe and Attractive Communities: Anti-Social Behaviour Survey Report. Clackmannanshire Alliance; Attitudes to Clackmannanshire - Clackmannanshire's Citizen Panel.	Clackmannanshire Alliance
Soil	Reduce contamination and safeguard soil quality and quantity.	Amount of vacant and contaminated land brought back into productive use.	Contaminated Land Inspection Strategy; Clackmannanshire Council Contaminated Land Team. Scottish Vacant and Derelict Land Surveys, Scottish Government.	Clackmannanshire Contaminated Land Department
Water Quality	Maintain and restore key ecological processes	River quality.	Watercourse classifications, selected parameters on watercourses, pollutants release inventory, water quality trends, waste water treatment plants; SEPA.	Clackmannanshire Sustainability Team
		Groundwater quality.	SEPA	Clackmannanshire Sustainability Team
		Otter status.	Clackmannanshire Ranger Service and Clackmannanshire Biodiversity Partnership	Clackmannanshire Ranger Service and Clackmannanshire Biodiversity Partnership
Material Assets	Minimise waste, then re-use or recover it through recycling, composting or energy recovery.	Waste produced per household.	SEPA Waste Data Digest Reports – Annual reports available; Controlled waste arising; Trends in waste arising; waste recycled by source; and summary of trends in recycling. Audit Scotland, Waste Data; Performance Indicators; and Waste Management Profiles. Integrated Waste Management Department, Clackmannanshire Council.	Integrated Waste Management Department, Clackmannanshire Council.
		% municipal waste recycled.		
		Amount of biodegradable waste sent to landfill		

Environmental Topic	SEA Objective	Indicator	Source of Baseline Information	Responsibility for undertaking the monitoring.
	Make best use of existing infrastructure.	Source of water supply and its local capacity. Proximity to community hall.	SEPA, Scottish Water Clackmannanshire community/voluntary groups	Clackmannanshire Sustainability Team
Air	Reduce the need to travel. Reduce private car use.	Access to key services. Mode of Transport (public transport, cycling, walking, car). Road traffic reduction.	Scottish Government; Traffic Flow Figures on all roads within Clackmannanshire Council. Clackmannanshire Local Air Quality Management progress reports Clackmannanshire Road and Transport Department	Planning Services Transport Department, Clackmannanshire Council.
Climatic Factors	Reduce greenhouse gas (GHG) emissions.	Net GHG emissions. Energy consumption. Percentage energy consumption from indigenous renewables.	DEFRA; Greenhouse gas inventories. Air Monitoring Reports, Clackmannanshire Council. Scottish Government; Scottish Transport Statistics for Air Quality Objectives for Scotland. Clackmannanshire Council; Energy Policy, and Local Authority Carbon Management Programme. Clackmannanshire Council Energy Services	Energy Services Department
	Reduce vulnerability to the effects of climate change.	Flood risk. Number of road and rail closures due to weather events.	SNIFFER; Climate Change In Scotland Trends, MET Office Average Precipitation Totals. SEPA Flood Risk Areas Inventory Map. Clackmannanshire Council Road and Emergency Planning; Network Rail	Clackmannanshire Council Road and Emergency Planning Department

Environmental Topic	SEA Objective	Indicator	Source of Baseline Information	Responsibility for undertaking the monitoring.
Cultural Heritage	Protect and, where appropriate, enhance the historic environment.	Percentage of listed buildings and archaeological sites 'at risk'.	Historic Scotland; Designated Cultural Heritage Sites. Buildings at Risk Register; Buildings at Risk.	Clackmannanshire Sustainability Team
Landscape	Protect and enhance the landscape.	Perceptions survey responses.	Clackmannanshire Alliance; Attitudes to Clackmannanshire - Clackmannanshire's Citizen Panel.	Clackmannanshire Sustainability Team
	Improve quality of publicly accessible open space.	Perceptions survey responses.	Clackmannanshire Alliance; Attitudes to Clackmannanshire - Clackmannanshire's Citizen Panel.	Clackmannanshire Sustainability Team