

**Preparing for a Changing Climate:
Scotland's Climate Change Adaptation
Framework**

**Strategic Environmental Assessment
Post Adoption Statement**

Land Use Consultants

December 2009



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POST-ADOPTION SEA STATEMENT – COVER NOTE
PART 1

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or

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PART 2

An Environmental Report is attached for:

Scotland's Climate Change Adaptation Framework

The Responsible Authority is:

The Scottish Government (Climate Change and Water Industry Directorate)

PART 3

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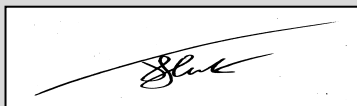
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Date

15 December 2009

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APPENDICES

**Appendix A: Tables of responses to issues raised in Environmental Report and
Consultation Responses**

Appendix B: List of Acronyms used in Environmental Report

1. Background

Post-adoption SEA statement for:

Scotland's Climate Change Adaptation Framework

Adopted on:

8th December 2009

Responsible Authority:

Scottish Government

2. INTRODUCTION

This document (referred to here as the post-adoption SEA statement) has been prepared in accordance with Section 18 of the Environmental Assessment (Scotland) Act 2005.

3. AVAILABILITY OF DOCUMENTS

WEBSITE

The full PPS as adopted, along with the Environmental Report and post-adoption SEA Statement are available on the Responsible Authority's website at:

www.scotland.gov.uk/climatechangeadaptation

OFFICE ADDRESS

The PPS, as adopted, along with the Environmental Report and post-adoption SEA Statement may also be inspected free of charge (or a copy obtained for a reasonable charge) at the principal office of the Responsible Authority:

Contact name, address and telephone number

Jody Fleck, Climate Change and Water Industry Directorate, Scottish Government, 1-G Dockside, Mailpoint 13, Victoria Quay, Edinburgh, EH6 6QQ
Telephone: 0131 244 5490

Times at which the documents may be inspected or a copy obtained:

The published Adaptation Framework can be viewed:

- On the Scottish Government website at www.scotland.gov.uk/climatechangeadaptation;
or
- By contacting the above address to arrange for a hard copy to be sent by post.

2. Key Facts

Key facts relating to Scotland's Climate Change Adaptation Framework

Name of Responsible Authority	The Scottish Government
Title of PPS	Scotland's Climate Change Adaptation Framework 2009
What prompted the PPS	Commitment in the Spending Review 2007 to produce Scotland's first strategy to address climate change adaptation
Subject	Climate change adaptation
Period covered by PPS	Direct actions stemming from this Framework will be for the 2009-2011 period but the objective and aims will extend beyond.
Frequency of updates	First review will be in 2011, following the release of the UK Climate Change Risk Assessment which is due by January 2012. Following this, it will be reviewed every 5 years, in response to the latest Climate Change Risk Assessment
Area covered by PPS	Scotland
Summary of nature/content of PPS	<ul style="list-style-type: none"> • To create a framework to support appropriate integration of climate change adaptation among key decision-makers in Scotland by: <ul style="list-style-type: none"> ➤ Clarifying and raising awareness of the need to adapt to the impacts of climate change; ➤ The development of a governance system to drive an appropriate public sector response to climate change; and ➤ The establishment of necessary information and capacity building support systems.
Date adopted	8 th December 2009
Contact point	Jody Fleck Climate Change and Water Industry Directorate Scottish Government 1-G Dockside Mailpoint 13 Victoria Quay Edinburgh
Date	8 th December 2009

3. Strategic Environmental Assessment Process

- 3.1. *Scotland's Climate Change Adaptation Framework* has been subject to a process of Strategic Environmental Assessment (SEA), as required under the Environmental Assessment (Scotland) Act 2005. This has included the following activities:
- Taking into account the views of the Scottish Environment Protection Agency, Scottish Natural Heritage and the Scottish Ministers (Historic Scotland) regarding the scope and level of detail that was appropriate for the Environmental Report;
 - Preparing an Environmental Report on the likely significant effects on the environment of the draft PPS which included consideration of:
 - the baseline data relating to the current state of the environment;
 - links between the PPS and other relevant strategies, policies, plans, programmes and environmental protection objectives;
 - existing environmental problems affecting the PPS;
 - the plan's likely significant effects on the environment (positive and negative);
 - measures envisaged for the prevention, reduction and offsetting of any significant adverse effects;
 - an outline of the reasons for selecting the alternatives chosen;
 - monitoring measures to ensure that any unforeseen environmental effects will be identified allowing for appropriate remedial action to be taken.
 - Consulting on the Environmental Report which was undertaken between April and July 2009 for a period of 12 weeks.
 - Taking into account the Environmental Report and the results of consultation in making final decisions regarding the PPS
 - Committing to monitoring the significant environmental effects of the implementation of the PPS. This will also identify any unforeseen adverse significant environmental effects and to enable taking appropriate remedial action.

4. How Environmental Considerations Have Been Integrated Into Scotland's Climate Change Adaptation Framework And How The Environmental Report Has Been Taken Into Account

- 4.1. The SEA Environmental Report for the proposals for Scotland's Climate Change Adaptation Framework was published on 27 April 2009 and views on this report were sought.
- 4.2. The recommendations from the Environmental Report have shaped the changes from the Consultation Draft to the final version of Scotland's Climate Change Adaptation Framework. This includes the addition of Sector Summaries and Action Plans which provide further detail on topic specific issues raised in the Environmental Report. The Framework also introduces a governance structure which will help ensure that actions in one topic area are considered for their impact on others, which was one of the key issues identified in the Environmental Report. The detailed recommendations from the Environmental Report and information on how these have been addressed through the final version of Scotland's Climate Change Adaptation Framework are set out in **Table 1 of Appendix A**.
- 4.3. The inclusion of the Sector Summaries and Action Plans also responds to a number of key issues raised by the consultation authorities requesting additional information on specific topic areas. This includes consideration of the marine environment in the Marine and Fisheries Sector Summary, the water environment in the Water Resource Management Sector Summary and the integration of soil issues across a number of the Sector Summaries, including Spatial Planning and Land Use.
- 4.4. Consultation response letters were received from Scottish Natural Heritage (SNH), Scottish Environment Protection Agency (SEPA) and Historic Scotland. All three organisations welcomed the methodology used for the report and were broadly content with the assessment. Historic Scotland had no detailed comments to give. The comments/recommendations from SNH and SEPA are detailed in **Appendix A Table 2**, along with information on how these have been addressed through the final version of Scotland's Climate Change Adaptation Framework. Although the SEA and Environmental Report were referenced in some of the responses to the main consultation on the Adaptation Framework, no other comments were received on the contents of the Environmental Report.

Summary of changes to the Framework

- 4.5. The evolution of the Framework from the Consultative Draft to the published Framework includes greater ministerial lead and the inclusion of additional detail and actions through the Sector Summaries, resulting in a more detailed and positive document. The changes reflect comments made on the Framework and the SEA.
- 4.6. Although the scope of the Framework has been expanded to go beyond the work that falls specifically to the Scottish Government, the strategic direction of the Framework has not significantly changed. The Scottish Government have, therefore, concluded

that the changes made between the draft and finalised versions of Scotland's Climate Change Adaptation Framework do not require a revised Environmental Report to be produced.

Reasons For Choosing Scotland's Climate Change Adaptation Framework As Adopted In The Light Of Other Reasonable Alternatives

- 4.7. Together with the assessment of Scotland's Climate Change Adaptation Framework, the assessment of alternatives considered the option of not having a strategic centrally co-ordinated plan for adapting to climate change (i.e. to not proceed with the Framework), but to allow individual sectors, regions, local authorities etc. to proceed with developing their own plans to increase their resilience to climate change, independently.
- 4.8. This highlighted potential negative effects within many of the sectors, and in particular cumulative impacts on the SEA topic areas resulting from adaptation within many different areas, and competing pressures on resources. This was not identified as a viable reasonable alternative.

5. Measures That Are To Be Taken To Monitor Significant Environmental Effects Of The Implementation Of Scotland's Climate Change Adaptation Framework

- 5.1. The Environmental Report set out the recommendation that an environmental panel, should be convened comprising representatives of Scottish Natural Heritage, Historic Scotland and Scottish Environment Protection Agency. One of the actions of this panel would be to agree appropriate indicators and assess the impacts of the Framework on these indicators. This panel could bring together knowledge on wider environmental trends and adaptation capacity and responses to evaluate the impacts on the SEA topic areas from the implementation of the Framework. Outcomes from these discussions could be fed into reviews of the Framework, and inform sector specific actions.
- 5.2. As part of the establishment of the governance structure for the Framework, the Scottish Government will invite representatives from social, environment and economic interest groups across Scotland to sit on a Key Stakeholder Group. The remit of this group will include monitoring the social, economic and environmental impacts of climate change as well as monitoring the impact and progress of the Framework.
- 5.2. In addition more detailed SEA should be carried out for lower tier plans and programmes as appropriate to ensure continual identification and review of environmental impacts and identification of additional mitigation measures.

Conclusion

- 5.3. The SEA process has assisted the process of developing a balanced Climate Change Adaptation Framework. The Framework will ensure that a suite of actions are taken forward to support continued research and to implement climate change adaptation. The Framework provides the strategic structure to help balance the impacts of adaptation activities across social, economic and environmental sectors.

Appendix A

Tables of responses to issues raised in Environmental Report and Consultation Responses Table 1 Environmental considerations from the Environmental Report and how these have been taken into account in Scotland's Climate Change Adaptation Framework

SEA Topic	Recommendation from Environmental Report	How integrated/taken into account or reason for not be in taken into account
All	The framework should ensure that implementation of actions under one topic area do not result in environmental impacts under another. The Framework should support the development of procedure and guidance to avoid conflict between adaptation measures for different topic areas.	The Framework will introduce a new governance structure which brings together officials from across government and seeks input from an external advisory group with a broad spectrum of interests. This will help to ensure that that adaptation is considered holistically and to reconcile conflicts between topics. The guidance for Strategic Environmental Assessments will also be updated. This will ensure that future policies fully consider adaptation and mitigation as well as the impacts across all the other SEA topics.
All	Actions to raise awareness of climate change impacts should highlight the impacts of climate change on all SEA topics	The Framework draws attention to the impacts of climate change for a number of key sectors and puts forward actions to address these impacts. Although not aligned completely, the SEA topics feature heavily in these key sectors, so any awareness raising actions to the impacts of climate change under these sectors will be relevant for the SEA topic(s). The Sector Summaries which now form part of the Framework allow representation of the different topic areas and the opportunity for the tailoring of topic specific approaches.
All	The Framework should support research into climate change impacts in all SEA topic areas.	The Scottish Government is looking at where there are currently gaps in research in relation to the impacts of climate change. Some of the gaps identified may include the SEA topic areas. The Framework will support research into the areas identified as priorities.

SEA Topic	Recommendation from Environmental Report	How integrated/taken into account or reason for not be taken into account
All	It is recommended that an environmental monitoring panel should be convened, comprising representatives of Scottish Natural Heritage, Historic Scotland and Scottish Environment Protection Agency. This panel would have responsibility for monitoring the environmental effects of implementing the Framework including the definition of any appropriate indicators.	The governance structure that the Framework will introduce includes a Key Stakeholder Group to represent social, environment and economic interest groups across Scotland. This group will inform future reviews of the Framework and it is proposed that its remit will include monitoring the social, economic and environmental impacts of climate change as well as monitoring the impact and progress of the Framework.
Biodiversity, flora and fauna	The Framework should ensure that representatives from the natural heritage sector are included in actions to equip decision makers with the skills and tools to adapt to climate change, in recognition of the vulnerability of biodiversity to the impacts of adaptation actions.	The Key Stakeholder Group that will be established as a result of the Framework will include representatives from the natural heritage sectors. The sector-based approach of the Framework has resulted in consultation with the natural heritage sector on the actions needed to develop skills and tools for the various sectors. The steering group for the UK Climate Change Risk Assessment has natural heritage representatives who sit on it.
Population and human health	The Framework should ensure that there is research into the health impacts of climate change on population and human health, the identification of the most vulnerable communities and their needs, and raise awareness. This will help to integrate climate change adaptation into Government social policy.	Noted. The Health and Wellbeing Sector Summary looks at the health consequences of climate change and as part of identifying where further research is required, the Scottish Government will consider what work has already been done, what is planned and what else is needed.
Population and human health	The identification of priority communities (those most at risk from the impacts of climate change) should inform where adaptation actions are targeted.	The Health and Wellbeing sector summary actions include the action to address the health inequalities of climate change impacts. The Framework will support the development of better tools for vulnerable communities.
Water	The Framework should do more to ensure consideration of opportunities to increase understanding of the competing demands on the water environment and how this can be incorporated through adaptation responses.	The Framework includes a sector summary on 'Water Resource Management' which identifies the key climate change impacts for the water environment and sets out actions which will improve understanding of the impacts and competing demands. In particular the proposed actions by Scottish Water involving the development of an integrated approach to catchment modelling and the preparation of a plan to promote water conservation and water use efficiency, will contribute towards these aims

SEA Topic	Recommendation from Environmental Report	How integrated/taken into account or reason for not be in taken into account
Material Assets	The Framework should support the identification of the costs and risks of climate change associated with material assets such as waste, energy, agriculture, transport.	The Framework supports the UK Climate Change Risk Assessment, which will identify these risks and will estimate costs for adaptation measures. The sector summaries explore the issues associated with these topic areas. The Framework will be reviewed and updated following the outcome of the UK Climate Change Risk Assessment.

SEA Topic	Recommendation from Environmental Report	How integrated/taken into account or reason for not be in taken into account
Biodiversity, flora and fauna	The Framework should make clear that the improved knowledge and evidence base is used to inform adaptation policy priorities for the biodiversity sector.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principle that 'adaptation should be informed by a cycle of review and action'.
Biodiversity, flora and fauna	The Framework should include proposals to ensure that cross sectoral impacts of the implementation of climate change adaptation measures are fully considered and assessed through their development and implementation, but also to identify impacts resulting from actions by individuals resulting from climate change adaptation.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principle 'Adaptation should seek to be developed in partnership with interested parties and avoid restricting others from adapting'.
Biodiversity, flora and fauna	The Framework should support the development of procedure and guidance on the reconciliation of potential cross sectoral conflicts between adaptation measures (e.g. biodiversity interests vs economic considerations).	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principle 'Adaptation should seek to be developed in partnership with interested parties and avoid restricting others from adapting'. The governance structure established by the Framework will enable adaptation conflicts within and across sectors to be considered, and for informed decisions to be made.
Biodiversity, flora and fauna	The Framework should ensure that awareness raising about the impacts of climate change highlights the impacts on biodiversity flora and fauna.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principles 'Adaptation should be integrated into existing development and implementation practices', and 'Adaptation should be integrated at an appropriate scale'. Together these principles will increase awareness of climate change impacts across all sectors.
Population and human health	The Framework should ensure that there is research into climate change and population and human health particularly taking into account the needs of more vulnerable communities and there is a requirement for this to inform the integration of climate change adaptation into Government social policy..	The Health and Wellbeing sector specific actions include the action to address the health inequalities of climate change impacts through a review of the Scottish Government's 'Equally Well' policy. The Framework will support the development of better tools for vulnerable communities. The Health and Wellbeing sector specific actions also include the action relating to 'Good Places, Better Health' Phase 1 of which will develop a model of the relationship between environmental influences and their impact on human health, and Phase 2 may explicitly address the impacts of climate change and their influence on health.

SEA Topic	Recommendation from Environmental Report	How integrated/taken into account or reason for not be in taken into account
Population and human health	The Framework should support further work into the identification of those communities most at risk from the impacts of climate change.	The Health and Wellbeing sector specific actions include the action to address the health inequalities of climate change impacts through a review of the Scottish Government's 'Equally Well' policy. Sector actions under the other topic areas support the identification of communities most at risk.
Population and human health	The Framework should support the prioritisation of the development of adaptation measures for those communities most at risk from the impacts of climate change.	The prioritization of adaptation measures will emerge through the future implementation of the Framework.
Population and human health	The Framework should ensure that awareness raising about the impacts of climate change highlights the impacts on population and human health.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principles 'Adaptation should be integrated into existing development and implementation practices', and 'Adaptation should be integrated at an appropriate scale'. Together these principles will increase awareness of climate change impacts across all sectors.
Population and human health	The Framework should acknowledge that direct adaptation actions following from building adaptive capacity should focus on communities most at risk from the impacts of climate change.	The prioritization of adaptation measures will emerge through the future implementation of the Framework.
Water	The Framework should ensure that there is support for research into climate change impacts in all SEA topic areas including water.	The sector action plans set out within the Framework provide coverage of all topic areas, and includes specific actions under 'Water Resource Management' which seek to improve the evidence base on the impacts of climate change on the water environment. The governance structure established by the Framework will enable adaptation conflicts within and across sectors to be considered and for informed decisions to be made.
Water	The Framework should acknowledge the need for adaptation measures to address the climate change impacts on the water environment (water quality and pollution).	The 'Water Resource Management' sector focuses on the impacts associated with flooding and climate change. Impacts on water quality and abstraction are addressed through the Draft River Basin Management Plan for the Scotland River Basin District (Consultative Draft 2009).

SEA Topic	Recommendation from Environmental Report	How integrated/taken into account or reason for not be in taken into account
Water	The Framework should also support the development of procedure and guidance on the reconciliation of cross sectoral conflicts between adaptation measures and competition for resources.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principle 'Adaptation should seek to be developed in partnership with interested parties and avoid restricting others from adapting'.
Water	The Framework should ensure that policy planning provides for flexibility in responding to future changes in climate change scenarios.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principle that 'adaptation should be informed by a cycle of review and action'.
Water	The Framework should ensure that awareness raising about the impacts of climate change highlights the impacts on the water environment.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principles 'Adaptation should be integrated into existing development and implementation practices', and 'Adaptation should be integrated at an appropriate scale'. Together these principles will increase awareness of climate change impacts across all sectors.
Water	In order to ensure a more direct positive impact on the water environment the Framework should acknowledge that adaptation actions following from building adaptive capacity should consider the impacts of climate change on the water environment (and in particular water quality).	The principles which support awareness raising across the sectors, and the management of conflict arising from adaptation within different sectors, will ensure that adaptation actions address all impacts of climate change.
Soil	The Framework should ensure that there is support for research into climate change impacts on all SEA topic areas including soil.	Soil is covered within the sector summaries of Water Resource Management, Agriculture, Forests and the Forestry Sector, Spatial Planning and Land Use, Biodiversity and Ecosystem Resilience and impacts on soil are considered within these.
Soil	The Framework should acknowledge the need for adaptation measures to address the climate change impacts on soil (loss of soil resources, soil sealing).	Adaptation measures to manage Scotland's soils as the climate changes will be developed under the relevant Sector Action Plans of the Adaptation Framework.
Soil	The Framework should also support the development of procedure and guidance on the reconciliation of cross sectoral conflicts between adaptation measures and competition for resources.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principle 'Adaptation should seek to be developed in partnership with interested parties and avoid restricting others from adapting'. The governance structure established by the Framework will enable adaptation conflicts within and across sectors to be considered and for informed decisions to be made.

SEA Topic	Recommendation from Environmental Report	How integrated/taken into account or reason for not be in taken into account
Soil	The Framework should ensure that policy planning provides for flexibility in adapting for future changes in climate change scenarios.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principle that 'adaptation should be informed by a cycle of review and action'.
Soil	The Framework should ensure that awareness raising about the impacts of climate change highlights the impacts on soils.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principles 'Adaptation should be integrated into existing development and implementation practices', and 'Adaptation should be integrated at an appropriate scale'. Together these principles will increase awareness of climate change impacts across all sectors.
Soil	In order to ensure a more direct positive impact on soils the Framework should acknowledge that direct adaptation actions following from building adaptive capacity should consider the impacts of climate change on soils (and in particular soil loss and soil sealing).	The principles which support awareness raising across the sectors, and the management of conflict arising from adaptation within different sectors, will ensure that adaptation actions address all impacts of climate change. The Framework recognises that soil quality plays a prominent role in the success of many of the twelve key sectors and that measures to address climate change taken by these sectors can impact on soil quality.
Material assets	The Framework should ensure that working with key Scottish sectors and stakeholders in identifying the costs and risks of climate change includes those from all of the material asset groups listed (waste, energy, agriculture, transport etc).	The sector summaries for Spatial Planning and Land Use, Transport, Energy and Business and Industry explore the impacts across these topic areas. The UK Climate Change Risk Assessment is being produced with input and consultation from stakeholders across all sectors.
Material assets	The Framework should also support the development of procedure and guidance on the reconciliation of cross sectoral conflicts between adaptation measures and competition for resources.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principle 'Adaptation should seek to be developed in partnership with interested parties and avoid restricting others from adapting'.
Material assets	The Framework should ensure that policy planning provides for flexibility in adapting for future changes in climate change scenarios, to ensure that adaptation measures are sufficiently robust to be effective in the long term.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principle that 'adaptation should be informed by a cycle of review and action'.

SEA Topic	Recommendation from Environmental Report	How integrated/taken into account or reason for not be in taken into account
Material assets	The Framework should ensure that awareness raising about the impacts of climate change highlights the impacts on material assets are highlighted.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principles 'Adaptation should be integrated into existing development and implementation practices', and 'Adaptation should be integrated at an appropriate scale'. Together these principles will increase awareness of climate change impacts across all sectors.
Cultural Heritage	The Framework should ensure that there is support for research into climate change impacts on all SEA topic areas including cultural heritage.	Cultural heritage impacts are considered under the sector summary 'The Built Environment', and sector actions include research into climate change impacts on the cultural heritage resource.
Cultural Heritage	The Framework should also support the development of procedure and guidance on the reconciliation of cross sectoral conflicts between adaptation measures.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principle 'Adaptation should seek to be developed in partnership with interested parties and avoid restricting others from adapting'.
Cultural Heritage	The Framework should ensure that awareness raising about the impacts of climate change highlights the impacts on cultural heritage.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principles 'Adaptation should be integrated into existing development and implementation practices', and 'Adaptation should be integrated at an appropriate scale'. Together these principles will increase awareness of climate change impacts across all sectors.
Cultural Heritage	In order to ensure a more direct positive impact on the cultural heritage the Framework should acknowledge that direct adaptation actions following from building adaptive capacity should both consider the impacts of climate change on cultural heritage and provide protection for the historic environment from adaptation measures that may be detrimental.	The principles which support awareness raising across the sectors, and the management of conflict arising from adaptation within different sectors, will ensure that adaptation actions address all impacts of climate change.
Landscape	The Framework should ensure that there is support for research into climate change impacts on all SEA topic areas including landscape.	Actions within the sector summary 'Spatial planning and land use' include support for understanding and awareness of the impacts of climate change and landscapes through modelling the significant changes, and promotion of an adaptation to climate change perspective in strategies for nationally and locally important landscapes.

SEA Topic	Recommendation from Environmental Report	How integrated/taken into account or reason for not be in taken into account
Landscape	The Framework should also support the development of procedure and guidance on the reconciliation of cross sectoral conflicts between adaptation measures, particularly in relation to landscape.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principle 'Adaptation should seek to be developed in partnership with interested parties and avoid restricting others from adapting'.
Landscape	The Framework should ensure that awareness raising about the impacts of climate change highlights the impacts on landscape.	The Framework sets out a number of principles for a sustainable approach to climate change adaptation, and this includes the principles 'Adaptation should be integrated into existing development and implementation practices', and 'Adaptation should be integrated at an appropriate scale'. Together these principles will increase awareness of climate change impacts across all sectors.
Landscape	In order to ensure a more direct positive impact on landscape the Framework should acknowledge that direct adaptation actions following from building adaptive capacity should both consider the impacts of climate change on landscape and provide protection for landscapes from adaptation measures that may be detrimental.	The principles which support awareness raising across the sectors, and the management of conflict arising from adaptation within different sectors, will ensure that adaptation actions address all impacts of climate change.

Table 2 Consultation responses and how these have been taken into account in Scotland’s Climate Change Adaptation Framework

CONSULTEE / RESPONDENT	REPORT REFERENCE	SUMMARY OF COMMENTS	HOW THE COMMENT WAS TAKEN INTO ACCOUNT IN MAKING THE DECISION TO ADOPT THE FINAL PPS
Scottish Environment Protection Agency	Non-Technical Summary - Paragraph 7	SEPA has some slight concerns about how the SEA recommendations will be able to influence the Action Programme, which seems to have been already started. SEPA would welcome further clarifications on how the Action Programme would link to the outcome of the Climate Change Adaptation Framework (CCAF) and the Environmental Report.	Acknowledge that some of the actions contained in the Action Programme in the proposed Framework have already started. While we agree that it is very important to maintain a high level of engagement with organisations and individuals through the consultation process to ensure that their expertise and knowledge can influence and improve the proposed Framework, this needs to be balanced against the need for immediate action and any legislative requirements. Delaying starting any of the actions until the final Framework is published would likely have serious negative consequences for some of the proposed actions. The Sector Action Plans have been substantially refocused through the alterations to the Framework. The Sector Action Plans will be continuously reviewed, adapted and refocused in response to changing circumstances and emerging information.
Scottish Environment Protection Agency	Chapter 2 - Paragraph 2.9	This provides a very useful and comprehensive summary of the impacts of climate change on each of the SEA criteria.	Noted.

CONSULTEE / RESPONDENT	REPORT REFERENCE	SUMMARY OF COMMENTS	HOW THE COMMENT WAS TAKEN INTO ACCOUNT IN MAKING THE DECISION TO ADOPT THE FINAL PPS
Scottish Environment Protection Agency	Chapter 2 - Relevant aspects of the current state of the environment: Air and climate	Given the focus of the proposed Framework on climate change adaptation, we would have expected rather more consideration of climate issues in the summary of the current state of the environment, although note that this is covered to some degree in the previous chapter. In particular, SEPA would like to have seen reference to trends with respect to other air pollutants, in particular methane and the other greenhouse gases (basket of six). Other sources of air pollution that could be added are agriculture and industry.	The purpose of the Framework is not to reduce emissions, however it does seek to incorporate mitigation where possible, and to ensure emissions are not increased through adaptation actions, in order to support progression towards a low carbon economy.
Scottish Environment Protection Agency	Chapter 2 - Relevant aspects of the current state of the environment: Material Assets (Waste)	Although the targets set by the Landfill Allowance Scheme only refer to municipal biodegradable waste, all biodegradable waste contributes to air, soil and water pollution and to climate change if sent to landfill. SEPA would welcome further reference to the fact that the greenhouse gas methane (CH ₄) is a direct product of landfilled biodegradable waste, and therefore the reduction of such waste would contribute to climate change mitigation. For an accurate and comprehensive definition of municipal waste, please find reference in the Landfill Allowance Scheme Guidance published by the Scottish Government: www.sepa.org.uk/waste/waste_data/municipal_waste.aspx	The purpose of the Framework is not to reduce emissions, however it does seek to incorporate mitigation where possible, and to ensure emissions are not increased through adaptation actions, in order to support progression towards a low carbon economy. The Spatial Planning and Land Use sector summary notes the contribution of waste to greenhouse gas emissions.
Scottish Environment Protection Agency	Chapter 2 - Table 3: Soil (To be noted for information, for consideration in the SEA Statement and for future SEA work)	The Scottish Soil Framework has now been published and sets out a strategy for the protection of Scottish soils. This is of particular importance to delivery of the adaptation framework in respect of both the significant carbon locked in Scottish soils and the role soils play in absorbing rainfall and thereby reducing flood risk. Planning for soil is also an important issue in the context of adapting to potential increases in soil erosion and landslips as a result of climate change.	Noted. The Framework recognises that soil quality plays a prominent role in the success of many of the twelve key sectors and that measures to address climate change taken by these sectors can impact on soil quality. Protecting soils reduces carbon loss from soil. Soil issues are specifically covered in the Spatial Planning and Land Use sector summary which recognises the role of soil as a carbon resource.

CONSULTEE / RESPONDENT	REPORT REFERENCE	SUMMARY OF COMMENTS	HOW THE COMMENT WAS TAKEN INTO ACCOUNT IN MAKING THE DECISION TO ADOPT THE FINAL PPS
Scottish Environment Protection Agency	Chapter 2 - Table 3: Water (To be noted for information, for consideration in the SEA Statement and for future SEA work)	Draft River Basin Management Plans (dRBMPs) were published for the Scotland and Solway Tweed river basin districts in December 2008. These are available on SEPA's website at: www.sepa.org.uk/water/river_basin_planning.aspx . The dRBMPs also include a comprehensive assessment of pressures on Scotland's waterbodies and classifies each waterbody according to its ecological status.	Noted. The Water Resource Management Sector Summary recognises the role of the River Basin Management Plans.
Scottish Environment Protection Agency	Chapter 2 - Table 3: Climate (To be noted for information, for consideration in the SEA Statement and for future SEA work)	As noted in more detail below, the UKCP09 projections were published in June.	Noted. The section in the Framework 'How our climate is changing' uses the UKCP09 climate projections as the primary information source and provides links to the UKCP09 website.
Scottish Environment Protection Agency	Chapter 2 - Table 3: Material Assets (To be noted for information, for consideration in the SEA Statement and for future SEA work)	Baseline data collected and data sources. More recent data are available for waste which can be found at: www.sepa.org.uk/waste/waste_data/waste_data_digest.aspx . In addition more recent data is also available on Biodegradable Municipal Waste landfill and recycling and composting rate, which can be found at: www.sepa.org.uk/waste/waste_data/waste_data_reports/landfill_allowance.aspx	Noted. The Spatial Planning and Land Use Sector summary notes the contribution of waste to greenhouse gas emissions.

CONSULTEE / RESPONDENT	REPORT REFERENCE	SUMMARY OF COMMENTS	HOW THE COMMENT WAS TAKEN INTO ACCOUNT IN MAKING THE DECISION TO ADOPT THE FINAL PPS
Scottish Environment Protection Agency	Chapter 2 - Paragraph 2.28	The long anticipated UKCP09 projections were published in June 2009. These provide comprehensive scenarios for potential future climate change in the UK and will be a key driver for delivery of the Framework. Some recognition of the UKCP09 scenarios and how they will be integrated into the Framework's actions would be useful in the SEA Statement.	Noted. The consequences of the UKCP09 climate change projections are explored in the section in the Framework 'How our climate is changing', and through the Sector Summaries.
Scottish Environment Protection Agency	Chapter 3 - Assessment Methods	SEPA notes that you have chosen to broadly adopt the assessment method that was suggested in our earlier discussions and this is most welcome. We feel this approach is appropriate for the high level nature of the adaptation framework.	Noted.
Scottish Environment Protection Agency	Chapter 3 - Alternatives	We note that you have assessed one alternative, that of not having the framework but to allow individual sectors or areas to develop their own responses to adapting to climate change. SEPA is content with this approach.	Noted.
Scottish Environment Protection Agency	Chapter 3 - Paragraph 3.10	We are unconvinced that absence of the framework would necessarily result in negative effects on the water environment. The 2 dRBMPs and their accompanying 11 Area Management Plans (covering the 10 Area Advisory Group areas) provide for extremely comprehensive policy protection of the water environment and it is unlikely that the adaptation framework would play a significant role in this regard.	The dRBMP are acknowledged in the Framework. The Framework provides a coordinated framework for adaptation activities, and provides an overview of potentially dispersed or incremental impacts on the water environment. The Water Resource Management Sector Summary also acknowledges the protection provided by the RBMPs

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Scottish Environment Protection Agency	Chapter 3 - Paragraph 3.17	We note your concern regarding the inability to draw robust conclusions on the environmental effects of the framework as many impacts will result from the implementation of actions by others. This is a typical issue in the assessment of high level plans and programmes and points to the need for more detailed level assessment at other decision making layers. It is therefore important to be clear in the SEA Statement about where more detailed assessment is required as lower tier plans and programmes are prepared. Ideally, this should form part of the mitigation measures set out in table 6.	The post adoption statement recommends that lower tier plans and programmes will need to individually consider whether a more detailed SEA is required as an additional mitigation measure.
Scottish Environment Protection Agency	Chapter 3 - Effects of the Framework on the Environment	With regard to SEPA’s main areas of interest (air, water, soil, human health and climatic factors), we are content with the findings of this section. We would though have considered that impacts on climate were likely to be rather more than “minor positive” given the focus of the Adaptation Framework and the important role it will have in ensuring Scotland is as prepared as it can be for the predicted effects of climate change.	The purpose of the Framework is not to reduce emissions however it does seek to incorporate mitigation where possible, and to ensure emissions are not increased through adaptation actions, in order to support progression towards a low carbon economy.
Scottish Environment Protection Agency	Chapter 3 - Measures Envisaged for the Prevention, Reduction and Offsetting of Significant Adverse Effects and Enhancement of Positive Effects	SEPA welcomes the focus on enhancement of positive or benign effects as well as seeking ways to address effects of the Adaptation Framework which may be negative. While we broadly support the measures identified in this section and summarised in detail in table 6, it is not entirely clear how they will be implemented and some sort of framework in the SEA Statement explaining what mitigation/enhancement measures will be implemented, by who and when would be most useful.	The Framework has a strategic role, and more detailed actions will flow from the Sector Actions Plans.
Scottish Environment Protection Agency	Chapter 3 - Table 7	It would be helpful to clarify that the revision of the draft CCAF will be done on the basis of consultation findings both from the Plan consultation and the SEA ER consultation.	The Framework has been significantly influenced by both the public consultation on the draft Framework and SEA Environmental Report consultation. The

CONSULTEE / RESPONDENT	REPORT REFERENCE	SUMMARY OF COMMENTS	HOW THE COMMENT WAS TAKEN INTO ACCOUNT IN MAKING THE DECISION TO ADOPT THE FINAL PPS
			structure and scope of the Framework have been changed substantially to address the key themes which have come out of both consultations, and it now incorporates many other points and suggestions that were made.
Scottish Environment Protection Agency	Chapter 3 - Monitoring	SEPA is content with the establishment of a panel and in particular welcomes the idea of using indicators as agreed by the panel. However, in order to inform the Environmental Report, it would have been useful to have already called such panel. SEPA would expect a set of indicators and a relevant monitoring framework to be established as a result of the work of the panel to be reported as far as possible in the SEA Statement.	The Framework will establish a governance structure which includes a Key Stakeholder Group to represent social, environment and economic interest groups across Scotland. It is proposed that the remit of this group will include monitoring the social, economic and environmental impacts of climate change as well as monitoring the impact and progress of the Framework (this would include consideration of the most appropriate indicators etc). The Scottish Government will look to establish this group following the publication of the Framework. Further information is not available to include in the Post Adoption Statement.
Scottish Environment Protection Agency	Appendix B	SEPA notes and welcomes that most of the suggestions made in the response to the scoping report have been addressed. You will be aware that the suite of topic based Scottish Planning Policies are currently being consolidated into a single document. The consultation terminated at the end of June 2009 and the final SPP is planned for publication by the end of the year.	Noted.
Scottish Environment Protection Agency	Appendix D	As noted above, SEPA welcomes the use of the headings as recommended during the introductory meeting and the informal consultation following the scoping report response.	Noted.

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Scottish Environment Protection Agency	n/a	Soils role in Climate Change adaptation - One matter that does not come out of the assessment as strongly as SEPA considers it might is the need to consider the vulnerability of soils. We refer in our response to the consultation on the Adaptation Framework to the important role of soils not only in sequestering carbon but also its role in adaptation through its ability to absorb rainfall and therefore reduce flood risk. It would have been useful for the SEA to have considered this in order to provide recommendations as to how the Adaptation Framework should cover this issue.	Noted. The Framework recognises that soil quality plays a prominent role in the success of many of the twelve key sectors and that measures to address climate change taken by these sectors can impact on soil quality. The role of soils in reducing flood risk is specifically recognised in the Water Resource Management and the Spatial Planning and Land Use Sector Summaries and the vulnerability and importance of soils are recognised in a number of the Sector Summaries.
Scottish Environment Protection Agency	n/a	It would have been helpful to have a glossary listing acronyms added to the report to assist its clarity.	Noted. See Appendix B.
The Scottish Ministers (Historic Scotland)		No substantive comments.	
Scottish Natural Heritage	n/a	SNH support the methodology which was recommended following the Scoping Report and would suggest that a similar methodology, making use of the UK Risk Assessment, is used in undertaking the SEA for the next Framework to be developed in 2011.	Noted.
Scottish Natural Heritage		SNH endorse the vulnerabilities identified in relation to soils and landscape.	Noted.
Scottish Natural Heritage	Baseline	The status and trends information used for biodiversity is rather limited. For example, there is no mention of the current state of fish stocks or other aspects of the marine environment.	There is a sector summary on Biodiversity and Ecosystem Resilience, and Marine and Fisheries, which covers issues relating to fish stocks and the marine environment.

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Scottish Natural Heritage		<p>Whilst there are uncertainties, the potential impacts of climate change on biodiversity may be understated. We are already seeing impacts on foodwebs from loss of synchrony and as a result of species movements in response to climate change; for example the recent declines in the breeding success of various seabirds and the availability of food species are probably the result in changes to the climate. The Marine Climate Change Impacts Partnership's (MCCIP) Annual Report Cards (ARC) provides useful information that could help inform this section. In particular the 2009 ARC addresses some of the key marine ecosystem linkages. Other impacts are summarised in the 'Background and Context' paper, part of our consultation on SNH's <i>Approach to climate change and the natural heritage</i>, available at www.snh.org.uk/strtagey/sr-pc06.asp</p>	<p>There is a sector summary on Biodiversity and Ecosystem Resilience and Marine and Fisheries. The text highlights the threats to ecosystems and significance of this impact, and explores impacts on the marine environment. This is a topic area which will be subject to further future work through the Framework. The Marine and Fisheries Sector Summary also uses the MCCIP ARC as a source of information.</p>
Scottish Natural Heritage		<p>The indirect, positive effects of climate change on biodiversity may be over-estimated; whilst habitat networks and managed realignment schemes have been identified as potentially important, the former are largely untested and neither has yet been built into land use plans across the country.</p>	<p>There is a sector summary on biodiversity and ecosystem resilience which recognises significance of climate change threats to biodiversity. This explores the severity of climate change impacts on biodiversity, and the impacts on ecosystem function. The sector actions also include the action to increase knowledge and awareness of the state of ecosystem health and services on land and in the sea and the trends for change. This will support understanding of the full impacts of climate change on biodiversity.</p>
Scottish Natural Heritage		<p>The assessment of competing pressures appears to be quite restricted towards potential conflicts between adaptation policies for different sectors. This assessment could perhaps identify where action is needed to reduce impacts from existing pressures on the environment, so that these are not compounded by climate change</p>	<p>Pillar III sets out the role of Government in establishing a policy structure that encourages cross policy involvement. Actions to address competing pressures through governance structures will be taken forward by the different sectors.</p>

Appendix B

List of Acronyms used in Environmental Report

List of Acronyms

AQMA	Air Quality Management Areas
BAR	Buildings At Risk
BMW	Biodegradable Municipal Waste
BSE	Bovine Spongiform Encephalitis
DEFRA	Department for Agriculture and Rural Affairs
ECCP	European Climate Change Programme
EU ETS	European Union Emissions Trading Scheme
GDP	Gross Domestic Product
IPCC	Intergovernmental Panel on Climate Change
LCPIP	Local Climate Impact Profiles
NNR	National Nature Reserve
NPF	National Planning Framework
NSA	National Scenic Area
OECD	Organisation for Economic Co-operation and Development
PAN	Planning Advice Note
PPS	Plans, programmes and strategies
RCEP	Royal Commission on Environmental Pollution
RCHAMS	Royal Commission on Historic and Ancient Monuments
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEERAD	Scottish Executive Environment and Rural Affairs Department
SEPA	Scottish Environment Protection Agency
SHEA	Scottish Historic Environment Audit
SHEP	Scottish Historic Environment Policy
SIMD	Scottish Index of Multiple Deprivation
SME	Small and Medium Enterprises
SNH	Scottish Natural Heritage

SNIFFER	Scotland and Northern Ireland Forum for Environmental Research
SPA	Special Protection Area
SPP	Scottish Planning Policy
SSCI	Scottish Sustainable Communities Initiative
SSSI	Site of Special Scientific Interest
STPR	Strategic Transport Projects Review
SUDS	Sustainable Urban Drainage System
SWMI	Significant Water Management Issues
UKBAP	United Kingdom Biodiversity Action Programme
UKCIP	United Kingdom Climate Impacts Programme
UKCP	United Kingdom Climate Projections
UNESCO	United Nations Educational, Scientific and Cultural Organization
WHS	World Heritage Site
WIAT	Woods In and Around Town
WRAP	Waste and Resources Action Programme