

Planning and Climate Change: Key Agency and Scottish Government Resources and Guidance

This document provides a 'one stop shop' of resources and guidance available from Key and other Agencies¹ to assist local authorities mainstream climate change considerations into their planning decisions. The Agencies are committed to responding to the Scottish Government's climate change agenda through our planning-related functions and recognise the need to adopt a collaborative approach to facilitate the step change needed. This document helps deliver the commitments made by the Key Agencies in [Delivering Planning Reform](#) by providing support to planning authorities in the new approach to development plans and by working together to clarify roles and responsibilities.

The Climate Change (Scotland) Act 2009 introduces a new duty for all public bodies to exercise their functions in a way that is best calculated to contribute towards the greenhouse gas reduction targets² and the [Climate Change Adaptation Framework](#)³. This new duty came into effect on 1st January 2011. [Scottish Planning Policy](#) (SPP) has been amended to reflect the introduction of the Act. Paragraph 42 of SPP states that:

“the need to help mitigate the causes of climate change and the need to adapt to its short and long term impacts should be taken into account in all decisions throughout the planning system”.

In light of this new statutory and policy framework planning authorities are increasingly seeking advice from Agencies on climate change issues. It is intended that this document should help planning authorities integrate climate change issues into their planning decisions by providing a 'one stop shop' of the sources of useful information and advice that can be provided by Agencies. Current and emerging guidance from the Scottish Government has also been included to provide a single resource for planners.

This is the second version of the document and it is intended that it will be reviewed further as new sources of advice and information become available. We intend to continue our collaborative approach in addressing climate change through our planning functions and will also update the document to reflect the outcomes of this work.

¹ The Agencies involved in the preparation of this Statement include Scottish Natural Heritage, Forestry Commission Scotland, Historic Scotland, Scottish Water, Transport Scotland, Architecture and Design Scotland and the Scottish Environment Protection Agency.

² As defined in Part 1 of the Climate Change (Scotland) Act 2009.

³ Prepared under Section 53 of the Climate Change (Scotland) Act 2009.

Planning and Climate Change: Key Agency and Scottish Government Resources and Guidance

Cross-cutting guidance relating to mitigation and adaptation issues	
1. Strategic Environmental Assessment	
Advice and guidance available	Links
<p>Considering climatic factors within Strategic Environment Assessment The Scottish Government has worked with the Scottish Environment Protection Agency (SEPA) to produce guidance on how to reduce the greenhouse gas emissions of Plans, Programmes and Strategies and ensure they are resilient to the future climate. It helps public bodies to fulfil their duties under the Climate Change (Scotland) Act 2009.</p> <p>Practical Guidance on how to take account of Air, Water and Soil SEPA has worked in partnership with the Scottish and Northern Ireland Forum for Environmental Research (SNIFFER) to produce guidance on how to take into account the potential environmental effects of implementing a plan upon air, soil and water, as part of the SEA process.</p>	<p>Consideration of Climatic Factors within Strategic Environmental Assessment (SEA)</p> <p>SNIFFER - UKCC09: SEA - Practical Guidance on How to Take Account of Air, Water and Soil</p>
2. Sustainable Place-making	
Advice and guidance available	Links
<p>Advice on sustainable place-making with particular emphasis on settlement dynamics is available from Architecture and Design Scotland (A+DS). A+DS's SUST programme can make available information / skills to support particular placemaking aspects of this Directory (i.e. sustainable travel, decentralised energy, building with timber).</p> <p>Advice on the role of the natural environment in sustainable place-making is available from Scottish Natural Heritage (SNH).</p>	<p>The A+DS website http://www.ads.org.uk/ offers considerable information in connection with sustainable placemaking – particularly through the urbanism programme and the SUST programme</p> <p>A report is available on a training event with North Ayrshire Council on the topic of sustainable plan making that addresses the importance of the development plan in setting out a whole place spatial vision that extends beyond topic issues (with links into the section on S72 of CC(S) Act).</p> <p>The SNH statement Better Places for People and Nature explains how the natural environment can contribute towards better places.</p> <p>SNH – Making Sustainable Places: report of a series of Sharing Good Practice events covering: people and communities, participation, sustainable development, land use, design & land use planning.</p>

3. Green networks and green infrastructure	
Advice and guidance available	Links
<p>Green networks and greenspace provide multiple benefits in relation to climate change mitigation and adaptation including the promotion of active travel, carbon sequestration, the production of heat and energy from biomass, sustainable flood management, shading and cooling, sustainable urban drainage, habitat enhancement and species dispersal routes. Good management of green networks and forestry can also help protect drinking water sources, thereby reducing treatment requirements and the associated carbon intensity of water.</p> <p>Advice on green networks including the Central Scotland Green Network, a national infrastructure project under NPF2, is available from SNH and Forestry Commission Scotland (FCS). New information including habitat network data will be available from SNH's website soon. SNH has helped Highland Council prepare Supplementary Guidance on Green Networks.</p> <p>Advice on greenspace and outdoor access is available from SNH.</p> <p>Guidance and advice on openspace and greenspace audits is available from Greenspace Scotland.</p> <p>Advice on how green networks can contribute towards River Basin Management Planning objectives and sustainable flood management is available from SEPA.</p> <p>Advice on planning for forestry and woodland – including the preparation of forestry and woodland strategies linked to development plans – which gives advice on planning for an expansion in woodland cover as part of the overall pattern of land use.</p> <p>The Scottish Government have produced guidance on incorporating green infrastructure into masterplans in 'Green Infrastructure: Design and Placemaking'.</p>	<p>SNH advice on green networks</p> <p>SNH commissioned report by Greenspace Scotland: Developing the role of greenspace in climate change mitigation and adaptation</p> <p>Highland Council Interim Supplementary Guidance on Green Networks</p> <p>Central Scotland Green Network</p> <p>SNH planning advice on outdoor access and greenspace</p> <p>Greenspace Scotland</p> <p>River Basin Management Plans</p> <p>The Right Tree in the Right Place – Planning for Forestry and Woodlands</p> <p>Green Infrastructure: Design and Placemaking</p>

Reducing greenhouse gas emissions (mitigation)

1. Quantifying the impact of planning decisions on greenhouse gas emissions

Advice and guidance available	Links
<p>Quantifying the greenhouse gas impacts of alternative spatial planning policies</p> <p>The Scottish Government has commissioned research into “quantitative greenhouse gas assessment: a tool for spatial planning policy development”. The aim of the project is to identify a simple yet robust method for quantifying the greenhouse gas impacts of alternative spatial planning policies suitable for application in the Scottish planning system. SEPA has part funded the research. The research is complete and the Spatial Planning Assessment for Climate Emissions (SPACE) tool should be launched around Spring 2012.</p>	<p>Scottish Government Directorate for the Built Environment. Contact: Simon.Bonsall@scotland.gsi.gov.uk</p>
<p>Calculating carbon savings from wind farms on Scottish Peatlands</p> <p>The Scottish Government’s Energy Consents Unit (ECU) promotes the use of a tool to calculate carbon savings from onshore wind farms subject to a Section 36 Electricity Act application (ie. over 50 MW). This ensures that any carbon savings from the development are offset against any increases in carbon release caused by the disturbance of carbon rich soils. Planners can refer potential applicants for such schemes to this tool. An updated version of the tool was launched in June 2011. SEPA validates the data used in the tool on behalf of the ECU.</p>	<p>Calculating carbon savings from wind farms on Scottish Peatlands</p>
<p>Calculating the carbon intensity of water and waste water</p> <p>Scottish Water provides figures for the carbon intensity of water and wastewater, allowing these services to be included in the carbon footprinting of any development for use in SEA. These figures are available in Scottish Water’s annual carbon footprint report and will change annually due to the changing asset base. The impact of planning decisions will in turn affect these carbon intensity figures. An example would be the potential impact of a new development that requires a new pumping station. The carbon intensity of a new facility will be affected by the distance and height water or wastewater must be pumped as a result.</p>	<p>Scottish Water Carbon Footprint Report</p>
<p>Carbon calculator for woodland creation and removal</p> <p>Forestry Commission Scotland has published a carbon toolkit/calculator to assess</p>	<p>Carbon calculator for woodland creation and removal</p>

<p>the carbon impact of woodland creation and removal. This can be used by planners to help assess the impact of the removal or planting of woodland on the carbon balance of the development.</p>	
<p>Carbon savings through the re-use of traditional buildings</p> <p>Historic Scotland (HS) are looking at ways of calculating carbon savings from the conversion, modernisation and upgrade of traditional buildings. They commissioned research into the embodied carbon in natural building stone which explores the carbon footprint of different types of stone. Whilst the study itself may not provide direct advice for planning decisions it does serve to emphasise the benefits of re-using traditional stone buildings and structures due to their high embodied carbon.</p>	<p>Embodied carbon in natural building stone in Scotland</p>
<p>Quantifying emissions from transport</p> <p>Transport Scotland's (TS) Scottish Transport Appraisal Guidance (STAG) covers a wide range of issues including the impact of decisions on global air quality.</p> <p>The LATIS modelling suite, containing the Transport Model for Scotland (TMfS) and the Transport, Economic and Land-Use Model of Scotland (TELMoS), is a multi-purpose forecasting toolkit developed by Transport Scotland to assist in the investigation and assessment of different policies and strategies on land-use and transport provision. LATIS can calculate changes in emissions from road transport. Applications for use of this tool can be made through Transport Scotland.</p>	<p>STAG</p> <p>Global Air Quality sub-criterion</p> <p>LATIS</p>
<p>2. Sustainable Travel</p>	
<p>Advice and guidance available</p>	<p>Links</p>
<p>Sustainable travel and natural heritage</p> <p>SNH has published guidance on Transport and the Natural Heritage which explains SNH's role in relation to sustainable travel including their involvement in strategy and policy development. SNH also provides advice on planning and outdoor access, including paths which promote active travel.</p>	<p>SNH guidance on Transport and the Natural Heritage</p> <p>SNH advice on planning and outdoor access</p> <p>SNH statement: Paths – linking people, places and nature</p> <p>SNH report: Paths and climate change - an investigation into the potential implications of climate change on the planning, design, construction and management of paths in Scotland.</p>
<p>General guidance on sustainable transport</p> <p>Guidance on Sustainable Transport is available on the Transport Scotland website.</p>	<p>Transport Scotland</p>

<p>Planning decisions can have a strong influence on encouraging certain aspects of sustainable transport such as walking and cycling.</p>	<p>Sustainable Transport</p>
<p>3. Protecting and enhancing land uses that act as carbon sinks</p>	
<p>Advice and guidance available</p>	<p>Links</p>
<p>Woodlands as carbon sinks</p> <p>FCS provides policy advice on the minimising woodland removal and woodland expansion. FCS and SNH provide guidance on native woodland restoration and the development of forest habitat networks.</p> <p>Guidance to planning authorities has also been published on Planning for Forestry and Woodland, including the preparation of forestry and woodland strategies to integrate woodland expansion into the overall pattern of land use.</p>	<p>Policy on Control of Woodland Removal</p> <p>Guidance on implementation of the Policy on Control of Woodland Removal</p> <p>Woodland Expansion Strategy</p> <p>The Right Tree in the Right Place – Planning for Forestry and Woodlands</p>
<p>Soils as carbon sinks</p> <p>Scottish soils store approximately 3 billion tonnes of carbon, mostly in peatlands. This carbon can be released if the soils are disturbed by development.</p> <p>SNH provides advice on peatland conservation and restoration.</p> <p>SEPA has produced position statements on planning and soils and the regulatory implications of developments on peat.</p> <p>Scottish Government has prepared a position statement on the Management of Carbon-rich Soils (December 2010) which supports the Land Use Strategy for Scotland. It sets out the Scottish Government’s position with regard to peat and other soils that are rich in carbon with a particular focus on climate change mitigation.</p>	<p>SNH strategy for soil carbon activities</p> <p>SEPA Regulatory Position Statement – Developments on Peat</p> <p>Developments on Peatlands: Guidance on the assessment of peat volumes, reuse of excavated peat and the minimisation of waste (SEPA and Scottish Renewables)</p> <p>SEPA Position Statement on Planning and Soils</p> <p>Scottish Government’s Discussion paper on the Management of Carbon-Rich Soils</p> <p>Scotland’s Land Use Strategy</p>
<p>4. Facilitating renewable energy developments in the most sustainable way</p>	
<p>Advice and guidance available</p>	<p>Links</p>
<p>Renewable Energy Developments</p> <p>SNH provides a range of guidance on how to locate and design renewable energy with least damage to the natural environment.</p> <p>Good practice during windfarm construction guidance has been prepared by a joint working group involving Scottish Renewables, SNH, SEPA, FCS and several</p>	<p>SNH guidance on developments and renewable energy</p> <p>Good practice during windfarm construction guidance</p> <p>Developments on Peatlands: Guidance on the assessment of peat</p>

<p>representatives from companies with extensive windfarm development experience.</p> <p>SEPA and Scottish Renewables have published guidance for developments on peatlands which focuses on the assessment of peat volumes, reuse of excavated peat and the minimisation of waste.</p> <p>SEPA provides operational planning guidance on wind farm and hydro electric development on its planning portal. Guidance is also available on the regulatory implications of development on peat and hydro applications.</p> <p>FCS provides advice through its network of Biomass Development Officers on locations for heat and energy production from woody biomass (including CHP) and on the development of woodfuel supply chains.</p> <p>HS can provide advice on protecting archaeological sites from renewable energy developments.</p>	<p>volumes, reuse of excavated peat and the minimisation of waste (SEPA and Scottish Renewables)</p> <p>SEPA Planning guidance for wind and hydro schemes</p> <p>SEPA Regulatory Position Statement - Developments on Peat</p> <p>Regulatory guidance for hydro applications</p> <p>FCS biomass advice</p> <p>Advice is available from Historic Scotland on 0131 6688600.</p>
<p>Micro renewables</p> <p>HS provides advice on the location and design of microrenewable technologies on listed buildings. SNH provides guidance on the location and design of microrenewable technologies and natural heritage.</p> <p>A range of permitted development rights are in place for domestic and non-domestic properties.</p>	<p>Historic Scotland Guidance on micro-renewables</p> <p>SNH guidance on micro-renewables and natural heritage</p> <p>Planning for Micro Renewables Annex to PAN45 Renewable Energy Technologies</p> <p>The Town and Country Planning (General Permitted Development) (Non-Domestic Microgeneration) (Scotland) Amendment Order 2011</p> <p>The Town and Country Planning (General Permitted Development) (Domestic Microgeneration) (Scotland) Amendment Order 2010</p> <p>The Town and Country Planning (General Permitted Development) (Scotland) Amendment Order 2011</p>
<p>Section 3F of the Town and Country Planning (Scotland) Act 1997</p> <p>This legislative requirement on local development plans was introduced by Section 72 of the Climate Change (Scotland) Act 2009. It requires (in summary) that all new buildings reduce their greenhouse gas emissions through the use of low and zero-carbon generating technology to rising proportions set by the planning authority.</p> <p>This is a relatively new requirement on planning authorities in their policy making. Proposed local development plans that have tackled the requirement include Aberdeen City Council and Orkney Islands Council.</p>	<p>Aberdeen City Council Proposed Plan</p> <p>Orkney Islands Council Proposed Plan</p>

5. Reducing energy demand and maximising energy efficiency in developments

Advice and guidance available	Links
<p>Embodied energy of buildings</p> <p>HS provides advice on a range of issues including sourcing local traditional materials and encouraging the re-use of listed and traditionally built structures to make full use of their embodied energy. This includes advice on the application of Scottish Building Standards in relation to energy efficiency measures in traditional and listed buildings.</p> <p>FCS (in partnership with the Centre for Timber Engineering at Napier University) provides advice on the use of timber for construction. This includes advice on carbon savings through the use of timber in construction to replace more energy intensive materials such as steel and concrete.</p>	<p>Historic Scotland technical papers on energy conservation in traditional and listed buildings</p> <p>Conversion of Traditional Buildings: Application of Scottish Building Standards (Part 1)</p> <p>Conversion of Traditional Buildings: Application of Scottish Building Standards (Part 2)</p> <p>Forestry Commission Sustainable Construction Advice</p> <p>Centre for Timber Engineering</p> <p>Forestry Commission advice on procuring sustainable timber</p>
<p>Improving energy efficiency in traditional buildings</p> <p>HS have produced a guide on improving the energy efficiency of traditional buildings which provides useful advice for those redeveloping or refurbishing such buildings. It has been produced as a part of HS's Managing Change in the Historic Environment guidance notes.</p>	<p>Improving Energy Efficiency in Traditional Buildings.(Historic Scotland Inform Leaflet)</p>
<p>Heat Mapping</p> <p>The Scottish Government have worked in partnership with CoSLA and the Highland Council on the development and implementation of tools to help identify the potential for renewable heat use in new development in a Heat Mapping Pilot. These findings are now available on Highland Council's website.</p>	<p>Highland Heat Mapping Project</p>
<p>Recovery of heat from the thermal treatment of waste</p> <p>SEPA's Guidelines on the Thermal Treatment of Waste constitute a material planning consideration. A key aim of the guidance is to ensure that maximum efficiency is achieved in waste thermal treatment processes through the recovery and use of surplus heat. Guidance is provided on the role of the planning system in achieving this. Some elements of this guidance have been superseded by the revisions to Annex B (the role of land use planning in delivering zero waste) of the Scottish Government's Zero Waste Plan.</p>	<p>Thermal Treatment of Waste Guidelines 2009</p> <p>Scotland's Zero Waste Plan Annex B</p>

<p>Water efficiency</p> <p>Reducing hot water use can have a significant effect on the carbon footprint of a new development. Scottish Water provides advice on water efficiency, including water efficient devices. Further information is also available from Waterwise and the Energy Saving Trust.</p>	<p>Household water efficiency</p> <p>Waterwise</p> <p>Energy Saving Trust</p>
<p>6. Supporting the move towards Zero Waste</p>	
<p>Advice and guidance available</p>	<p>Links</p>
<p>Waste management</p> <p>Annex B of the Scottish Government's Zero Waste Plan provides guidance on the role of the planning system in moving towards Zero Waste.</p> <p>SEPA has prepared planning guidance on zero waste planning issues as they relate to both development planning and development management. These are available on SEPA's planning portal.</p>	<p>Scotland's Zero Waste Plan Annex B</p> <p>Planning and zero waste</p> <p>SEPA Guidance on commenting on development plan consultations for Zero Waste Plan issues</p> <p>SEPA Guidance on input to development management consultations in relation to Zero Waste Plan issues</p>
<p>7. Supporting sustainable options for decentralised energy generation and supply</p>	
<p>Advice and guidance available</p>	<p>Links</p>
<p>Local biomass energy facilities</p> <p>FCS provides advice through its network of Biomass Development Officers on the production of heat and energy from woody biomass, locations for CHP and the development of woodfuel supply chains. Planning authorities can direct potential applicants for biomass energy projects to this advice which includes information on woodfuel supply and potential grants.</p>	<p>FCS biomass advice</p>
<p>Environmental considerations of decentralised energy technologies</p> <p>SEPA has prepared a Position Statement on Energy which provides a stance on the preferred options for energy generation and supply in terms of environmental impact. This could be used by planners to consider some of the potential environmental implications of different energy technologies.</p>	<p>SEPA Position Statement on Energy</p>

8. Carbon capture and storage (CCS)

Advice and guidance available	Links
<p>Carbon capture and storage</p> <p>SEPA is the environmental regulator in Scotland for the primary environmental legislation which will cover carbon capture and storage. These include the EU Emissions Trading Scheme (EU ETS), the Pollution Prevention and Control (PPC) Directive and the Large Combustion Plant Directive (LCPD). Any planning applications for such facilities should involve early engagement with SEPA.</p>	<p>SEPA information on CCS</p> <p>SEPA Position Statement: Carbon Capture and Storage</p>

Increasing resilience to climate change (adaptation)

1. Improving the resilience of our natural environment

Advice and guidance available	Links
<p>Improving the resilience of water resources</p> <ul style="list-style-type: none"> • Integrated catchment approach to improving water quality: advice from SEPA. River Basin Management Plans (RBMPs) have identified pressures on water bodies within Scotland, including climate change, and outline the measures that need to be undertaken to help improve their water quality status (eg improving river beds, banks and shore vegetation, and managing water flows, levels and engineering pressures). These can all be influenced by planning decisions. • Water efficiency including water efficient devices in new developments: advice from Scottish Water. • Impact of development on water resources including groundwater aquifers: advice from Scottish Water. Changes to Scotland's climate could increase the vulnerability of our water resources to new development. Further information: <ul style="list-style-type: none"> ○ Scottish Water 25 year water resource plan. ○ Groundwater monitoring and water table levels relating to impacts on drinking water resources: from the British Geological Society. • Risks to groundwater from surface contaminants from new developments: advice from SEPA. This risk can be affected by changes in the water table caused by climate change. Further information: <ul style="list-style-type: none"> ○ Aquifer and vulnerability maps. • Implications of climate change for flood management: advice from SEPA. Further information: <ul style="list-style-type: none"> ○ Existing SEPA Indicative River and Coastal Flood Map. ○ The recently published National Flood Risk Assessment will help inform the Flood Risk Management Planning process in Scotland and has some value to planning at a strategic level. 	<ul style="list-style-type: none"> River Basin Management Plans Household water efficiency Scottish Water 25 year water resource plan British Geological Society website SEPA aquifer and vulnerability maps SEPA Indicative River and Coastal Flood Map (Scotland) National Flood Risk Assessment
<p>Making habitats and species more resilient to a changing climate</p> <ul style="list-style-type: none"> • Existing designated sites and species including how to reduce vulnerability to climate change: advice from SNH. • Taking account of biodiversity in planning including how to increase resilience to climate change: The Biodiversity Planning Toolkit • Habitat networks: avoiding fragmentation and enhancing habitat availability and connectivity: advice from SNH. Further information (see also Green Networks above): 	<p>Information on and datasets of designated sites and species are available on SNHi</p> <p>Biodiversity Planning Toolkit</p> <p>General advice on habitat networks is available on the SNH website</p>

<ul style="list-style-type: none"> ○ Web-based tool is being developed by SNH. ○ Forest habitat networks: advice from FCS. 	
<p>Managing coasts</p> <ul style="list-style-type: none"> ● Implications of climate change for coasts and coastal habitats: advice from SNH and SEPA. Further information: <ul style="list-style-type: none"> ○ Existing coastal flood risk maps identify initial areas vulnerable to coastal flooding ○ Maps are in preparation that will incorporate additional risk from sea level rise and coastal erosion. ● Managing coasts to increase resilience to sea level rise: advice from SNH and SEPA. . 	<p>SEPA Indicative River and Coastal Flood Map (Scotland)</p>
<p>Protecting and managing soils</p> <ul style="list-style-type: none"> ● Impact of climate change on the protection and management of soils: advice from SNH and SEPA. <ul style="list-style-type: none"> ○ The key functions of our soils are under increasing pressure from changes in the climate and can be further exacerbated through development pressures. SEPA’s State of the Environment: Soil Quality Report provides useful information on the pressures on our soils. The James Hutton Institute can provide map based information in relation to soils for a planning authority areas. 	<p>SNH webpages on Soils and Development SEPA State of the Environment: Soil Quality Report SEPA Position Statement on Planning and Soils James Hutton Institute Soil Maps Scotland’s Environment Website: Soil Pages</p>
<p>Landscape</p> <ul style="list-style-type: none"> ● Implications of climate change for landscape and quality of life: report from SNH including national and regional summaries. 	<p>National and regional summaries of the implications of climate change on landscape and quality of life</p>
<p>2. Improving the resilience of our cultural/historic environment</p>	
<p>Advice and guidance available</p>	<p>Links</p>
<p>Ensuring that Scotland’s historic and cultural heritage is resilient to climate change impacts: Advice from Historic Scotland including soil loss, the impact of flood risk on traditional/historic locations, the vulnerability of historic sites and traditional settlement patterns (GIS modelling) and the impact of water table changes on buried archaeology.</p> <p>A joint publication, between A+DS and Historic Scotland, on ‘New Design in Historic Settings’ has recently been published and aims to set out the means by which the standard of new design in historic settings can be raised. This can also help improve the resilience of our historic buildings to future changes in climate.</p>	<p>Advice is available from Historic Scotland on 0131 6688600.</p> <p>New Design in Historic Settings</p>

3. Improving the resilience of our infrastructure	
Advice and guidance available	Links
<p>Flooding and drainage</p> <ul style="list-style-type: none"> • Undertaking a Strategic Flood Risk Assessment of Strategic and Local Development Plans and technical flood risk assessments for planning applications: advice from SEPA. • Sustainable Drainage Systems ('SUDS') have an increasingly important role to play in increasing our resilience to climate change by ensuring that new development does not increase flood risk or affect water quality. Further information is available in: <ul style="list-style-type: none"> ○ 'Sewers for Scotland 2' (Scottish Water) ○ Regulatory requirements for SUDS infrastructure under the Water Environment (Controlled Activities) (Scotland) Regulations 2005 and the promotion of best practice (SEPA). ○ SUDS for Roads - guidance on the design, construction, adoption, maintenance, performance, applicability and whole life cost of SUDS for all roads ranging from Trunk Roads to residential streets. (SEPA, Transport Scotland and Scottish Water). 	<p>SEPA's Interim Position Statement on Planning and Flood Risk</p> <p>SEPA advice on flood risk including technical advice on flood risk assessments.</p> <p>SEPA Indicative River and Coastal Flood Map (Scotland)</p> <p>Sewers for Scotland 2</p> <p>SEPA advice on SUDS</p> <p>SUDS for Roads</p>
<p>Water infrastructure will potentially be placed under greater strain due to changes in Scotland's climate. New development should ensure that the water infrastructure required to support it is designed to cope with potential changes in the climate. Further information is available from the following sources:</p> <ul style="list-style-type: none"> • Connecting new developments to water and drainage infrastructure: guidance from Scottish Water. • Map based information and advice on areas of cumulative drainage impact: available from SEPA. These are indicative areas where a proliferation of private septic tanks is currently causing environmental problems. These problems can be exacerbated by climate change and new development. • Regulatory implications of wastewater discharges to the environment from new developments: advice from SEPA. 	<p>SCOTTISH WATER new connections Areas of cumulative drainage impact</p> <p>River Basin Management Plans</p> <p>Glasgow Metropolitan Strategic Drainage Partnership</p>
<p>Building with timber</p> <ul style="list-style-type: none"> • Advice is available on sustainable construction using timber including adaptation issues from FCS. 	<p>Forestry Commission Sustainable Construction Advice</p>
<p>Transport infrastructure</p> <ul style="list-style-type: none"> • Climate change impacts on Scotland's roads: reports from Transport Scotland. Further information: <ul style="list-style-type: none"> ○ Landslides Implementation Report (Autumn 2008). The susceptibility of roads to landslides could have implications for spatial planning decisions. 	<p>Climate Change and Roads</p> <p>Scottish Road Network Landslides Study: Implementation report</p>

Other useful sources of guidance and information

National Planning Policy

[National Planning Framework 2](#) (in particular paragraphs 16-20)

[Scottish Planning Policy](#) (in particular paragraphs 41-44)

[Scottish Government Planning Policy advice on Renewable Energy including PAN 45](#)

Climate Change legislation and associated documents

[Climate Change \(Scotland\) Act 2009](#)

Scottish Government's [Renewables Action Plan](#), [Renewable Heat Action Plan](#) and [Energy Efficiency Action Plan](#)

[The Scottish Government Climate Change Adaptation Framework](#) and [How well is Scotland Preparing for Climate Change](#)

[A Land Use Strategy for Scotland](#)

Climate Change Projections for Scotland

[UK Climate Projections](#)

[UKCP09 Summary information for Scotland](#)

[Key UKCP09 findings for sea level rise](#)

[Key UKCP09 findings for Scottish Regions](#)

The [Adaptation Scotland](#) (previously SCCIP) website includes useful information on recent climate trends in Scotland and the UKCP09 projections.

[UKCIP adaptation resources](#)

Scottish climate change projects with planning links

[Green and Blue Space Adaptation for Urban Areas and Eco Towns \(GRaBS\)](#) project website. A network of leading pan-European organisations involved in integrating climate change adaptation into regional planning and development.

[CoastAdapt project website](#). CoastAdapt is a transnational project in the Northern Periphery Region of Europe that aims to help coastal communities adapt to climate change. Using case studies in Iceland, Norway, Scotland (Outer Hebrides) and Ireland, the project is engaging with local stakeholders in sharing experiences and information throughout the region.

Clim-ATIC <http://www.clim-atic.org/>: A Northern Periphery project running from 2008-2011 which worked with communities to develop their capacity to adapt to climate change. Prepared a training resource for communities based on their experience: www.climatechangeadaptation.info.

[Coastaladaptation.eu: plan to adapt to coastal climate change](#) This project was funded by the EU Interreg IVB programme and includes a case study of the impacts of coastal climate change on Aberdeen Beach including the implications for the regeneration of the area.

General

[Planning for Climate Change: guidance and model policies for local authorities](#) published by the Town and Country Planning Association for the Planning and Climate Change Coalition. November 2010. Whilst the document focuses on English based practice and planning processes but part of its advice are equally applicable to Scotland.