Riverside Country Park and Industry

Making space for wildlife in a changing climate

Supplement – case studies, checklist and further information
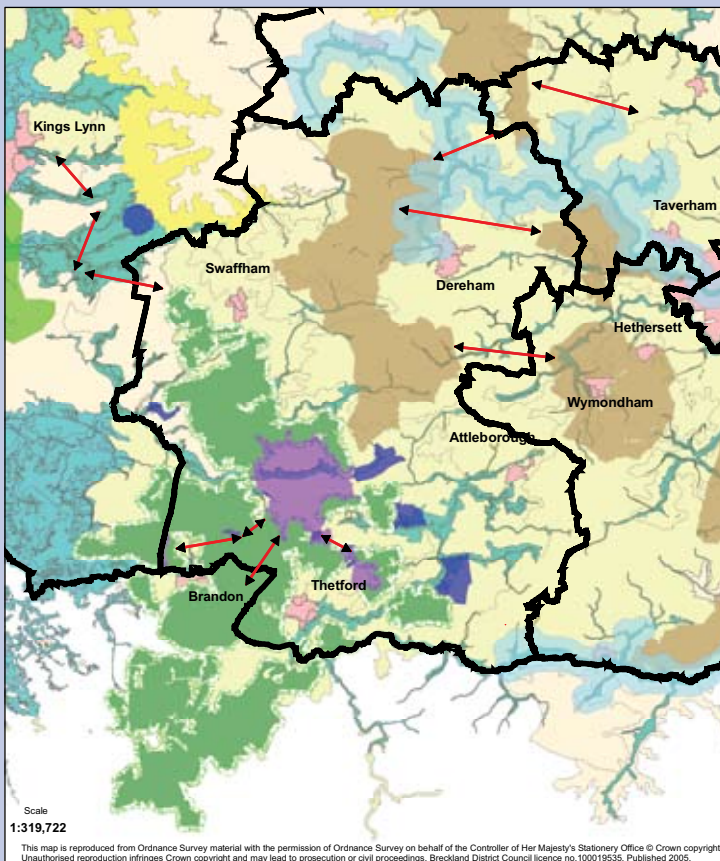
NATURAL ENGLAND

Case studies

The following case studies illustrate where the principles of biodiversity adaptation to climate change have been incorporated into planning.

Local development frameworks – core strategy – Breckland Council, Norfolk

Breckland Econet map

© Prepared by Capita Symonds on behalf of Breckland District Council

Legend

- District Boundary
- Heathland Core Area
- Brecks Core Area
- Brecks Buffer Zone
- Orchard Core Area
- Fluctuating Water Bodies
- River Buffer Zone
- Core Woodland Areas
- Urban Areas
- Calcareous Grassland Core Area
- Wetland Habitat Enhancement Zone
- General Habitat Enhancement Zone
- Grass - Heathland & Wood Enhancement Zone
- Core Habitat Corridors

The ecological network data was supplied by Norfolk County Council and reproduced by Breckland District Council.

Note: This map is a summary. Please refer to additional information in the Ecological Network Toolkit.

Scale
1:319,722

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Policy CP10 in the Breckland Core Strategy seeks the conservation of existing species and habitats but also their enhancement through positive action and the development management process. The policy also protects open spaces and areas of biodiversity interest from harm and encourages their restoration, enhancement and expansion.

Breckland Council will deliver policy CP10 by minimising fragmentation of habitats, creating new habitats and improving habitat connectivity through the creation of an ecological network (as identified on the Breckland Ecological Network Map). Policy CP10 will also be delivered through appropriate management, designation of Local Nature Reserves and the creation of Green Infrastructure networks.

The natural environment section of the core strategy provides the 'hooks' for further development of ecological networks in subsequent Development Plan documents and the Development Management process.

Local development frameworks – managing development and the environment development plan document – [Tonbridge and Malling Borough Council](#)

Green Infrastructure Network Diagram
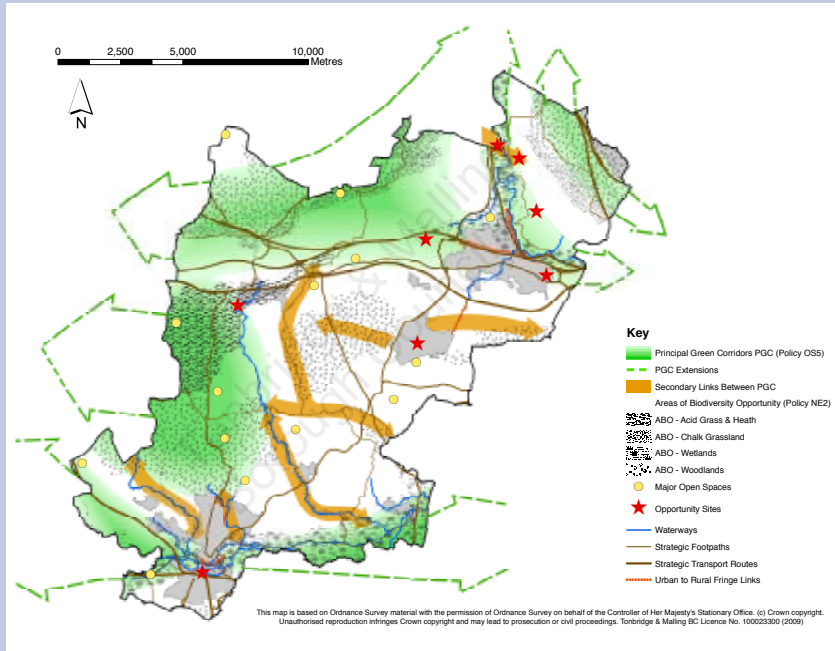
© Tonbridge and Malling Borough Council

The Tonbridge and Malling 'Managing Development and the Environment Development Plan Document' recognises that biodiversity is very important to the Borough's character, and that the wildlife habitats within the plan area are fragmented. Policy NE2 has been set to address this. It states:

"The restoration and creation of new habitats will be pursued where these promote permeability and contribute to the UK and Kent Biodiversity Action Plan targets having regard to the areas of biodiversity opportunity identified on the Green Infrastructure Network Diagram".

The Green Infrastructure Network Diagram was created though local stakeholder engagement and a habitat opportunity mapping workshop. The workshop incorporated the relevant data on existing habitats and highlighted the opportunities in the plan area. It also drew on the local knowledge and expertise of stakeholders across a wide range of areas of interest.

A second policy in this document acknowledges the need for creation of ecological connectivity. Policy NE3 states:

"Proposals for development must make provision for the retention of the habitat and protection of its wildlife links" and that "opportunities to maximise the creation of new corridors and improve permeability and ecological conservation value will be sought".

Policy OS5, the Green Infrastructure Network Policy, highlights the multi-functional role of the Green Infrastructure Network by identifying that any Green Infrastructure should be created and managed for recreational purposes as well as providing networks for species and habitats. This policy plays a positive role in reinforcing and creating natural corridors to facilitate adaptation of habitats and species to climate change, while providing wider benefits to society.

Site based approaches to adaptation

Towards East Head

The River Quaggy, London
This site-based approach to multifunctional green infrastructure provision started as a scheme to alleviate flooding in an intensively developed part of south east London. Through a partnership of local authorities, the Environment Agency and the local community, a flood management scheme has brought a previously buried river back to the surface and let it return to a more natural route through a local park.

Flood storage areas and natural river meanders have been created and the park is now allowed to flood during periods of heavy rain. Due to this scheme the park has new lakes, wildflower meadows, paths and viewing platforms that are a valuable asset for wildlife and the local community.

Bristol Business Park, Bristol (London Climate Change Partnership)
Sustainable Drainage System (SUDS) techniques were used at this business park to reduce the impact of a large development which would increase water run-off into four different catchments. The techniques used included the use of permeable paving in car park areas and creating swales and ponds.

The swales and ponds are used to capture run-off from the permeable paving and some of the development's roofs. These features will also provide supplementary benefits for wildlife and people.

Alongside managing water in a development, SUDS techniques offer potential to enhance biodiversity, improve habitat connectivity, improve recreation opportunities and enhance the quality of life for people living or working in an area.

Oxford motorway service area on the M40 at Wheatley, Oxfordshire
SUDS techniques have been incorporated at the Oxford motorway service station on the M40 at Wheatley to ensure the flow and quality of water run-off is effectively managed prior to release into a local watercourse. Permeable paving is used to manage the quality and attenuation of the run-off.

The SUDS techniques at this site have been incorporated into attractive water features at the service station, improving the area for people.

Guidance – South East England biodiversity forum [Biodiversity Opportunity Areas](#)[1]

South East Biodiversity Opportunity Areas
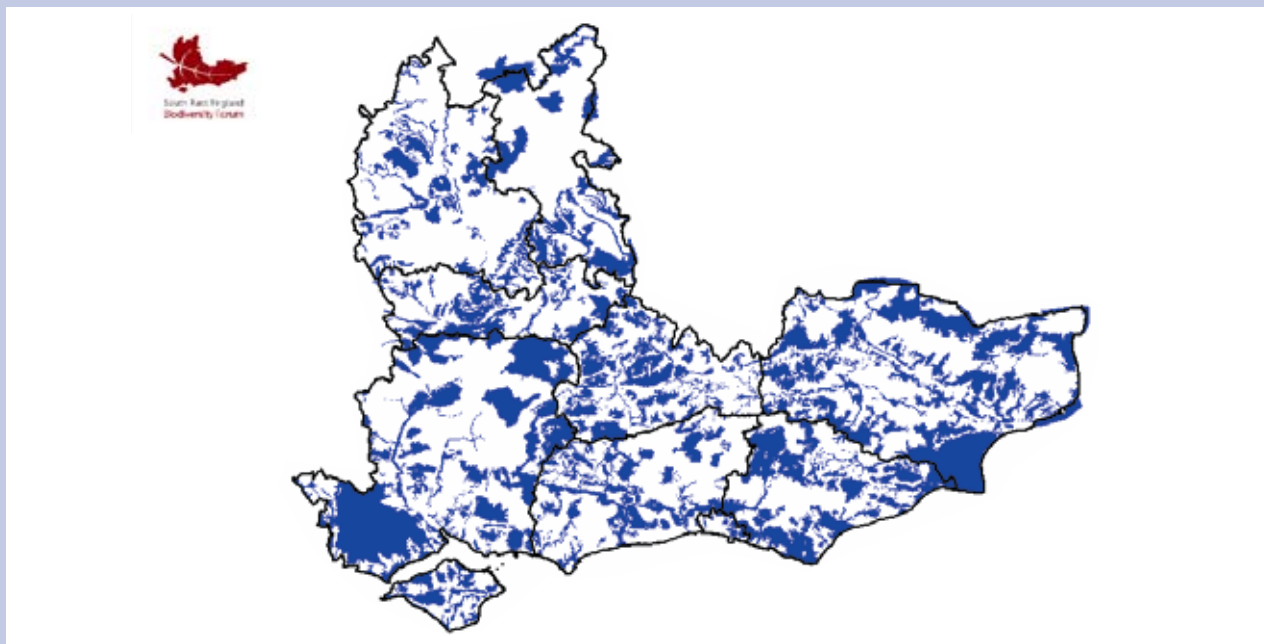
The South East England Biodiversity Forum has created a biodiversity strategy for the South East. The strategy aims to be a 'clear, coherent and inspiring vision and framework that guides and supports all those who can impact biodiversity in the region'. It recognises biodiversity as an 'integral part of the South East's economy, supporting our livelihood and well being' which needs to be safeguarded in order to achieve sustainable development. It also recognises the need for numerous partners to contribute to the vision.

Part of the strategy identifies the Biodiversity Opportunity Areas in the region. These are the regional priority opportunity areas for restoring and creating Biodiversity Action Plan (BAP) habitats. They have been identified at a county level using up-to-date data on existing BAP habitats, designated sites and other physical characteristics of the land plus local knowledge and expertise from key stakeholders within the counties.

The Biodiversity Opportunity Areas map identifies the areas of greatest potential for habitat restoration and creation as a guide and tool for local authorities and other stakeholders to use when assessing local opportunities for habitat networks. The map does not identify all opportunities in the region and it does not act as a constraint to development.
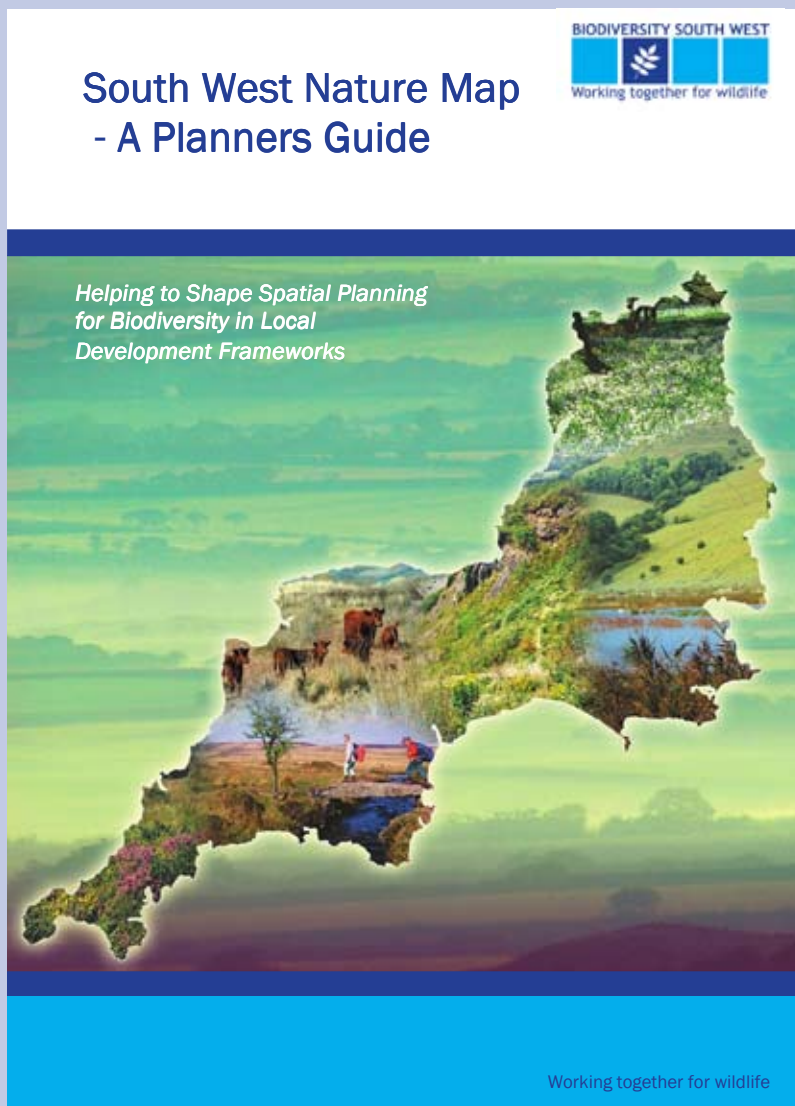
This tool will be useful to local planning authorities as it will help them identify, give greater local detail to and map ecological networks within Local Development Frameworks.

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[1] The Biodiversity Opportunity Areas (BOAs) map depicts the regional priority areas of opportunity for restoration and creation of Biodiversity Action Plan (BAP) habitats. This is a spatial representation of the BAP targets and the BOAs are areas of opportunity, not constraint. The BOAs shown in the map do not include all the BAP habitat in the region, nor do they include all the areas where BAP habitat could exist. In particular, more work is needed to develop approaches in urban and in marine environments.The Biodiversity Opportunity Areas Map is the property of the members of the South East England Biodiversity Forum. For more information please see www.sebiodiversity.org.uk

Guidance – South West Nature Map – [A Planners Guide](), helping to shape spatial planning for biodiversity in local development frameworks

The South West Nature Map - A Planners Guide was produced by Biodiversity South West to help planners identify local areas and sites that can 'contribute towards regional targets for the restoration and creation of priority habitats' and 'to inform the formulation and use of appropriate policies in their LDFs'.

One of the document's aims is to assist decision makers with biodiversity adaptation to climate change. The document guides planners through the steps required to include biodiversity into LDF documents and uses a flow chart to show how to incorporate the South West's regional Strategic Natural Areas (SNAs), (that are equivalent to the South East's Biodiversity Opportunity Areas), into LDFs. The guidance also identifies key principles for including SNAs into relevant LDF documents and policies. It also highlights practical delivery mechanisms and runs through an example illustration of how SNAs can be incorporated in to a plan area.

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South West Nature Map - A Planners Guide

Helping to Shape Spatial Planning for Biodiversity in Local Development Frameworks

Working together for wildlife

South West Planners Guide

Research and Guidance – The BRANCH Project

The BRANCH project (Biodiversity Requires Adaptation in Northwest Europe under a CHanging climate) focused on the importance of helping biodiversity adapt to climate change by using spatial planning systems. Nine partners from France, The Netherlands and England, led by Natural England, collaborated on the trans-national aims of the project through various work packages.

The project's recommendations are supported by a range of modelling results, case studies, policy analysis, stakeholder discussions and transferable tools. These have been produced by partners coming together to share experience and knowledge. A number of tools for planners were produced. The five key recommendations for regional and local spatial planners are to:

■ Raise awareness of the benefits of the natural environment to society. Show how spatial planning can create, support and maintain healthy ecosystems.

■ Use policies in spatial plans to create a landscape that enables wildlife to adapt to climate change. This means establishing larger and richer habitat areas that are better connected. It also means avoiding planning decisions which fragment areas with habitat value.

■ Identify strategically important places where habitats can be created to offset losses caused by climate change. These locations should be safeguarded from development by policies in regional and local plans.

■ Inform decision-making with an evidence base that includes policy recommendations, visualisations and planning tools. BRANCH has produced transferable materials, training and techniques that can help.

■ Ensure adequate, consistent long-term datasets are available. BRANCH has shown that a lack of good data, especially across administrative boundaries, makes decision-making difficult. Policy making must also be informed by reviewing the actual impacts of climate change and monitoring the effectiveness of adaptation measures.

Biodiversity adaptation to climate change checklist for planners

The planning policy or decision:

❏ Is based on a sound evidence base, including climate change projections, information on existing biodiversity and the vulnerabilities and opportunities brought by a changing climate.

❏ Protects existing biodiversity sites, habitats and species.

❏ Delivers biodiversity enhancement.

❏ Protects, restores, re-creates and enhances habitat networks.

❏ Ensures natural processes are protected and enhanced, particularly watercourses and coasts.

❏ Contributes to the provision and management of accessible, multifunctional green infrastructure, which delivers the widest range of linked environmental, social and economic benefits.

❏ Ensures habitat diversity and function within development sites is maintained or compensated for where avoidance or mitigation is not possible.

❏ Reflects the local biodiversity action plan targets and land management priorities.

❏ Delivers Sustainable Urban Drainage Systems.

❏ Ensures landscaping associated with all scales of development respects local landscape character and incorporates biodiversity adaptation benefits.

❏ Includes clear requirements for developer contributions on biodiversity adaptation.

❏ Incorporates monitoring of biodiversity response to climate change and the success of the plan or decision in assisting biodiversity to adapt and provision for adaptation measures to be amended if unsuccessful.

❏ Considers the long term implications of climate change on biodiversity.

❏ Fully implements biodiversity and climate change adaptation policies.

❏ Incorporates local Biodiversity Opportunity Areas for the design or creation of ecological networks, utilising local stakeholder expertise where appropriate.

Signposts to further information

- **Adapting to Climate Change – A checklist for development** London Climate Change Partnership (LCCP)
- **Adapting to climate change – A case study companion to the checklist for development** (LCCP)
- **Adapting to Climate Change Impacts – A Good Practice Guide for Sustainable Communities** (LCCP)
- **Adapting to climate change – Creating natural resilience** (LCCP)
- **Biodiversity by Design** (TCPA)
- **Biodiversity in the Built Environment** (UK Green Building Task Group)
- **The BRANCH Project** – **Planning for Biodiversity as climate changes** (BRANCH Project Final report)
- **Climate Change Adaptation By Design** (TCPA)
- **Climate change and biodiversity adaptation: the role of the spatial planning system** (Natural England)
- **Climate Change Mitigation and Adaptation Implementation Plan for the Draft South East Plan**
- **Climate change support for local authorities** – a directory of the national and regional support available to support the work of local authorities in responding to climate change (IDeA)
- **Climate South East case studies**
- **Conserving biodiversity in a changing climate**: guidance on building capacity to adapt (Hopkins et al, Defra 2007)
- England Biodiversity Strategy **Climate Change Adaptation Principles**; Conserving biodiversity in a changing climate
- **Environmental Quality in Spatial Planning**: Incorporating the natural, built and historic environment, and rural issues into plans and strategies
- **Espace Project** – **Decision Support Guidance**
- **Framework for Biodiversity** (Association of Local Government Ecologists)
- **Green Roof Toolkit** (Environment Agency)
- Natural England **Character Area Climate Change Project** phase 1 summary report
- Natural England National **Green Infrastructure Guidance**
- Natural England Guidance on **Local Transport Plans and the Natural Environment**
- **Planning Policy Statement 1** (PPS1) – Delivering Sustainable Development
- Planning and Climate Change – **Supplement to PPS1 Guidance**
- **Planning Policy Statement 9** (PPS9) – Biodiversity and Geological Conservation
- **The Good Practice Companion to Planning Policy Statement 9** – Planning for Biodiversity and Geological Conservation: A guide to Good Practice
- **RTPI Practice Signposts**: Climate change
- **SEERA climate change webpage**
- **South East Biodiversity Strategy** (South East England Biodiversity Forum)
- **South East Green Infrastructure Strategy Framework** – From Policy into Practice
- **South East State of the Natural Environment Report**
- **South East Sustainability Checklist**
- **South West Nature on the Map**
- **SuDS Guidance** (Environment Agency)
- UK Climate Impacts Programme – **Risk Framework** and **Adaptation Wizard**