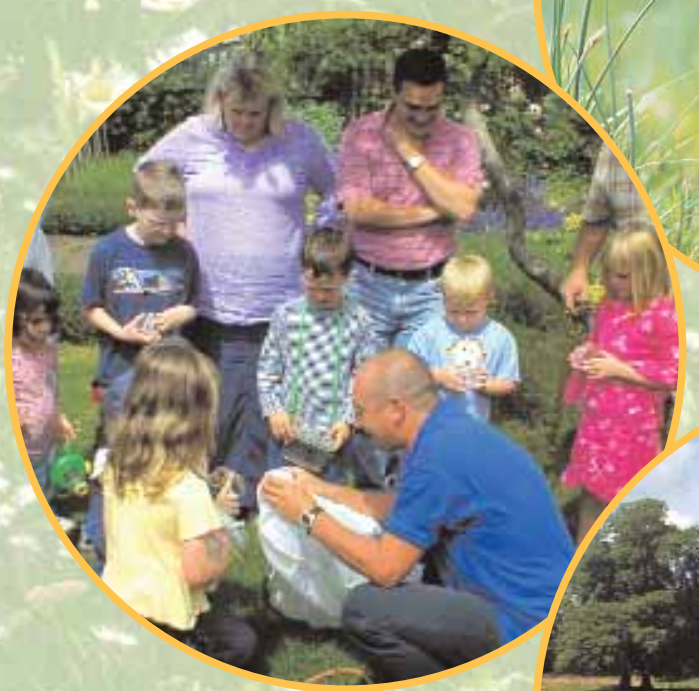
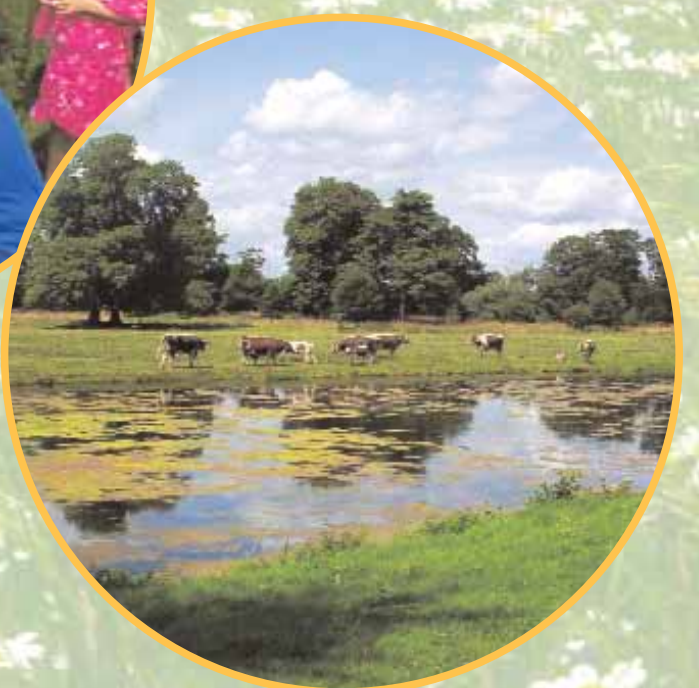
Restoring the Region's Wildlife

Regional Biodiversity Strategy for the West Midlands





West Midlands Biodiversity Partnership

West Midlands Regional Assembly
Speaking out for the region

Putting wildlife at the heart of England

Contents

Foreword

© Graham Burns

Wildlife in the West Midlands reflects the diversity of the Region's landscapes, history and culture. In uplands and lowlands, town and country, plants, animals, birds and insects share with us the land, air and water.

We have a profound influence on the landscape which they inhabit, and which provides the food, water and land as part of an integrated ecosystem without which we would not survive. Management of habitats and features and ensuring that we have clean air, soils and water is essential to our quality of life, and makes the health of our wildlife an important indicator of environmental quality.

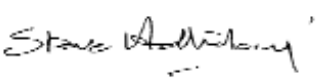
It is for these reasons that people value the Region's wildlife and the places it lives. It shapes and provides their sense of place and character, and is a key determinant of economic success. We must protect, restore and recreate this vital resource, and in doing so, make it more robust and better able to adapt to pressures such as climate change, as well as social and economic changes.

In addressing these issues, this Strategy makes an important contribution to the development of regional policy. It points the way to achieving the aims of the Region's Spatial Strategy, in particular the key aspiration for the Region to be recognised *"for its distinctive, high quality natural and built environment"*. It guides Regional Concordat partners and others on what is important for biodiversity and how it may be looked after for the benefit of all.

This Strategy also identifies the main issues and opportunities facing the Region's wildlife. Key challenges need to be met by those working in forestry, farming, water and wetland management, urban and rural regeneration and policy making. The Strategy shows how people can assist in the retention of a distinctive, high quality natural environment, and also enables partners to achieve significant improvements in the quality of the natural environment in ways that bring lasting, equitable benefits for this generation and its successors.

The Strategy guides actions for the five year period 2005 to 2009, and is for everyone who can help protect, maintain or improve the Region's biodiversity, or can help others do so. Thanks are due to all who have helped in its production - we will all need to rise to the challenges that have been set.

Bransby Thomas, Chair of the Regional Assembly



Steve Holliday, Chair of the West Midlands Biodiversity Partnership

Executive Summary

The West Midlands Region contains a wide variety of wildlife and landscapes, adding greatly to it's character and attractiveness. Habitats include woodlands and forest, the upland grassland and heathlands of the north and west, the built up areas, gardens and open spaces of the major urban areas and the broad river valleys of the south and east.

While there is much to celebrate regarding our biodiversity we also face some difficult challenges. The Region's plants and animals have suffered major declines in recent decades, and there are continuing pressures from changing land uses and more indirect factors such as climate change.

The Challenges

This Regional Biodiversity Strategy for the West Midlands aims to focus attention on the most important priorities for biodiversity in the Region, set out in five key challenges:

- Maintaining and improving the condition of habitats, species and ecosystems
- Developing an area based approach to restoring wildlife
- Monitoring the condition of habitats, species and ecosystems
- Re-connecting and integrating action for biodiversity with other environmental, social and economic activity
- Coping with the impacts of climate change

Meeting and overcoming these challenges is vital to achieving the Strategy's overall aim of restoring the Region's wildlife. It requires a co-ordinated response from the Region involving all relevant sectors, and for biodiversity objectives to be embedded in the wider working of the Region. The success of the Strategy will ultimately be measured in our ability to safeguard existing wildlife and restore lost species and habitats.

The Importance of Biodiversity

Biodiversity has intrinsic worth but is equally important for the contribution it makes to people's quality of life. It provides aesthetic pleasure - hearing birdsong is uplifting and would be sorely missed if it were not there - and utilitarian benefits such as the provision of food and clean air and water.

Biodiversity also plays a vital role in underpinning some of our most important economic sectors. The tourism industry relies heavily on a high quality environment, rich in wildlife, to attract visitors and customers. The quality of the environment has also been shown to be a significant consideration for those deciding where to locate new businesses.

The Policy Context

International, national, regional and local legislation, conventions and obligations relate to the wildlife of the Region. These include protecting and conserving internationally and nationally designated sites, and meeting land-use planning and other legislative

obligations. The regional tier in particular has a role to play in ensuring appropriate coverage of biodiversity in the three major strategies - the Regional Sustainable Development Framework, the Regional Spatial Strategy and Regional Economic Strategy, as well as in the range of other regional plans, programmes and strategies. At the local level it is important that appropriate connections are made between local biodiversity action plans, which set out priorities for local areas, and significant policy documents such as local development frameworks and community strategies.

Measuring Success

Meeting our key challenges is reliant on having high quality data easily available for monitoring trends, tracking progress towards biodiversity targets and improving the evidence base for effective policy-making. The need for ecological data is potentially vast, but resources for data collection and management are extremely limited. We need to secure resources in this area whilst prioritising our data needs and making careful use of indicators. A spatial understanding of biodiversity is also becoming increasingly important, for example to meet the requirements of the Regional Spatial Strategy.

A Sectoral Approach

Restoring the Region's wildlife requires action and cooperation from a wide variety of sectors across the Region. Whilst it may be perceived as a threat and a restraint on activity, biodiversity provides opportunities, for example in improving the quality of surroundings of business properties, providing a source of income by attracting visitors to wildlife rich areas, and helping to alleviate health and mental well-being problems. This Strategy describes the links with biodiversity and suggests potential activities for the following sectors:

- Agriculture
- Water and Wetlands
- Forestry and Woodlands
- Towns, Cities and Development
- Business
- Tourism
- Recreation and Access
- Health
- Transport

© Anthony Ellis

Delivering the Strategy

This document sets out the strategic direction for the next five years of biodiversity conservation in the West Midlands. It provides a broad framework through the five key challenges and their associated actions, to be delivered through a coordinated regional response led by the West Midlands Biodiversity Partnership. A detailed Delivery Plan will be prepared and reports on the implementation of the Strategy and the Delivery Plan will be produced for the Regional Assembly and others on a regular basis.

Introduction

1.1 The Biodiversity of the West Midlands

Biodiversity is an integral part of the unique natural heritage of the West Midlands, contributing to its distinctive and positive identity. The Region's position in the centre of the country leads to a wide variety of habitats and landscapes, ranging from upland heath and moor in the north and west of the Region, to lowland fields and fertile river valleys in the south and east.

Box 1 Biodiversity is.....

Biological diversity or 'biodiversity' is the variety of life on earth - the richness of nature. It encompasses the variety of plants and animals, the genes that make them what they are, the habitats in which they live, and the ways in which they interact.

Biodiversity Action Planning is the process of identifying and meeting nature conservation priorities, drawing up action plans for the habitats and species involved, and developing objectives, indicators and targets against which resources may be secured and progress measured.

Wetlands are a major feature of the West Midlands containing as it does England's main watersheds together with significant proportions of the catchments of four major rivers - the Severn, Trent, Avon and Wye. There is also a larger canal system than in any other region as well as many lakes, ponds and pools, some of which support strong populations of internationally protected great crested newts. Other important wetlands include the Meres and Mosses of Staffordshire and Shropshire and the wet grasslands of the Severn and Avon Vales in Worcestershire and Warwickshire. Some of these areas are internationally designated for their wading bird, plant and insect populations, as well as providing homes to some of our most valued - and threatened - wildlife such as otters, water voles and white-clawed crayfish.

Cannock Chase SSSI, Staffordshire

Brown Moss SSSI, Shropshire

Species-rich grasslands also feature strongly in the West Midlands, with gems such as Eades Meadow in Worcestershire and Mottey Meadows in Staffordshire amongst England's finest examples of this habitat. Heathland also occurs in some areas, for example Cannock Chase and the Long Mynd, but in the West Midlands it is notable more for representing an unusual type of heathland (transitional in character between lowland and upland heathland) than for its extent (Box 2).

Box 2 The Jewels in the Crown

The Region's best sites for wildlife may be given special protection through designation such as Special Area for Conservation, Special Protection Area, National Nature Reserve, Site of Special Scientific Interest or Local Wildlife Site.

The Region contains:

- 17 sites of international importance (one Ramsar site, one Special Protection Area and 15 Special Areas of Conservation)
- 439 Sites of Special Scientific Interest (of national importance) of which 14 are also National Nature Reserves
- 60 Local Nature Reserves
- all or part of five Areas of Outstanding Natural Beauty
- part of the Peak District National Park

Key Wildlife Habitats:

The West Midlands occupies approximately 9% of the area of England. Habitats where the regional resource is 9% or more of the England total are: [source: West Midlands Regional Biodiversity Audit, 2001[1]]

Lowland meadows	20%
Broadleaved woodland	10%
Lowland dry acid grassland	10%
Lowland heathland	9%
Lowland wood parkland and pasture	9%

The Region's rich diversity of habitats supports important populations in most groups of animals and plants, for example:

Mammals:	Water vole, lesser horse-shoe bat, dormouse
Amphibians:	Great crested newt
Birds:	Corn bunting, song thrush
Fish:	Allis shad, bullhead, river lamprey
Invertebrates:	Pearl-bordered fritillary, violet click beetle, freshwater pearl-mussel
Plants:	Floating water-plantain, early gentian


© John Tucker

Woodland habitats are well-represented and are especially scattered throughout much of the west of the Region and in concentrations such as the Wyre Forest. In some areas networks of woodlands and hedgerows support populations of rare species such as dormice. There is also an impressive legacy of wood pasture found particularly in the many formal parklands such as Moccas Park in Herefordshire. The ancient trees found in these habitats, and others such as farmland and road verges, are often home to many rare invertebrates, fungi and lichens, as well as being of historic, cultural and biological interest in their own right.

An over-view of the Region's biodiversity would not be complete without mentioning the role of towns, cities and major urban areas in providing habitat for wildlife, and enabling people who live in these areas to develop an awareness and understanding of the importance of biodiversity. In Birmingham itself a huge variety of wildlife thrives in gardens, allotments and other green spaces. Even in the centre of the city peregrines frequently nest on the BT telecom tower, and there is an important population of black redstarts.


Black Redstart

© Chris Gomersall/RSPB Images

Introduction

Key Challenges for the Region:

1. **Maintaining and improving the condition of habitats, species and ecosystems**
2. **Developing an area based approach to restoring wildlife**
3. **Monitoring the condition of habitats, species and ecosystems**
4. **Re-connecting and integrating action for biodiversity with other environmental, social and economic activity**
5. **Coping with the impacts of climate change**

1.2 The Biodiversity Challenge for the West Midlands

Whilst there is much to celebrate regarding the biodiversity of the West Midlands we also face some difficult challenges. The Region's plants and animals have suffered major losses in recent decades. They are under severe pressure from many land uses as well as more indirect factors such as climate change, and most species now depend either upon remnants of once abundant semi-natural habitats or their ability to adapt to artificial habitats. There are some extensive (but often damaged and impoverished) upland habitats, for example acid grassland, but lowland habitats in town and country are typically small in area, vulnerable and isolated.

This Strategy aims to focus attention on the most urgent priorities for biodiversity, and to harness effort to meet and overcome the challenges and achieve our aim of restoring the Region's wildlife. In recent years there has been welcome positive news regarding increasing populations of some species such as polecats and otters, but we need to build on these successes and support species and habitats which are not doing so well.

During the consultation process for this Strategy five 'key challenges' for the biodiversity of the Region were identified, against which significant progress will need to made if we are to retain and restore our wildlife. Identifying, coordinating and driving forward the necessary actions are very much the roles of the biodiversity community. Success however is dependent on those who directly own and manage land; those who have influence over decisions that landowners make; or who control and direct resources. Farmers and woodland owners are vital groups, as are business people, local authority officers and members, and other land owners.

Meeting and overcoming these challenges, therefore, requires a co-ordinated response from the Region involving all relevant sectors, and for biodiversity objectives to be embedded in the wider working of

the Region. The success of the Strategy will ultimately be measured in our ability to safeguard existing wildlife and restore lost species and habitats.

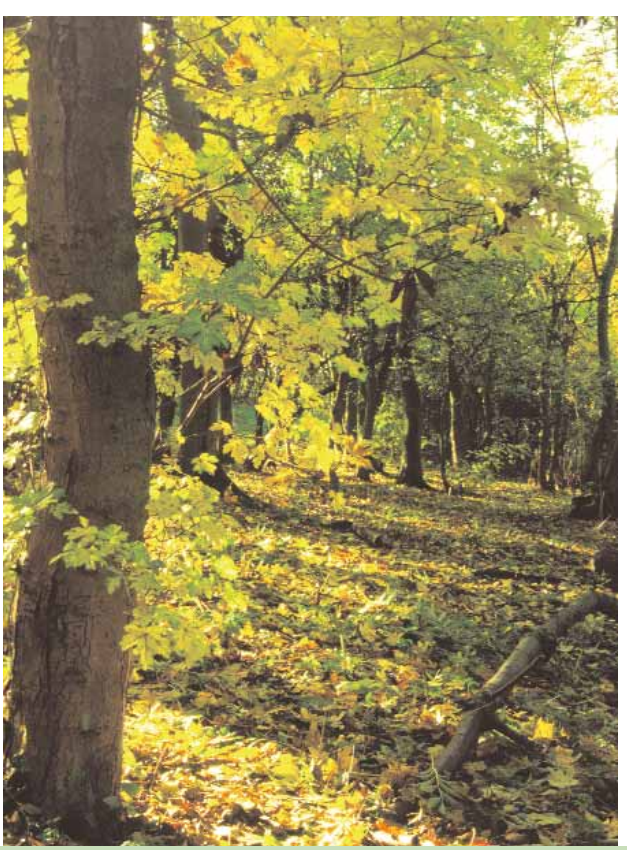
The five key challenges are considered in turn below. The second of these - developing an area-based approach - represents a new and positive way of thinking about biodiversity conservation. It also reflects regional planning policy and the guiding principles of the Regional Spatial Strategy (RSS)[2].

Challenge One: Maintaining and improving the condition of habitats, species and ecosystems

We need to work harder to retain and restore our habitats and species' populations and make them more robust. Twenty-three UK priority habitats occur in the West Midlands, and a much larger number of priority species[1], and each of these has targets for their maintenance, restoration and creation or expansion. Activity is taking place towards achieving targets for some of these habitats and species, but we need to focus action over the next five years. The implementation of this Strategy needs to make a difference to habitats such as the following:

- Lowland heathland
- Lowland meadows
- Lowland dry acid grassland
- Lowland wood parkland and pasture
- Broadleaved woodland
- Wetlands

We also need to make sure that the wider countryside, suburbs and towns contain the networks and features needed to support and connect functioning ecosystems.



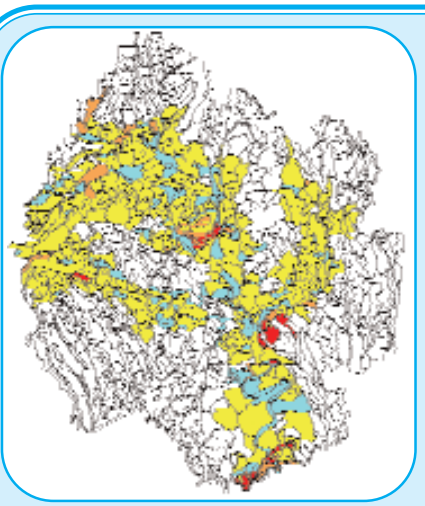
© Richard Cassley

Challenge Two: Developing an area based approach to restoring wildlife

As well as looking after sites and species wherever they occur in the landscape it is becoming increasingly important that we take a more holistic approach to restoring our wildlife. We can do this by taking a landscape-scale approach to biodiversity conservation; that is, working in particular areas to enhance habitats, species and the ecosystems within which they interact, paying particular regard to how they connect together, how they sit within the landscape and how they link to social and economic concerns. The fabric of the landscape is as important to wildlife as individual sites and species, and we need to understand better, and enhance, the ways in which these elements work together (Box 3).

The landscape scale approach can be taken forward in a number of ways and at a variety of scales. The

Introduction



Coloured areas indicating extent and value of semi-natural broadleaved woodland in the project area

Box 3 Herefordshire's Lifescapes Project

The Lifescapes initiative aims to apply nature conservation principles and practice to the wider 'working' countryside, and to involve local communities in the process of creating ecologically functional landscapes.

Across the project area in Herefordshire broad opportunities for habitat management have been mapped, as well as more detailed site-specific information (e.g. SSSI condition) and the aspirations of local communities for biodiversity and landscape enhancement. The maps combine data on the current extent of habitats and landscape character information to determine basic habitat management objectives. This ensures that habitats are managed in a way that is in keeping with the special character of the landscape of which they form a part. Local people, landowners and conservation professionals then work together to refine the suggestions at a site-specific level. In this way, strategic regional targets can be combined with local priorities for landscape and biodiversity.

work on the Character Area Framework (Box 23) will provide an overall regional context.

Challenge Three: Monitoring the condition of habitats, species and ecosystems

High quality and up to date information on the condition and extent of the Region's wildlife is critical to help us:

- understand and identify the location and extent of any changes that are occurring or may occur,
- prioritise the use of resources for conservation, and,
- monitor the efficacy of conservation projects and programmes.

We need to identify and provide the key data required for taking a regional strategic approach forward. We also need to improve our ability to provide the evidence required for effective policy- and decision-making, and for public bodies to meet their obligations relating to environmental responsibilities.

Whilst we are making some progress a concerted effort is needed to improve the quality and accessibility of data and the processes of linking that data to decision-making. There is a considerable need for regional bodies to resource and support the work of the Region's local biological/ecological record centres to improve the collection, collation and dissemination of local data, and to ensure the provision of data required at a regional level.

Challenge Four: Re-connecting and integrating action for biodiversity with other environmental, social and economic activity

Biodiversity plays a vital role in many aspects of our economic and social life. We need to re-integrate landscape-scale action for biodiversity with the wider and sometimes mutual benefits that it delivers, for example in relation to soil conservation, air and water quality, flood alleviation, high quality food, health, employment and recreation (Box 4). We also need to develop the linkages with other environmental sectors such as archaeology, the landscape (including the historic landscape), and forestry.

© Helen Taylor

Box 4 Recreational Fishing and Biodiversity - The River Monnow Project

The River Monnow forms part of the border between England and Wales and was once hailed as one of the finest trout streams in southern Britain. Over the years, however, intensive cultivation of the surrounding farmland, bankside erosion through overgrazing, and excessive shading from surrounding trees has resulted in a decline in the biodiversity of the river and a drop in the trout populations.

Led by the Game Conservancy Trust but involving a variety of partners, and using £1.1m funding from Defra's Rural Enterprise Scheme, the River Monnow project involves erecting stock fencing, coppicing along river banks and a range of other habitat improvement measures. The aim is to improve the Monnow's water quality and boost the river's trout population, helping to re-invigorate angling and hence boost income to the area, at the same time as benefiting biodiversity.

The Project has so far won the co-operation and support of more than 56 farms along the river.

© Mike Weston

Challenge Five: Coping with the impacts of climate change

Climate change is one of the biggest challenges facing the people and the biodiversity of the West Midlands. Future weather patterns could include an increase in winter rain and snow of up to 20% by the 2050s resulting in increased flooding, and annual average temperatures in Birmingham rising by between 1.0 and 2.5 degrees centigrade[3]. These changes to patterns of rainfall and temperature will have an impact on the distribution and life-cycles of species and the management of habitats, forests and farmland as well as on the people of the West Midlands.

We need to improve our understanding of the impact of climate change on the biodiversity of the Region, undertake activities to mitigate its effect and develop adaptation strategies. This includes ensuring that we have resilient natural systems that can withstand and

Introduction

accommodate a changing climate as well as using those natural systems to reduce the impact on society.

© Geoff Perrot

Flooding in Herefordshire

1.3 Embedding the Biodiversity Strategy in Regional Working

The Regional Biodiversity Strategy for the West Midlands joins a suite of other regional strategies - covering a range of subjects such as transport, the economy, energy, forestry and sustainable development - which all inter-relate and impact on each other. Successful nature conservation is a shared responsibility and is dependent in part on the effective alignment, co-ordination and integration of this Strategy with other regional documents.

Implementing these strategies requires partnership working and a framework for this at the regional level is provided by the West Midlands Regional Concordat[4]. This sets out a mode of working and shared vision for the major regional organisations and their strategies. Securing the future of the Region's biodiversity, by conserving and restoring the quality of the natural environment and by creating new biodiversity resources, lies at the core of the Concordat's vision (Box 5).

The Region's many important natural assets and natural ecosystem services underpin its economic prosperity and are the foundations upon which to realise the Concordat's aim: *"…to secure the protection and improvement of the quality of life of the population of the West Midlands Region"*. Biodiversity is part of our natural capital, needing to be sustained and enhanced, but is also an asset to be utilised, providing a wide range of opportunities for economic growth and social improvement within the Region. Its fate will be a key test of whether the Concordat, and its expression through the actions of the partner organisations, is meeting its visionary aspirations. Particularly important are the overarching commitment to sustainable development and the partners' stated commitment *"to work to conserve biological and environmental diversity"*.

Box 5 The West Midlands Regional Concordat Vision

"The overall vision for the West Midlands is one of an economically successful, outward looking and adaptable region, rich in culture and environment, where all people, working together are able to meet their aspirations and needs without prejudicing the quality of life of future generations"

Amongst the set of regional documents there are three which are of particular significance - the Regional Sustainable Development Framework, Regional Spatial Strategy and Regional Economic Strategy. The biodiversity aspects of each of these are considered on page 13.

© Mark Eccleston

The Regional Sustainable Development Framework (RSDF)[5]

This provides the over-arching framework for regional policies and strategies, aiming to ensure alignment of these documents and that sustainable development issues, including biodiversity, are properly considered. The Framework is closely linked to sustainability appraisal (SA), a mandatory part of the planning system, and strategic environmental assessment (SEA). Both of these are statutory approaches for assessing the sustainability of policies, plans and programmes.

The Regional Spatial Strategy (RSS)

Formally issued in June 2004 as Regional Planning Guidance this document sets out the long term spatial vision for the Region, including a fundamental change of direction that will increasingly focus growth on the major urban areas. It will also guide the preparation of local authority development plans and local transport plans, as well as informing the development of strategies and programmes of other public agencies and service providers. It also addresses the links between economic, social and environmental issues.


© Helen Taylor

The importance of biodiversity is highlighted in a section entitled *"Protecting, managing and enhancing the Region's biodiversity and nature conservation resources"*. This includes a statutory policy (Policy QE7 - see Appendix Three for the detail of this policy) requiring local authorities and others to provide for biodiversity in their plans and programmes. The Region's priority habitats are also included in Annex B of the RSS and are included as Appendix Four of this document.

A spatial approach to biodiversity conservation is set out in the RSS, including the identification of areas of concentrations of high quality biodiversity sites described as Biodiversity Enhancement Areas. These areas *"offer some of the best prospects for retaining environments with a rich and resilient biodiversity resource"*. They are also key places for adopting an area-based approach to nature conservation, working across local authority boundaries where appropriate.

Taken together the environmental and other relevant policies in the RSS provide a powerful set of statutory planning policies, helping to achieve a step change in biodiversity gains in the Region.

The Regional Economic Strategy (RES)[6]


© BMW

Delivering Advantage - the Regional Economic Strategy - includes a specific action for the West Midlands Biodiversity Partnership in its action plan and also describes the following under its *"Environmental Challenge"* for the Region:

- *A large and diverse environmental economy*
- *Increased environmental performance proving cost effective for business*
- *A high quality environment being vital for tourism development, inward investment and overall quality of life, and*
- *Our challenge is to work together to utilise available opportunities to ensure that economic development enhances, and is in turn enhanced by, the environment*

Work is being undertaken to explore these areas further and to develop new opportunities for joint working between Advantage West Midlands (the Regional Development Agency (RDA)) and the West Midlands Biodiversity Partnership (WMBP). These could include developing an agreed definition of a *"high quality environment"*, the development of guidance on contributing to the biodiversity agenda through the preparation of documents such as Zone Implementation Plans, and exploring opportunities arising from new roles for Regional Development Agencies set out in the Rural Strategy 2004[7].

Introduction

1.4 The Importance of Biodiversity to the Region

Biodiversity is important to the West Midlands because of the contribution it makes to the quality of life of people who live and work in, and visitors to, the Region. It also plays a vital role in underpinning some of our most important economic sectors, such as tourism. These issues are explored in more detail below.

Biodiversity and Quality of Life

Biodiversity is part of the planet's "life-support" system, and as such is critically important to people's health and welfare. However, it is increasingly the case that people are disconnected from nature and generally do not recognise this link. The many benefits we derive from wildlife, and our responsibility towards it, may be summarised as follows:

Aesthetic and spiritual - the beauty and variety of the natural world are important in many ways, providing spiritual refreshment, inspiration and stimulation. For example birdsong in woodlands, streets and gardens may not seem exceptional, but it is uplifting, appreciated and would be sorely missed if it were not there.

Utilitarian and health - biodiversity contributes to our material lives in innumerable ways, supplying us with food, medicines, clean water and air, clothing, building materials, fuel and raw materials.

Intrinsic worth - biodiversity should be conserved for its own sake. It can be argued that we have a moral duty to respect and provide for other species, and ensure the continuation of natural systems and functions. This duty, sometimes expressed as *"stewardship"*, goes beyond restricting damage and making sure our needs are met: it requires us to take positive action.

© Helen Taylor

The Natural Economy

It is a common mis-conception that protecting and providing for biodiversity is a restraint on economic prosperity, and that society has to choose between one and the other. There is increasing evidence that countries, states and regions that insist on high environmental standards, including protection of their biodiversity, are also the ones with strong economies[8]. Many economic sectors, for example tourism, agriculture, horticulture, forestry and the management of waste and pollution need healthy ecosystems, and both affect, and are affected by, biodiversity. The economic health of rural areas in particular is affected by the local environmental economy. A publication produced on behalf of the West Midlands Rural Accord states that 91,000 jobs and £1,425 million GDP relates to the environmental economy in the West Midlands[9].

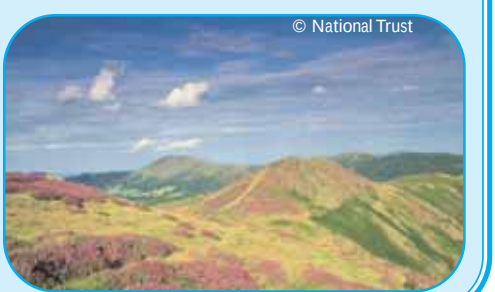
Box 6 The Natural Tourist

Tourism is the fifth largest industry in England[12]. In the Midlands area in the late 1990s it employed 209,000 people, and tourists spent over £1billion per year. Not all of this was directly connected with the natural world, but attractions such as historic houses (and by implication their parklands), nature reserves, country parks, urban parks and gardens attracted nearly 50 million visitors.


© National Trust

The national UK Leisure Day Visits Survey, 1998, estimated that around 140 million visits are made to the countryside by local residents and visitors in the West Midlands for informal recreation, spending at least £420 million a year, or 0.7% of the regional domestic product.

Visitor surveys at National Trust properties indicate that one of the main motivations for visiting these attractions is the chance to walk in the countryside and the fresh air. At Attingham Park near Shrewsbury, the large majority of its 160,000 visitors spend time within the 500 acres of Repton parkland (an SSSI) during their visit.


© National Trust

National Trust open countryside properties also provide significant numbers of visitors with the opportunity to experience life in the outdoors. An estimated 270,000 people visited the Long Mynd in Shropshire in 2003, and 250,000 visited the Clent Hills near Birmingham in the same year. The vital importance of these countryside visitors to local economies was shown starkly during the Foot and Mouth outbreak; when the Long Mynd was forced to shut to visitors the economy of Church Stretton (a nearby market town) was significantly damaged.

As well as providing employment the quality of the environment - which is linked to the richness of biodiversity - is also a significant factor for businesses in deciding where to locate. A study of the personal factors influencing executives' choice of cities for relocation put quality of life - influenced by the environment as well as other factors - at the top of the list, and the *"attractiveness of the environment"* is one of the top ten reasons for inward investors choosing a site[10]. Studies of rural businesses in the 1990s showed that the majority of new rural firms were created by people moving from urban areas, and that the quality of life and the environment was a major attraction for these business owners[11].

Tourism and Recreation

Much of the Region's tourism resource is underpinned by a combination of natural, built and historic assets. People flock for instance to historic houses and their associated parks (Box 6), and wood pasture and parkland with its ancient trees is one of the Region's priority habitats. In other cases there is a more direct association between wildlife and visitors, as with fishing and bird watching. We must ensure that this component of our economy remains competitive by taking action to maintain and enhance the landscapes, habitats and ecosystems concerned, whilst linking them to local and regional history and economic activity.

© Sally Ferguson

Essay

People's Engagement with Biodiversity

People experience, enjoy and interact with the natural world in many different ways. Their perceptions of what is valuable, problematic or attractive is very different to those of scientists, but are no less valid. Typically there is far more concern for the welfare of individual animals, birds or trees, and far less understanding of populations, ecosystems and ecological functions. Similarly people enjoy attractive landscapes, but often have little understanding of the processes which create and shape those landscapes. Even so, biodiversity is a fundamental contributor to people's quality of life and shapes their feelings about the places where they live and work.


© John Plant

Experience of wildlife, and therefore the capacity to enjoy it, occurs at many different levels. There is what may be called passive enjoyment, where wildlife is part of the background to daily life, whether in the countryside or in towns. There is more direct experience, for example in parks and gardens where many people make efforts to attract and feed wildlife. People also seek out wildlife, investing time and money in pursuits such as bird watching. Finally there is the unexpected and often fleeting encounter - a sparrowhawk in the garden, a fox crossing an open space, an otter on a riverbank.


© Helen Taylor

These, and many other things, are important to people in defining a sense of place or local character, providing local landmarks or marking the passing of the seasons. Bluebell woods, village duck ponds, the return and departure of migrating birds, the appearance of frogspawn, the dawn chorus, all connect people with nature in very positive ways. From the wonder of a child blowing a "dandelion clock", to its grandparents treading a well-loved local woodland path, wildlife and the places it lives brings pleasure, contributes to good health and improves the image of neighbourhoods, towns, villages and rural landscapes.

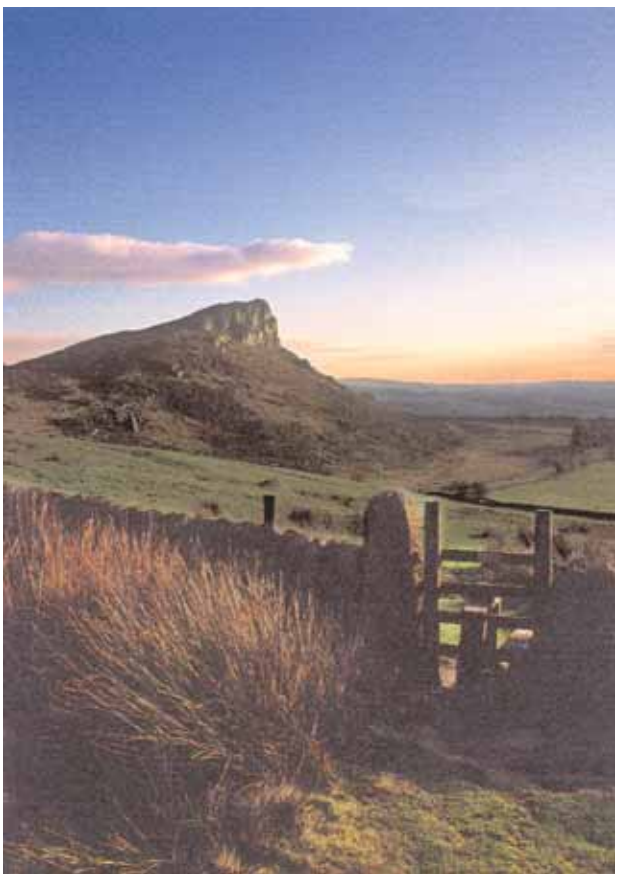
Successful nature conservation critically depends upon influencing and harnessing the knowledge, attitudes and behaviour of people in communities throughout rural and urban areas. We should aim to increase what may be called "ecological literacy". Doing so is likely to increase the willingness and ability of people to become involved in nature conservation. This involvement may be through activity and education programmes, joining and/or volunteering with a conservation organisation, gardening for wildlife, or just enjoying wildlife at home or further afield.

Education and interpretation programmes are needed, both as part of formal and informal education, and for people of all ages, abilities and backgrounds. The Region's multi-cultural society needs to be reflected in the provision made for the enjoyment of wildlife, with the expansion of programmes run by such organisations as the Black Environment Network and the Countryside Agency.

English Nature and others have been working to develop standards for access to semi-natural greenspace close to where people live. These both provide targets and help local authorities to assess the quality of their provision. The identification, management and interpretation of open spaces which will contribute to these standards are important tasks. They may have other primary uses, such as churchyards and other sacred grounds, allotments, school grounds and institutional grounds, or they may be informal open spaces traditionally thought of as waste or derelict land, but they may all provide invaluable opportunities for communities to interact with their local wildlife.


© Helen Taylor

Policy Context



© David Wain

Hen Cloud, Peak District National Park, Staffordshire

The Region's biodiversity and its role within a high quality environment are amongst its most precious assets. Caring for these assets brings responsibilities under a number of international and national conventions, directives and legislation. The Region needs to respond to these key drivers, and others at the regional and local level, and take advantage of opportunities they present.

2.1 National and International Considerations

The UK has adopted, and therefore accepted the associated obligations of, a range of international agreements, including the UN Convention on Biodiversity[13] and the Declaration on Sustainable Development adopted in Johannesburg in 2002[14].

Many of these agreements are reflected in EU Directives and UK policies and legislation that affect the Region. Key policies are included in the UK Sustainable Development Strategy[15], currently being revised, which established a set of 150 indicators including several relevant to biodiversity, and the UK Biodiversity Action Plan[16], recently reflected in the England Biodiversity Strategy[17]. Listed in Appendix One are the major policy and legislative drivers for biodiversity conservation in the UK.

In addition to the legislative and policy documents and drivers described in Appendix One many public sector organisations have powers and/or duties to further nature conservation (or similar) whilst carrying out their main functions. These are usually enshrined in their terms of reference, the act governing their activities, or in wider legislation relating to their work. For example the 1989 Water Act[18] places a duty on Water Companies to: *"further the conservation and enhancement of natural beauty and the conservation of flora, fauna, and geological or physiographical features of special interest"*.

Imposing such an obligation is easily and frequently done: less easy is providing the guidance and encouragement to enable the organisation involved to meet the obligation.

National Site Designation

Under the provisions of the Wildlife and Countryside Act 1981 English Nature has responsibility for identifying and giving legal protection to the best sites for wildlife and geology in England. These are known as Sites of Special Scientific Interest, or SSSIs.

The West Midlands Region has 439 SSSIs, occupying 243.5 square kilometres or 1.9% of the Region - the

Policy Context

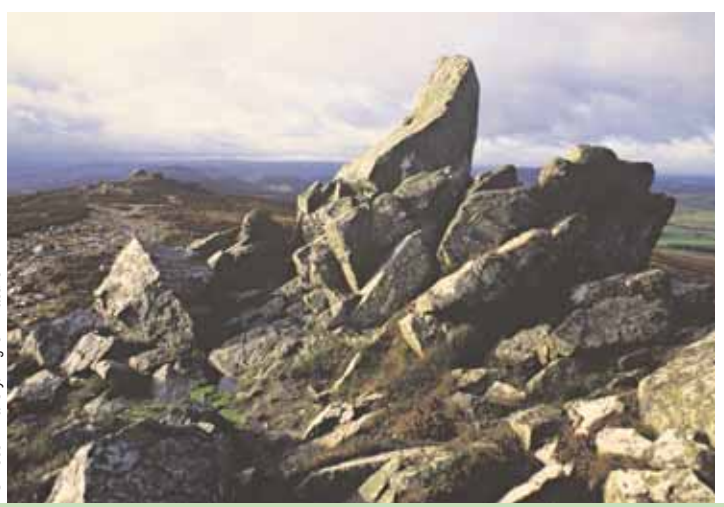
smallest SSSI percentage of any English region. The condition of these sites is monitored regularly: as of January 2004 55% of SSSIs in the Region were well managed and conserving wildlife, 45% poorly managed and losing wildlife. This is below the national average - the equivalent figures for the whole of England are 60% and 40% [source: English Nature website].

National Nature Reserves are established to protect the most important areas of wildlife habitat and geological formations in Britain, and as places for scientific research. There are fourteen National Nature Reserves (NNR) in the Region (occupying 2,668ha) including Chartley Moss in Staffordshire, Stiperstones in Shropshire, Sutton Park on the edge of Birmingham, Bredon Hill in Worcestershire and Downton Gorge in Herefordshire.

Protected landscapes

The West Midlands Region contains all or part of five Areas of Outstanding Natural Beauty (AONBs) and part of the Peak District National Park (Box 7). Areas of Outstanding Natural Beauty and National Parks are designated for the purpose of conserving and enhancing their natural beauty, including landform and geology, plants and animals, landscape features and cultural elements. The Countryside and Rights of Way Act[19] also requires AONBs to produce management plans and provides them with the power to set up Conservation Boards.

The Stiperstones NNR in the Shropshire Hills AONB



© Peter Wakely/English Nature

The Peak District National Park

© Helen Taylor

Box 7 Protected Landscapes in the West Midlands Region

AONBs in the West Midlands Region cover an area of 1,269 square kilometres, or 10% of the area of the region, with a further 202 square kilometres (approximately 2%) in the Peak District National Park. The AONBs in the Region are:

- Cannock Chase
- Malvern Hills
- Wye Valley (part)
- Cotswold (part)
- Shropshire Hills

© Peter Wakely/EN

Areas of Outstanding Natural Beauty represent an area-based approach to conserving some of the finest landscapes in the West Midlands and also have high wildlife value. They provide unique opportunities for coordinating sectoral interests to deliver better environments and improve biodiversity, and undertake a variety of innovative activities to achieve their aims (Box 8).

Box 8 The Blue Remembered Hills Project, Shropshire Hills AONB


© John Tucker

This £1.4 million project is working with the people of the Shropshire Hills to increase their awareness and understanding of nine landscape features, including veteran trees, orchards and wildflower meadows. The project offers advice and grant aid as well as running community events and providing support to local schools, colleges and groups who want to discover ways of using the Shropshire Hills landscape. Whilst the aims of the project focus on enhancing landscape features, project activities contribute to the Shropshire BAP habitat and species targets.

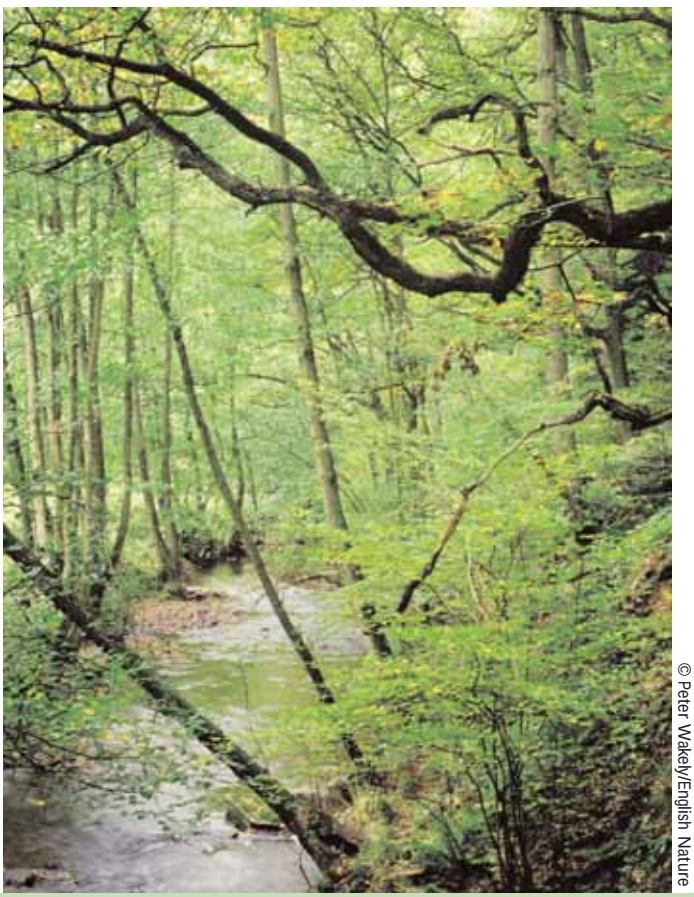
2.2 Regional Context

The White Paper *'Your Region: Your Choice'*[20] sets out roles for Regional Assemblies including promoting integration of regional strategies (in particular through the development of over-arching Regional Sustainable Development Frameworks), scrutiny of Regional Development Agencies (RDAs), and a formal role as the Regional Planning Body.

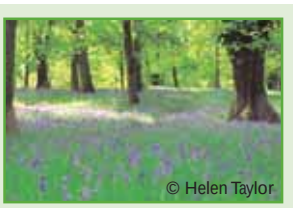
The Regional Development Agencies Act 1998[21], which sets out the roles and purposes of RDAs, states that they should *"contribute to the achievement of sustainable development in the United Kingdom where it is relevant to its area to do so"*. The role of RDAs has been further enhanced in the Rural Strategy 2004, which *"devolves regional decision-making on the delivery of economic and social regeneration policies to RDAs, working in close partnership with local authorities and others"*. As part of new tasking arrangements for RDAs, Defra's Public Service Agreement: *"to promote sustainable development across government and the country as a whole as measured by achieving a positive trend in the Government's headline indicators of sustainable development"* will become a key target for RDAs.

As has been mentioned in section 1.3 there are a variety of strategies, plans and programmes which operate at the regional scale. The three major regional documents - Regional Spatial Strategy, Regional Sustainable Development Framework and Regional Economic Strategy - have already been covered in some detail, but in addition there are a range of other documents which influence activity in the Region and which may have a bearing on biodiversity. Some of these are outlined on page 20.

Wyre Forest NNR, Worcestershire


© Peter Wakely/English Nature

Policy Context

Regional Strategy	Connection with Biodiversity
Regional Marketing Strategy (Dec 2002), AWM.	Document does not explicitly refer to the environment or countryside of the Region, but does include *"Improving the Region's image amongst key audiences"* as one of its objectives. The key audiences include business decision makers who are making global investment, location and re-location decisions, and quality of environment or life has been shown to be a significant factor in business location decisions (see section 1.4 of this Strategy).
Strategy for Sustainable Farming and Food - West Midlands Delivery Plan (May 2003), Defra, GOWM and AWM.	The West Midlands Delivery Plan contributes to the overarching aim of the Strategy for Sustainable Farming and Food: *"To provide a competitive and efficient farming and food sector, which protects and enhances our countryside and wider environment, and contributes to the health and prosperity of all our communities"*  © Steven Falk One of the objectives of the Delivery Plan is *"Improved management of natural resources, landscape and biodiversity".*
Regional Housing Strategy (interim strategy (July 2003) which is being revised), West Midlands Regional Housing Board.	The vision states that housing investment should *"develop patterns of housing provision which will support the economic development of the Region, protect and enhance the environment, stem patterns of out-migration from the older urban centres of the region and contribute to urban and rural renaissance".* Also refers to the need to address the quality of the environment as part of urban and rural renaissance.
Regional Visitor Economy Strategy (2004), AWM.	Includes a theme for "*Regional authenticity/local distinctiveness"* which lists the countryside as an asset. Priorities for action include supporting environmental sustainability.
Regional Forestry Framework (October 2004), Forestry Commission and partners.	 © Helen Taylor Includes *"Enhancing Biodiversity"* as one of eleven strategic themes, the aims of which are to: *"deliver relevant nature conservation objectives set out in legislation, international commitments, national and regional policies and local strategies and plans"* and *"achieve targets in policies and strategies, with particular regard to Biodiversity Action Plans".*
Regional Energy Strategy (Oct 2004), WMRA, GOWM & AWM.	Refers to the need for biodiversity and landscape issues to be taken into account when considering renewable energy sources such as biomass which can have an impact on the environment.  © Helen Taylor

2.3 Local Context

Local Biodiversity Action Plans and Partnerships

Local Biodiversity Action Plans (LBAPs) are the major documents of local significance with regard to biodiversity. These are usually prepared by or for local biodiversity partnerships which comprise representatives from a wide variety of organisations with an interest in the biodiversity of a particular area (Box 9).

© Herefordshire Nature Trust

Box 9 Local Biodiversity Action Plan Partnerships in the Region

Local BAPs covering the West Midlands counties are:

Area	*Date of Publication*
Birmingham and Black Country	2000
Herefordshire	2000
Shropshire	1996
Staffordshire	1998
Warwickshire	in prep, but due for completion in 2005
Worcestershire	1999

© Helen Taylor

LBAPs have also been produced for certain Districts and for other areas such as the National Forest. Some major organisations such as Severn Trent Water and British Waterways also have organisational Biodiversity Action Plans which may cut across more than one region.

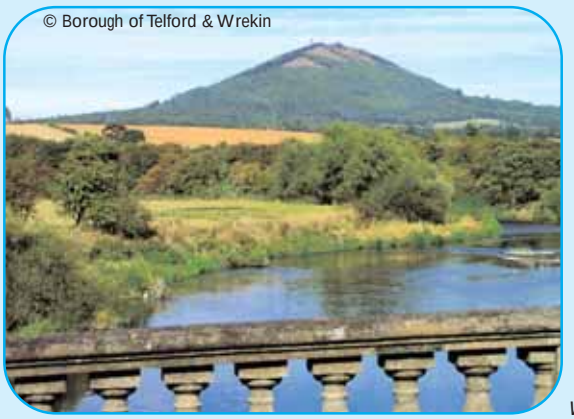
For delivery an LBAP relies on the involvement of all sectors of the community and is underpinned by having effective systems in place, such as local record centres to manage biological information and local site networks to target activity.

Local Biodiversity Action Plans identify local priorities - which often reflect regional and national priorities - and prescribe actions to be undertaken through the partnership and others. They also contain objectives and targets for maintaining, restoring and creating habitats and conserving species. Community groups, local natural history societies, wildlife trusts, special interest groups (such as bat groups and Butterfly Conservation), local authorities, statutory agencies and businesses all work together to implement LBAPs.

Much of the delivery of biodiversity achievements is initiated and sustained through projects and relationships developed at the local level, and a functioning local biodiversity partnership is an effective means of deliveringconservation action, coordinating resources and drawing down additional funding. External funders may look for endorsement from the local biodiversity partnership to support funding applications, and there are increasingly policy linkages to LBAPs in local strategies and plans (Box 10).

Policy Context

Box 10 Policy P48 (Biodiversity) from The Shropshire and Telford and Wrekin Joint Structure Plan, 1996-2011


© Borough of Telford & Wrekin

"Local plans, development and management proposals shall ensure that the effects of development proposals and land use change on wild flora and fauna are taken fully into account including the potential for development proposals to enhance biodiversity and create ecosystems and habitats.

The biodiversity of Shropshire and the borough of Telford & Wrekin will be encouraged through protection, conservation, enhancement and restoration of the populations and natural ranges of species and the quality and extent of habitats and ecosystems of wild flora and fauna.

The area of those habitat types of high nature conservation importance which are in need of particular protection and sympathetic management will, wherever possible, be increased through appropriate restoration and/or recreation to meet the targets set in biodiversity action plans. Particular care will be taken to safeguard and consolidate the integrity of linear and other landscape features which are of importance for wild flora and fauna."

The role of local biodiversity partnerships in delivering biodiversity conservation at the local level is recognised in the England Biodiversity Strategy, which states that *"Local and regional action for biodiversity has been vital to the UK Biodiversity Action Plan since its inception. Together they are amongst the best examples of multi-stakeholder partnerships in the UK or abroad"*. In addition *"Healthy and flourishing broad partnerships that champion, promote and enhance local and regional biodiversity and its distinctiveness and help deliver national priorities"* is part of the vision for local and regional action.

An LBAP officer or coordinator is often employed to coordinate a local biodiversity partnership and encourage and organise the delivery of actions and targets. The funding for these officers usually comes from a combination of local (Wildlife Trust and Local Authority) and statutory agency (English Nature, Environment Agency, etc.) support, supplemented with external funding where possible, such as the Aggregates Levy Sustainability Fund. Funding of these officers is however often uncertain and or short-term, leading to high staff turn-over and periods when no officer is present. A report on the achievements of local biodiversity partnerships in England[22] states that *"Experiences across England have shown that effective delivery of LBAP targets and maximum benefits are more likely if there is a dedicated 'Local Biodiversity Coordinator'"*. At the end of 2004 five of the six county LBAPs in the Region had officer support, but with security of funding varying between six months and three years. Given the contribution that Local Biodiversity Partnerships make to actual delivery on the ground (Box 11) there is an urgent need to improve the security of their resource base.


John Smith, LBAP Coordinator for Staffordshire

© GNN

Box 11 Implementing LBAPs

Published in July 2000, and endorsed by Alex Stephenson (then Chair of Advantage West Midlands), the *Birmingham and Black Country LBAP, "A Framework for Action"* and its implementation involves more than 70 organisations, from Birmingham City Council to Bumblehole Conservation Society and Tividale Birding Group.


© Mike Lane/RSPB Images

The 15 habitat action plans include not only woodland, wetland and heathland, but also brownfield sites, parks, playing fields and open space, gardens and allotments and buildings and the built environment. The 17 species action plans include those for black redstart, song thrush, little ringed plover, brown hare, bats, orchids and bluebell. All this, and more, in a biodiversity action plan for one of England's most industrial and densely populated areas.


© Helen Taylor

The Worcestershire Biodiversity Action Plan includes targets for the maintenance, restoration and creation of lowland heathland in the county. In 2000 the Worcestershire Biodiversity Partnership set up a Heathland Partnership which secured funding from the Heritage Lottery Fund and other partners for a heathland restoration project. The Worcestershire Heathland Partnership is overseeing the delivery of this project, as well as providing a forum for the exchange of information and best practice between heathland site managers in the county, and developing links with heathland managers in other parts of the country.

Local Biological/Ecological Records Centres (LBRCs)

These centres are not-for-profit services run in partnership for the public benefit, which collect, collate, manage and disseminate information relating to the wildlife, wildlife sites and habitats of defined geographical areas. They provide mechanisms for the public, natural history experts and groups, conservation bodies and local authorities to contribute information, and maintain links with a range of other agencies and bodies which hold biodiversity data.

Local records centres obtain funding from a variety of sources, but current funding in the Region is short-term and not sustainable, and all operate at staffing and resource levels considerably below those needed.

Community Strategies and Biodiversity

There are important links to be made between LBAPs and community strategies, the over-arching strategic plans for local areas. Government guidance[23] makes clear that LBAPs are among the elements that local authorities should build upon when preparing community strategies (Box 12). A number of publications have been produced promoting the inclusion of biodiversity in community strategies, including *"Natural Communities"*[24], *"Life Support"*[25] and *"Beyond the Wish List - a Toolkit for Integrating Biodiversity into Community Strategies in the West Midlands"*[26].


© Warwickshire Museum

Policy Context

Box 12 Staffordshire Borough - Integrating LBAPs and Community Strategies

"Support implementation of the targets contained within the County's Biodiversity Action Plan" and quantitative targets for habitats and species such as black poplar, breeding snipe and otters, barn owls and heathlands, are all included in the outputs and performance measures for the environment theme for Stafford Borough's Community Plan 2003-2006.

© Helen Taylor

Local Sites

Local site designations include statutory Local Nature Reserves and non-statutory local Wildlife Sites (often known as Sites of Importance for Nature Conservation or County Wildlife Sites). Local Nature Reserve designation is approved by English Nature and made by local authorities according to locally agreed criteria. They are often given limited protection through policies in development plans, may be used in assessing agri-environment scheme applications and other grant schemes and are an important part of delivering LBAPs. Currently many of the Region's wildlife site systems are seriously under-resourced and not able to meet their targets for survey and monitoring.

Lugg Meadow, Herefordshire Nature Trust Reserve

© Helen Taylor

Essay

Our Water and Wetlands

The quantity, quality and availability of water are some of the most important determinants of biodiversity, a fundamental resource for people, and a key feature of local environments. It is therefore vital that water is managed, abstracted and treated in ways which sustain its functions, including helping aquatic plants and animals to thrive. Securing healthier wetland habitats, strong populations of associated species and fully functioning ecosystems, will ensure that the Region's water meets our social and economic demands as well as helping to mitigate the effects of climate change.


© Jennie Foster

Wetlands, natural and created, old and new, should be managed for the multiple benefits they provide. Socially they are important for recreation and amenity, whether as a local greenspace, a setting for formal sports or activities such as angling, or places for quiet enjoyment. Economically they are part of the Region's water supply system, supporting economic activity and providing ecosystem services such as providing water for irrigation and industrial processes.

At the local level natural and semi-natural habitats like reedbed, grazing marsh, fen, blanket bog, lowland raised bog and, in a very few places, inland saltmarsh provide for a wide range of species, as well as contributing to local distinctiveness and character. Valuable artificial sites and habitats include those associated with both the canal system and minerals extraction. There is, in particular, a legacy of flooded gravel pits, especially in the Trent catchment.

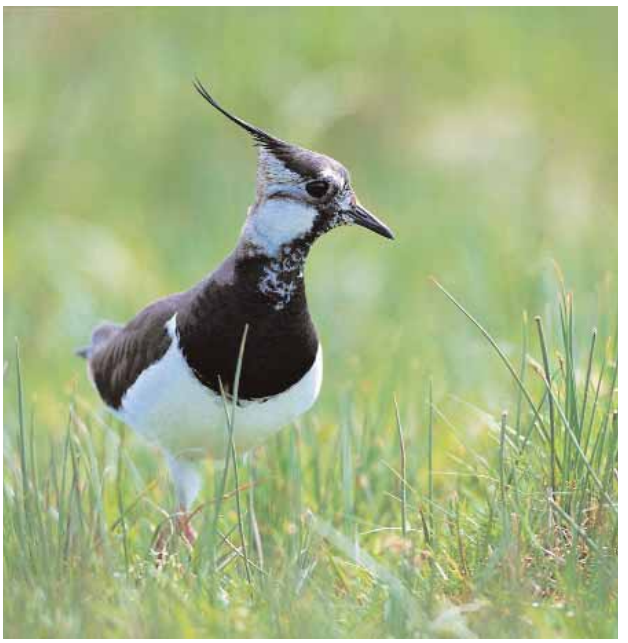
Our aim is to reconnect rivers with their floodplains where this is possible. This will not only restore and improve wetland ecosystems and functions, but will bring direct economic and social benefits. Avoiding further development and intensification of rural land use on floodplains is a cost-effective form of flood defence, eliminating the costs of damage and clean up as well as the distress and health risks flooding causes. Better management and more appropriate land-use throughout our rivers' catchments will also contribute to restoring those natural processes which attenuate high flows.


© Camilla James

Another aim is to restore natural features and characteristics to canalised and culverted rivers. Engineering solutions to managing water flows are not always effective and are rarely desirable from a wildlife point of view. Rivers and streams are not open pipes. They should be recognised as natural features performing a variety of natural functions. Meanders, soft and hard beds and banks, fast and slow flows, deeper and shallower water, are all vital features of natural watercourses which enable them to do their job of draining the land, providing homes for wildlife and moderating high flows.

Sustainable drainage systems should be encouraged in new developments. These include grey water systems which separate rain water from other waste water, reedbed purification systems, the return of run-off to the local environment and constructed wetlands to capture, clean and release this run-off.

Measuring Success



© Andy Hay/RSPB Images

3.1 Why Measure?

If we are to meet our key challenge of 'Monitoring the condition of habitats, species and ecosystems' we need to know what still exists (how much and in what condition), where it exists, and what the trends are in terms of gains or losses. Specific data is also necessary if we are to improve the evidence base for effective policy-making. The need for ecological data is potentially vast but resources for data collection and management are extremely limited. We need to secure resources in this area whilst prioritising our data needs and making careful use of indicators.

Amongst the reasons for obtaining ecological data are:

- To enable the Region to meet its statutory obligations
- Tracking trends in indicators such as those in the RSS, the England Biodiversity Strategy and national, regional and local Quality of Life Indicators[27]
- Undertaking Sustainability Appraisal and Strategic Environmental Assessment
- Monitoring progress towards UK, regional and local biodiversity action plan targets
- Monitoring Local Development Frameworks
- Monitoring progress towards Public Sector Agreements
- Providing data for the West Midlands State of the Region Report

3.2 A Spatial Understanding

Several of the above drivers, in particular the RSS indicators, require a spatial picture of biodiversity in the Region. This requires not just knowing what we have, but where habitats and species populations are thriving or are under threat, and where there are opportunities to recreate and link habitats and populations.

Meeting our key challenge of 'Developing an area based approach to restoring wildlife' is also heavily dependent on a good spatial understanding. Landscape Character Assessment can provide a framework for this understanding, as described in Box 23. The key challenge 'Coping with the impacts of climate change' also requires an awareness of the changes in spatial distribution of species and habitats that will happen, or are already happening, as a result of climate change.

Cannock Extension Canal SSSI, Staffordshire

© Peter Wakely/English Nature

Geographical Information Systems (GIS) are an invaluable tool in helping to develop a spatial picture and are being used by many organisations, including local biological records centres, involved in data collection or management. They offer substantial potential - for example using a GIS in conjunction with a framework such as that provided by the Character Area Framework could provide a spatial basis for prioritisation and monitoring. This would benefit planners and developers in understanding the biodiversity priorities or constraints for a particular area. This type of approach also has considerable value for many other sectors working in the Region including those dealing with transport, health, commerce and recreation.

3.3 Targets

The setting of and reporting on biodiversity targets is an integral part of the biodiversity action plan process. The UK BAP contains national targets for priority habitats and species whilst at the county level a range of species and habitat targets and priorities have been established by LBAP partnerships.

Regional targets will help ensure that the Region is making an effective contribution to national commitments. A set of regional habitat targets has been included in the RSS and the West Midlands Biodiversity Partnership is continuing to work with local biodiversity partnerships to further develop these. Although more difficult, to do there is a need to develop an equivalent set of regional targets for species.

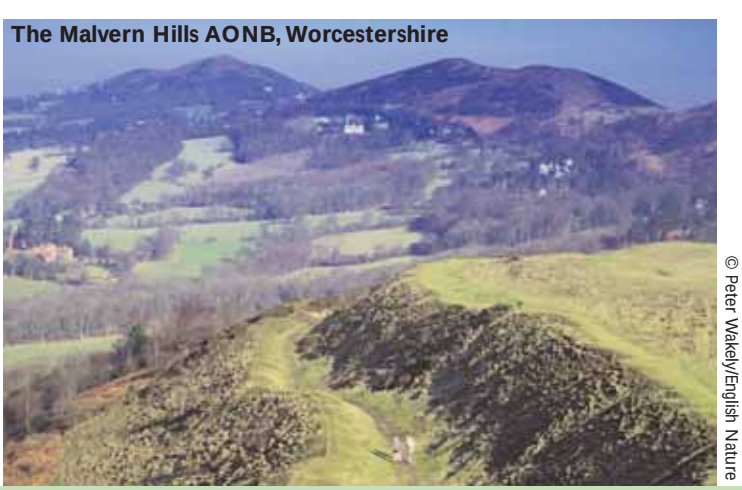
The UK BAP process is due to review national targets and achievements in 2005 and the West Midlands will need to consider its regional targets in light of this review.

3.4 Indicators

A number of national biodiversity indicators already exist and several of these allow monitoring at the regional level. There is also a range of regional level indicators which are used for a variety of purposes, for example those included in the RSS and the Environment Agency's own indicators. Work is needed to coordinate and cross-relate existing indicators, and develop new ones to fill significant gaps, and the WMBP has started on this process.

The WMBP is also working with other regional biodiversity partnerships to develop a consistent approach to setting biodiversity indicators to meet regional needs and reflect regional distinctiveness[28].

The Malvern Hills AONB, Worcestershire



Measuring Success

Developing an area based approach demands further work to develop suitable indicators. The presence of species which depend on a mosaic of habitats can be used as such an indicator of good ecological status. Species dependent on one broad habitat ecosystem will reflect the ecological integrity of that system. Reference sites can also be used to indicate the health of wider areas such as those defined through the Character Area Framework (see Box 23).

Stonebridge LNR, Warwickshire

3.5 Data Collection and Management

Measuring progress and achievements against targets and indicators requires both appropriate data and also mechanisms in place to manipulate and access data. One of the major mechanisms through which biological data is collated, managed and disseminated is via local biological records centres. All counties in the Region have a local biological records centre although securing resources for operational or development costs is a significant issue. Local biological records centres operate, and their data are accessed, in different ways, but they are working together to move towards a regionally coordinated and sustainably funded approach between record centres, data collectors and data users.

In addition to local networks there are national initiatives such as the National Biodiversity Network (a gateway for biodiversity data) and Biodiversity Action Reporting System (BARS - an internet-based reporting system for biodiversity action plans), and regional initiatives such as the Regional Observatory (a signposting service for data across sectors within the Region). It is important that data initiatives of whatever nature and scale are appropriately linked and co-ordinated. For example whilst the Regional Observatory may have a role in collating existing data into a regional data set and making this widely available, it is the local biological records centres that will have the local contacts, networks and systems necessary to collate and manage local data.

Those local contacts will include natural history societies and specialist groups, such as butterfly, badger and bat groups. These specialist groups may be independent local organisations, or they may be branches of national societies, such as the RSPB, the Botanical Society of the British Isles, or Butterfly Conservation. Such groups often collect records for their own national recording schemes which may be passed to the local records centres. The groups' members and their activities are highly valued, and the activities often include detailed, long-term and consistent recording in clearly defined geographical areas.

What You Can Do
A Sectoral Approach

Restoring the Region's wildlife requires action and cooperation from a wide variety of sectors. This part of the Strategy sets out linkages between biodiversity and some key sectors, and suggests potential contributions and roles. The sectors are:

1. Agriculture
2. Water and Wetlands
3. Forestry and Woodlands
4. Towns, Cities and Development
5. Business
6. Tourism
7. Recreation and Access
8. Health
9. Transport

The first four of these are used in the England Biodiversity Strategy and have been included to reflect the structure of that document. The remaining five encompass areas where there is significant linkage with biodiversity. For each sector the following headings are used:

Biodiversity linkages summarises some of the main linkages - both positive and negative - with biodiversity.

Habitats affected identifies the habitats affected.

Drivers describes some of the legislation, policies and characteristics of the sector which relate to biodiversity.

Current activity provides examples of current best practice in this sector.

What the sector can do suggests actions that each sector could undertake.

A Sectoral Approach
Agriculture

Biodiversity linkages

- About 80% of the land in the Region is in agricultural use, and so agriculture offers one of the best opportunities for enhancing biodiversity across large areas.
- Many valuable habitats result from past agricultural management, for example heathland and species-rich grasslands: some were largely created by, and are maintained through, certain types of grazing.

© Helen Taylor

- Particular grazing regimes are necessary on many sites to ensure correct conditions for many vulnerable plants and invertebrates.
- Under appropriate management systems arable cropping can support valuable populations of rare arable plants, farmland birds and invertebrates.
- Habitat restoration or creation on agricultural land is one of the major contributors to the achievement of biodiversity action plan targets: follow-up advice and monitoring ensures long term success.
- Mosaics of different crops, together with the infrastructure of field boundaries, water bodies, grassland and trees are an important component of biologically diverse landscapes.

© Helen Taylor

- Use of pesticides necessary for the growing of healthy crops can impact on populations of natural predator populations and non-target organisms.
- Inappropriate use of fertilisers can result in the loss of plant diversity from pastures, hedgerow bases and water courses.
- Ancient trees on farmland can be damaged by cultivation and inappropriate grazing.

Habitats affected - All, especially Cereal field margins, Arable fields, Grasslands, Wetlands and Hedgerows.

Drivers

- EU CAP reform which is moving subsidies away from supporting food production towards the delivery of other public benefits such as good environmental quality.
- Defra PSA targets for farmland birds and condition of SSSIs.

- Environmental Impact Assessment regulations for use of uncultivated land or semi-natural areas.
- Farm Assurance Schemes.
- The nature of the industry, with many relatively small producers selling primarily to a few powerful buyers.
- Differences in nationally applied regulatory regimes leading to market inequalities.
- Global market forces.
- EU Water Framework Directive[29].
- The modernising rural delivery process.

Current activity

- Agri-environment schemes (e.g. Environmental Stewardship) provide a framework for delivery of environmental and other benefits and encourage a more holistic approach to land-uses. This aspiration needs a viable agricultural sector to be maintained.
- Whole farm planning incorporating biodiversity and natural resource conservation initiatives (e.g. by the Farming and Wildlife Advisory Group and the National Trust (Box 13)).
- Advice and guidance offered by a variety of organisations such as English Nature, RSPB, Game Conservancy Trust, FWAG and others, for example a guide on ancient trees and farming produced by the Ancient Tree Forum Initiative and the Woodland Trust.

What the sector can do

- Engage with wildlife groups and conservationists to develop a common understanding of issues, and where possible resolution to issues that might otherwise hinder conservation work on farmland.
- Continue to work with conservation groups and relevant statutory agencies to achieve benefits on the ground including site specific projects and area-based initiatives.

Box 13 Integrating Biodiversity and Farming at the Brockhampton Estate


© Les Rogers

The National Trust's Farming Forward in Action project at their Brockhampton Estate aims to manage the estate in a sustainable way at the same time as supporting other businesses in the area. The project promotes local food products from the estate and develops and supports new businesses and job opportunities, as well as involving tenant farms in agri-environment schemes to manage land for wildlife. The estate includes one of the largest area of ancient broadleaved woodland in the Region, extensive parkland, old orchards, hedgerows and rare grassland.

- Work with groups such as the WMBP to publicise the achievements of the agricultural sector in protecting and enhancing biodiversity.
- Work with wildlife conservation groups to investigate opportunities to add value to agricultural products by attracting farm-gate premiums for wildlife-friendly production methods.
- Link activities to protect and enhance biodiversity on farms to delivering regional or sub-regional targets.
- Support farm wildlife organisations.
- Major land-owners with farming estates, such as the National Trust, local authorities, and Government Departments can make a particular contribution to the achievement of biodiversity gains through appropriate management, as well as raising awareness of biodiversity issues for other land-owners.


© Helen Taylor

A Sectoral Approach
Water and Wetlands

Biodiversity linkages

- Wetland habitats are able to absorb excessive rainfall and release water gradually, hence reducing the risk of flooding.
- Some of the Region's wetland habitats are amongst its most valued and protected wildlife sites, for example the rivers Mease and Lugg are candidate Special Areas of Conservation and the Meres and Mosses are designated as Ramsar sites.

River Lugg SSSI, Herefordshire

- Recreational water bodies originating from, for example, restored quarry workings can provide habitat for birds and other species.
- A number of water company operational sites have areas of redundant sludge lagoons, old grass treatment plots or flood meadows which are excellent for wildlife. Severn Trent Water's reservoirs at Trimpley and Draycote are important for wildlife, and management is being undertaken to further enhance habitats.
- Reedbeds planted for waste water treatment provide habitat for reed warblers and reed buntings as well as other wildlife: there is a winter roost of over 80 reed buntings at West Felton treatment works in Shropshire.
- The water supply industry needs healthy ecosystems to provide clean water for industrial processes.
- Water abstraction for domestic supply and industrial purposes can affect nearby wetland habitats dependent on ground water levels, although much is being done to reduce these impacts through low flow alleviation schemes, cessation or re-positioning of groundwater abstraction points and compensation discharges.
- The incorporation of sustainable drainage systems in developments at an early stage of the planning process can provide a low cost and sustainable means of managing grey water and run-off as well as creating valuable wetland habitats.
- Canals are used extensively as a recreational resource and also provide habitats for threatened species such as water voles: the level of use and nature of bank protection can however have an effect on these species. Disused canals can also contain valuable wildlife habitats such as reedbed and wet woodland.
- Species attracted to and supported by ponds (including protected species such as great crested newts) will be affected by how the ponds and their surroundings are managed, including water levels and quality.

Great Crested Newt

Habitats affected - Reedbeds, Floodplain grazing marsh, Wet woodland, Fens, Lowland raised bog, Lakes and ponds.

Drivers

- EU Water Framework Directive[29].
- Nitrates Directive (1991) - nitrate vulnerable zones[30].
- Urban Waste Water Treatment Directive (1991) - eutrophic sensitive areas[31].
- Defra PSA targets for condition of SSSIs.
- Habitats and Birds Directives[32,33].
- Environment Agency plans and strategies, e.g. Catchment Flood Management Plans, Restoring Sustainable Abstractions Programme.
- The Asset Management Plan (AMP) process.
- Defra's Diffuse Pollution Strategy.

Current activity

- Water for Wildlife Project (addressing aquatic species and habitats).
- River and river-basin projects e.g. Severn and Avon Vales Wetlands Partnership, the On Trent Initiative, and the Severn-Vrynwy Land Management Initiative (Box 14).
- Otter survey and monitoring.
- Water Level Management Planning.

© Helen Taylor

Box 14 Biodiversity Enhancement and Water and Wetland Projects in the Region

© Chris Gomersall/RSPB Images

The *Severn and Avon Vales Wetlands Partnership* is a partnership of 18 organisations from the statutory and voluntary sectors of the environmental and agricultural community, led by the Environment Agency and English Nature. The aims of the partnership are to:

- Restore and sustain the mosaic of historic floodplain landscapes and biodiversity, through the promotion of sustainable farming partnerships, and
- Promote wider appreciation of wetland habitats through the interpretation of wildlife and heritage and the provision of public access

The *On Trent Initiative* is a partnership project involving a wide range of public, voluntary and commercial organisations. The project is working to secure a sustainable balance between the natural and historic heritage, agriculture, commercial activity and development along the River Trent. The project area includes the low-lying land in parishes adjacent to the River Trent between Stoke-on-Trent and the Humber Estuary.

What the sector can do

- Work together to develop whole catchment solutions to water resource problems such as flooding or low water flows.
- Create and manage wetlands for their multi-functional benefits.
- Investigate options for end uses of quarry workings that benefit wildlife, whilst considering long term management.
- Ensure sustainable management of water resources in meeting new demands, such as that from housing developments.
- Incorporate sustainable drainage systems in new developments where practicable.
- Be aware of threatened species when undertaking water course management works, and ensure that wildlife is not adversely affected but, if possible, benefits.
- Work with the land management sector to reduce diffuse pollution of priority water courses.

A Sectoral Approach
Forestry and Woodlands

The West Midlands Regional Forestry Framework[34] is of particular relevance for this sector. It includes an action plan containing eleven themes, each with strategic aims, objectives and actions. One of the themes is *"Enhancing Biodiversity"*.

Biodiversity linkages

- Recreational use of woodlands needs to be managed to avoid adverse impacts on woodland wildlife.

© Simon West

- Ancient woodland sites which have been planted with introduced species are a high priority for restoration through the removal of those species and appropriate management for native species.
- Tree and woodland planting provides excellent opportunities for involvement from school children and other members of local communities, and improves the image and quality of life of urban areas.
- Creation of new woodland can help mitigate the effects of climate change and contribute to renewable energy as well as creating new habitats.
- The location of woodland creation schemes need to be carefully considered to avoid harming or destroying existing habitat, and to ensure that it complements existing landscape patterns.
- Incentives are available to manage farm woodlands for biodiversity interest, where these are no longer needed for sheltering stock or sporting purposes.
- Traditional woodland management such as coppicing is often good for wildlife, but has massively reduced in recent years as demand for coppice products has declined.
- Many parklands have been damaged by intensive agricultural practices which are damaging to tree health. In recent years agri-environment schemes have contributed to the restoration of some parklands, but there remains much work to be done.

Habitats affected - Upland oakwoods, Lowland beech wood, Ancient and/or species rich hedgerows, Lowland mixed broadleaves, Upland mixed ashwoods, Wet woodlands, Lowland wood pasture and parklands.

Drivers

- Sustainable Forestry: the UK Programme[35].
- England Forestry Strategy[36].
- Regional Forestry Framework and Regional Wood Energy Strategy.
- Woodland Access Standard[37].
- UK Forestry Standard[38].
- Felling Licence Regulations.
- Woodland grant schemes such as the Forestry Commission's England Woodland Grant scheme and Defra's Farm Woodland Premium Scheme.
- Defra's PSA targets for condition of SSSIs.
- Environmental Stewardship Scheme.
- Forestry Commission's Environmental Guidelines and Good Practice Guides.

Current activity

- Implementing the Enhancing Biodiversity theme of the Regional Forestry Framework.
- Forest of Mercia.

Box 15 Heartwoods

Heartwoods is a partnership project led by the Forestry Commission and involving partners including Advantage West Midlands, the Countryside Agency, English Nature and local authorities. It aims to develop timber and woodland based industries throughout AWM's Rural Regeneration Zone, linking to a range of woodland businesses activities and contributing to the protection and enhancement of woodland biodiversity.

- Black Country Urban Forest.
- The National Forest.
- The Potteries Woodlands New Leaf Project.
- Herefordshire's Sustain Initiative - encouraging sustainable woodland management.
- Heartwoods - promoting sustainable management and production of West Midlands woodland resources (Box 15).
- Greenwood Trust activities.
- Planting of short rotation willow coppice.

What the sector can do

- Manage recreational use of woodland to avoid damaging wildlife.
- Develop a programme for improvement and restoration to replace plantations on targeted ancient woodland sites.
- Encourage initiatives such as Forest School and Eco-schools which bring children and others into contact with woodland.
- Ensure that effective consultation is in place to prevent damage to areas of existing biodiversity value through woodland creation.
- Promote initiatives such as wood energy schemes or coppice product marketing projects to stimulate effective management of woodland.
- Be aware that minimal intervention may be more appropriate than intensive management, although loss of woodland habitat through neglect is also a problem that needs to be addressed.

- Target initiatives and grants under England Woodland Grant Scheme and Environmental Stewardship Scheme towards ancient and semi-natural woodland.
- Increase protection and enhancement of veteran trees.
- Address serious threats to woodland.
- Raise levels of skills and knowledge to enable exemplary biodiversity management.
- Promote care and replacement of parkland, hedgerow and ancient trees.
- Encourage continuity of management of traditional orchards.

A Sectoral Approach
Towns, Cities and Development

Biodiversity linkages

- New development offers both opportunities for and threats to, biodiversity conservation. Opportunities occur with regard to buildings, and through the retention of existing features and creation of new habitats and wildlife areas.
- One of the major elements to the Regional Spatial Strategy - encouraging people to live in urban areas rather than moving out into the countryside - depends in part on making towns attractive to live in, which includes enhancing their biodiversity. This strategic approach will increasingly reduce the pressure on habitats from new development outside the four major urban areas.

© Mike Lane/RSPB Images

- There is increasing recognition of the role of towns and cities for wildlife, for example in gardens, allotments, cemeteries and recreational areas. In particular opportunities are provided by transport routes, suburban areas and greenspace networks.
- Climate change is likely to increase the benefit of green spaces in town and cities by moderating and mitigating the effects of wind, rain and sun.
- The urban fringe provides both ecological and recreational links between the countryside and urban greenspaces.

Habitats affected - All, but especially Built-up areas and gardens, Woodlands, Wetlands and Grasslands.

Drivers

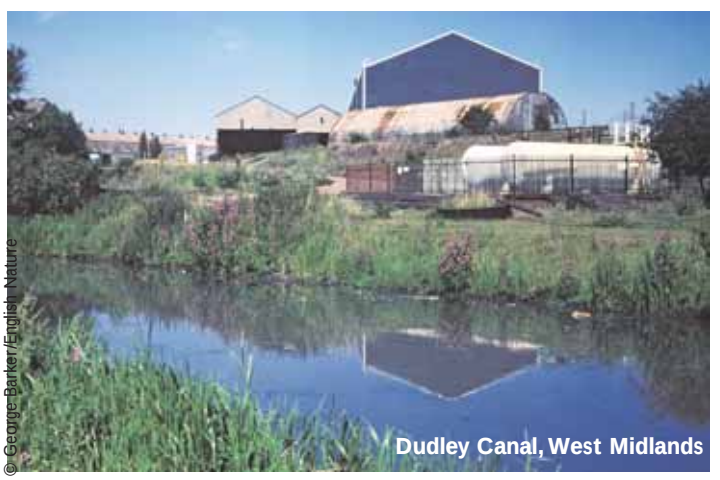
- The Urban White Paper[39].
- Sustainable Communities Plan[40].
- The Regional Economic Strategy's Regeneration Zones.
- PPG17 (Sport, Open Spaces and Recreation).
- Regional Spatial Strategy, including targets for brownfield development.
- Regional Housing Strategy and PPG 3 (Housing).
- PPS 9 (Nature Conservation).
- Reducing management costs of land and buildings.
- Regional Forestry Framework.
- The report of the Urban Green Spaces Task Force[41].
- English Nature's standards for access to greenspace[42].

Current activity

- CABE Space's work on urban greenspace.
- Creation of green roofs.
- Strategic management of parks and semi-natural open spaces.
- Sustainable drainage systems.
- Groundwork's activities in relation to open spaces.
- The Black Country Consortium's work on the

development of the Black Country Urban Park concept (Box 16).

- Green Arc Partnership's work with a range of organisations and planning authorities to release the potential of brownfield sites; maximise the environmental impacts of new development; and form links between the canal network, bridleways, rights of way, Sustrans routes, inland waterways and Quiet Roads Initiative.
- Implementation of British Waterways Biodiversity Action Plan.



© George Barker/English Nature

Dudley Canal, West Midlands

What the sector can do

- Implement the policies in the Regional Spatial Strategy, paying particular attention to those relating to restoring degraded areas and creating high quality environments, greenery, urban greenspace and public spaces, and biodiversity enhancement areas.
- Ensure that adequate survey work is undertaken prior to the early stages of planning and that new development supports biodiversity.
- Manage urban greenspace for wildlife in conjunction with its other functions.
- Include biodiversity in the development of greenspace strategies as an important means of linking new urban greenspace to the wider countryside, helping to encourage the spread of species.
- Develop greenspace strategies, using English Nature's standards.
- Use good practice guidance such the Royal Town Planning Institute's Planning for Biodiversity[43] and the Town and Country Planning Association's Biodiversity by Design[44].
- Incorporate sustainable drainage systems in new developments where possible.
- Incorporate biodiversity protection, restoration or creation in regeneration schemes.
- Take into account linkages between urban, urban/rural and rural areas of biodiversity value and address specific issues around the management of greenspace in the urban fringe.

Box 16 The Black Country Urban Park

The Black Country Urban Park concept has developed through work undertaken by the Black Country Consortium and its partners and stakeholders on a vision for the Black Country urban sub-region.

The aim is to develop and implement proposals to create a unique and dramatic concept, image and physical reality which will reclaim the Black Country landscape. The product is to define a new quality of urban living through interaction with the environment, culminating in a high quality environment, attracting regional, national and international visitors.

The design process and the resulting Park will illustrate a cutting edge design approach, identified as an exemplar in creating a worldwide 21st Century urban environment. Biodiversity will play an important role within the Urban Park concept.

© WTPL

A Sectoral Approach
Business

Biodiversity linkages

- Businesses may have substantial estates which, if appropriately managed, can support significant biodiversity interest. There are numerous examples in the Region of quarry or mineral extraction sites being restored for nature conservation (Box 17). Businesses may also have land around properties which, if managed for biodiversity, can create pleasant environments for workers and require lower maintenance, as well as helping wildlife.

Box 17 Rehabilitating the River Tame at Middleton Hall, Staffordshire

© David Southgate

Many sand and gravel quarries are located alongside watercourses, and in working and restoring such sites there are often opportunities to improve their biodiversity value. At Middleton Hall near Tamworth in Staffordshire, restoration work by Hanson Aggregates is contributing to the Central Rivers Project - an initiative aimed at boosting river wildlife in the Tame Valley. Restoration work in the river floodplain has reintroduced reedbeds, field ponds, meadows, marshland and woodland, which had all disappeared over the years. It has produced a haven for wildlife including otters and a large variety of birds, insects and fish.

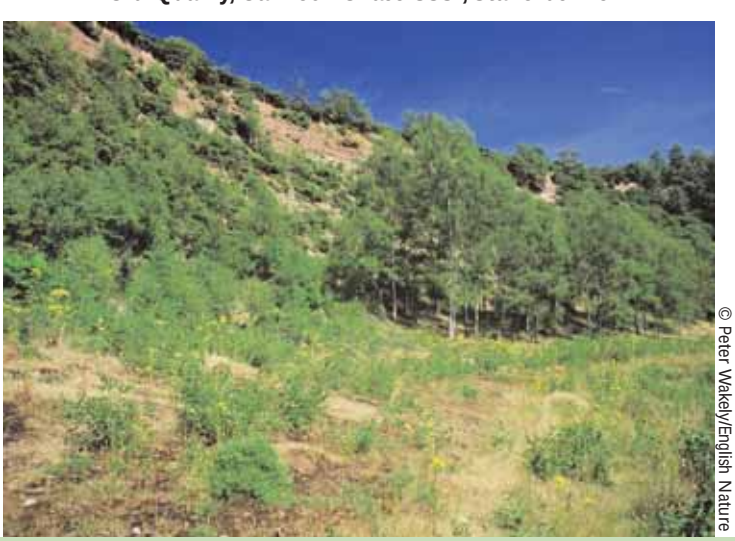
- The need to develop brownfield land whilst retaining or enhancing its biodiversity value.
- Some tourist industries are supported by, if not dependent on, attractive, wildlife-rich countryside. Marketing of regions or areas is often linked to the quality of the environment.
- Companies which engage with biodiversity can enhance their reputations and generate good publicity.
- Well planned developments can create new and enhance existing nature conservation sites.
- Waste and emissions can adversely affect biodiversity locally and further afield.

Habitats affected - All.

Drivers

- Regional Spatial Strategy policies regarding development of land.
- Regional Economic Strategy.
- Environmental Impact Assessment regulations.
- Environmental standards for businesses - ISO 14001 and EMAS for example - include elements relating to biodiversity.
- Biodiversity Benchmark Standard.
- Planning policies in regional, waste and minerals local plans, and other local development plans.
- Corporate Social Responsibility - business contribution to Sustainable Development.

Old Quarry, Cannock Chase SSSI, Staffordshire

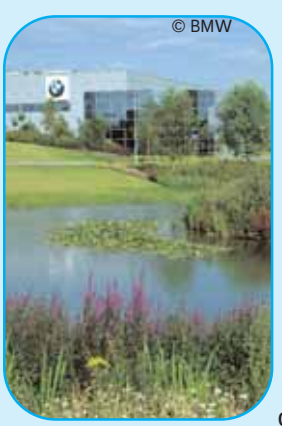


© Peter Wakely/English Nature

Current activity

- Programmes for restoration of brownfield land to woodland and other greenspace.
- Corporate Biodiversity Action Plans or the development of company-wide biodiversity guidelines.
- Corporate support and sponsorship of nature conservation work, through donation of funds, products or equipment.
- Business personnel undertaking conservation management activities through work supported volunteer schemes or 'away days'.
- Business 'champions' of priority species.
- Conservation management of land around business premises, such as at BMW's Hams Hall Engine Plant in Warwickshire (Box 18).

Box 18 Enhancing Biodiversity Around BMW's Hams Hall Engine Plant



As part of its commitment to environmental management BMW has created valuable wildlife habitats around the site of its engine plant at Hams Hall in rural Warwickshire. These include a lake, in the middle of which is an island that provides sanctuary for nesting birds. Woodland and wildflower area provide refuge to voles and other kinds of wildlife.

What the sector can do

- Protect and conserve existing wildlife habitats and protected species through environmentally friendly business practices.
- Work towards achieving an environmental standard such as the Biodiversity Benchmark.
- Manage buildings, land holdings and land around properties to benefit biodiversity.
- Create and manage new wildlife habitats through business development and planning.
- Engage with local communities in developing and realising opportunities to create and enhance local biodiversity, and encourage staff participation in such projects.
- Work with the biodiversity community to try to resolve some of the issues around biodiversity and development of brownfield land and identify strategic brownfield sites of biodiversity value.

© John Gallen

Brownfield Site in Coventry, Warwickshire

- Take opportunities to influence suppliers attitudes to and actions for biodiversity.
- Work with the Biodiversity sector and appropriate skills organisations to address the skill needs of delivering this Strategy.

A Sectoral Approach
Tourism

Biodiversity linkages

- Many tourism businesses rely on wildlife-rich countryside to attract customers.
- Appropriate visitor management is needed in sensitive areas to avoid damaging or destroying the biodiversity and landscapes being experienced.
- For AONBs and National Parks preserving natural beauty is an important statutory duty and forms a large part of the attraction for visitors.
- Many of the Region's historic houses which are key tourist attractions have associated parklands with very high biodiversity interest, for example Attingham Park and Shugborough Hall.

© Bob Anderson

Medieval House at Lower Brockhampton, Worcestershire

- Wildlife-related activities such as bird-watching, generate revenue for the tourist industry and local businesses (Box 19).

Habitats affected - All, especially Heathland, Wetlands, Woodlands, Lowland wood pasture and parkland, and Upland habitats.

Drivers

- Regional Visitor Economy Strategy[45].
- Regional Economic Strategy's Tourism Cluster.
- PPG 21 Tourism (currently being reviewed).

Box 19 The RSPB Reserve in the Sandwell Valley

© Helen Taylor

This reserve has often been in the RSPB's "top 20" - both for numbers of visitors and numbers of birds. It is situated between Birmingham and West Bromwich and in the summer waders such as little ringed plovers, as well as songbirds such as whitethroats can be seen. Others visit on migration, and in the winter the site provides a refuge for ducks and wading birds.

In 1998/99 there were nearly 25,000 visitors who spent a total of £105,000 locally whilst visiting the Reserve.

Current activity

© National Trust

- Green tourism initiatives, such as those run by the Wildlife Trusts.
- AONB and National Park Management Plans and Best Value Performance Plans.
- Tourism-orientated public transport initiatives in rural areas such as those in the Stiperstones in Shropshire, and the Malvern Hills.

What the sector can do

- Ensure that visitor surveys and strategies or similar documents take appropriate account of biodiversity considerations, working with the biodiversity community as appropriate.
- Develop policies, programmes and projects that have direct and indirect benefits to regional and sub-regional wildlife priorities by working through local economies, for example the River Monnow Project (see Box 4).
- Make appropriate references to biodiversity in management plans and similar documents.
- Promote green tourism.
- Promote biodiversity as part of the visitor experience of the whole landscape.

Recreation and Access

Biodiversity linkages

- Many recreational activities rely on a good quality accessible environment, e.g. angling, orienteering and walking.
- Management and development of footpaths and other infrastructure provides both opportunities and threats to wildlife.
- Wildlife itself can provide recreational interest, for example bird-watching.
- Visitors are often willing to make donations towards conservation work in the areas which they visit, as well as contributing more widely to the economy of an area.
- The Countryside and Rights of Way Act access provisions should increase appreciation of the countryside, but careful management of the access to sensitive habitats will be necessary.

Habitats affected - All.

Drivers

- Countryside and Rights of Way Act access provisions include the identification of open access areas, as well as the establishment of Local Access Fora and the production of Rights of Way Improvement Plans.
- AONB and National Park management plans and legislation.
- English Nature's and the Woodland Trust's access standards.

Current activity

- Development of visitor facilities associated with natural attractions capable of absorbing visitors, for example woodlands at Cannock Chase and Wyre Forest.

Box 20 Cannock Chase AONB - Birches Valley Cycle Centre


© Forestry Commission

The Birches Valley Cycle Centre, opened in spring 2003, is a popular cycling and mountain biking centre that provides cycle hire and repair, accommodation and a café for visitors to Cannock Chase. Cycle routes are promoted at the centre which have been carefully planned by AONB and Forestry Commission staff to provide sustainable tourism and recreation whilst taking pressure off sensitive heathland and woodland habitats.

- Promoting enjoyment and understanding of wildlife through information and publicity material.
- In Areas of Outstanding Natural Beauty access to wildlife-rich areas is promoted and managed, for example through the production of walking or cycling guides (Box 20).

What the sector can do

- Develop new recreational opportunities which create and improve regional and sub-regional priority habitats, as well as conserving what is already present.
- Take biodiversity considerations into account when planning management, liaising with local ecologists and others in the biodiversity community.
- Ensure that recreational access does not disrupt wildlife, especially rare or protected species in the vicinity of footpaths or open access areas.
- Have regard for biodiversity when drawing up Rights of Way Improvement Plans.


© Rob Fraser/Countryside Agency

A Sectoral Approach
Health

Biodiversity linkages

- Wildlife-rich areas enhance outdoor enjoyment and hence contribute to a healthy lifestyle.
- Trees and other plants improve air quality, to the benefit of people with respiratory problems, as well as providing shade and moisture, especially in towns and cities.
- Patient recovery times and mental well-being can be improved where people have access to natural surroundings.
- Tension and stress is alleviated when people use urban green spaces.
- Initiatives such as the British Trust for Conservation Volunteers (BTCV) Green Gyms have been shown to improve fitness and mental well-being amongst participants, as well as benefiting biodiversity through the work undertaken, in particular where contributing to urban greenspace networks.

© WTPL

Habitats affected - All, especially Built-up areas and gardens, Woodland and Grasslands.

Drivers

- Public Health white paper - *Choosing Health; Making Healthier Choices Easier*[46] refers to the connection between biodiversity and the general environmental and health (Chapter 4, Local Communities Leading for Health).
- Environmental Justice.

Box 21 Shropshire Wildlife Trust working with CARE Ironbridge

© Helen Taylor

Shropshire Wildlife Trust is working with local GPs and Shropshire and Wrekin ME Support group to offer therapy through art and wildlife gardening for people with ME. The Inner Gardens Project provides sufferers of chronic fatigue syndrome with various therapy-orientated activities including art therapy and supported garden activity, based at the Wildlife Trust offices and at home. The aim of the project is to help participants renew motivation and self-determination, and so help them in the better management of the effects of their illness.

Current activity

- Green gyms.
- General Practitioner Allotment referral schemes.
- BTCV working with Mind in Dudley.
- Shropshire Wildlife Trust's work tackling chronic ill health through gardening for wildlife (Box 21).

What the sector can do

- Acknowledge the benefits of an attractive, healthy environment on people's health and mental well-being in appropriate strategies and other documents.
- Work in partnership with the biodiversity community and others to develop healthy living initiatives, such as Walking the Way to Health and Green Gyms.
- Support research to improve the evidence base regarding the health benefits of biodiversity and share the information obtained with other relevant organisations.

© Helen Taylor

Transport

Biodiversity linkages

- Biodiversity is affected by the development, management and use of the transport network, both by direct destruction of habitat or countryside features such as trees and hedgerows, and indirectly through disturbance, the disruption ofwildlife networks and corridors, and fragmentation of species populations.
- If managed appropriately, transport links such as canals, road and rail verges can themselves provide valuable wildlife habitats and corridors, and contribute to maintaining and improving ecosystems as part of greenspace networks.

© Helen Taylor

- Emissions from vehicles, planes and trains can affect local biodiversity and diffuse pollution affects specific sites and the wider countryside.
- Polluted road run-off can damage biodiversity.

Habitats affected - All.

Drivers

- Highways Authority Biodiversity Action Plan.
- Regional Transport Strategy[47].
- British Waterways Biodiversity Action Plan.

Current activity

- Green Arc Partnership (Box 22).

Box 22 The Green Arc Partnership

The Green Arc Partnership is working to enhance the environment and regenerate land around the north and east of Birmingham, the corridor through which the M6 Toll road has been constructed. The Partnership has agreed a vision which includes addressing *"common pressures and forces for change affecting the countryside to the north and east of Birmingham"* and realising *"social, economic and environmental benefits in terms of landscape, nature conservation, public access, community development and land management"*. The emphasis of the project is on enhancement of the physical environment, but the partnership will also seek to secure wider environmental, social and economic benefits.

- Road Verge Nature Reserves.
- Planting and management of motorway embankments.
- Management of canal banks for water vole.

What the sector can do

- Undertake adequate survey prior to transport network plans being drawn up and plan routes and introduce features such as otter under-passes to minimise disturbance to biodiversity.
- Ensure responsible management of run-off, where possible developing opportunities for habitat creation.
- Where-ever possible avoid damage to biodiversity. Where this is not possible, employ mitigation and compensation measures such as the creation of alternative areas for biodiversity which ensure that ecosystem functions are maintained and improved.
- Integrate biodiversity conservation into long term management.
- Take a strategic approach to biodiversity, and link to area-based initiatives using the Character Area Framework.
- Support greening initiatives and image enhancement in transport corridors.

© Borough of Telford & Wrekin

Delivering the Strategy

© Stefan Bodnar

5.1 Regional and Local Delivery

Biodiversity conservation is best delivered through a coordinated regional response and not solely through individual sectors or separately and independently by the biodiversity sector. The right regional governance structures are required to deliver the appropriate policies, commitment and resources to facilitate delivery at the local level. This is likely to involve:

- Concordat partners, regional strategy owners and key processes such as the delivery of the Regional Spatial Strategy working in ways which contribute to biodiversity targets.
- Regional policy partnerships integrating policy, with the Regional Environment Policy Partnership taking the joint lead for biodiversity with the West Midlands Biodiversity Partnership.
- The West Midlands Biodiversity Partnership advising on the delivery of the England Biodiversity Strategy and the needs of local biodiversity action plan partnerships.

Whilst action for biodiversity needs to be spread across all sectors, the biodiversity community, including the WMBP, does have a particular guiding role to play relating especially, but not exclusively, to:

- Setting targets which relate both to the regional contribution to national and international targets and to local needs.
- Advising on who could most appropriately contribute to each target.
- Assessing where, within the Region, the best opportunities lie for meeting targets.
- Identifying gaps in knowledge and the means of filling them.
- Monitoring of targets and trends, and enabling reporting and assessment of the success of different mechanisms and programmes.
- Training and advice on biodiversity conservation.

© GNN

- Supporting and contributing to projects, activities and partnerships.
- Helping to secure and direct resources towards implementing this Strategy.
- Advising the Regional Environment Policy Partnership on the delivery of the Regional Biodiversity Strategy.

Effective working will be assisted through clarity of understanding between roles at the regional and local levels. The regional tier should coordinate activity at the regional level, establish and pursue links with other policy areas, create opportunities for joint

working with non-biodiversity sectors and provide a framework for activity in the form of regional targets and priorities. The Region also provides an appropriate scale for a wide spatial framework.

© Peter Wakely/English Nature

The Roaches, Peak District National Park, Staffordshire

Whilst it is important to have the right regional framework in place it is at the local level that biodiversity is actually delivered. A variety of organisations have a role to play in local delivery including statutory agencies, local authorities, local biodiversity action plan partnerships, voluntary organisations, AONBs and National Parks, and local strategic partnerships, as well as the sectoral groups outlined in the previous section of this Strategy.

5.2 Meeting the Key Challenges

This Strategy presents five key challenges for the next five years. The second of these 'Developing an area-based approach to restoring wildlife' presents a shift in emphasis from the traditional site-based focus towards the concept of healthy landscapes and functioning ecosystems, within which wildlife habitats are networked and species populations are supported.

Restoring wildlife at the landscape scale requires putting in place linkages between important habitats and species populations, helping to create more robust ecosystems resilient to the impacts of contemporary intensive land uses as well as the effects of climate change. This more holistic approach works well with regard to developing a wider integration of land uses such as farming and forestry, and also tourism, recreation and the environmental economy. It also provides the opportunity to promote a coordinated approach to other sectors such as the historic environment.

If we understand how all the components of the 'biodiversity landscape' interact with each other and different land-uses, we are better placed to deliver projects and initiatives with multiple benefits, which respect and support the linkages between all these components. The Character Area Framework (Box 23) being developed within the West Midlands Region will provide the spatial context for characterising the biodiversity landscape and its interactions with other land uses, and for prioritising actions for restoring wildlife within the Region.

© C.Harris

The spatial approach to restoring wildlife is strongly advocated within the Regional Spatial Strategy through its Quality of the Environment policies,

Delivering the Strategy

Box 23 The Character Area Framework


© Rob Fraser/Countryside Agency

The Character Area Framework incorporates biodiversity, landscape and historic elements and provides a spatial context for regional and local environmental policy and action. Work on the framework is being led by English Nature, English Heritage and the Countryside Agency and will be based on the former Countryside Commission's Countryside Character Areas, English Nature's Natural Areas and English Heritage's work on Historic Landscape Assessment. The Framework will be able to accommodate work at the regional, sub-regional and also local levels, using for example the finer-scaled mapping of county areas being undertaken by local authorities, and river catchments identified by the Environment Agency.

Countryside Character Areas, of which there are 25 in the Region, were developed by the Countryside Commission in response to a need for a national framework for Landscape Character Assessment, a process which uses natural and cultural patterns to assess and categorise landscapes.

Natural Areas, of which 17 occur in the West Midlands, were developed by English Nature as sub-divisions of England, each with a characteristic association of wildlife and natural features. The boundaries coincide with Countryside Character Areas, but some cases more than one Character Area is grouped into a Natural Area. Accompanying each Natural Area is a profile, setting out significant biodiversity features of interest and objectives for the enhancement of that area's biodiversity.

Historic Landscape Characterisation, a programme co-ordinated by English Heritage in partnership with local authority Sites and Monuments Records, is concerned with mapping the historic dimension of today's rural and urban landscapes. It involves identifying and describing aspects of the natural and built environment that have changed over time, and using combinations of these to define Historic Landscape Types.

Uses of the Character Area Framework include helping with targeting of funding streams such as agri-environment schemes, assisting with decision-making in the land-use planning system and prioritisation of biodiversity action such as where to target habitat creation (for example linking to the Woodland Opportunities Map which will be developed through the Regional Forestry Framework).

specifically the policy relating to Biodiversity Enhancement Areas. In a similar way the Wildlife Trusts in the Region have been pursuing 'large areas for wildlife' projects, and English Nature is taking forward a programme of area based delivery. Although the terminology may vary these approaches share the same underlying thinking. Other policy areas have also taken an area-based approach, for example the Pathfinder initiatives promoted by the Office of the Deputy Prime Minister and Regeneration Zones developed by Advantage West Midlands. The synergies between these initiatives and approaches are beneficial, especially when using the area-based approach to explore the inter-relations between biodiversity and wider socio-economic factors.

Meeting all the key challenges set out in this document will require engagement from the biodiversity community with a range of sectors. This will be done through contact, support, advice and partnership working with various organisations, partnerships and groups.

Appendix Two sets out the challenges with milestones and strategic objectives for meeting them. These will be translated into more detailed actions in a separately produced Regional Biodiversity Strategy Delivery Plan. A large variety of organisations can contribute to achieving the objectives set out in Appendix Two - Some of these are covered in the previous section of this Strategy, but other specific roles are outlined on page 47.


© Herefordshire Nature Trust

The Regional Assembly and its Policy Partnerships, in particular the Regional Environment Policy Partnership

The Regional Environment Policy Partnership is the Regional Assembly's policy advisory group on environmental issues, and as such will contribute to the success of this Strategy by promoting it to other policy partnerships, making the appropriate connections with other regional activities and receiving reports on the progress of this Strategy and its Delivery Plan.

The West Midlands Biodiversity Partnership

As the Assembly's partner with direct responsibility for this Strategy the WMBP will be heavily involved in delivering aspects of it as well as making links with other sectors which have a role to play. It will report on the progress of the Biodiversity Strategy and the Delivery Plan to relevant bodies such as the Environment Policy Partnership, and will keep the Strategy under review.

Government Office for the West Midlands (GOWM)

The Government Office occupies a unique position at the centre of much regional activity and so is ideally placed to make linkages between different strands of working and promote communication and partnership working between different sectors. The Rural Strategy 2004 enhances this coordination role in terms of rural delivery.

Advantage West Midlands (AWM)

With its broad remit including the Regional Economic Strategy and tourism issues Advantage West Midlands is involved in many of the aspects covered in this Strategy. There are numerous opportunities for AWM to work with the West Midlands Biodiversity Partnership on issues of common benefit.

Local Government

With powers and duties relating to the furthering of biodiversity, the management of key wildlife sites, local planning policy development and implementation and a strong local over-view, local authorities have an important role to play in the achievement of this Strategy. Contributing to and supporting local biodiversity action plan partnerships and local records centres is one way in which this role can be fulfilled, but in addition local authorities undertake activities relating to tourism and recreation and access, so those sections in the previous part of this Strategy are also relevant.

Statutory Agencies and Defra

Statutory agencies such as English Nature, Environment Agency, the Countryside Agency, the Forestry Commission and English Heritage, as well as Defra, are vitally important to meeting the key challenges set out in this document through working directly with land-owners, provision of grant aid and support of projects, fulfilling regulatory duties and facilitating partnership-working through, for example, the Regional Rural Affairs Forum.

Voluntary Conservation Organisations

Voluntary bodies have a particular contribution to make through management of sites that they own, working with local communities, developing and drawing down funding for projects, surveying and recording, and raising awareness and understanding of biodiversity.

Local Area-based Partnerships such as Local Biodiversity Action Plan Partnerships, AONBs and Local Strategic Partnerships

These partnerships can help contribute to the delivery of this Strategy by translating the broad, regional priorities set out in this document into effective activity on the ground via their own documents (i.e. local biodiversity action plans, AONB management plans and community strategies). Such partnerships generally have a detailed understanding of local needs and priorities and these should and usually do form the basis of activity carried out. However, it is hoped that local partnerships will reflect the key challenges set out in this Strategy and local delivery plans or other relevant documents.

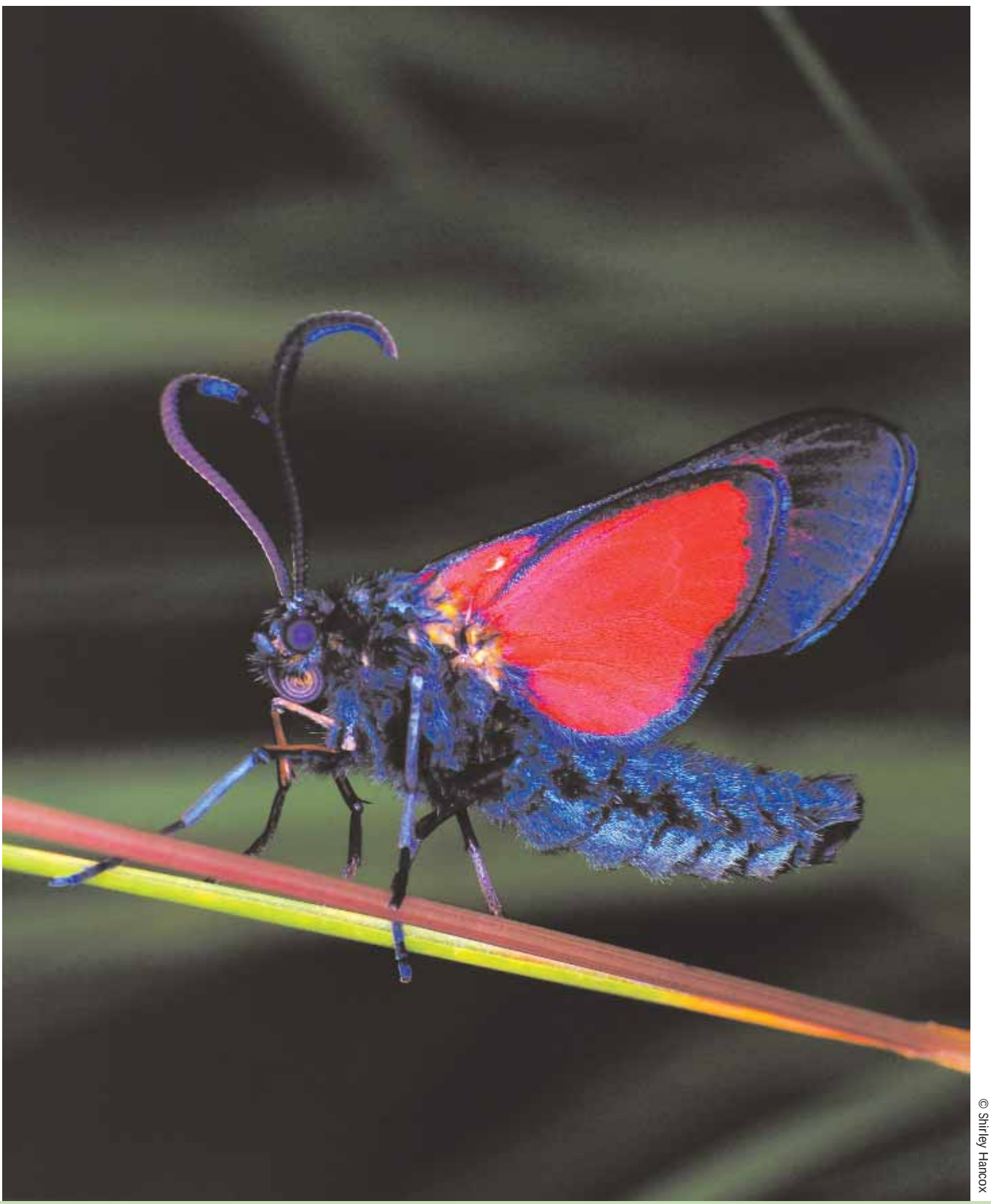
Delivering the Strategy

5.3 Next steps and where to find out more

This document sets out the strategic direction for the next five years of biodiversity conservation in the West Midlands. It provides a broad framework for action though the five key challenges and their associated actions.

A more detailed Delivery Plan will be prepared, and reports on the implementation of the Strategy and the Delivery Plan will be produced for the Regional Assembly and others on a regular basis. In particular progress on the key challenges will be monitored against the milestones set out in Appendix Two.

Information on the progress of the Strategy and Delivery Plan, as well as the other work of the Partnership, will continue to be available via the web-site of the West Midlands Biodiversity Partnership (**www.wmbp.org**).



© Shirley Hancox

Appendices
Appendix One

The Major Policy and Legislative Drivers for Biodiversity Conservation in the UK*

Legislation/Policy Driver	Requirements and Obligations
National Trust Act, 1907	Confirms that the Trust has conservation of wildlife and geological features as one of its objectives.
National Parks and Access to the Countryside Act, 1949	Provided the legislation for the setting up of National Parks, Areas of Outstanding Natural Beauty, National and Local Nature Reserves.
Ramsar: The Convention on Wetlands, 1971	The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an inter-governmental treaty which provides the framework for national action and international co-operation for the conservation and wise use of wetlands and their resources.
EU Wild Birds Directive, 1979 (79/409/EEC)	To conserve viable populations of naturally occurring wild birds through site designation, habitat creation and legal protection.
Wildlife and Countryside Act (amended), 1985	Lists and provides for the legal protection of vulnerable species.
Environmental Impact Assessment Directive, 1985 (85/33/EEC as amended by 97/11/EC)	Requires the developer to compile an Environmental Statement describing the likely significant effects of a development on the environment, and proposed mitigation measures. Its contents, together with any comments, must be taken into account by the competent authority (e.g. local planning authority) before it may grant consent.
Planning and Compensation Act, 1991	Requires all 'adopted' or 'approved' development plans to have policies relating to the conservation and enhancement of flora, fauna, geological and physiographic features.
EU Habitats Directive, 1992 (92/43/EEC) Implemented through the Conservation (Natural Habitats etc.) Regulations 1994, Statutory Instrument 1994 No 2716	Requires favourable conservation status to be identified and achieved for habitats and species of EU interest and for other naturally occurring wildlife through site designation, enhancing the ecological integrity of the countryside, legal protection and management of activities affecting wildlife. In addition Regulation 37 requires planning authorities to include policies in development plans *"encouraging the management of features of the landscape which are of major importance for wild fauna and flora"*.
Biodiversity: The UK Action Plan, 1994	Establishes an approach to biodiversity conservation involving action plans for priority habitats and species.
UK Sustainable Development Strategy, 1999	Brings together the environment, social progress and the economy alongside each other at the heart of policy making.
Local Government Act, 2000	Places a duty on local authorities to promote economic, social and environmental well-being and to set up Local Strategic Partnerships (LSPs) to achieve this.
EU Water Framework Directive, 2000 (2000/60/EC)	Requires the achievement of good ecological condition of all surface waters, including coastal waters, through regulation of activities affecting them in the context of river basin management plans.

Continued...

Legislation/Policy Driver	Requirements and Obligations
Countryside and Rights of Way (CROW) Act, 2000	Provides enhanced protection for SSSIs and support for their management, including placing duties on a range of public bodies. Also puts a duty on public bodies to contribute to the conservation of priority habitats and species as listed by the Secretary of State (currently the UK BAP list of priority habitats and species).The CROW Act also requires the production of management plans for Areas of Outstanding Natural Beauty.
Strategic Environmental Assessment (SEA) Directive, 2001 (2001/42/EC)	Provides protection for the environment and progress towards sustainable development, requiring an environmental assessment to be carried out of policies, plans and programmes that are likely to have an environmental impact.
A Biodiversity Strategy for England, 2002	Establishes a sectoral approach to enhancing biodiversity through integration with other policies and programmes, and sets out a role for regional and local action to secure delivery that includes local people and local wildlife character.
Rural Strategy, 2004	Establishes a new, more streamlined, approach to the delivery of rural services with an enhanced role for regional development agencies, and also the formation of a new Integrated Agency to incorporate the work of English Nature and parts of the Countryside Agency and Rural Development Service.
Planning and Compulsory Purchase Act, 2004	Introduces Sustainability Appraisal as an integrated process with Regional Spatial Strategies and Local Development Frameworks, and intended to help planning authorities ensure that their development plans contribute to the achievement of sustainable development and fulfil the requirements of Strategic Environmental Assessment.
Planning Policy Statements (PPSs) e.g. PPS 9 (Biodiversity and Geological Conservation, due to be produced summer 2005) and PPS 7 Sustainable Development in Rural Areas	Formerly Planning Policy Guidance notes (PPGs) - these are produced by Government to guide local planning authorities on the production of local Development Plans.
Defra Public Service Agreement Targets	These include bringing 95% of Sites of Special Scientific Interest into favourable condition by 2010, and reversing the decline in farmland birds.

*A distinction is made between policy statements (italicised) and legislation (normal text)

Appendix Two

Meeting the Key Challenges

Key Challenge	Milestones	Strategic Objectives
1. Developing an area based approach to restoring wildlife.	✻ Agreed, coordinated framework in place. ✻ Achievements are captured and data is accessible.	✻ Further develop a coordinated and integrated spatial framework, incorporating other aspects such as landscape and historic elements as appropriate. ✻ Agree methodology, incorporating relevant raw data and local biodiversity expertise. ✻ Establish spatial biodiversity objectives for the Region, linking to the habitat targets set out in Appendix 3. ✻ Identify gaps in spatial information.
2. Maintaining and improving the condition of habitats, species and ecosystems.	✻ Defra's PSA targets on target to be met by 2010. ✻ A subset of priority habitats and species agreed, and targets for creation and restoration of this sub-set achieved. ✻ Statistics available on habitat and species changes. ✻ Sustainably funded local biodiversity partnerships across the Region.	✻ Set a baseline for condition and location of habitats and species. ✻ Identify a sub-set of priority habitats and species from the full list, and identify and focus activity to meet targets for these. ✻ Identify data gaps and data needs. ✻ Raise awareness of habitat management. ✻ Assess skills needs for land management. ✻ Develop integrated training for land management. ✻ Assess funding and resource base of LBAPs and work towards securing on-going commitment to funding, linked to a clarification of roles at the local, regional and national levels.
3. Monitoring the condition of habitats, species and ecosystems.	✻ Relevant baseline information in place. ✻ Appropriate monitoring programmes in place. ✻ Sustainably funded local records centres with adequate staff and resources across the Region. ✻ Mechanisms in place for the delivery of regional information established. ✻ Agreed set of biodiversity indicators for the Region.	✻ Develop coordinated monitoring between key agencies. ✻ Develop mechanisms for the delivery of regional information. ✻ Link data to key issues e.g. Indicators, Regional Spatial Strategy and climate change. ✻ Promote awareness of changes detected in habitats and species ✻ Establish data needs for all users at different levels. ✻ Develop a set of regional Biodiversity Indicators. ✻ Assess funding and resource base of LRC's and work towards securing on-going commitment to funding.

Continued...

Key Challenge	Milestones	Strategic Objectives
4. Re-connecting and integrating action for biodiversity with other environmental, social and economic activity. N.B. See also Strategic Aims and Actions in the Regional Forestry Framework relating to regeneration, health and well-being and recreation and tourism.	✻ Policy and decision-makers in economic and social sectors are aware of the benefits of biodiversity. ✻ Monetary and other resource commitments are made. ✻ Local Development Frameworks and other local documents such as Community Strategies contain appropriate biodiversity coverage and linkages.	✻ Develop relationships with other sectors, for example exploring brownfield issues with the business sector. ✻ Explore economic issues for effective land management. ✻ Identify data (and gaps) which can be used to demonstrate examples of re-connecting biodiversity with other activities. ✻ Investigate extent to which greenspace standards (such as English Nature's) are being applied and develop the application of this and other access standards.
5. Coping with the impacts of climate change.	✻ Key spatial impacts of climate change established. ✻ Linkages between habitats and species established in relation to climate change. ✻ Policy-makers aware of key issues and the activity needed.	✻ Establish level of current knowledge and activity. ✻ Clarify climate change issues for the Region. ✻ Raise awareness of issues amongst policy-makers.

Appendix Three

Policy QE7 from the Regional Spatial Strategy: Protecting, managing and enhancing the Region's Biodiversity and Nature Conservation Resources

All the plans and programmes of local authorities and other relevant agencies should:

i) encourage the maintenance and enhancement of the Region's wider biodiversity resources, giving priority to:

- ✻ the protection and enhancement of specific species and habitats of international, national and sub-regional importance as identified in the West Midlands Regional Biodiversity Audit, Local Biodiversity Action Plans (LBAPs) and other BAPs;
- ✻ those that receive statutory protection; and
- ✻ the biodiversity enhancement areas shown on the QE Areas of Enhancement Diagram.

ii) include policies and proposals which enable the West Midlands to achieve its minimum share of the UK Biodiversity Action Plan (UKBAP) targets as set out in Annex B and the targets of local partnerships and other BAPs;

iii) take a common approach to biodiversity and nature conservation issues which cross local planning authority and Regional boundaries, especially those relevant to:-

- ✻ the strategic river corridors and tributaries of the Severn, Trent, Avon and Wye, river catchments, and issues in current local Environment Agency plans; and
- ✻ priorities derived from English Nature's Natural Areas Framework and associated Area Profiles and the West Midlands Biodiversity Audit.

Appendix Four

Regional Planning Guidance Priority Habitat Targets

Habitat Type	Target for protection	Target for restoration	Target for Re-creation
Upland oakwood	Maintain all examples	450ha by 2010	350ha by 2010
Lowland beech and yew woodland	Maintain all examples	No present target	No present target
Upland mixed ashwood	Maintain all examples	250ha by 2015	35ha by 2015
Wet woodland	Maintain current 627ha	25ha by 2015	370ha by 2015
Lowland wood pasture and parkland	Maintain current 2,581ha	250ha by 2010	Initiate 20 sites by 2005
Lowland oak and mixed deciduous woodland	Maintain all examples	1,700ha by 2020	1,700ha by 2020
Ancient and/or species-rich hedgerows	Maintain all examples	50% by 2010 100% by 2010	No present target
Cereal field margins	Full extent unknown	1,000ha by 2010	No present target
Floodplain grazing marsh	Maintain current 4,898ha	250ha by 2010	40ha by 2010
Lowland meadows and pastures	Maintain current 1,553ha	30% by 2005 and 100% by 2015	30ha by 2010
Upland hay meadows	Maintain all examples	No present target	No present target
Lowland calcareous grassland	Maintain current 367ha	30% by 2005, 100% by 2015	20ha by 2010
Upland calcareous grassland	Maintain current 72ha	75% by 2005	5 - 10ha by 2005
Lowland dry acid grassland	Maintain current 755ha	30% by 2005, 100% by 2015	50ha by 2010
Upland heathland	Maintain current 3,726ha	300ha by 2015	190ha by 2010
Lowland heathland	Maintain current 2,987ha	Improve condition of all existing sites by 2010	300ha by 2005
Purple moor grass and rush pastures	Maintain all examples	30% by 2005, 100% by 2015	20ha by 2010
Fens	Maintain current 180ha	Improve quality of degraded sites by 2005	No present target
Reedbeds	Maintain current 33ha	70ha by 2010	50ha by 2010
Lowland raised bog	Maintain current 451ha of raised bog sites and intact bog	Improve condition of degraded sites by 2015	No present target
Blanket bog	Maintain all examples	1,670ha by 2015	No present target
Mesotrophic lakes	Maintain all examples	No present target	No present target
Eutrophic standing waters	Maintain current 234ha	No present target	No present target
Regionally important landscape features			
Rivers and streams	Maintain 822kms of main river	No present target	No present target
Standing open waters, ponds and canals	Maintain current 4,565ha and 1,585kms of canal	No present target	No present target
Hedgerows	Unknown	No present target	No present target
Small woodlands	Unknown	No present target	No present target
Nature conservation targets in towns and cities			
Built up areas and gardens	Maintain current 8,444ha	Government-endorsed English Nature standards for accessible natural greenspace (ODPM September 2002): - a greenspace of at least 2ha <300m from home - a Local Nature reserve provision at a minimum of 1ha per thousand population - at least one greenspace of 20 ha within 2 km of home, one 100ha site within 5km of home, and one 500ha site within 10km of home	

List of Abbreviations

AWM	Advantage West Midlands
AMP	Asset Management Plan
AONB	Area of Outstanding Natural Beauty
BAP	Biodiversity Action Plan
BARS	Biodiversity Action Reporting System
BTCV	British Trust for Conservation Volunteers
CAP	Common Agricultural Policy
CROW Act	Countryside and Rights of Way Act
Defra	Department of Environment Food and Rural Affairs
DETR	Department of Transport and the Regions
EMAS	Eco-Management and Audit Scheme
EU	European Union
FWAG	Farming and Wildlife Advisory Group
GDP	Gross Domestic Product
GIS	Geographical Information System
GOWM	Government Office for the West Midlands
LBAP	Local Biodiversity Action Plan
LBRCs	Local Biological Recording Centres
LSP	Local Strategic Partnership
NNR	National Nature Reserve
ODPM	Office of the Deputy Prime Minister
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
PSA	Public Service Agreement
RDA	Regional Development Agency
RES	Regional Economic Strategy
RSS	Regional Spatial Strategy
RSDF	Regional Sustainable Development Framework
RSPB	Royal Society for the Protection of Birds
SA	Sustainability Appraisal
SEA	Strategic Environmental Assessment
SSSI	Site of Special Scientific Interest
UKBAP	United Kingdom Biodiversity Action Plan
UN	United Nations
West Midlands Region	Birmingham and the Black Country, Herefordshire, Shropshire, Staffordshire, Warwickshire and Worcestershire
WMBP	West Midlands Biodiversity Partnership
WMRA	West Midlands Regional Assembly

References

1. West Midlands Regional Biodiversity Audit. West Midlands Biodiversity Partnership, (ed. M. July, D. Edwards), August 2001
2. West Midlands Spatial Strategy, formerly Regional Planning Guidance for the West Midlands RPG 11. ODPM, GOWM, 2004
3. Potential Impacts of Climate Change in the West Midlands, Sustainability West Midlands, 2004
4. West Midlands Regional Concordat. August 2003
5. Regional Sustainable Development Framework, in prep
6. Delivering Advantage - West Midlands Economic Strategy and Action Plan 2004-2010, Advantage West Midlands
7. The Rural Strategy. Defra, 2004
8. Gabrynowicz, S. The relationship between Environmental Management and Economic Performance. Department for Environment and Heritage, South Australia January 2003
9. The Environmental Economy of the Protected Landscapes of the West Midlands, West Midlands Rural Accord, 2003
10. The Environmental Economy of the West Midlands. Environment Agency and Advantage West Midlands, 2001
11. Rural economies: Stepping stones to healthier futures. The Countryside Agency, March 2003
12. The Structure and Strategy for Supporting Tourism, Culture, Media and Sport. House of Commons Committee. Fourth Report, Session 2002-2003, 28th January 2003, (ISBN 0 21 500795 6) Source data: National Statistics Input-Output Tables (GDP(O)) 2002
13. Convention on Biological Diversity (Na.92-7807), United Nations Environment Programme (UNEP), 5th June 1992
14. Johannesburg Declaration on Sustainable Development, adopted at the World Summit on Sustainable Development. September 2002
15. A Better Quality of Life - A Strategy for Sustainable Development for the United Kingdom, DETR, May 1999. (ISBN 0 10 143452 9)
16. Biodiversity: the UK Action Plan, HMSO, 1994, (ISBN 0 10 124282 4)
17. Working With the Grain of Nature - A Biodiversity Strategy for England. Defra, 2002
18. Water Act, 1989 HMSO (ISBN 010 541 5898)
19. Countryside and Rights of Way Act, 2000 HMSO (ISBN 010 543 700X)
20. Your region, your choice: revitalising the English regions. May 2002, (Cm5511) Department of Transport, Local Government and the Regions
21. Regional Development Agencies Act, 1998 HMSO (ISBN 010 544 598)
22. Natural Partners, The achievements of local biodiversity partnerships in England. England Biodiversity Group, 2003
23. DETR circular 4/2001
24. Natural Communities. English Nature, RSPB, The Wildlife Trusts, 2002

References

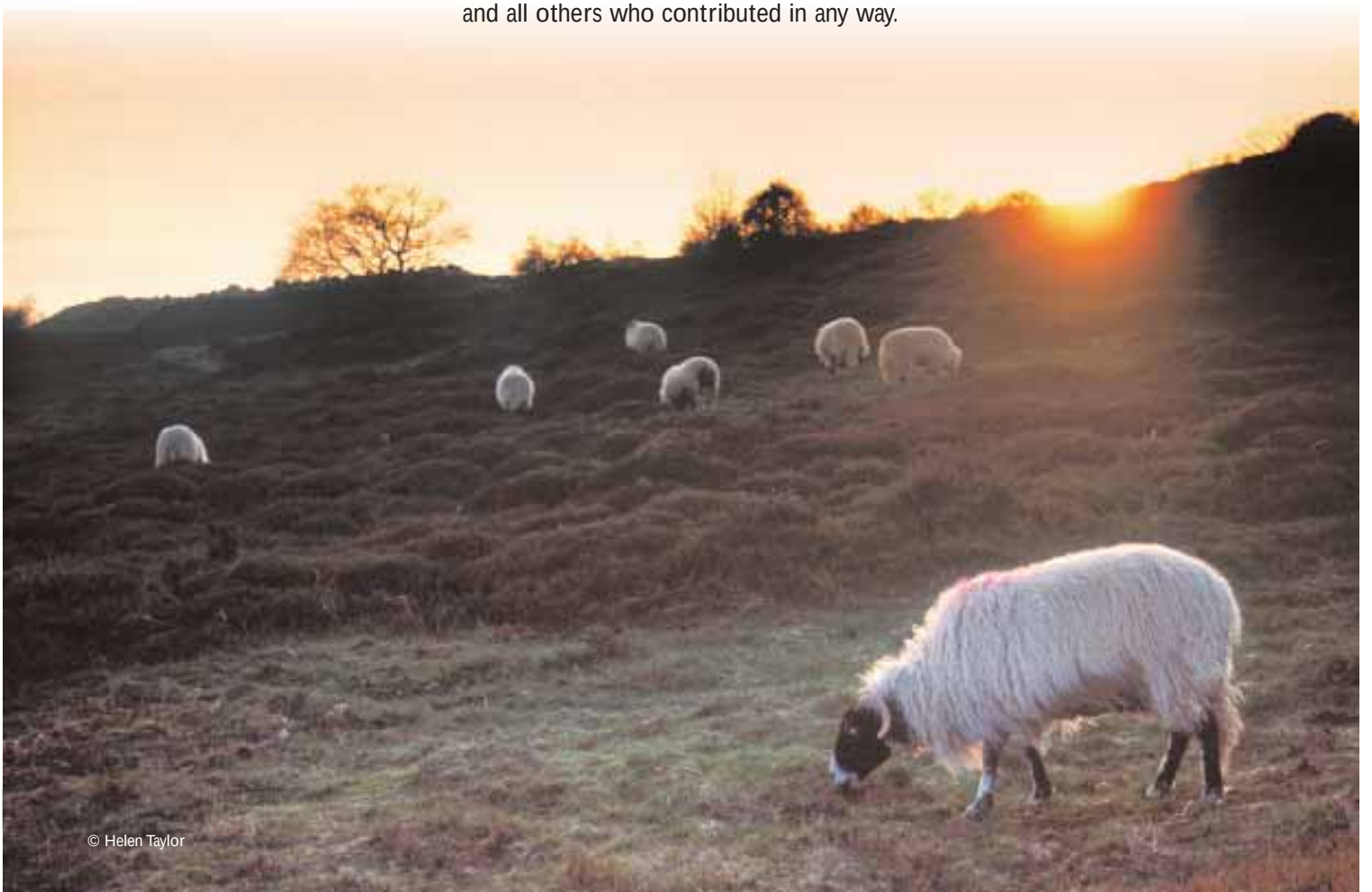
25. Life-Support: Incorporating Biodiversity into Community Strategies. Defra and partners, 2004
26. Beyond the Wish-list: A Toolkit for Integrating Biodiversity into Community Strategies in the West Midlands. West Midlands Biodiversity Partnership, 2003
27. Quality of Life Counts: Indicators for a strategy for sustainable development for the United Kingdom. Department of the Environment, Transport and the Regions. 1999 (ISBN 1 85112 3431) & Regional quality of life counts - regional versions of the national Headline Indicators of sustainable development
28. A Biodiversity Strategy for England. Measuring Progress: baseline assessment, December. Defra, 2003
29. EU Water Framework Directive, 2000 (2000/60/EC)
30. EU Nitrates Directive, 1991 (91/676/EEC)
31. EU Urban Waste Water Treatment Directive, 1991 (91/271/EEC)
32. EU Habitats Directive, 1992 (92/43/EEC)
33. EU Birds Directive, 1979 (79/409/EEC)
34. Growing our future: the West Midlands Regional Forestry Framework. Forestry Commission and partners, 2004
35. Sustainable Forestry: The UK Programme (Cm2429), HMSO, 1994
36. England Forestry Strategy. A New Focus for England's Woodlands, Strategic priorities and programmes. Forestry Commission, (ISBN 0 85538 359 3)
37. Space for People: Targeting Action for Woodland Access. Woodland Trust and Forestry Commission, 2004.
38. The UK Forestry Standard, Forestry Commission, 1998
39. Our Towns and Cities: The Future. Delivering an Urban Renaissance, Urban White Paper, DETR, November 2000
40. Sustainable Communities: Building for the Future. ODPM, 2003
41. Living Places - Cleaner, Safer, Greener. Government Policy Statement. ODPM, October 2002
42. A Space for Nature. English Nature, 1996 (ISBN 1 85716 246 3) Available on the English Nature website
43. Planning for Biodiversity. Royal Town Planning Institute, 1999 (ISBN 1 902311 12 4)
44. Biodiversity by Design: A Guide for Sustainable Communities. Town and Country Planning Association, September 2004
45. West Midlands Visitor Economy Strategy, Advantage West Midlands, 2004
46. Choosing Health: Making Healthier Choices Easier, Health White Paper, Department of Health, (Cm6374) 2004
47. Regional Transport Strategy, incorporated in the West Midlands Spatial Strategy (see Reference No.2).

Acknowledgments

Thanks are due to the following for their assistance with this publication:

Fran Austins
Simon Barker
Chris Blakeley
Paul Cobbing
Mark Felton
Andrew Hearle
Andrew Heaton
Steve Holliday
Mark July
Alex Kinnersley
Justin Milward
Amanda Pearce
Peter Shirley
Paul Tame
Helen Taylor
Simon West
Nick Young
Land Care Associates

and all others who contributed in any way.



Members of the West Midlands Biodiversity Partnership

Association of Local Government Ecologists
British Waterways
Butterfly Conservation
Country Land and Business Association
Countryside Agency
Defra
English Nature
Environment Agency
Forestry Commission
Government Office for the West Midlands
The National Trust
National Farmers Union
Royal Society for the Protection of Birds
Severn Trent Water Ltd
West Midland Bird Club
West Midlands Local Biodiversity Action Plan Coordinators' Group
West Midlands Local Government Association
West Midlands Regional Assembly
The West Midlands Wildlife Trusts
Woodland Trust

www.wmbp.org

WMBP, 28 Harborne Road, Edgbaston,
Birmingham, B15 3AA
T: 0121 454 8018
F: 0121 454 6556
E: enquiries@wmbp.org

Document published by the West Midlands Biodiversity Partnership, with the assistance of English Nature and the Government Office for the West Midlands

Printed by Renfor Four Colour Ltd, Birmingham

Designed by Helen Taylor

defra
Department for Environment Food and Rural Affairs

Heritage Lottery Fund

Government Office for the West Midlands

English Nature