The Local

BIODIVERSITY ACTION PLAN

for Test Valley

May 2008

TEST VALLEY
BOROUGH COUNCIL

The Local Biodiversity Action Plan

Background

This is the Local Biodiversity Action Plan (hereafter referred to as the BAP) for the Borough of Test Valley. It is a working document that provides a framework for the maintenance and enhancement of the biodiversity of the Borough and has been prepared in accordance with planning regulations.[1]

It has been published by Test Valley Borough Council and was written in conjunction with the Hampshire & Isle of Wight Wildlife Trust. The BAP also has the support of the Environment Group representing the Borough's Local Strategic Partnership, a group of stakeholders with a special remit for developing environmental activities as part of the Borough's Community Strategy.

Obtaining Further Information about the Local Biodiversity Action Plan

If you have any queries on the BAP or you would like to discuss its contents with someone from the Council:

Contact: Kevin Harrington (Leisure)
Address: Test Valley Borough Council
Beech Hurst
Weyhill Road
Andover, Hampshire
SP10 3AJ
Telephone: 01264 368815
Email: leisure@testvalley.gov.uk

If you would like to speak to someone from the Wildlife Trust:

Contact: David Rumble, Biodiversity Information Manager
Address: Hampshire & Isle of Wight Wildlife Trust,
Beechcroft House, Vicarage Lane,
Curdridge, Hampshire, SO32 2DP.
Telephone: 01489 774433
Email: davidr@hwt.org.uk

[1] Part 5 of The Town and Country Planning (Local Development) (England) Regulations 2004

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Foreword

Test Valley includes many important wildlife areas, including a number of international designations. The Borough contains an exceptional range of habitats and hosts a number of rare and declining species. Not all of the habitats important to maintaining and improving biodiversity in the Borough are protected by legislation; therefore it is important that they are identified and managed appropriately. This is especially important where we are witnessing increased fragmentation of habitats and need to anticipate the implications of a changing climate.

The Council has a duty to protect and enhance biodiversity. This Local Biodiversity Action Plan provides us with a key source of information in identifying the habitats and species the Borough supports. It also provides a way forward in the future management of the environment both on a Borough-wide and more localised scale. Partnership working will be essential in the implementation of the action plans and everyone can play a role in protecting biodiversity and the environment as a whole.

Councillor **Martin Hatley**
Portfolio Holder for Planning and Transport

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An Introduction To Biodiversity Action Planning

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Introduction

1.1 This is the local Biodiversity Action Plan (BAP) for Test Valley. It is a working document that provides a framework for the conservation, enhancement and restoration of the biodiversity of the Borough. The BAP has been prepared by the Hampshire & Isle of Wight Wildlife Trust with support from Test Valley Borough Council and in consultation with several relevant agencies, authorities, non-governmental organisations, special interest groups and individuals.

The document includes:

- an introduction to biodiversity action planning (Section 1)
- an audit of the biodiversity of Test Valley (Sections 2 and 3)
- an action plan for partners and the public to maintain and enhance biodiversity in Test Valley (Sections 4 to 6)
  a procedure for monitoring and reporting on progress towards the BAP's actions (Section 7)
- appendices with relevant background information and contacts

This section:

- explains the term 'biodiversity'
- gives an overview of biodiversity in Test Valley
- discusses biodiversity action planning at the national and local levels and explains how biodiversity has become an important consideration in decision making
- explains the process of producing the BAP for Test Valley
- lists biodiversity objectives for the Borough
- provides guidance on how to use the BAP

1.2 The Natural Environment and Rural Communities (NERC) Act 2006 requires every local authority to have regard to conserving biodiversity. Biodiversity Action Plans have been produced at a national, regional and county level; this document applies specifically to Test Valley, providing a basis for it to fulfil its duty identified in the Act. Furthermore, this document will inform the consideration of planning applications, particularly in relation to policies ENV 01 – ENV 05 of the Local Plan 2006 and emerging policies of the Core Strategy Development Plan Document.

What is Biodiversity?

1.3 The word 'biodiversity' is short for 'biological diversity' and encompasses all living things in the natural world ranging from the smallest plants to the largest animals. It relates to both rare and common species, to the complex interactions between them and to the habitats in which they live.

1.4 It is important to maintain biodiversity for a number of reasons:

- **Biodiversity provides a life support system** – We rely on a healthy environment to ensure our survival. For example, green plants take carbon dioxide from the air and in the process of growing and living they produce oxygen for us to breathe.

- **Biodiversity provides our resources** – The natural world provides humans (and all other species) with the basic resources, such as food and raw materials, we need to live our daily lives.

- **Biodiversity maintains our environment** – Without a stable environment we are more at risk from floods, droughts, soil erosion and pollution. The soils, rivers, air and species within them are all part of a natural cycle that, if managed wisely, can absorb the impacts of human activities.

- **Biodiversity is used for recreation** – Most of us spend part of our leisure time outdoors, in the countryside, on nature reserves or in a local park. The enjoyment of these places, and the plants and animals found within them, is an important part of people's lives.

- **Biodiversity gives us a sense of wellbeing** – The health of our environment has a direct positive effect on how we feel. Access to green spaces, such as woodlands and parks, or birds visiting our garden make us feel better and improve our quality of life.

Background

1.5 When people think of the English countryside, they often have in mind the landscapes of central southern England: a gently rolling patchwork of fields and woodlands with small villages of thatched cottages scattered here and there.

1.6 Much of Test Valley conforms to this popular vision, but the area also includes other landscapes. The enclosed valley of the River Test runs the length of the Borough, and the Borough's western edge abuts the wide-open spaces of the New Forest and Salisbury Plain[2]. These varied landscapes support a wide range of habitats and species including some of the most important plants and animals in the UK. Test Valley is not only an attractive rural Borough, but also an area of considerable wildlife interest.

An Overview of Biodiversity in Test Valley

Biodiversity Across the Borough

1.7 Much of Test Valley overlies outcrops of chalk and in these areas the landscape is made up of large stretches of arable farmland and pastures with occasional blocks of broadleaved woodland. Patches of chalk downland, which support a wide variety of plant and butterfly species, remain in locations such as Brockley Warren and Stockbridge Down.

1.8 The River Test cuts through these chalk landscapes entering the Borough near its source in the north and meandering southwards to join the sea at Southampton Water. The river's clear waters emerge from the chalk providing ideal conditions for a rich diversity of plants, animals and fish. The River Test is one of the most important chalk rivers for wildlife in Britain and its floodplain also supports a wide range of wetland habitats and associated species. The River Test has a number of tributaries on the chalk outcrops, including the Bourne Rivulet, River Dever, River Anton and Wallop Brook, which are also of wildlife interest.

1.9 The North Wessex Downs Area of Outstanding Natural Beauty (AONB) lies to the north of Andover. In this area the chalk landscapes are more dramatic and the steeper slopes support areas of chalk downland and woodland. The AONB has its own management plan, which encourages the sympathetic management of these habitats for wildlife.

2 All these landscapes are described in detail in Test Valley Borough Council's Landscape Character Assessment (see Appendices 3 and 5)

1.10 The main feature of wildlife interest within Andover is the River Anton, which supports wetland species such as kingfisher. The Council owns much of the land along the river, including Anton Lakes Local Nature Reserve and land at Rooksbury Mill, which is positively managed for wildlife. Harewood Forest lies to the southeast of the town and is one of the largest and most important areas of ancient woodland in southern England outside the New Forest. It supports a variety of different woodland habitats together with a wide range of plants and animals.

1.11 Salisbury Plain is one of the largest unbroken swathes of chalk downland habitat in Britain. It lies mostly in Wiltshire, but extends into the Borough at Porton Down. This site supports a wide range of wild flowers and butterflies together with a population of stone curlew, a nationally rare breeding bird.

1.12 The Tytherley and Mottisfont area supports large areas of woodland, which extend further west towards Salisbury. These woodlands are particularly important for their populations of moths and butterflies. The woodlands around Mottisfont are internationally important for wildlife supporting one of the few known colonies of barbastelle bats in the UK.

1.13 The New Forest has recently been designated as a National Park and a small part of the open forest lies within the Borough (Plaitford Common, West Wellow Common and Canada Common). The heathland and acid grassland habitats of the commons are maintained by grazing and support important bird and plant populations. Much of the countryside around the edge of the New Forest has been used by stock for winter grazing and the landscape supports an intimate mixture of parkland, ancient woodland and mixed farmland.

1.14 South and east of Romsey the acid and neutral soils support a wide range of habitats including extensive woodlands (such as Ampfield Woods and those in the Chilworth area), heathland and acid grasslands (such as those to the north of North Baddesley), and flower-rich meadows. The wetland habitats at Emer Bog, to the north of North Baddesley, are recognised as being internationally important.

1.15 Below Romsey the River Test flows over less permeable clays and sands and is joined in its lower reaches by the River Blackwater. As the river flows south, the valley floor broadens and has historically been used for grazing. Where the Lower Test enters Southampton Water this low intensity pastoral system has helped to maintain a variety of wetland habitats including fens, wet meadows, carr woodland and grazing marshes.

The Influence of Humans

1.16 This brief overview demonstrates the importance of the Borough for a wide variety of wildlife, but it should be borne in mind that most, if not all, of these habitats have been shaped by human activities.

1.17 Human influence was relatively limited up until the Bronze Age, when stock grazing, cultivation and the clearance of woodland began to shape the landscape we are familiar with today. An overview of subsequent human influences on the Test Valley landscape is given in the Council's Landscape Character Assessment[3]. Losses of biodiversity were particularly severe during and after the Second World War when changes in agriculture resulted in the removal of hedgerows, agricultural intensification and changes in river management.

1.18 Although Test Valley is largely rural there are a few locations where urban activity has an impact on wildlife in the adjacent countryside. These 'urban fringe' problems are a particular issue in the south of the Borough close to Southampton and around Andover in the north of the Borough. Despite these problems, biodiversity in and around urban areas remains important because it provides people with contact with nature close to where they live. Habitats such as churchyards, allotments and domestic gardens give urban areas their own wildlife value.

Looking Towards the Future

1.19 In recent years attitudes have changed and the conservation of biodiversity has become more important. The Government suggests that we should seek to "live within environmental limits" and to do so we need to look after the rich and varied biodiversity of the Borough both for our own wellbeing and for future generations. It will be human management of the landscape in the future that will determine whether or not the biodiversity of the area is maintained, enhanced and restored.

1.20 The BAP should play a major part in helping to achieve that vision. The biodiversity audit in Sections 2 and 3 informs people about the wildlife interest of the Borough. Section 4 discusses the main issues relevant to biodiversity in Test Valley and includes a set of Borough-wide actions. Section 5 looks at different parts of the Borough in more detail outlining the key local issues and putting forward a series of local actions. Section 6 outlines how local people can get more involved in practical conservation work, monitoring wildlife and the planning process and Section 7 explains how progress will be monitored and reviewed.

1.21 The Government considers that biodiversity should be taken into account in all decision-making processes and its vision *"is for a country … where biodiversity is a natural consideration of policies and decisions, and in society as a whole."* [4] To help achieve that vision it is intended that a Supplementary Planning Document will be produced to set out guidelines for developers indicating how biodiversity interests should be taken into account when development is proposed.

1.22 The conservation of biodiversity is a priority for the local community, as set out in the Community Plan[5], and partnership working involving landowners, conservationists, developers and local residents will be required to achieve this. The BAP provides a framework to deliver benefits for wildlife and will not only help to prevent further losses but will also help to enhance the biodiversity of the Borough for current and future generations.

The Government's Commitment to Biodiversity

1.23 The Government considers the conservation and enhancement of biodiversity to be an essential part of sustainable development. One of its five guiding principles in its updated Sustainable Development Strategy[6] is 'Living Within Environmental Limits' which means "respecting the limits of the planet's environment, resources and biodiversity – to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations."

1.24 The Government sets out how it intends to conserve and enhance biological diversity in England through its national biodiversity strategy[7]. This identifies national biodiversity priorities, but also recognises that action is required at the local level to deliver benefits for wildlife.

3 A summary of human influences on the Test Valley landscape is given in Section 2.4 of The Test Valley Community Landscape Project – Landscape Character Assessment Volume 1: Description and Classification of Landscape Character Types and Areas, 2004

4 Executive Summary, Working With the Grain of Nature – A Biodiversity Strategy for England, DEFRA, 2002

5 Your Test Valley – A Community Plan for the Future, The Test Valley Partnership, 2003

6 Securing the Future – The UK Government Sustainable Development Strategy (Cm 6467), TSO, 2005

7 Working With the Grain of Nature: A Biodiversity Strategy for England, DEFRA, 2002

1.25 This document includes a series of recommended actions to help maintain and enhance the biodiversity of the Borough. The Government indicates that the main functions of local biodiversity action plans are:

- to translate national targets for species and habitats into effective action at the local level;
- to identify targets for species and habitats important to the local areas and reflecting the values of local people;
- to stimulate effective local partnerships to ensure programmes for biodiversity conservation are developed and maintained in the long term;
- to raise awareness of the need for biodiversity conservation and enhancement in the local context;
- to ensure that opportunities for conservation and enhancement of biodiversity are promoted, understood and rooted in policies and decisions at the local level; and
- to provide a basis for monitoring and evaluating local action for biodiversity priorities, at both national and local levels.[8]

Biodiversity Action Planning in the UK

1.26 The Government's commitment to biodiversity stems from 1992 when the Prime Minister and over 150 other Heads of State or Government signed **The Convention on Biological Diversity**, at the Earth Summit in Rio de Janeiro[9]. Each country agreed that action was required to prevent the loss of species and habitats that was occurring at an unprecedented rate world-wide. The Convention requires signatories to "develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity, or adapt for this purpose existing strategies, plans or programmes…".

8 These objectives are set out in Natural Partners: The Achievements of Local Biodiversity Partnerships in England, England Biodiversity Group, 2003

9 United Nations Convention on Biological Diversity, Rio de Janeiro, 1992

1.27 In response **The UK Biodiversity Action Plan** (UKBAP) was produced by the UK Biodiversity Steering Group in 1994. This action plan:

- took an audit of wildlife in the UK
- identified those species and habitats most at risk nationally
- set out broad actions to protect them
- identified which agencies would take the lead for each action
- put in place reporting deadlines to monitor progress

1.28 This was updated in 2002 with the production of Working with the Grain of Nature – a Biodiversity Strategy for England by DEFRA. Together these documents have provided the basis for the production of biodiversity action plans at the more local level.

1.29 In 1998 the RSPB and Wildlife Trusts produced The Biodiversity of South East England: an Audit and Assessment. This provides details of the status and distribution of habitats and species in the South East and identifies those of greatest priority. Also the policies of the UK Biodiversity Action Plan were translated into targets for habitat restoration at the regional level by the South East England Biodiversity Forum (SEEBF).[10]

1.30 In 1996 Hampshire County Council set up the Hampshire Biodiversity Partnership and in 1998 Volume 1 of the Biodiversity Action Plan for Hampshire was published. This describes Hampshire's biodiversity and identifies habitats and species of priority concern. It also sets out a 10-year plan of action for the County. Individual action plans for priority habitats and species are contained in Volume 2. Work on Volume 2 is ongoing and habitat and species action plans continue to be reviewed.

1.31 The Local Biodiversity Action Plan for Test Valley includes a local biodiversity action plan (in Sections 4 to 7). National, regional and county targets have been applied to the Borough and opportunities for action at the local level are discussed. Areas are identified where projects on the ground can achieve benefits for biodiversity and contribute towards county, regional and national biodiversity targets.

10 These targets are set out in Action for Biodiversity in South East England, SEEBF, 2000

1.32 These different tiers of action plans help to ensure that conservation effort is consistently focussed on the most important priorities at all levels. They also enable people to understand how action at the local level can help to address biodiversity conservation issues at the County, regional and national levels. An example of how the action plans at different levels complement each other is outlined below.

1.33 The UKBAP highlights chalk rivers as a national priority for conservation. The target set at the regional level is to ensure that 100% of this habitat in the South East is restored to favourable conservation status.

1.34 Partnership working at the County level enabled an assessment of the rivers in Hampshire to be made and the Rivers Test, Itchen and Avon were identified as the most important. Partnership working also helped to identify the major threats to these habitats. Specific recommendations are set out in the Hampshire BAP to restore the chalk rivers of Hampshire and their associated species.

1.35 Coordinated action at the local level involving local landowners and farmers has helped to restore habitats and encourage rare species on the River Test. By quantifying these improvements and reporting back to the county, regional and national levels, the bigger picture will start to emerge and enable judgements to be made about the overall effectiveness of current policies.

Partnership Working for Biodiversity at the Local Level

1.36 Biodiversity Action Plans at the national, regional and county levels have been produced by various partners working together. Partnership working is also required at the local level to ensure that initiatives and actions on the ground are co-ordinated and complementary. Three types of local partnerships are important. These are:

- biodiversity partnerships
- community partnerships
- working partnerships

Biodiversity Partnerships

1.37 The initial drafts of the BAP were prepared by the Hampshire Wildlife Trust and the Local Strategic Partnership Environment Group, a partnership of stakeholders with environmental interests. The Wildlife Trust is a key partner in the Hampshire Biodiversity Partnership, the body coordinating implementation and development of the Hampshire BAP. Hence there are strong links between the Test Valley BAP and the wider Hampshire BAP.

1.38 The following organisations are represented on the Biodiversity Partnership and have contributed to the production of, or have provided data for, the BAP:

- British Dragonfly Society
- British Trust for Conservation Volunteers
- Butterfly Conservation
- Environment Agency
- Forestry Commission
- Hampshire Amphibian and Reptile Group
- Hampshire Biodiversity Information Centre
- Hampshire County Council
- Hampshire Mammal Group
- Hampshire Ornithological Society
- Hampshire Wildlife Trust
- Natural England
- North Wessex Downs AONB Team
- Southampton University
- Test Valley Borough Council
- The Botanical Society of the British Isles

By working together these organisations have pooled their knowledge and resources to establish a plan for biodiversity action at the local level.

Community Partnerships

1.39 The Local Government Act 2000 requires each local authority to produce a community strategy or community plan to promote "the economic, social and environmental wellbeing of their areas…". The Government envisages that local communities will be involved in developing community strategies or plans and indicates that community involvement will be achieved by developing 'local strategic partnerships'.

1.40 The Council produced its Community Plan called **Your Test Valley – A Community Plan for the Future** in December 2003. Your Test Valley sets out six key priorities with the aim of creating "a Test Valley community where everyone has the opportunity to fulfil their potential and enjoy a good quality of life".

1.41 The Community Plan was drawn up by The Test Valley Partnership (the Local Strategic Partnership for the Borough), which includes over 250 local organisations including public sector bodies, private businesses, voluntary organisations and community groups. This high level of community involvement has resulted in a Community Plan that both reflects the views of local people and receives their support.

1.42 The importance of conserving the biodiversity of the Borough is recognised in the Community Plan. Priority 2 is to maintain "A Clean & Attractive Community" and under this priority the Council has committed to:

"Protect and increase the variety of plants and animals by:

- *working with partners to protect and enhance the wildlife of Test Valley; and*
- *encouraging residents to conserve wildlife in the garden and local environment."*

Under this priority the Council has also made a commitment to:

"increase awareness of the Test Valley environment by: promoting the beautiful Test Valley landscape and biodiversity."

1.43 These commitments emerged from discussions at the Partnership's Environment Action Group. The Test Valley Partnership also intends to measure progress towards achieving Priority 2 by monitoring the effectiveness of the BAP in increasing populations of key indicator species in the Borough.

Working Partnerships

1.44 The implementation of the action plan within the BAP will require informal working partnerships to be set up involving landowners, land managers, conservation bodies, other organisations and local people. In many cases implementation will mean practical conservation work but in other cases it may mean survey work or lobbying to change land management policies or financial incentive schemes. The implementation of the action plan will therefore ultimately depend upon the cooperation of key players at the local level, particularly landowners and farmers, as well as conservation bodies and local people. The project tables in Sections 4 and 5 identify lead partners for the actions proposed in different parts of the Borough.

Integrating Biodiversity into Local Decision Making

1.46 The Government considers that biodiversity should be taken into account in all decision making processes and its vision "is for a country … where biodiversity is a natural consideration of policies and decisions, and in society as a whole."[11]

1.47 The BAP will play a major role in helping to conserve biodiversity in the Borough and this issue will need to be taken into account by the Council in all its activities. The Council will also need to work in partnership with local organisations and the community to make biodiversity a mainstream consideration in decision-making.

1.48 The BAP will help to promote sustainability through the Local Agenda 21 process and will also help the Government to meet its obligations under The Countryside and Rights of Way Act 2000. The BAP objectives and targets need to be integrated into the Council's planning documents and also the BAP's overall approach needs to be consistent with the Council's landscape management guidelines developed through the Community Landscape Project[12]. The objectives and targets of the BAP will need to be taken into account in management plans produced either by the Council or other organisations with an interest in Test Valley.

11 Executive Summary, Working With the Grain of Nature – A Biodiversity Strategy for England, DEFRA, 2002

12 Test Valley Community Landscape Project, Hampshire County Council, The Countryside Agency and Test Valley Borough Council, 2004

Local Agenda 21

1.49 One of the products of the Earth Summit in 1992 was Agenda 21, which was a global action plan for achieving sustainable development in the 21st century. Local Agenda 21 was developed for local authorities as a framework to work towards sustainable development at the local level. Each local authority was required to produce a Local Agenda 21 strategy to promote sustainable development within its area in consultation with the local community. The Council produced its Local Agenda 21 Plan in December 2000[13].

1.50 Conserving biodiversity is an integral part of sustainable development and the Council has been working towards this through the Local Agenda 21 process. The Council's Community Plan builds on the work already done through Local Agenda 21 and highlights biodiversity conservation as a key part of sustainable development at the local level.

The Countryside and Rights of Way Act 2000

1.51 The Countryside and Rights of Way Act 2000 requires the Government to produce lists of the most important species and habitats for conservation[14]. It also requires the Secretary of State for Environment, Food and Rural Affairs to take steps to further the conservation of these habitats and species and to promote such steps by others.

1.52 The Act provides the statutory basis for biodiversity conservation in the UK. It sets priorities for conservation action at the national level and the BAP shows how these priorities can be applied to the local area. The Act also places a duty on Government departments to have regard to the purpose of conserving biological diversity in exercising their functions.

13 Local Agenda 21 Plan, Test Valley Borough Council, 2000

14 A list of habitats and species important to biological diversity in England was produced by the Secretary of State for Environment, Food and Rural Affairs on 17 December 2002, as required by Section 74(2)

15 Planning Policy Statement 9: Biodiversity and Geological Conservation, ODPM, 2005

Planning

1.53 The planning system is currently undergoing considerable change and biodiversity is becoming a more important consideration. The Government introduced the Planning and Compulsory Purchase Act in 2004, which seeks to widen the scope of planning so that it is less narrowly focused on land use and development issues. The Government also sees the new planning system as key to delivering sustainable communities. Government guidance on Biodiversity and Geological Conservation is set out in Planning Policy Statement 9 (PPS 9)[15].

1.54 Most of the actions required to enhance biodiversity, such as practical work on wildlife sites, do not constitute 'development' (as defined in the Planning Acts) and therefore do not require planning permission. Historically, such actions have not featured in planning policy documents. However, with the proposed wider scope of planning, updated Government guidance indicates that planning polices at the local level should reflect national and local biodiversity objectives, including those that have been agreed by local biodiversity partnerships. The guidance also indicates that the planning policies of local councils should seek to conserve, enhance, and restore important habitats and the populations of naturally occurring species that they support[16].

1.55 This new approach is taken forward in the draft South East Plan[17]. Policy NRM4 indicates that councils should "seek to avoid a net loss of biodiversity, and actively pursue opportunities to achieve a net gain across the region …" Table NRM 2 of the South East Plan sets targets for the improvement of a range of habitats and also identifies 'Areas of Strategic Opportunity' where this can be achieved. Areas of strategic opportunity that lie wholly or partly in Test Valley include:

- The New Forest
- Emer Bog
- North Wessex Downs AONB
- The River Test
- Tytherley Woods
- Harewood Forest

16 These 'important habitats' are defined in the list produced by the Secretary of State for Environment, Food and Rural Affairs in December 2002, as a requirement of the Countryside and Rights of Way Act 2000

17 A Clear Vision for the South East: The South East Plan Core Document – Draft for Public Consultation January 2005, South East England Regional Assembly, 2005

1.56 The national and emerging regional agenda will need to be taken forward by Test Valley Borough Council in its Local Development Framework (LDF), which will replace the Borough Local Plan[18]. The policies that seek to protect biodiversity from development will need to be reviewed and local targets will need to be set for habitat improvement. The local objectives for biodiversity enhancement in this BAP can be taken forward into the LDF, amended as appropriate to reflect circumstances at the time. It is therefore intended that the key objectives and actions from this BAP will be translated into a Supplementary Planning Document (SPD), therefore ensuring the BAP's objectives are integrated into the emerging LDF.

1.57 Within the Council-led development control process, it is considered good practice to supply developers with guidelines for conserving biodiversity. This need is therefore incorporated into the action plan of this BAP. Other ways in which the Council can support the objective of this BAP through development control include providing guidelines for Village Design Statements and Parish Plans.

Landscape Character Assessment and Community Landscape Project

1.58 Test Valley Borough Council has undertaken a landscape character assessment of the Borough by working in partnership with other organisations and the local community through the Test Valley Community Landscape Project (www.testvalley.gov.uk/tvlcp/index.html).

1.59 The assessment not only examines the visual character of the landscape but also takes account of its ecological, historical and cultural interests. The aim of the Landscape Character Assessment[19] is "To provide a clear framework to guide the future development and management of the Borough landscape in order to ensure that the distinctive character of the Borough is retained and change is accommodated in a positive way to the benefit of the people who live and work in the Borough, the ecological and historical value of the Borough and the overall condition of the landscape."

18 The timetable for the production of the documents that will make up the Council's Local Development Framework is set out in The Local Development Scheme 2005–2008, Test Valley Borough Council, 2005

19 Test Valley Community Landscape Project: Volume 1 Landscape Character Assessment, Hampshire County Council, The Countryside Agency and Test Valley Borough Council, 2004

1.60 As part of the Landscape Character Assessment, the Council has also produced landscape management guidelines[20] for each character area. In Section 5 of this BAP, the Borough has been divided into eight sub-areas each with a range of specific actions to maintain and enhance biodiversity and these sub-areas are based on the Landscape Character Areas identified in the Landscape Character Assessment. This common approach means that the guidelines and actions in the two documents are complementary. It is important that the two documents are used together to provide an integrated framework for enhancing both the quality of the landscape and the biodiversity of the Borough.

Area and Site-based Management Plans

1.61 Management plans, which may relate to specific areas (such as the North Wessex Downs AONB), or specific sites (such as nature reserves), are produced by many partners active in the Borough. Some of these plans, such as the Water Level Management Plans for the River Test and the Management Plan for Emer Bog Nature Reserve, are already helping to deliver local biodiversity targets. Reference is made to these plans within the BAP to make people aware of the work that is already being undertaken and to prevent the duplication of effort.

1.62 The BAP provides an overall framework for action at the local level and provides a useful overview of the current situation. The objectives and targets of the BAP will need to be taken into account when area or site-based management plans are reviewed. It is also important that these management plans are compatible with each other to ensure that all those with an interest in biodiversity are working towards the same goals. For this reason, links to such plans and strategies are made throughout Section 5.

Producing the BAP for Test Valley

1.63 The BAP has been written with the involvement of a broad partnership of organisations active within the Test Valley area. The biodiversity action plans at the national and county levels have provided the broad policy context for Sections 4 and 5 of this BAP and all the proposed actions and targets have been derived from objectives in the Biodiversity Action Plan for Hampshire. The production of the BAP document is only part of an overall process: it will need to be implemented and its progress will need to be monitored and reviewed.

20 Test Valley Community Landscape Project: Volume 2 Landscape Management Guidelines, Hampshire County Council, The Countryside Agency and Test Valley Borough Council, 2004

1.64 In summary, the four main phases of biodiversity action planning are:

- audit
- action plan
- implementation
- monitoring and review

These are outlined in more detail below.

Phase 1 – Audit

1.65 Before considering what action would be required in Test Valley it was important to make an assessment of the 'wildlife resource' of the area (i.e. to establish what habitats and species are present and which ones are of conservation concern).

1.66 The most up-to-date available data on the wildlife of Test Valley was gathered together and mapped onto a Geographic Information System (GIS) where possible. Natural England has published detailed information on Sites of Special Scientific Interest (SSSIs), and the Hampshire Biodiversity Information Centre (HBIC) has provided information on Sites of Importance for Nature Conservation (SINCs) and important habitats and species. Information on the distribution of species has been collated through a number of species interest groups including Hampshire Wildlife Trust's species groups, Butterfly Conservation and the Hampshire Ornithological Society.

1.67 Information on land management schemes is available to the general public on the Government website www.magic.gov.uk. Information on the areas within Test Valley under the main Government agri-environment schemes available have been mapped in Section 3 (Map 9). In addition, consultation with partners during the preparation of this BAP has built up a picture of relevant projects, strategies and initiatives already under way, links to which are made where possible in Sections 4 and 5.

Phase 2 – Action Plan

1.68 Once the species and habitats of greatest conservation concern had been identified, draft proposals were drawn up so that action could be effectively focused on biodiversity enhancement through direct (e.g. habitat management) and indirect (e.g. species survey promoting traditional practices) means.

1.69 The information collated for the BAP has been analysed and important areas and opportunities for biodiversity and its appreciation in Test Valley have been identified. For example, the data showed that the valley of the River Test south of the M27 motorway has a concentration of statutory and non-statutory designated sites and land under the Countryside Stewardship Scheme which all support a range of priority habitats and species. The importance of these areas was verified through discussions with organisations and individuals living and working locally to ensure that the BAP gives an accurate representation of the most important areas for biodiversity in the Borough.

1.70 Further consultation was undertaken locally to identify issues affecting biodiversity and potential opportunities for enhancement. From this consultation a series of actions were worked up in detail and these are set out in Section 5. These tables also identify partners who will be best placed to take the lead in delivering the actions and set out timescales for implementation so that progress can be monitored.

Phase 3 – Implementation

1.71 The BAP provides an overall framework for biodiversity action in Test Valley and helps the local community to see how local action fits into the bigger picture. However, these actions cannot be delivered on the ground unless local people and organisations work together.

1.72 The implementation of the BAP will require the involvement of landowners, farmers, conservationists, government agencies and local people. It will also require funding. By establishing agreed priorities in the BAP to defined timetables, it should be possible for the budget programmes of different organisations to be co-ordinated to achieve more. Also, jointly funded local projects are more likely to attract external funding to enable large gains for biodiversity to be delivered in the Borough.

Phase 4 – Monitoring and Review

1.73 The BAP is a working document and its proposed actions and targets will be monitored to measure progress towards implementation. This monitoring will provide the basis for future reviews and the BAP will be refined to reflect changing priorities in the future. Under the new planning system the Council is required to produce an Annual Monitoring Report, and an annual summary of progress towards biodiversity targets will be set out in this report.

1.74 Regional and national reporting of the BAP's progress will be possible through the Biodiversity Action Reporting System (BARS) – a UK level system for reporting BAP action. Locally, the Hampshire Biodiversity Partnership acts as the conduit for reporting to BARS; hence links to the Hampshire BAP's key objectives are made explicit in Section 7.

Biodiversity Objectives for Test Valley

1.75 The main aim of the BAP is:

To maintain and enhance the biodiversity of Test Valley in accordance with national, regional and county biodiversity objectives and in ways which reflect the values of local people.

1.76 A number of more specific objectives are listed below, which are:

- **To ensure the protection and appropriate management of key habitats in Test Valley:** Many of the most important habitats in Test Valley are protected for their wildlife interest at the international, national or local levels. However, protection of sites from harmful development or activities also needs to be complemented by positive management if the overall biodiversity of the Borough is to be enhanced and restored.

- **To reduce the effects of habitat fragmentation and isolation through the restoration of habitats on appropriate sites:** The historical loss of habitats has resulted in the isolation and fragmentation of the remaining ecologically rich areas. By restoring, and in some cases re-creating, habitats outside existing wildlife sites the effects of isolation and fragmentation can be reduced. Habitat restoration will help to make species less vulnerable to outside influences, such as the effects of climate change, pollution and disturbance and catastrophic events, such as fire.

- **To encourage the sympathetic management of the wider environment for wildlife:** Many important habitats and species are found on protected wildlife sites. However, the Borough's biodiversity is not restricted to these sites. Many of its species live on farmland or in domestic gardens, or use the wider countryside for dispersal between sites.

- **To protect key species and their habitats in Test Valley:** Most rare and declining species are being lost because the habitats upon which they depend have been converted into agricultural land, neglected, or isolated. The decline of formerly common species in recent years also highlights the importance of managing the wider environment to support wildlife. Protection of sites from harmful change goes hand in hand with managing habitats and the wider countryside so that a range of species can thrive.

- **To ensure that biodiversity is fully taken into account in planning and land use decisions:** Knowledge of biodiversity at the local level helps to inform decisions about development in the Borough, both in the determination of planning applications and the formulation of planning policy. The BAP can contribute to the achievement of sustainable development by ensuring that: important wildlife sites are protected from development; where development takes place measures are taken to maintain and enhance biodiversity; and conservation effort is focused in areas where it will be most effective.

- **To take account of the impacts of climate change and sea-level rise on biodiversity:** Climate change is a global issue and may have far-reaching effects that are difficult to predict. Increased temperatures and changes in rainfall patterns are particularly relevant in chalk areas, such as Test Valley, and are likely to affect both habitats and species. One important implication is sea-level rise and in the Borough the main location where this will have an effect is the Lower Test.

- **To improve our knowledge of, and maintain up-to-date information on, the biodiversity of Test Valley:** Although much is known about the biodiversity of Test Valley there are still some habitats and species where little is known about their status and distribution. The BAP identifies areas where additional surveys are required. Up-to-date information is required to ensure that decisions are based on the best available knowledge.

- **To increase awareness amongst local people:** It is important that local people have access to wildlife close to where they live. In addition, awareness of how individuals can help should be promoted amongst all sectors of society: local people can manage their own gardens to encourage wildlife; partner organisations can enhance access to land in and around urban areas; and businesses can market local produce from traditionally managed sources which benefit wildlife. Many partners are already active in holding events aimed at increasing public awareness of wildlife.

- **To ensure that conservation action in Test Valley is effective and coordinated:** The BAP sets out the way forward for biodiversity conservation in the Borough. It brings together into a single document the actions required to maintain, enhance and restore biodiversity in Test Valley. This should enable all those with an interest in biodiversity in the Borough to have an overview of the current situation and should also make it easier to monitor progress.

How to Use the BAP

An Overview of the BAP

1.77 The main purpose of the BAP is to provide a framework for maintaining and enhancing the biodiversity of Test Valley. As a working document with a practical application, it includes a lot of detailed information and some technical language. This has been kept to a minimum wherever possible and we hope local people can use it to further their understanding of local wildlife and find out how they can get involved in its conservation.

1.78 The BAP is presented in four parts:

Section 1 – provides a brief introduction to biodiversity planning. It explains the purpose of the BAP, how it was put together and how to use it.

Sections 2 and 3 – set out an audit of the biodiversity of the Borough. They describe its biodiversity interest and summarise the designated wildlife sites and land management schemes in Test Valley.

Sections 4 to 6 – set out the action plan part of the BAP for Test Valley. Section 4 shows how biodiversity objectives can be translated into effective action for the Borough as a whole and actions at the more local level are set out in Section 5. Section 6 provides practical advice on how the community can get involved with conserving and enhancing biodiversity.

Section 7 – sets out how progress will be monitored, reviewed and reported.

Finding Out What Is Proposed For Your Area

1.79 A comprehensive overview of biodiversity in Test Valley can be obtained by reading Sections 2 and 3. For information on the actions proposed for the Borough and your local area refer to Sections 4 and 5 respectively. Section 4 sets specific objectives for biodiversity in Test Valley and Section 5 shows how these targets can be met by action at the more local level.

1.80 The eight areas mapped and listed in Section 5 are as follows:

- The River Test
- New Forest Fringe
- Romsey and Southern Test Valley
- North Wessex Downs AONB
- Andover and Harewood Forest
- Tytherley and Mottisfont
- Salisbury Plain Fringe, The Wallops and Amport Park
- Somborne and Chilbolton Downs

1.81 In Section 5 an overview of the biodiversity interest of each of the areas and the issues affecting them is given. This section also gives key numbered 'project areas' for biodiversity in each locality and the priority habitats and species present. Section 5 also includes 'project tables' for each sub-area indicating what actions are required to achieve the BAP's objectives. Section 7 explains how actions will be monitored and reviewed and how local people will be informed about progress.

Getting Involved

1.82 If you would like to get involved in conserving biodiversity locally, there are a number of practical measures you can take set out in Section 6. If you would like to get involved with an organisation already working to conserve biodiversity in Test Valley, a list of contacts is provided in Appendix 6.

Proposals for Development

1.83 If you are considering proposing development in Test Valley, the planned Biodiversity Supplementary Planning Document will provide more detailed guidelines on how this should be approached. Guidance will relate both to proposals put forward in planning applications and through the Council's forthcoming Local Development Framework.

2

B Section 2

A Biodiversity Audit:

P Part 1 – Habitats And Species

Habitats and Species Audits

2.1 Before considering what action is required to maintain and enhance the biodiversity of Test Valley, we need to know what we have already. To do this the 'wildlife resource' of the area was assessed by undertaking an audit. This established what habitats and species are present within the Borough and forms a 'baseline' against which future progress can be measured. The results of the audit are summarised in this section.

2.2 County, regional and national biodiversity action plans have established which habitats and species are of most conservation concern at these different levels and this information has helped to establish which are the most important habitats and species in the Borough. This enables co-ordinated effort to be focused on the habitats and species that are of greatest importance or most under threat – so-called BAP priority habitats and species.

2.3 The wildlife of Test Valley has been recorded and mapped for hundreds of years, from the extent of woodland to the distribution of rare orchids. In Hampshire today there is a network of species groups, each one specialising in recording, conserving and training people in a particular group of species. Some groups, such as the Hampshire Ornithological Society and Butterfly Conservation, produce annual reports.

2.4 The Hampshire Biodiversity Information Centre (HBIC) is the main repository of all biological data in the county, including information on the extent of habitats and the data that has been collected and collated by most of the species groups.

2.5 For the audit all HBIC's electronically held data and information on Test Valley were collated and mapped using GIS computer software. There are gaps in this data and in order to give the most complete and up-to-date assessment of the current situation, more information was gathered from the species groups and through discussion with partners and land managers working in Test Valley.

2.6 Information was also gathered on the extent of areas that are currently being managed for wildlife. This includes both sites that have been designated because of their importance for wildlife and areas that are under land management schemes, such as Countryside Stewardship. This issue is discussed in more detail in Section 3.

Habitat Audit

2.7 Nationally, key habitats of nature conservation concern have been identified as 'BAP priority habitats' – these have been adopted locally within the Hampshire BAP. Table 1 identifies the extent of BAP priority habitats both in Hampshire and Test Valley[21]. The priority habitats listed are examples of 'semi-natural' habitats – habitats which are rich in biodiversity because of the joint influence of human and natural processes such as grazing.

Table 1: BAP Priority Habitats in Hampshire and Test Valley*

Habitat	Area (ha) in		Test Valley resource as a % of Hampshire resource
	Hants	Test Valley	
Lowland mixed deciduous woodland[22]	47,397	6,888	15
Wet woodland	1,741	155	9
Ancient semi-natural woodland[23]	20,717	2,317	11
Lowland wood pasture & parkland	2,441[24]	402	16
Lowland meadows & rush pasture	2,698	390	14
Lowland calcareous grassland	2,404	808	34
Floodplain grazing marsh	7,187	2,026	28
Lowland heathland & dry acid grassland	14,331	334	2
Fens & reedbeds	482	167	35
Eutrophic standing water	963	95	10
Chalk rivers (length in km)[25]	632km	182km	29

*The UKBAP was reviewed, and a new set of priority habitats published in August 2007. New priority habitats that occur in Test Valley include: Orchards, Ponds and Open Mosaic Habitats on Previously Developed Land. The extent of these habitats, and whether they are to be adopted as Hampshire BAP priority habitats was not known at the time of publication.

21 These figures were provided by the Hampshire Biodiversity Information Centre and were accurate in October 2007

22 There is some overlap between the figure for lowland mixed deciduous woodland and the figure for wet woodland. This figure includes woodlands of 0.25 hectares or larger

23 The figures for ancient semi-natural woodland and ancient replanted woodland are taken from the Hampshire Inventory of Ancient Woodland. The Inventory only records woodlands of 2 hectares in size or larger. There is considerable overlap between these figures and the overall figure for broadleaved woodland

24 The figure for Hampshire excludes the wood pastures of the New Forest, which covers about 4,000 hectares in total, a small proportion of which are in Test Valley

25 The figures for chalk rivers are approximate and based on information from the Environment Agency

2.8 The Borough of Test Valley covers 62,761 hectares, which is about 16% of the land surface of Hampshire. However, as can be seen from the table above, it is known to support a much higher proportion of the County resource of some BAP priority habitats. Test Valley has more than the Hampshire average of calcareous grasslands, chalk rivers, fens and reedbeds, floodplain grazing marsh and priority types of ancient woodlands. The concentration of these key habitats in the Borough makes them a priority for action, which could make a major contribution to meeting biodiversity targets at the County level.

2.9 A number of Habitat Action Plans (HAPs) have been developed within the Hampshire BAP based on the BAP priority habitats identified at the national level. In the following sections these BAP priority habitats are discussed, explaining why each habitat is of conservation concern and consequently a priority for biodiversity action. Information is also provided on the location of some of the most important sites in the Borough for these habitats. Issues relating to each habitat type are covered in Section 4.

Woodland Habitats

Woodland Habitat Types

2.10 One of the most extensive habitat types in Test Valley is 'broadleaved, mixed and yew woodland', which covers nearly 8,400 hectares of the Borough. This category includes woods dominated by native broadleaved species; woods where there is a mixture of broadleaves and conifers; and yew woodland. Most conifers have been planted and are not native to Hampshire, with the exception of yew and juniper. Nearly 6,900 hectares of this broad habitat type can be defined as 'lowland mixed deciduous woodland'.

2.11 Much of the broadleaved woodland is thought to have originated from the original 'wildwood' that would have covered much of Britain between approximately 7,000BC (period of climatic stability after the ice age) and 500BC, before humans began to radically alter the landscape. This woodland is known as ancient woodland and can be divided into two main categories: ancient semi-natural woodlands (with a range of native broadleaved tree and shrub species – abbreviated ASNW: Ancient Semi-Natural Woodland) and ancient replanted woodlands (where the woodland has been densely replanted either with broadleaves, such as beech, or conifers – abbreviated PAWS: Plantation on Ancient Woodland Sites). Test Valley supports about 2,300 hectares of ancient semi-natural woodland, with a further 1,900 hectares of ancient replanted woodland.

2.12 Other habitats within Test Valley with a woodland element include wood pasture and parkland. Wood pasture is a term used to describe the mosaic of grazed, wooded and open habitats formed through traditional management, including grazing. Parkland can include significant belts of trees or individual trees of considerable antiquity. Less than 1% of the land area in Test Valley is pasture woodland and parkland.

Ancient Semi-Natural and Ancient Replanted Woodland

2.13 Natural England defines ancient woodland as land that has been continuously wooded since at least 1600, but usually these woodlands are much older. Ancient woodlands typically support a range of native deciduous trees and shrubs, such as oak, ash and hazel. The habitat is important for its rich assemblages of woodland flowers, lichens, ferns and fungal communities. Ancient semi-natural woodlands also support a wide range of animals (such as butterflies, woodland birds and dormice), many of which rely on the woodland habitat for their survival.

2.14 It is estimated that there has been a 50% decline in ancient semi-natural woodland in Hampshire over the last 70 years. About 40% of this has been losses to agriculture, mineral extraction and built development with the remaining 60% being converted to forestry plantations of broadleaves (often beech) or conifers. Much of the ancient replanted woodland in Test Valley has the potential for its biodiversity to be enhanced through more appropriate management.

Lowland Pasture Woodland and Parkland

2.15 Wood pastures and parks are typically dominated by ancient trees, which can be important for lichens, bats and insects dependent on dead wood. Historically the ‘pasture’ element of wood pasture and parkland would also have been of considerable wildlife interest, but in many cases agricultural and landscape management has modified the natural grassland, retaining only the ancient trees.

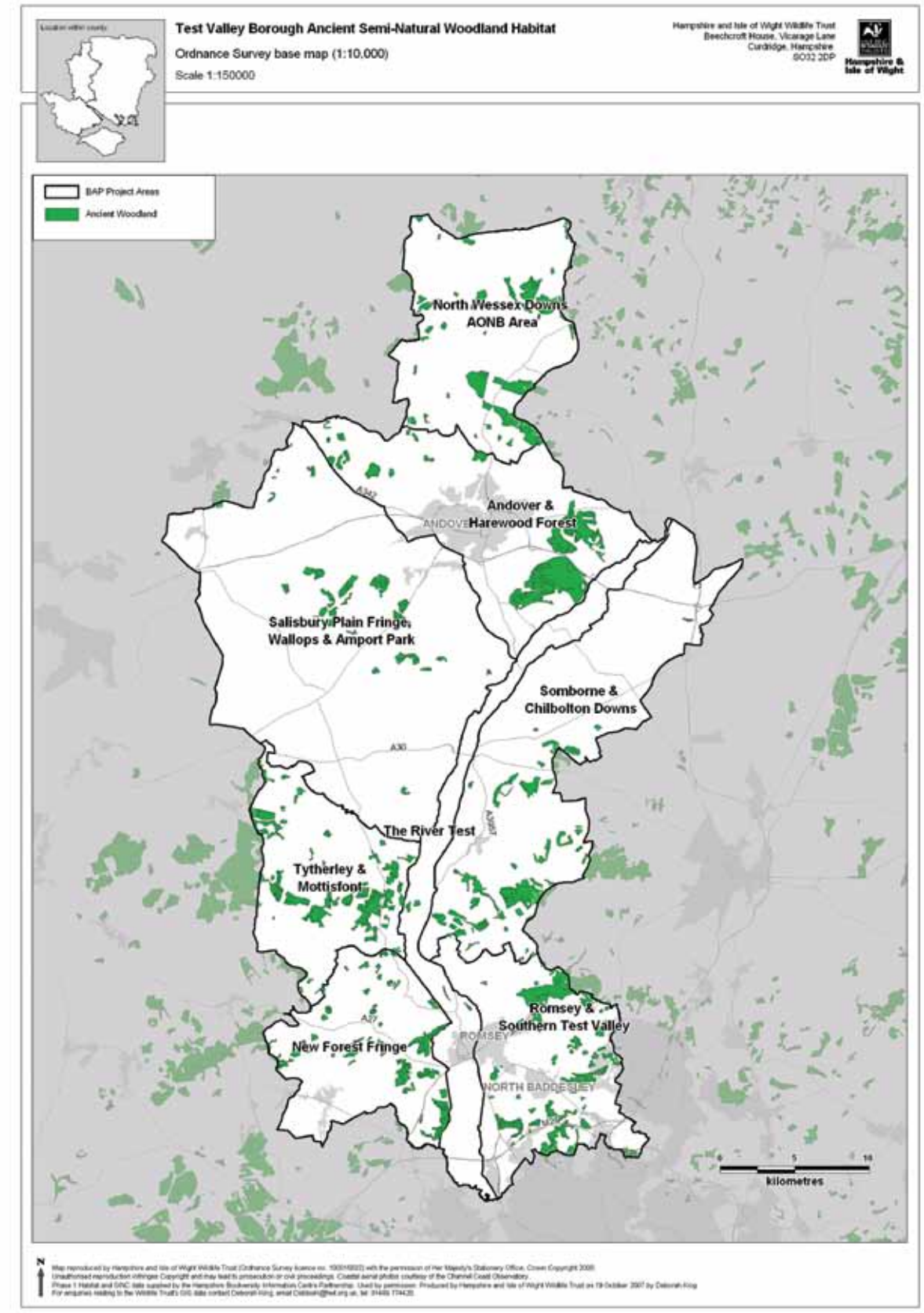
Important Woodland Sites in Test Valley

2.16 Ancient semi-natural woodlands are scattered across Test Valley. The most densely wooded parts are Harewood Forest, to the south east of Andover; the Tytherley and Mottisfont area; and the southeast of the Borough, particularly around Chilworth and Ampfield. Wood pasture is much more limited in extent with Bransbury Common on the River Test being one of the best examples. Examples of parks include Broadlands, near Romsey and Amport Park to the west of Andover.

2.17 A more complete picture of ancient woodlands in Test Valley can be obtained from Natural England's provisional ancient woodland inventory of Hampshire[26]. This maps all woods over 2 hectares in size that are thought to be of ancient origin, including those that have been subsequently replanted as broadleaved plantations or with conifers (see the map below).

26 Ancient Woodland Inventory – enquiries about this inventory can be directed to Hampshire Biodiversity Information Centre

Map 1: Distribution of Ancient Semi-Natural Woodland Habitat



Neutral and Calcareous Grassland Habitats

Grassland Types

2.18 Unimproved grasslands have evolved over centuries from their continuous use by humans, primarily for grazing livestock. They include:

- calcareous grasslands on the chalk downs
- neutral grasslands away from river floodplains (often known as meadows and pastures)
- floodplain grazing marshes within river valleys

2.19 These grasslands contain a wide variety of plants and support a rich invertebrate community, which in turn provides a food resource for birds and mammals. This section discusses neutral and calcareous grasslands. Floodplain grazing marshes often occur together with a range of other wetland habitats and these are discussed separately.

2.20 Across the UK there have been huge losses of unimproved grasslands. For example, it is estimated that 97% of unimproved neutral grasslands were lost in the UK between 1930 and 1984. Any remaining habitat is, therefore, a priority for conservation. Most unimproved grasslands have been lost to intensive agriculture and the application of fertilisers to 'improve' the soil.

Neutral Grasslands

2.21 Neutral grasslands occur on mildly acidic to neutral soils and are either grazed as pasture or cut for hay (often with subsequent grazing once the main hay crop has been removed). They may be associated with wet flushes, streams and ditches, which add diversity to the habitat. Neutral grasslands can support a wide variety of herbaceous plants, including a number of species, such as green-winged orchid, which are mainly found in this habitat. Neutral grasslands also support a wide range of invertebrates, which provide a valuable food source for both daytime feeders, such as swallows and house martins and nocturnal species, such as nightjars and bats.

Calcareous Grasslands

2.22 The extensive chalk escarpments and plateaus in Test Valley mean that the Borough includes many calcareous grassland or 'chalk downland' sites. The underlying geology is generally nutrient-poor and free draining, making it difficult for fast-growing aggressive plants to flourish. Consequently, the conditions support a wide variety of fine-leaved grasses and herbs, including rare species such as burnt orchid.

2.23 On chalk downland a single square metre of turf can support over forty different plant species. These plants provide food for numerous invertebrates, including grasshoppers, butterflies and snails, many of which are dependent on this habitat for their survival. Many chalk grassland species require a variety of habitat types in their life cycle. For example, the adults of butterfly species, such as Adonis blue, brown argus, silver-spotted skipper and chalkhill blue, will seek nectar from different plants to those which the caterpillars feed on.

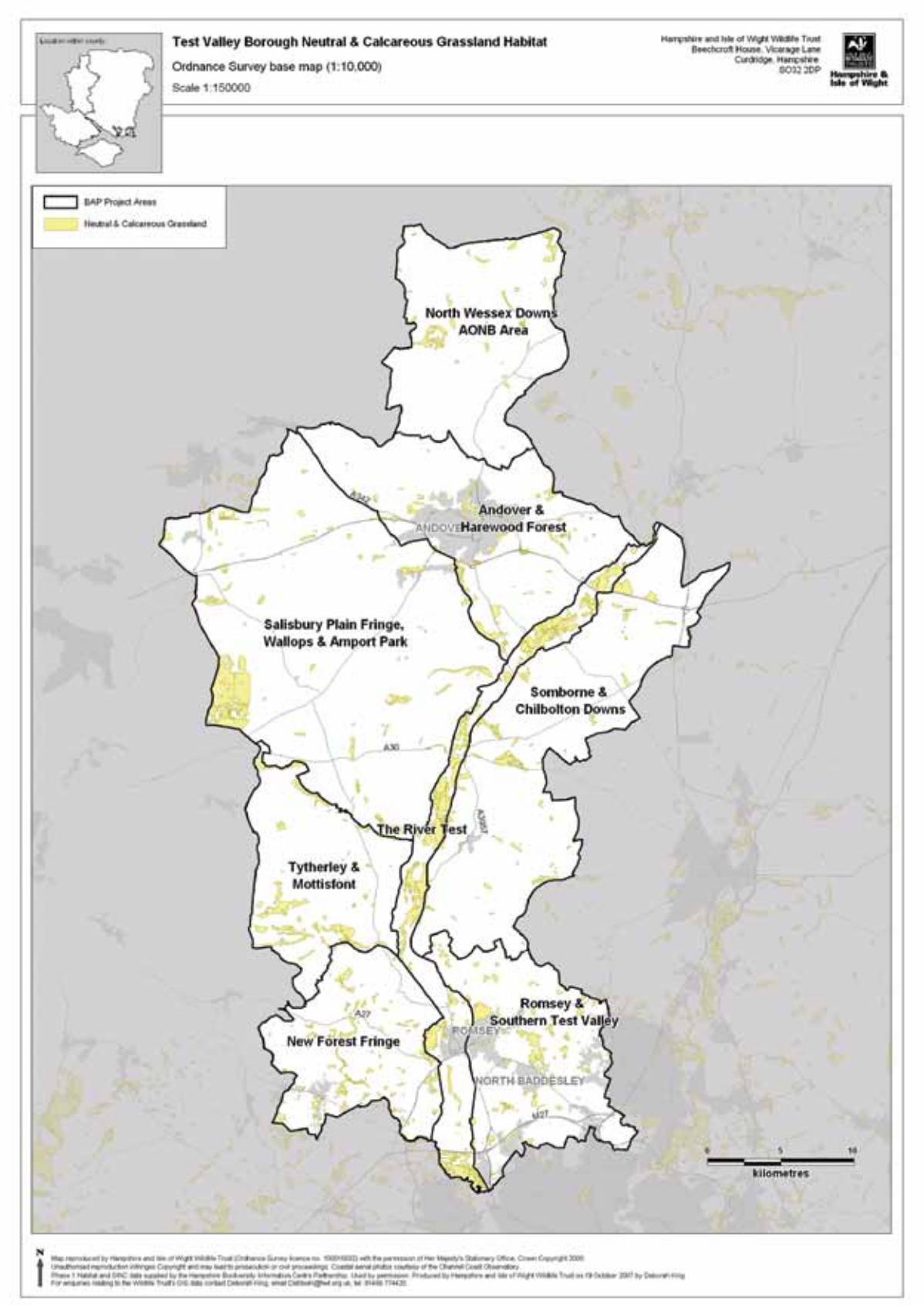
2.24 Anthills are a characteristic feature of chalk downland and add diversity to the habitat. They are formed by yellow meadow ants, which thrive on open, sunny, south-facing slopes. Anthills create a variety of microclimates, which provide a range of conditions for different plants. Scrub also adds diversity to chalk downland sites, but needs to be carefully managed to ensure that it does not encroach too much onto the herb-rich chalk downland turf.

Important Grassland Sites in Test Valley

2.25 The Borough supports a wide range of unimproved grassland sites. To the west on the edge of Salisbury Plain is Porton Down. This calcareous grassland site is considered to be internationally important both for its habitats and because of the populations of breeding birds (stone curlew) it supports. Other calcareous grassland sites are scattered across the chalk escarpments in the northern two-thirds of the Borough. These include Broughton Down and Stockbridge Down.

2.26 In the southern third of the Borough parts of the countryside support a patchwork of small fields and woodlands linked together by hedgerows. Some neutral grassland habitats have survived in the small fields that make up these ancient landscapes. Good examples of herb-rich meadows include Ratlake Meadows SSSI at Ampfield and Nutburn Meadows SINC at North Baddesley.

Map 2: Distribution of Neutral and Calcareous Grassland Habitat



Wetland Habitats Including Floodplain Grazing Marsh

Wetland Habitat Types

2.27 Wetland habitats are those which depend on high water levels such as fens, marshes, swamps and reedbeds. This section also discusses floodplain grazing marsh (which often occurs in close association with other wetland habitats, particularly in the floodplain of the River Test), standing open water habitats (including ponds and lakes), and watercourses (including rivers, streams and canals).

2.28 There has been a significant decline in the extent of wetlands in the UK over the last century, mainly through drainage and improvement for agriculture. Wetlands are now one of the rarest and most threatened habitats in the UK.

Rivers, Streams and Canals

2.29 Virtually the entire Borough lies within the catchment of the River Test. The exception is the Shipton Bellinger area, which falls within the catchment of the Hampshire Avon. The River Test is one of the most species-rich chalk rivers in the UK, supporting a range of aquatic plants, fish, mammals and invertebrates. Most of its tributaries, including the Bourne Rivulet, River Dever, River Anton and Pillhill Brook are also chalk rivers. There are approximately 182 kilometres of chalk rivers in Test Valley, representing 29% of this habitat in Hampshire.

2.30 Other tributaries in the south of the Borough, such as the River Blackwater and Tadburn Stream, flow over more acid or neutral soils. The River Blackwater is fed in part by streams draining the northern part of the New Forest and supports areas of streamside alder woodland. The only remaining canal in Test Valley is a fragment of the Andover Canal (known locally as the Romsey Barge Canal) which lies to the north of and partly within the town of Romsey. The Romsey Barge Canal is fed by the waters of the River Test and the section to the north of the town is included within the River Test SSSI.

Standing Open Water

2.31 The porous chalk outcrops that occur over much of the Borough mean that there is relatively little standing open water in Test Valley. Most of the larger water bodies have been created as a result of gravel extraction in river valleys. These include Anton Lakes and Rooksbury Mill Lakes at Andover, and Timsbury Gravel Pit and Broadlands Lakes at Nursling in the valley of the River Test.

2.32 The Borough supports many smaller water bodies, such as former ponds and watercress beds. Some of these have particular species interests. Ponds within Embley Wood SINC support a wide variety of dragonflies and the small pond at Abbottswood, north of Romsey, supports an important colony of great crested newts.

Fens, Marshes, Swamps, Reedbeds and Floodplain Grazing Marsh

2.33 The Borough's wetlands are largely concentrated in river valleys, particularly the floodplain of the River Test. The central section of the valley (from north of Chilbolton to south of Stockbridge) supports a mosaic of species-rich wetland habitats including sedge-dominated fens, unimproved marshes and reedbeds. Many of these sites have been designated as SSSIs.

2.43 The floodplain also includes extensive areas of agriculturally improved floodplain grazing marsh. These grasslands are generally species poor, but the remaining ditch systems can be rich in plants and invertebrates. The periodic inundation provides suitable conditions for breeding wading birds, such as snipe and lapwing, and wintering wildfowl. Many floodplain grazing marshes are located on the site of old water meadows (where systems of ditches were once used to manage flooding). Hampshire is of national importance for the extent of its watermeadows.

2.44 There are extensive wetlands at the far southern end of the valley where the River Test enters Southampton Water. The transitions from fen meadow through brackish floodplain grassland to saltmarsh and reedbed are better developed on the Test than on any other river in Hampshire. South of the M27 motorway, much of the valley forms the Lower Test nature reserve, which is managed by the Hampshire Wildlife Trust.

2.45 Wetland habitats and floodplain grazing marshes also occur to a lesser extent on other watercourses in the Borough such the River Anton, River Dun and Pillhill Brook. The Borough contains 28% of Hampshire's floodplain grazing marsh and 35% of its fens and reedbeds.

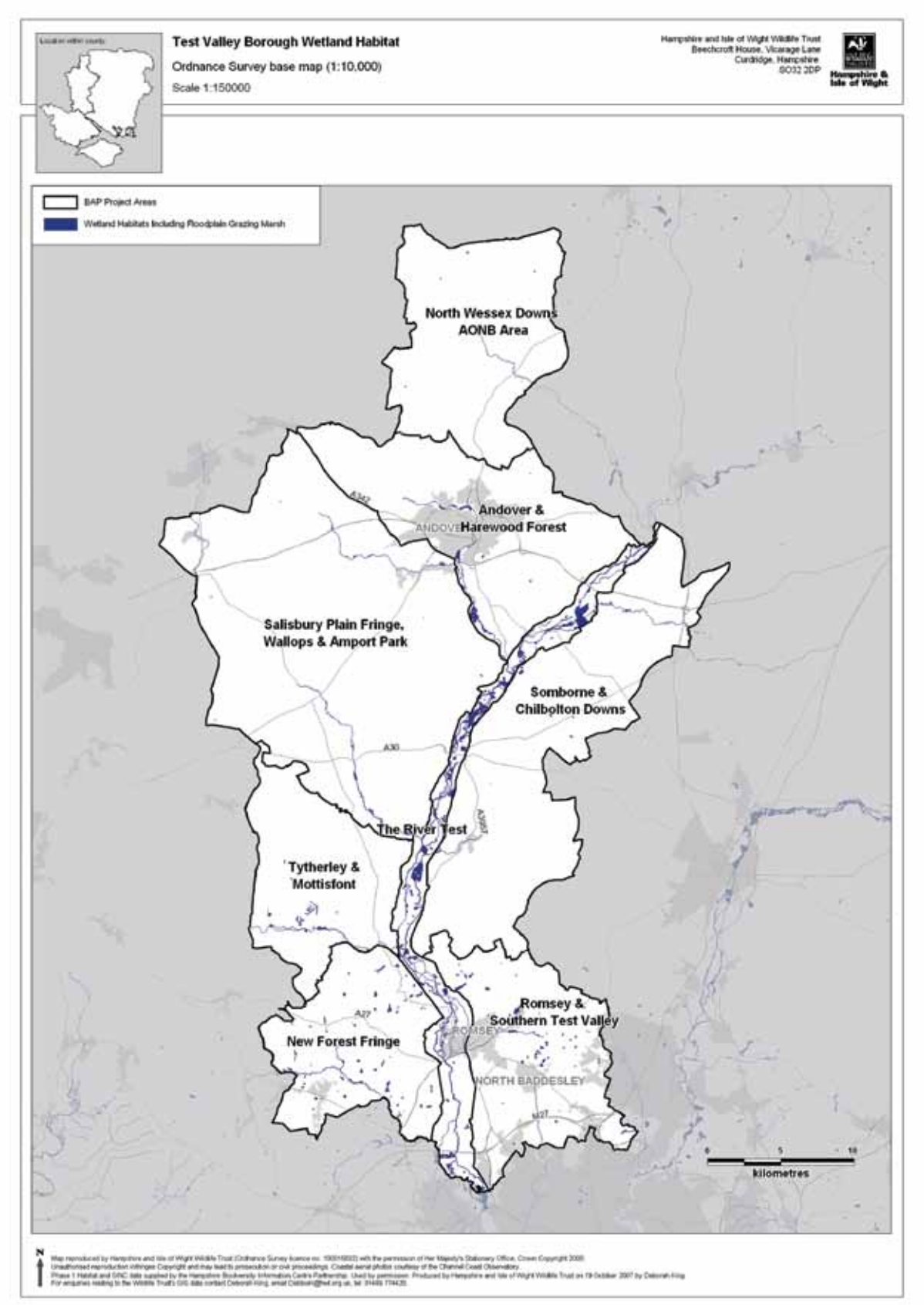
Important Wetland Sites in Test Valley

2.46 Outcrops of chalk only occur in England, France, Belgium and New Zealand, and the rivers rising from this outcrop have a distinctive flora and fauna, which are rare internationally. The chalk streams of England, including the River Test and its chalk river tributaries, constitute the most important resource of this habitat type in Europe[27].

2.47 The most important area for wetlands in the Borough is the floodplain of the River Test, where over 860 hectares have been included within a series of SSSIs (see Section 3). The entire river is an SSSI and the floodplain includes several other SSSIs such as Bransbury Common, Chilbolton Common, East Aston Common, Stockbridge Common Marsh and Stockbridge Fen.

27 UK Biodiversity Steering Group 1995

Map 3: Distribution of Wetland Habitat



Heathland and Acid Grassland Habitats

Heaths and Bogs

2.48 Heathlands are habitats dominated by dwarf shrubs, typically species of heather and gorse, which have developed over acidic, nutrient-poor soils. Where the soils are sandy and free draining, dry heaths occur, dominated by ling and bell heather. Where the soils are wetter, wet heaths, valley mires and bogs have developed. Cross-leaved heath is the dominant heather in these habitats and occurs with a range of other plants including purple moor grass, sphagnum moss and bog asphodel. Heathlands support a range of specialist plant, insect and bird species, which are restricted and often exclusive to this habitat. These include rare lichens, butterflies (such as the silver-studded blue) and birds (such as Dartford warbler).

2.49 Heathland is largely restricted to northwest Europe and occurs on suitable soils in locations from southern Norway to northern Spain. Its limited distribution makes it a rare and internationally important habitat. Hampshire is particularly important because it contains the New Forest, which is the largest tract of lowland heathland in Britain. Heathland is much less widely distributed than it was in the past. Over 50% of this habitat has been lost from Hampshire over the last 200 years.

Acid Grassland

2.50 Acid grasslands are grasslands that have developed over acidic, nutrient-poor soils. They are dominated by fine-leaved grasses such as sheep's fescue and bristle bent and contain a wide range of herbs including sheep's sorrel, mouse-ear hawkweed and lousewort. They often occur in association with heathland and have sometimes been derived from it, for example where heather species have been removed by heavy grazing.

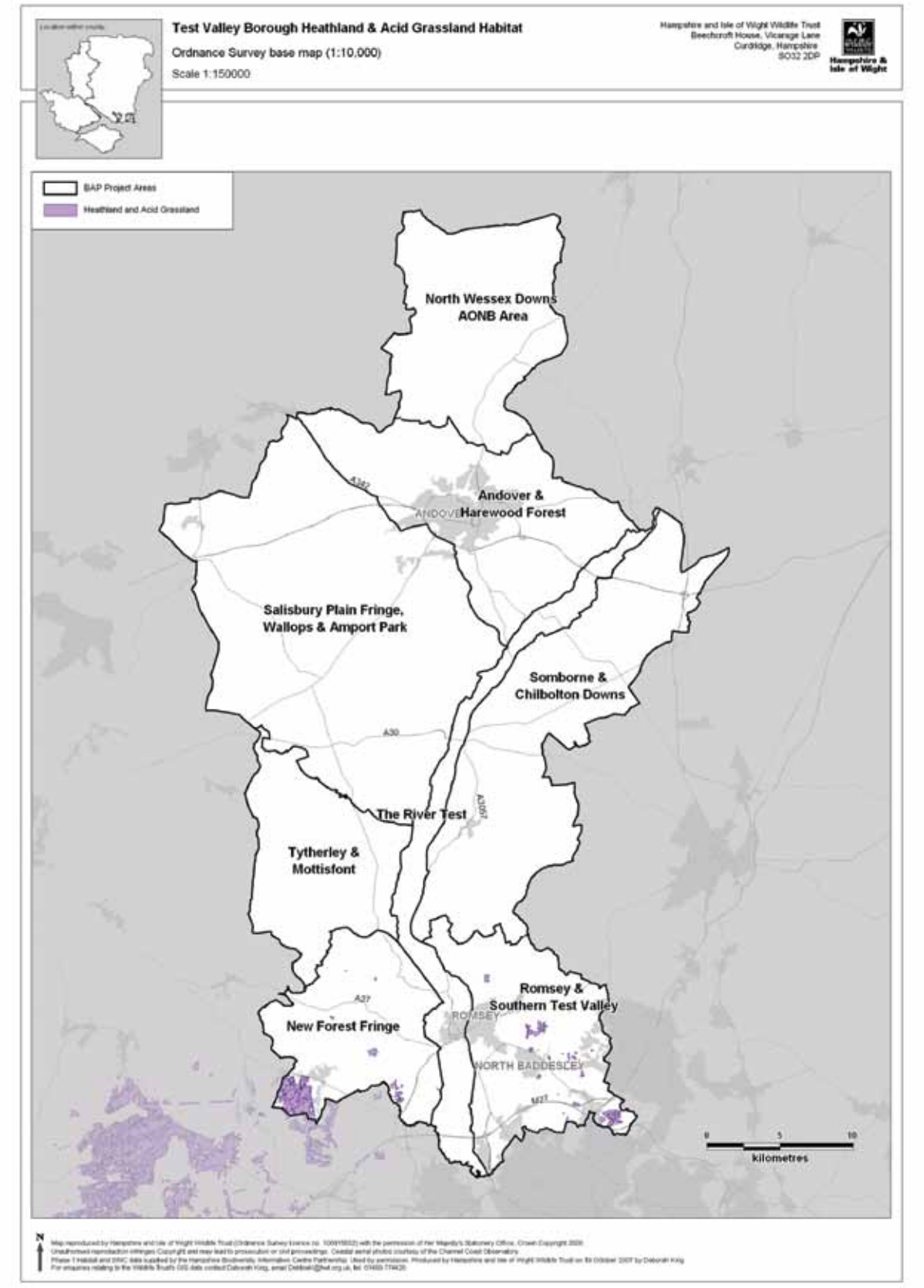
2.51 Acid grassland is also a rare habitat and sites have been lost both as a result of agricultural improvement and the cessation of grazing either by stock or rabbits.

Important Heathland and Acid Grassland Sites in Test Valley

2.52 Heathland and acid grasslands are now restricted to three main areas in Test Valley, which are the edge of the New Forest, land to the north of North Baddesley and the Chilworth area. This habitat would once have been much more extensive in the southern part of Test Valley.

2.53 A small part of the New Forest lies within Test Valley including Plaitford, West Wellow and Canada Commons. These habitats are included within the New Forest National Park area, which is recognised as being internationally important for its heathland habitats and heathland bird populations. Emer Bog and Baddesley Common lie to the north of North Baddesley and support bog, heathland and acid grassland habitats. Emer Bog is recognised as being internationally important for its mire habitat. Much smaller fragments of heathland and acid grassland occur in the Chilworth area both on open land, such as Chilworth Common, and within forestry areas, such as Lord's Wood and Hut Wood.

Map 4: Distribution of Heathland and Acid Grassland Habitat



Farmland Habitats

Arable Land, Hedgerows and Roadside Verges

2.54 The landscape of Test Valley is predominately farmed with about 50% of the land under arable cultivation and a further 16.5% laid to improved grassland. Some farm holdings support important wildlife sites (such as ancient woodlands), but all farms include a range of other wildlife habitats, such as arable field margins, hedgerows, tracks and roadside verges.

2.55 Arable land is the most widespread and abundant habitat in Britain. Arable crops are used by ground-nesting birds and traditionally have supported a range of arable weeds and invertebrates. Once cropped, the seeds left in stubble fields are an important source of food for wintering birds. Changes in farming practice have drastically reduced the biodiversity of arable land, but uncultivated field margins (where they remain) still support a wide range of birds, plants, insects and small mammals. Knowledge of arable biodiversity is improving as more land is entered under the Environmental Stewardship schemes.

2.56 Hedgerows, together with their associated banks, ditches and field margins, support a great diversity of plants and animals. Ancient hedgerows (i.e. those that pre-date the Enclosure Acts) are particularly important for wildlife. It is estimated that there are over 2,700 kilometres of hedgerows in Test Valley, although it is not known what proportion of these is of ancient origin.

2.57 Roadside verges, tracks and bridleways support mostly grassland, scrub and some woodland habitats with a range of associated species. It is estimated that roadside verges cover about 3% of Hampshire's land area. Test Valley supports over 1,200 kilometres of road verges.

Arable Plants

2.58 Arable farming has been practised on the chalk outcrops of central Hampshire for thousands of years. In the northern two-thirds of Test Valley the extent of arable habitats, coupled with the long history of cultivation, have resulted in a diverse arable flora being maintained. Ten national BAP arable plant species have been found in the Borough including red hemp nettle, corn gromwell, ground pine and spreading hedge parsley. Nearly all of these species were once common in Britain, but have become scarce as a result of changing agricultural practices.

Farmland Birds

2.59 A number of bird species are closely associated with farmland, particularly arable land. Species such as skylark, corn bunting and grey partridge are closely linked with cereal crops. They nest on or near the ground and feed on seeds and invertebrates in the crops, particularly during the breeding season. Test Valley also supports rare species of open landscapes, such as stone curlew and Montagu's harrier and populations of other farmland species less closely associated with cereal crops, such as linnet and yellowhammer. Farmland bird populations in England fell by 42% between 1970 and 2000[28], but despite these major declines many farmland bird species have held on in the Borough.

Important Farmland Habitats in Test Valley

2.60 The chalk of mid-Hampshire between Basingstoke, Winchester and the Wiltshire border (which includes the arable farmland on the chalk outcrops in the northern two-thirds of the Borough) is considered to be nationally important for its surviving arable plant communities and populations of farmland birds[29].

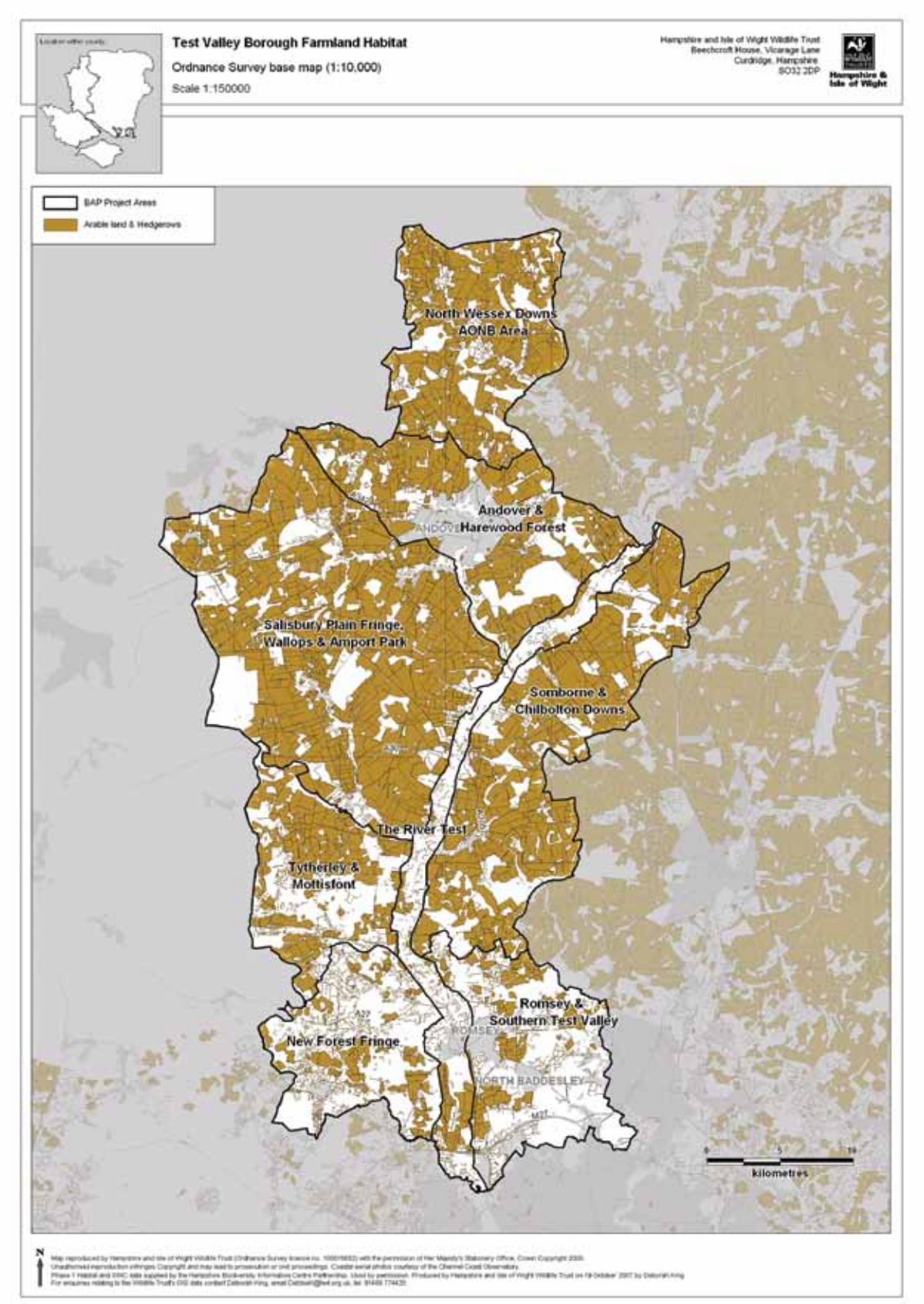
2.61 If national and local biodiversity objectives for the re-creation of semi-natural habitats are to be met, extensive areas of farmland will either need to be managed less intensively or entirely differently. In general terms farmland (particularly farmland adjacent to existing wildlife sites) is important as the main source of land for habitat re-creation – for example the reversion of arable land to unimproved chalk grassland.

2.62 Hedgerows, roadside verges, tracks and bridleways are important because they provide a network of wildlife corridors across the agricultural landscapes of Test Valley. They support a range of species and also enable wildlife to move between more extensive areas of semi-natural habitat. Some features are also important for particular species. For example, the hedgerows in the Shipton Bellinger area support one of the few remaining colonies of the brown hairstreak butterfly in Hampshire.

28 Paragraph 2.6, page 14, Working With the Grain of Nature: A Biodiversity Strategy for England, DEFRA, 2000

29 Arable Land Habitat Action Plan: Biodiversity Action Plan for Hampshire, Hampshire Biodiversity Partnership, 2000

Map 5: Distribution of Farmland Habitat



Urban Habitats

Urban Wildlife

2.63 Despite being a predominantly rural Borough, about 65% of the population of Test Valley lives in the main built-up areas of Andover, Romsey, Valley Park, North Baddesley, Chilworth and Nursling & Rownhams. Most of the remaining 35% live in the Borough's many villages. These settlements contain a variety of features that are important for wildlife.

2.64 As urban areas have grown, some remnants of countryside have remained intact. Rivers and streams runs through many settlements and areas of woodland and trees have often been retained within developments. Many urban open spaces, such as allotments, parks, public gardens, school grounds and churchyards, support a variety of species. Private gardens are also important, particularly if they contain wildlife features, such as ponds. Even buildings can offer suitable habitats for some species, such as bats (in roof spaces) and house martins (which build nests under the eaves of houses). All these urban habitats are highly valued by local people because they provide contact with nature close to where they live.

2.65 Urban areas share similar characteristics: they tend to be warmer, drier and more polluted than the surrounding countryside. They also tend to be noisier, busier and more disturbed, which can limit the variety of species present. However, where urban habitats form part of a continuous network of open space with links to the open countryside, these 'green corridors' can maintain a great diversity.

2.66 The intensive human use many urban habitats receive means that they require management for people as well as wildlife. It is important to provide interpretation on urban wildlife sites, so that nearby residents can appreciate the local wildlife, and there is considerable scope to involve the local community to encourage a greater awareness of, and support for, biodiversity conservation.

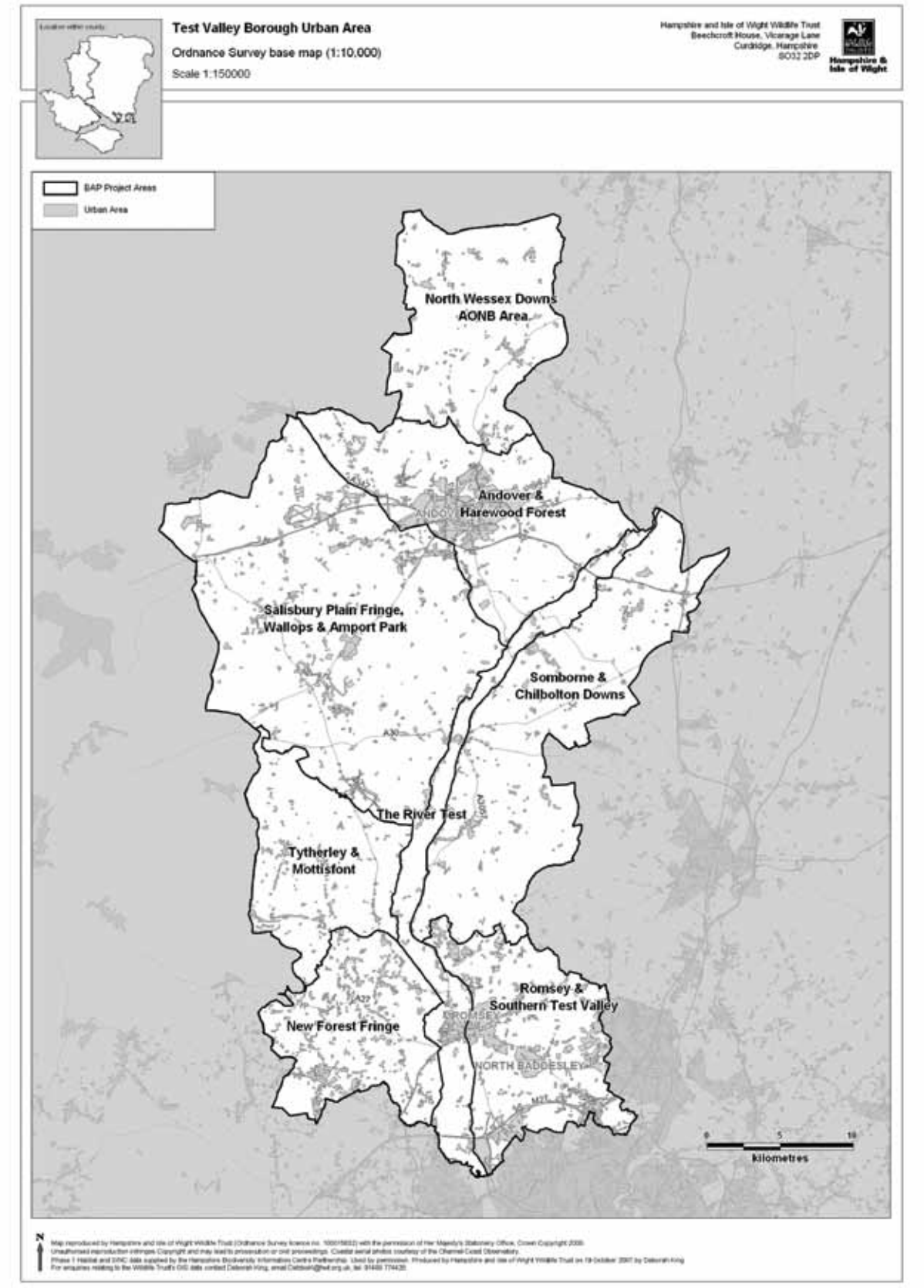
Important Urban Wildlife Sites in Test Valley

2.67 In Andover the most important urban habitats are associated with the corridor of the River Anton. Anton Lakes Local Nature Reserve (LNR) lies to the north of the town and includes a section of the river together with some old watercress beds. Just to the south of the reserve the river floodplain includes fen and meadow habitats, which are designated as SINCs. The Council manages Rooksbury Mill Park, on the southern edge of the town, which includes another section of the River Anton and two lakes. Chalk grassland habitats have developed on some of the road verges on Andover Ring Road and some of the junctions on the A303. These areas have been designated as SINCs.

2.68 In Romsey the most important wildlife feature is the River Test SSSI. The two main channels of the river pass through and adjacent to the western edge of the town. The Romsey Barge Canal and other smaller channels of the Test (such as the Fishlake) also pass through the town. The Tadburn Stream, which is a tributary of the River Test, passes through the Tadburn area of Romsey and along the southern edge of the town. Part of the stream and associated wetland habitats are designated as Tadburn Meadows LNR.

2.69 Several ancient woodlands have been retained within the development at Valley Park on the edge of Chandler's Ford. Some of these form the Valley Park Woodlands LNR, managed by the Council, and others form the Woodland Trust's Valley Park Woods Nature Reserve. Hampshire Wildlife Trust's Flexford Nature Reserve lies between Valley Park and Chandler's Ford. This site, which is mostly in Eastleigh Borough, follows the Monk's Brook and supports wet meadow and mixed woodland habitats.

Map 6: Distribution of Urban Areas



Species Audit

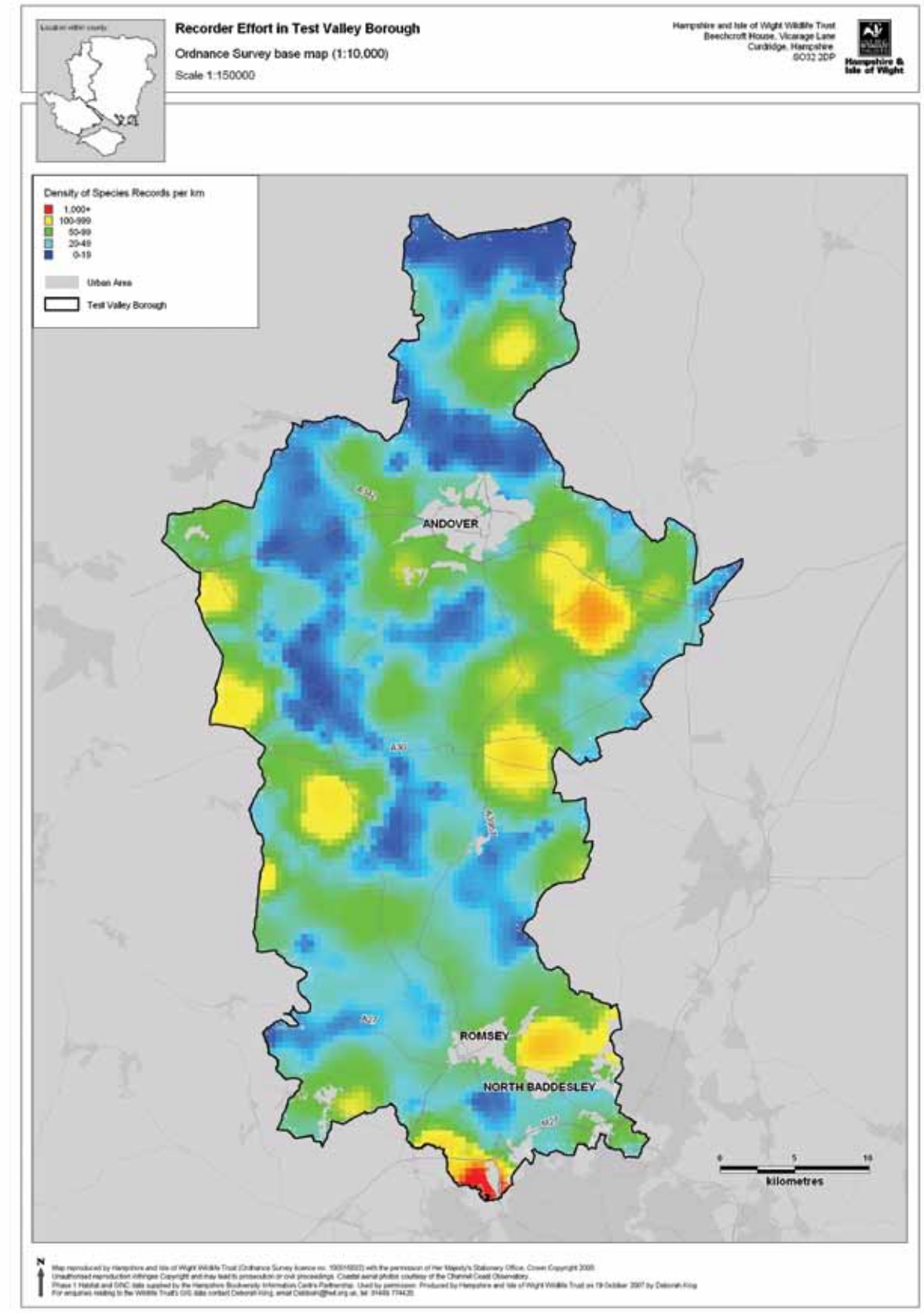
2.70 The Borough supports a wide range of species from all the major taxonomic groups. Many species require no specific action because they are able to maintain healthy self-sustaining populations if the habitat they depend on is in favourable condition. However, other species require targeted conservation effort.

2.71 Nearly 100 species identified as priorities in the Hampshire BAP and the UKBAP have been recorded in Test Valley in the last 10 years. A full list is included in Appendix 4. It is beyond the scope of this document to review the status of these species individually, but wider Hampshire trends are given in **The State of Hampshire's Biodiversity**[30]. Key flagship species and indicator species from the Borough are discussed below.

2.72 Because most species recording is done by volunteers, often attached to species groups, records are limited to accessible land such as nature reserves. There is often a dearth of collective information on species in the wider countryside – a problem especially acute in Test Valley where so much land is privately owned. The map below shows where the highest densities of records held by the Hampshire Biodiversity Information Centre are found within the Borough: areas in red and orange can be traced to nature reserves, public open spaces and close to built-up areas. Blue areas represent low densities of records and correlate with privately owned farmland. Blue areas are prioritised within the action plans in Section 5 for targeting recorder effort.

30 The State of Hampshire's Biodiversity, Hampshire Biodiversity Partnership, 2006

Map 7: Density of Species Records



Key Species in Test Valley

2.73 Certain groups of species, such as flora, birds and butterflies, are considered to be good indicators of habitat quality. The SSSI condition assessment procedure used by Natural England, for example, uses botanical indicators; butterflies and birds have been recorded relatively well by a network of voluntary recorders, and are sensitive to environmental change. This section highlights a selection of flagship species which can be considered to be good indicators of biodiversity in the Borough, and the Hampshire-wide population trends for different groups, where known, according to The State of Hampshire's Biodiversity report.

Bats

2.74 Bat populations have declined not only through the loss of suitable habitat (including breeding sites, roosting sites and feeding grounds) but also through deliberate or accidental killing during building work – all bats are protected by law. Several species have been recorded in Test Valley,vg including the rare barbastelle bat. This species occurs in woods at Mottisfont where a further eight species of bat have also been recorded.

2.75 The woodland, parkland, grassland, farmland and aquatic habitats of the Borough are important for bats. Old trees and buildings provide sites for breeding or roosting and bats often feed on night-flying insects over grassland, farmland and aquatic habitats. Specific conservation action may be required for a particular species, but generally action taken to conserve one species of bat will also benefit several others. Survey work undertaken by the local Hampshire Bat Group is also important as it helps to identifying foraging and roost sites and determining the effects of existing management schemes.

2.76 Some bat species are often found in urban environments. In particular, the two pipistrelle species and brown long-eared bats use the roof spaces in houses to roost and breed. The planning system has an important role to play in bat conservation. New houses can be designed and older properties sympathetically altered to encourage the use of roof spaces by bats.

Barbastelle Bat

2.77 The barbastelle bat is primarily a woodland species, which uses hollow and storm-damaged trees for summer roosts and hibernation. The woodlands around Mottisfont have been designated as a SSSI and a SAC for their population of these bats. The Mottisfont site is the only known maternity roost in Hampshire and one of only seven known sites in the UK.

2.78 There have been recent records of this species from Andover, the New Forest and East Hampshire. However, its distribution within the County is poorly understood. Little is known about its foraging habits, although barbastelles can travel up to 20 kilometres to feed, often using hedgerows and watercourses as flight lines. Conservation effort needs to focus on achieving a better understanding of the status and distribution of the species in the Borough and the protection and management of roosts and feeding habitats.

Other Mammals

2.79 There are several species of mammal in Test Valley, from widespread and familiar species such as roe deer, badger and brown hare to rarely seen and less well known species such as water shrew and yellow-necked mouse. A number of species such as field voles may be declining across the wider countryside, possibly as a result of habitat fragmentation. As these are important prey species for other mammals such as weasels and stoats as well as birds such as barn owl and kestrel, declines will have effects for the wider ecosystem. The benefits of new agri-environment options to small mammals are not well known, but it is likely that grassy field margins and seed crops for birds will also be beneficial for small mammals. The distribution of the harvest mouse, a priority species, is not well known, but initial surveys suggest that there are more likely to be populations in tall fen and reedbed habitats along the Test than on arable land.

Otter

2.80 Otters inhabit a range of wetland habitats including rivers and marshes. They feed on a wide variety of prey including fish, small mammals, amphibians and birds. They require dense bankside vegetation to provide 'lying-up' sites and temporary resting places. Tree roots or dense areas of scrub may also provide suitable places for 'holts' where otters can breed and raise young. Otters underwent a drastic national decline between 1950 and 1970, but have since expanded their range again. These naturally expanding populations have reached Hampshire but they remain isolated and fragmented across the County as a whole.

2.81 The River Test provides a range of suitable habitats for re-colonising otters, but further survey of the River Test, and other watercourses in the Borough, is required to gain a better understanding of the local otter population. Once this is known, potential barriers to re-colonisation can be identified (such as areas of poor bankside vegetation), and steps can be taken (e.g. habitat enhancement works), to encourage re-colonisation.

Water Vole

2.82 Water voles occur along densely vegetated watercourses where they develop burrow systems with entrances both above and below the water level. They feed exclusively on plant material and have a preference for areas of tall wetland plants. The national range of the water vole has declined by 94% over the last century, the main factors being habitat loss and predation by non-native American mink. However, the South East, and Hampshire in particular, remains a national stronghold for this species.

2.83 In Test Valley water voles are known to occur on a number of watercourses including the River Test and River Anton. However, the full extent of their distribution is not known. Further survey work is required to identify strong populations of water vole in the Borough. Some scope exists for local community-based surveys, because signs of water vole activity are relatively easy to spot with a little training. In locations where water voles are found the habitat needs to be managed sympathetically and the control of American mink may also be necessary. It would also be helpful to target advice to the owners of land (and stretches of riverbank) between existing populations in order to encourage the restoration of suitable habitat and re-colonisation.

Dormouse

2.84 The dormouse is a small, mainly nocturnal, tree-living mammal, which is rarely seen. They inhabit woodlands with a well-developed shrub layer, and a diversity of woody species. They spend their time in the tree canopy feeding on flowers, fruits and insects. During the winter they hibernate at ground level and may also use man-made nest boxes.

2.85 The dormouse has undergone a major decline over the last 100 years, but remains widespread but patchily distributed in southern counties from Devon to Kent. In Test Valley it is found in the woodlands of the Tytherley and Mottisfont area. Major factors in its decline are the fragmentation of woodland, which hinders dispersal of populations, and the cessation of hazel coppicing, which has reduced food availability. Hazelnuts are their principal source of food in the autumn for fattening up prior to hibernation. Further survey work is required to obtain a better understanding of the distribution and abundance of this species in the Borough. Sympathetic woodland and hedgerow management can also help to maintain and enhance existing populations.

Breeding Birds

2.86 Consistent data from across the UK indicates that the overall population index for 105 species from a wide range of habitats has remained at or above 1970 levels over the past 30 years. However, there have been notable declines in farmland, woodland and other species[13].

2.87 Species of conservation concern nationally, which also occur in Test Valley, are:

- woodland species: lesser spotted woodpecker and marsh tit
- wet grassland species: lapwing, snipe, redshank and yellow wagtail
- heathland species: nightjar and Dartford warbler
- farmland species: grey partridge, skylark, linnet, yellowhammer and corn bunting

2.88 The reasons for the declines in some species, particularly farmland species, are well understood and it is possible to address these problems through changes in land management. Other declines, particularly those of woodland species are less well understood and further research and monitoring are important.

[13] Page 14, Working With the Grain of Nature: A Biodiversity Strategy for England, DEFRA, 2002

2.89 Volunteers and the public can play an important role in monitoring bird populations. Each year Hampshire Ornithological Society produces an annual report which draws together all the records submitted by local birdwatchers. Studies of individual species are also undertaken periodically and the public can play their part by surveying garden birds.

Stone Curlew

2.90 The stone curlew is a bird of dry, open places with bare, stony ground or very short vegetation. It is a rare resident in southern England, breeding on downland, heathland and sometimes arable farmland. Its main strongholds nationally are in Wessex and Breckland in Norfolk. The stone curlew population declined to about 150 pairs in the 1980s, but since then intensive conservation effort has helped the population to recover to over 220 breeding pairs. The Wessex population is concentrated around Salisbury Plain and Porton Down, which are the only remaining large areas of level chalk grassland in the UK.

2.91 The species has declined due to the loss of its chalk downland nesting habitat to arable farming and as a result of reduced grazing on the remaining grassland areas. Stone curlews may also nest on arable farmland, but more intensive farming methods (particularly winter sowing) have reduced the suitability of much of this alternative nesting habitat.

2.92 The main aim of recent conservation efforts has been to establish suitable breeding habitat around the fringes of Salisbury Plain and Porton Down to enable populations from these core areas to expand. This can be achieved by creating ‘breeding plots’ (on either arable land or chalk grassland) of about 2 hectares in size, divided into two separate 1-hectare management compartments. The two compartments should be cultivated on rotation to provide a predominantly open area of bare ground for nesting from February to September. These plots can also be beneficial to other farmland birds, such as lapwing and skylark, and may also help to conserve rare arable plants.

2.93 Funding to create nesting habitat for stone curlews is available through the Environmental Stewardship scheme (see Appendices 5 and 6). Continued success for this species depends on maintaining a positive working partnership between landowners, farmers, the Ministry of Defence, the RSPB and other conservation organisations.

Butterflies

2.94 Butterflies occupy a range of different habitat types and Test Valley supports a variety of species including populations of:

- three nationally important species – marsh fritillary, pearl-bordered fritillary and silver-spotted skipper
- six high priority regionally important species – brown hairstreak, Duke of Burgundy fritillary, grizzled skipper, purple emperor, small blue and small pearl-bordered fritillary
- four medium priority regionally important species – chalkhill blue, dingy skipper, grayling and white admiral – and the Adonis blue (which has made a dramatic local recovery and is known at several sites in the Test Valley).

2.95 Many of these species are restricted or closely associated with particular habitat types, with broadleaved woodland and chalk grassland being the most favoured habitats, as set out below:

- Species found in broadleaved woodland (various microhabitats) – marsh fritillary, Duke of Burgundy fritillary, grizzled skipper, purple emperor, small pearl-bordered fritillary, dingy skipper and white admiral.
- Species found on chalk downland: silver-spotted skipper, Duke of Burgundy fritillary, grizzled skipper, small blue, chalkhill blue and dingy skipper.
- Hedgerow species: brown hairstreak.

2.96 Bentley Wood, which lies mostly in Wiltshire, is one of the most important sites for woodland butterflies in England and the small section in Test Valley supports populations of Duke of Burgundy fritillary, pearl-bordered and small pearl-bordered fritillaries and purple emperor, together with one of the only two remaining marsh fritillary colonies in Hampshire. Important sites for chalk downland species include Porton Down, Broughton Down and Stockbridge Down, which all support populations of silver-spotted skipper, chalkhill blue and grizzled skipper. Areas of mixed scrub and blackthorn hedges in the Shipton Bellinger/Cholderton area support one of only two known colonies of brown hairstreak in Hampshire.

2.97 Many butterfly species in the UK have undergone declines in their populations over the last 50 years. Butterfly habitats have been destroyed and fragmented and where they remain they have deteriorated through changes in or lack of management. Many species of conservation concern are now largely restricted to nature reserves, or other land under conservation management. Sympathetic management is required both on sites where priority species occur and on nearby sites where re-colonisation is a possibility.

2.98 In the UK, butterfly populations have been monitored for many decades and continue to be monitored today. Butterfly Conservation has a number of transects in Test Valley, which are checked annually. Monitoring is important both to enable judgements to be made about the effectiveness of conservation action and also to gain an understanding of the effects of long-term environmental changes, such as habitat loss and climate change.

Other Invertebrates

Southern Damselfly

2.99 The southern damselfly requires unpolluted slow-flowing, shallow chalk streams and ditches, such as those which are part of water meadow systems. Eggs are laid on the submerged parts of aquatic and emergent plants and the larvae take two years to mature. The southern damselfly is a globally rare species and up to 25% of the world's population is thought to occur within the UK. It is also a species of conservation concern because there has been a 30% decline in the UK population in the last 45 years.

2.100 A survey in 1998 found strong populations of this species on the River Itchen and in the New Forest. It was also found at two sites on the River Test. More detailed and recent surveys of the River Test have been undertaken, revealing centres of the population around Bossington and Houghton, with 'outpost' populations near Mottisfont and Romsey. Ditches need to be managed to prevent them from becoming overgrown; it is also important to control grazing in these areas to ensure that ditches are not over- or under-grazed.

Flora and Fungi

2.101 Test Valley, because of the range and extent of its habitats, contains a rich and highly significant plant biodiversity. There have, however, been severe declines in certain species – this is mostly due to over- or under-grazing, nutrient enrichment, drying of wetlands, and general neglect of open grassland habitats.

2.102 In the fens of the river valleys, notable species which depend on the correct levels of grazing and hydrology include the lesser tussock sedge and marsh helleborine, found near Stockbridge, and rare 'brown mosses', confined to chalk fens. Species of mires and wet heathlands found around the New Forest fringe and Emer Bog include marsh clubmoss and marsh gentian – both priority species for conservation. The high quality chalk grassland in the Borough provides ideal conditions for specialist wild flowers such as burnt orchid and field fleawort, as well as less well known rare lichens.

2.103 Rare or distinctive plants of arable land found on the Borough's chalk include narrow-fruited cornsalad, field gromwell and poppy. Such species are the focus of targeted agri-environment options in Test Valley, a regional stronghold for many rare arable flora species that require chemical-free conditions and annual tillage of the soil.

2.104 As well as familiar woodland indicators such as bluebell, for which many of the Borough's woodlands are renowned, rare species such as bastard balm are confined to traditionally managed woodlands of a certain type. The chalk woodlands of the North Wessex Downs host specialist woodland helleborines and the bird's-nest orchid, and there are rare lichens growing on the ancient trees of the New Forest.

2.105 Notable areas for fungi include a site in Harewood Forest where a BAP priority species of tooth fungus has been recorded; the New Forest fringe and nearby pasture woodlands with dead wood are also likely to be strongholds for fungi. The unimproved neutral and acid pastures towards the south of the Borough, as well as grazed or sensitively mown churchyards are ideal habitats for various species of waxcap fungi. Apart from Emer Bog and Baddesley Common, a notable and well-recorded site within the Borough, fungi distribution in Test Valley is not well known.

Juniper

2.106 Juniper is a shrub that occurs very locally on chalk and limestone outcrops in southern England. An estimated 20% of the total southern English population of juniper occurs at Porton Down. Juniper makes an important contribution to biodiversity because it supports a wide range of invertebrates, including some species that are solely dependent on it. The juniper at Porton Down is particularly important because it supports the largest number and diversity of juniper invertebrate species of any site in England.

2.107 There are two age stands of juniper at Porton Down. The first developed at the turn of the 20th century when there was a cessation in sheep grazing. The second arose in the 1950s and 60s when myxomatosis had a devastating effect on rabbit populations. Many of these juniper populations are moribund because they are made up solely of adult bushes with no regeneration. Juniper requires a reduction or cessation of grazing to allow young plants to regenerate and develop; there are encouraging signs of regeneration at the Dean Hill population. However, this form of management would also encourage other scrub species to thrive, which could prevent the germination of juniper seeds. Careful management of the juniper at Porton Down is required to maintain and enhance current populations, without harming the other wildlife interests on the site.

3

B Section 3

A Biodiversity Audit:

P Part 2 – Designated Sites and Land Management Schemes

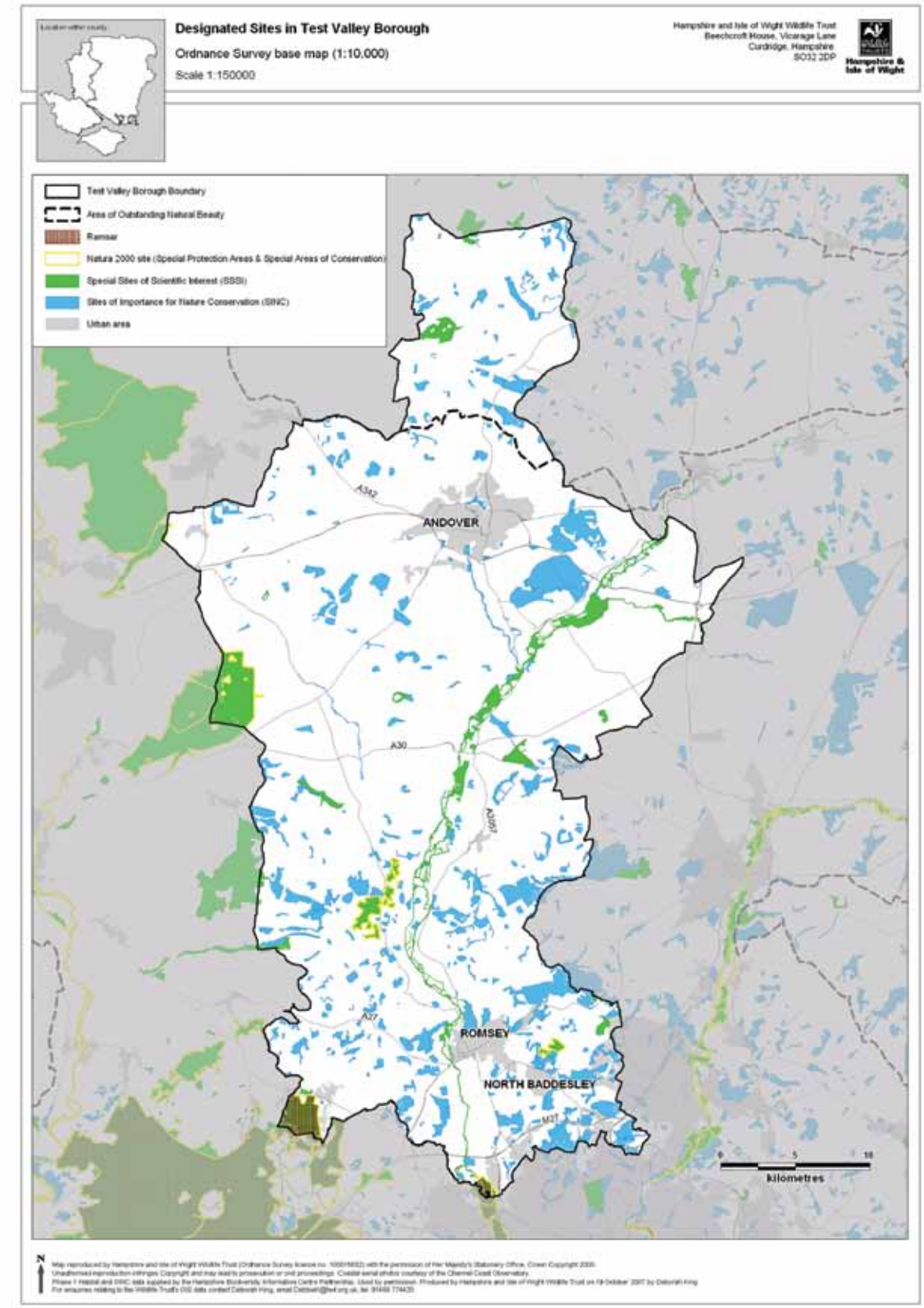
Introduction

3.1 The most important areas for biodiversity in Test Valley are protected by statutory and non-statutory wildlife designations. Protected sites act as a 'reservoir' for biodiversity and if habitats are sufficiently connected, animals and to a lesser extent plants can spread out from these areas into the wider countryside. If conditions in the wider environment change for any reason, these sites act as a refuge, enabling plants and animals to survive until suitable conditions return.

3.2 Designations help to prevent the loss of the most important sites. However, protected sites also need to be kept in a favourable condition to maintain habitats and species. This requires sympathetic management, which in turn requires appropriate policy and funding mechanisms to be in place. For example, many sites require grazing at certain times of the year to maintain their wildlife interest. The grazing of a protected site not only requires grazing stock but may also require areas of adjacent or nearby land for the stock to graze at other times of year. For landowners and land managers to be persuaded to undertake such management they need to feel that it is a viable and attractive option. This will only happen if the rural economy in general, and agri-environment schemes in particular, offer sufficient incentives.

3.3 In Test Valley 7,433 hectares of land are protected by one or more wildlife designations. This equates to over 11% of the land area, which is less than the Hampshire average of approximately 23% (a figure which is skewed by the New Forest and Solent coast designations). Test Valley has a greater percentage of non-statutory designations, 8% compared with the Hampshire average of 7%. The following map shows the distribution of designated sites within Test Valley – this area may only represent approximately half the area where BAP priority habitats and/or species are found outside designated sites, hence the importance of the wider countryside in the action plans in Section 5.

Map 8: Distribution of Designated Sites



Internationally Important Wildlife Sites

3.4 Internationally important wildlife sites receive statutory protection and should also be protected under the emerging Local Development Framework. A given site can be protected by up to three different designations:

- Special Areas of Conservation (SACs): SACs are designated for their important plant and animal communities under the EC Council's Habitats Directive[32]. SACs support habitats and species which are particularly threatened in Europe.
- Special Protection Areas (SPAs): SPAs are designated under the EC Council's Birds Directive[33] for their populations of vulnerable or rare breeding or migratory birds.
- Ramsar Sites: Ramsar Sites are listed under the Ramsar Convention[34] as Wetlands of International Importance, particularly for migrating and wintering wildfowl.

3.5 Test Valley includes all or part of five Special Areas of Conservation (SACs), four Special Protection Areas (SPAs) and two Ramsar Sites[35]. All sites that are covered by one or more international designations are also designated as Sites of Special Scientific Interest (SSSIs), in recognition of their national nature conservation importance. Some sites, such as The New Forest SSSI, are subject to more than one international designation.

3.6 There are only two internationally important wildlife sites wholly within Test Valley. One is Emer Bog to the north of North Baddesley. Emer Bog has been designated as a SAC for its 'transition mire and quaking bog' habitats. The other is Mottisfont Bats SAC, which covers a number of woodlands to the north and west of the village. This SAC has been designated because of the population of barbastelle bats that inhabits the woodlands.

32 EC Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC), 1992

33 EC Council Directive on the Conservation of Wild Birds (79/409/EEC), 1979

34 Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Cm 6464), 1971 (as amended by the Protocol of 3.12.1982)

35 Further details of these sites are given in Appendix 1

3.7 Salisbury Plain and Porton Down have both been classified as SPAs, although large parts of both sites lie outside the Borough. Together the two sites support over 20% of the British breeding population of stone curlew as well as a range of other scarce breeding and migratory birds including hen harrier, hobby, merlin, quail and short-eared owl. The two sites have together been designated as Salisbury Plain SAC. The SAC has been designated because it supports extensive areas of chalk downland habitat, important populations of orchids (particularly burnt orchid, but also green-winged and frog orchids) and extensive areas of juniper scrub, which is a very rare habitat in southern England.

3.8 The New Forest, including the small part within Test Valley (Canada, Plaitford and West Wellow Commons) is covered by all three international designations. The New Forest supports a range of internationally important habitats including oak, beech, willow and alder woodland, wet and dry heathland, valley bogs and areas of open water. It also supports internationally important populations of breeding heathland birds, such as Dartford warbler, woodlark and nightjar and invertebrates including the stag beetle and southern damselfly.

3.9 In the Lower Test Valley there is a transition from the freshwater habitats associated with the river to the coastal habitats associated with Southampton Water. Within the Borough a small area of the Lower Test Valley lies within the Solent Maritime SAC, which is designated to protect a range of important coastal habitats. Slightly more of the SSSI has been included within the Solent and Southampton Water SPA and Ramsar Sites. The variety of wetland habitats in the area are important for breeding wetland birds and as a feeding and roosting site for ducks and wading birds.

3.10 In Test Valley several internationally important sites extend beyond the Borough and county boundary. Partnership working with a variety of organisations will therefore be essential if the sustainable management of these sites is to be achieved.

Sites of Special Scientific Interest

3.11 Sites of Special Scientific Interest (SSSIs) represent the best examples of important habitats and geological features at the national level. There are over 4,100 SSSIs in England covering around 7.7% of the total land area[36]. They are designated by Natural England and are regarded by the Government as being "sites of national conservation importance"[37]. There are 25 SSSIs wholly or partly in the Borough covering about 2,134 hectares or 3.4% of the Borough[38]. These sites are currently protected from harmful development in the Local Plan, and should also be protected in the emerging Local Development Framework. Wetland sites associated with the River Test and chalk downland sites are particularly well represented, but a range of other habitats is also protected.

3.12 The whole of the River Test is a SSSI from its source near Overton to the point at which it enters the sea in Southampton Water. This SSSI, which includes some adjacent wetland habitats covers more than 440 hectares, most of which lie within the Borough. The river valley also includes a series of other SSSIs, which have been selected to represent the full spectrum of habitats present in the floodplain. The SSSIs at Bransbury Common, Chilbolton Common, East Anton Common, Lower Test Valley, Stockbridge Common Marsh and Stockbridge Fen comprise more than 420 hectares of additional wetland habitat.

3.13 Porton Down SSSI covers over 1,500 hectares, about a third of which lies within Test Valley. It is by far the largest calcareous grassland site within the Borough. A range of other SSSIs, which include chalk downland habitats are found in Test Valley including Brickworth Down & Dean Hill, Brockley Warren, Broughton Down, Danebury Hill, Quarley Hill Fort, Rushmore & Conholt Downs and Stockbridge Down.

36 Paragraph 2.9, Page 15, Working With the Grain of Nature: A Biodiversity Strategy for England, DEFRA, 2002

37 Page 4. Sites of Special Scientific Interest: Better Protection and Management, DETR, 1999

38 The SSSIs in Test Valley are listed in Appendix 2

3.14 Rushmore & Conholt Downs SSSI includes areas of chalk grassland and ancient woodland dominated by oak and ash standards with hazel coppice beneath. Most of Combe Wood & Linkenholt Hanging SSSI lies outside the Borough but the part within Test Valley (Linkenholt Hanging) is an area of ancient hazel coppice. The Borough also includes small parts of two other large woodland SSSIs, namely Whiteparish Common and Bentley Wood. Much of Dean Hill (within Brickworth Down & Dean Hill SSSI) is dominated by yew woodland and Trodds Copse supports a range of oak and alder woodland types.

3.15 Heathland and acid grassland are represented within The New Forest SSSI (on Canada, Plaitford and West Wellow Commons) and at Baddesley Common and Emer Bog SSSI, which also includes the valley bog habitats. Only one site (Ratlake Meadows SSSI) has been designated for its meadow communities, but neutral grassland and fen communities are also represented within Trodds Copse SSSI.

3.16 Mottisfont Bats SSSI has been designated for its species interest, but also includes large areas of mixed woodland. Finally, Dunbridge Pit SSSI has been designated entirely for its geological interest.

3.17 Government advice[39] states that SSSIs should be protected through the planning system and their biodiversity enhanced through conditions or obligations set by local authorities. Policy ENV 03 of the Test Valley Borough Local Plan seeks to protect SSSIs from inappropriate development. Also Natural England has powers to protect sites from activities that do not require planning permission (such as ploughing, for example).

3.18 The Government is not only committed to the protection of SSSIs, but also to their management – perhaps the major threat to SSSI land in Test Valley. It has set a Public Service Agreement (PSA) target that 95% of SSSIs (by area) should be in 'favourable condition' by 2010. This is a challenging target, but also a priority for action to ensure that the best areas for wildlife are maintained for current and future generations.

39 Planning Policy Statement 9, ODPM, 2005

Sites of Importance for Nature Conservation

3.20 Sites of Importance for Nature Conservation (SINCs) are sites which are important for wildlife in a county context. They are not statutorily protected but Policy ENV 04 of the Test Valley Borough Local Plan seeks to protect them from inappropriate development. In Hampshire SINCs are designated by Hampshire County Council in accordance with criteria which have been agreed with Natural England and the Hampshire & Isle of Wight Wildlife Trust[40].

3.21 There are currently 581 SINCs within the Borough covering just over 5500 hectares or about 8.8% of the Borough[41]. Of these:

- approximately 60% are woodland sites
- approximately 30% are grassland sites
- approximately 10% are sites designated for their heathland, wetland or species interests

3.22 The number, extent and diversity of SINCs in Test Valley makes them a particularly important wildlife resource, which needs to be conserved if the overall biodiversity of Test Valley is to be maintained.

3.23 The majority of SINCS in Test Valley are woodland sites. Most of these support ancient semi-natural broadleaved woodland. However, some are ancient woodland sites, which have been replanted with conifers. These sites often still support a range of woodland species in clearings, on rides and at the woodland edge.

3.24 Woodlands are generally more abundant on the clays and sands in the southern third of the Borough. However, there are also a number of woodland sites within the North Wessex Downs AONB (in the far north of the Borough) and extensive areas of woodland at Harewood Forest to the southeast of Andover. Harewood Forest is made up of a number of separate SINCs, which together extend to over 750 hectares. This represents about 15% of all SINC land in Test Valley.

40 Available at www.hants.gov.uk/biodiversity/sincs/important-sites-sinc-criteria.htm

41 Figures as at October 2007 from the Sites of Importance for Nature Conservation (SINCs) GIS layer for Test Valley Borough produced by Hampshire Biodiversity Information Centre

3.25 About 30% of the grassland SINCs in Test Valley support calcareous grassland habitats, with the remaining 70% supporting neutral and acid grassland communities. There is a marked concentration of neutral grassland sites in the southeast of the Borough with about 50 SINCs supporting this habitat located around Romsey and to the south and east of the town.

3.26 There are very few SINCs in Test Valley supporting heathland vegetation and these are restricted to the Chilworth area, to the north of North Baddesley and the edges of The New Forest Commons south of West Wellow.

3.27 SINCs already have considerable wildlife value and this can be enhanced through appropriate management. Major biodiversity benefits can be delivered if SINCs are included within agri-environment and other land management schemes. Provision of management advice is important to encourage owners to enter into land management schemes, and the Hampshire Biodiversity Partnership has specific objectives for offering advice to SINC owners and managers on practical ways of conserving biodiversity.

3.28 Knowledge of Test Valley's wildlife is incomplete and there may be other sites within the Borough which meet the criteria for SINC designation. The ongoing survey of sites is important to improve our knowledge of the overall wildlife resource in the Borough and to determine whether sites merit designation as SINCs.

3.29 The Council, and other public bodies, will be expected to report to the Government annually on measures to improve Sites of Importance for Nature Conservation for biodiversity under the NI 197 'Biodiversity Indicator' which states:

> Performance will be calculated as a percentage of all Local Sites [Sites of Importance for Nature Conservation in Hampshire] in the local authority area where positive conservation management has taken place up to five years prior to the reporting date (31st March). Positive conservation management is management that contributes to maintaining or enhancing the features of interest for which a site has been selected. To show that positive conservation management has been or is being implemented on a Local Site, there must be documented evidence of appropriate management activities. The Local Sites Partnership will verify the evidence. The nature of the management activity appropriate to interest features of a site will commonly be defined within one, or more of the following:

- site management plan
- management schemes – agri-environment or conservation management agreement or scheme
- relevant Biodiversity Action Plan (including habitat action plan, species action plan or local biodiversity action plan)
- management guidance and advice[42]

3.30 Management of Sites of Importance for Nature Conservation is fundamental to the success of this BAP, and the above indicator will measure an important aspect of its delivery.

42 Taken from http://www.communities.gov.uk/documents/localgovernment/doc/annex4.doc

Other Designations

3.31 Land in Test Valley is covered by a number of other designations, which offer additional protection for wildlife and encourage its conservation and appreciation.

New Forest National Park

3.32 The south west corner of the Borough, south of the A36 falls within The New Forest National Park. National Park designation gives this area an added layer of protection. The conservation of wildlife is one of the specific purposes of National Parks and Government advice is that this should be given great weight when development proposals are considered[43].

3.33 The National Park was established in March 2005 and the National Park Authority (NPA) became responsible for planning matters from April 2006. In due course the NPA will produce a Local Development Framework, a Biodiversity Action Plan, and a management plan covering the whole of the National Park. The Test Valley BAP will, however, be relevant to non-planning issues where the Borough and National Park overlap; there is therefore a need for cross-boundary working.

North Wessex Downs Area of Outstanding Natural Beauty (AONB)

3.34 Much of the Borough north of Andover is included within the North Wessex Downs Area of Outstanding Natural Beauty (AONB). AONBs represent the most attractive landscapes in the country and they also provide an additional layer of protection. In an AONB the conservation of the natural beauty of the landscape is the main priority, but the conservation of wildlife is also an important consideration.

3.35 The AONB has a Council of Partners, which has produced a management plan[44]. This management plan encourages sustainable land management and also seeks to increase the area of semi-natural habitats, particularly chalk grassland and broadleaved woodland, within the AONB. The Council of Partners have commissioned a Chalk Grassland Strategy and a Semi-Natural Woodland and Hedgerow Strategy to help achieve this objective.

43 Paragraph 21, PPS 7: Sustainable Development in Rural Areas

44 North Wessex Downs Management Plan, North Wessex Downs Council of Partners, 2004

Local Nature Reserves (LNRs)

3.36 Local Nature Reserves are sites of at least local importance for wildlife. They are declared and usually managed by local councils. There are three LNRs in Test Valley, which are:

- Anton Lakes in Andover
- Tadburn Meadows in Romsey
- Valley Park Woodlands at Valley Park

Part of Anton Lakes Nature Reserve and the Valley Park Woodlands are also designated as SINCs.

3.37 The Council's Leisure Department manages these LNRs and other land, such as Rooksbury Mill in Andover, to enhance their wildlife value. The Council's countryside officers also promote biodiversity to the community of Test Valley.

Other Nature Reserves

3.38 The Woodland Trust manages four woodlands (Badger's Copse, Ramalley Piece, Small Profits Wood and Titlark Copse) at Valley Park, which are collectively known as Valley Park Woods. All four woods are also designated as SINCs.

3.39 The Hampshire Wildlife Trust manages three reserves in Test Valley:

- Baddesley Common and Emer Bog
- Broughton Down
- Lower Test

All of these sites are also designated as SSSIs.

3.40 Most of the Wildlife Trust's Flexford Nature Reserve lies just outside the Borough at Valley Park. The Testwood Lakes Nature Reserve and Study Centre, which the Trust manages in partnership with Southern Water, adjoin the Borough boundary to the north east of Totton. Testwood Lakes provide an important educational facility for the people of Test Valley and Southampton.

Land Management Schemes

3.41 Land management schemes in England provide Government funding to farmers and land managers for the conservation and protection of the natural environment on their land. The Environmental Stewardship Scheme and England Woodland Grant Scheme were introduced during 2005 and will supersede the existing Environmentally Sensitive Areas, Countryside Stewardship, Woodland Grant and Organic Farming Schemes. The new schemes are being promoted under the banner of the England Rural Development Programme.

3.42 The new schemes aim to achieve sustainable land management whilst delivering public benefits. This section discusses both the main new schemes, namely Environmental Stewardship and the England Woodland Grant Scheme, as well as previous schemes.

Environmental Stewardship

3.43 This provides funding to farmers and land managers who deliver effective environmental management on their land. The scheme has three elements, Entry Level Stewardship (ELS), Organic Entry Level Stewardship (OELS), and Higher Level Stewardship (HLS). One of the primary objectives of the scheme is the conservation of biodiversity.

3.44 Environmental Stewardship builds on the two previous agri-environment schemes, namely Environmentally Sensitive Areas and Countryside Stewardship. Entry Level Stewardship is open to all farmers in Britain and aims to deliver simple and effective environmental management across large areas of the countryside. Farmers can choose land management options to implement on their land and guidance is provided on the most appropriate options for their landscape character area. Organic Entry Level Stewardship is similar to the ELS but for organically farmed land. Higher Level Stewardship provides targeted environmental management for farmers in high priority areas and situations to deliver more significant environmental benefits. Funding is available under this level for capital works. The first agreements under the Environmental Stewardship Scheme came into force in August 2005.

Countryside Stewardship

3.45 Countryside Stewardship covered a range of landscape types and management options all with the aim of promoting environmentally friendly farming. It encouraged farmers to enter into 10-year agreements, but was limited to farms that already supported high quality habitats or historic features. Although superseded, there are still several thousand hectares under Countryside Stewardship agreements in Test Valley.

Test Valley Environmentally Sensitive Area (ESA)

3.46 The floodplain of the River Test was one of 22 Environmentally Sensitive Areas (ESAs) designated in England by DEFRA. Prior to the introduction of the Environmental Stewardship Scheme farmers were able to enter into 10-year land management agreements to undertake environmentally friendly livestock grazing and other land management practices to enhance the landscape, wildlife and historical interest of the valley.

3.47 The Test Valley ESA, which also includes land outside the Borough, extends to 4,850 hectares, about 2,223 hectares of which are in the Test Valley. Although this scheme has been superseded, the Test Valley ESA will continue to be supported until the end of the life of the agreement.

English Woodland Grant Scheme

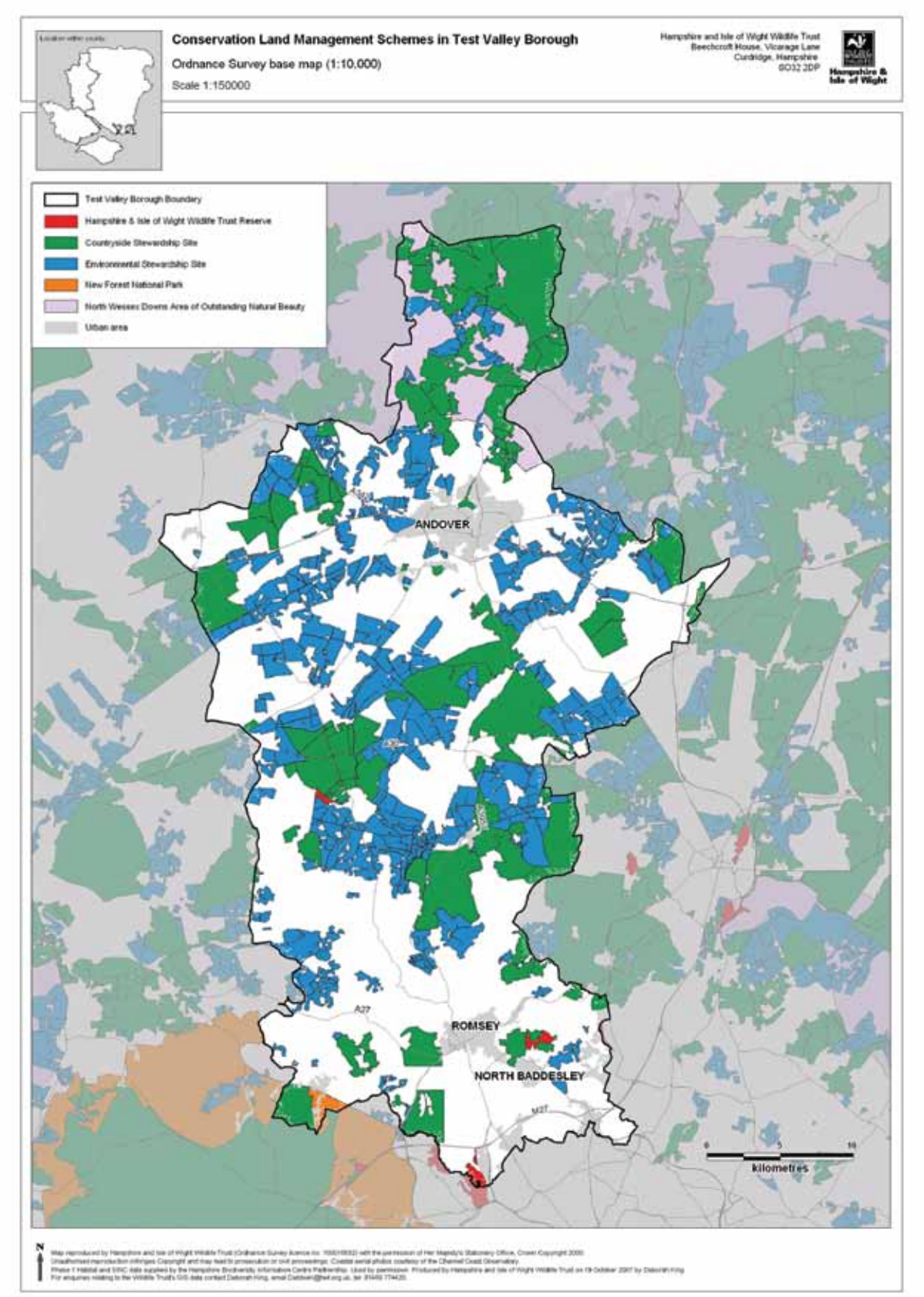
3.48 The Forestry Commission launched the new England Woodland Grant Scheme in July 2005. The purpose of the scheme is to support the stewardship of existing woodlands and the creation of well-designed new ones. It simplifies the earlier Woodland Grant Scheme (WGS) and the Farm Woodland Premium Scheme (FWPS).

Delivering Biodiversity Benefits

3.49 The new schemes under the England Rural Development Programme aim to encourage large numbers of farmers and landowners over a large area of land to participate in environmental management of their land. It is too early to know how effective these schemes are in delivering biodiversity benefits, but they offer a wide range of options that aim to protect existing wildlife features and create new habitats. Certain ELS options, such as hedgerow management, have been more popular than others, such as creating nectar and food crops for wildlife – it remains to be seen whether such a balance of options brings significant benefits to biodiversity. The HLS was designed to deliver significant environmental benefits through complex and technical management of the land with options for maintenance, restoration and creation with the opportunity to undertake capital works; however, it is limited to land of significant environmental interest such as SSSI and farmland with rare arable flora or breeding birds.

3.50 Currently 17,590 hectares of farmland in the Test Valley are under Entry Level or Organic Entry Level Stewardship agreements; of these 284 hectares also have Higher Level Stewardship agreements. For future agreements, targeted advice to landowners on the basis of information included in this BAP should lead to the best options being chosen for the biodiversity of the wider countryside. The following map shows the extent of land management agreements as well as landscape designations in Test Valley.

Map 9: Distribution of Conservation Land Management Schemes



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B Section 4

A Action Plan:

P Part 1 – Borough-wide Issues And Actions

Issues and Actions

4.1 This section discusses the key biodiversity conservation issues in Test Valley. Many of these issues are also common to other parts of Hampshire and beyond; some are of global significance. Only by understanding these issues can we determine what actions need to be taken in the future to maintain and enhance biodiversity in the Borough.

4.2 This section considers:

- General issues facing the Borough as a whole
- Issues specific to particular biodiversity features

Wildlife Site Management

Managing Nationally and Internationally Important Wildlife Sites

4.3 Nationally and internationally important wildlife sites in Test Valley all receive statutory protection (see Section 3). Britain now has an established network of statutorily protected nationally and internationally important wildlife sites. The main challenge is to secure the appropriate management of these sites in order to maintain their favourable conservation status. The Government has set a Public Service Agreement (PSA) target that 95% of SSSIs (by area) should be in 'favourable condition' or 'unfavourable condition recovering' by 2010. Monitoring the condition of SSSIs is the responsibility of Natural England and up-to-date details of the condition of individual sites can be found on the website www.naturalengland.org.uk.

4.4 Summaries of the condition of SSSIs in Test Valley are shown in Table 2. These summaries include condition assessments from previous years, but nevertheless represent the best available overview of the condition of sites at the current time. The information for all SSSIs in Test Valley is set out in the table below indicating the area of sites which are in 'favourable condition' or which are in 'unfavourable condition but recovering'.

Table 2: Condition of Sites of Special Scientific Interest in Test Valley (Natural England, October 2007)

Site name	Total area of SSSI (ha)	Area in Test Valley (ha)	Percentage in favourable condition in Test Valley	Percentage in unfavourable condition recovering in Test Valley
Baddesley Common & Emer Bog	38.3	38.3	3.73	0
Bentley Wood	665	18.5	100	0
Bransbury Common	155.6	155.6	79.12	1.91
Brickworth Down & Dean Hill	118.6	31.0	0	0
Brockley Warren	12.6	12.6	0	0
Broughton Down	44.7	44.7	13.7	86.3
Chilbolton Common	36.1	36.1	31.95	54.77
Combe Wood & Linkenholt Hanging	107.5	17.1	100	0
Danebury Hill	12.8	12.8	100	0
Dunbridge Pit	0.7	0.7	100	0
East Aston Common	18.8	17.6	0.12	0
Lower Test Valley	138.7	51.7	100	0
Mottisfont Bats	196.9	196.9	100	0
The New Forest	28947.4	271.1	0	97.44
Porton Down	1561.8	539.6	18.20	80.20
Quarley Hill Fort	4.7	4.7	0	0
Ratlake Meadows	4.5	4.5	0	100
River Test	442.9	389.0	24.09	8.85
Rushmore & Conholt Downs	113.2	113.2	0	0
Salisbury Plain	19689.9	7.7	0	100
Stockbridge Common Marsh	67.2	67.2	49.81	0
Stockbridge Down	69.5	69.5	0	0
Stockbridge Fen	5.8	5.8	0	100
Trodds Copse	25.2	25.2	0	79.07
Whiteparish Common	64.5	1.3	0	100

4.5 The table above shows that 38% of the SSSI land area in Test Valley is in favourable condition with a further 38% unfavourable but recovering. Land in both these categories contributes towards the Government's PSA target of 95% of SSSIs (by area) being in 'favourable condition' by 2010. Still, nearly a quarter of the SSSI land is unfavourable, and this is generally on small, isolated sites.

4.6 One of Natural England's main responsibilities is to secure the appropriate management of SSSIs. Where sites are not in favourable condition, Natural England will need to work with owners and managers to put in place all the necessary measures to enable the special interest of sites to recover. The Higher Level Stewardship scheme will, we hope, provide farmers and landowners with sufficient incentives to manage SSSIs to enhance biodiversity; the preparation of management plans can also help to establish positive long-term programmes for the enhancement of protected sites.

Managing Sites of Importance for Nature Conservation (SINCs)

4.7 Sites which are important in a County context are designated as SINCs by Hampshire Biodiversity Information Centre. These sites are protected from inappropriate development, but can still be lost through agricultural or other activities. The main challenges are to prevent the loss of SINCs and to secure their appropriate management in order to retain their wildlife interest.

4.8 Because of the large number and diversity of SINCs, there needs to be an active targeting of resources for promoting their management. Resources for SINCs are limited and, in practice, partners tend to target those which are:

- large
- in good condition
- in close proximity to other wildlife sites
- with populations of notable species

4.9 Whilst the owner of any given SINC is not obliged to manage it for biodiversity, many are keen to take advantage of advice offered by conservation advisors on management for biodiversity and funding that may be available. Key actions to protect and conserve SINCs include woodland management such as coppicing, managing scrub, and introducing appropriate grazing to unimproved grassland and heathland sites.

Habitat Loss and Fragmentation

Reversing Habitat Loss and Fragmentation

4.10 In the past, traditional farming and woodland management would have maintained the biodiversity of Test Valley, but in the last 100 years agriculture has intensified and traditional management has virtually ceased. These changes have resulted in a significant decline in the quantity and quality of wildlife habitat in Test Valley.

4.11 The historical loss of habitats has led to the isolation and fragmentation of the remaining ecologically rich areas. When wildlife sites become isolated and reduced in size they may not be able to support populations of certain species at viable levels. They become more vulnerable to outside influences (such as pollution and disturbance), catastrophic events (such as fires) and lack of appropriate management. Often isolation and fragmentation means that species cannot easily move between sites, and there is little scope for re-colonisation following local extinctions.

Habitat Restoration and Re-Creation

4.12 The protection and management of existing wildlife sites is the first priority. However, these measures need to be complemented by measures to reverse fragmentation and isolation. One way in which this can be done is by extending or re-connecting existing sites through the restoration or re-creation of habitats in the wider countryside.

4.13 Restoration is the process of reinstating a degraded habitat. For example, ancient replanted woodland can be 'restored' to ancient woodland if plantations of conifers or deciduous trees are removed and replaced by an appropriate mix of native species. Re-creation is the process of bringing back a lost habitat. For example chalk grassland can be 're-created' (with appropriate management) on the arable land – so-called arable reversion.

Habitat Restoration and Re-Creation Targets

4.14 Attempts have been made to quantify targets for the restoration and re-creation of BAP priority habitats. A lack of consistent data has, however, meant that such targets are guidelines only. Given the concentration of particular habitat types in Test Valley, the most extensive areas of restored or re-created habitats are likely to be comprised of:

- ancient woodland (restoration on ancient replanted sites)
- chalk grassland
- chalk rivers
- fens and reedbeds
- floodplain grazing marsh
- cereal field margins

4.15 In practice, attaining objectives for habitat restoration depends on mechanisms attached to agri-environment schemes, planning consents and funded projects developed by partnerships. In a few cases, individual estates and private landowners will allocate resources to habitat restoration, and there are several good instances of this in Test Valley.

Management of the Wider Countryside

Ecological Networks

4.16 The existing wildlife sites in Test Valley need to be managed as an integral part of the wider countryside and not as isolated islands for wildlife. This can be achieved by preventing further habitat loss and by seeking opportunities to undertake habitat restoration or re-creation in strategic locations. Other features in the wider countryside such as rivers and chalk escarpments are also important because they provide links between these areas of more extensive habitat and help to form ecological networks across the landscape as a whole.

4.17 Article 10 of the Habitats Directive recognises that certain features in the landscape act as 'corridors' or 'stepping-stones' for the migration and dispersal of species. Important continuous linear features include hedgerows, cereal field margins, road verges and watercourses; habitats that function as important 'stepping-stones' include ponds and small woods. It is important to retain and sympathetically manage these features to enable the movement of species and to make habitats less prone to the effects of fragmentation and isolation.

4.18 The Government's Planning Policy Statement 9 (PPS 9) (2005) contains specific reference to the conservation of ecological networks and reversing the effects of fragmentation, a consideration which should underpin the spatial planning in Test Valley's emerging Local Development Framework.

4.19 A fundamental reason for ensuring intact ecological networks are in place is for the adaptation of biodiversity to the effects of climate change (see later in this section). A northward shift in habitats and species is predicted in response to changing average temperatures and rainfall patterns. Intact habitat networks and stepping-stones will facilitate such adaptation as has happened over past millennia. Despite the uncertainties about the scale and extent of the effects of climate change, the rate of recent change gives added urgency for reconnecting ecological systems across the landscape.

4.20 In view of the need to restore networks of habitats across the landscape, 'opportunity maps' are being developed by the Hampshire Biodiversity Information Centre and other partners for use in targeting land management and habitat restoration. These maps, derived from existing habitat data and other environmental variables, offer a very useful blueprint for action.

Species Conservation

Flagship Species

4.21 Certain priority species for conservation are also charismatic and attract public support. These include mammals such as otters, water voles and dormice; birds such as the skylark and barn owl; and wild flowers such as poppies and bluebells. In some instances, these species are seen as indicators of our quality of life and as such, receive special conservation attention. Other flagship species may be culturally or economically important, such as wild brown trout and grey partridge. Flagship species, where they are declining, are a useful platform for raising awareness of the issues affecting species; the converse is also true.

Indicator Species

4.22 Many flagship species are indicative of habitat quality and the state of local biodiversity: for example, dormice and bluebells depend on well-managed woodlands; water voles and brown trout require high water quality and well managed river habitat. Butterflies and breeding birds are often used as indicators of the ecological health of an area, and as such are used as a 'proxy' for wider biodiversity. Conservation of the habitat ensures conservation of whole groups of species – not just the indicator species.

Alien Species

4.23 Several species have been intentionally or accidentally introduced to the countryside, or have become naturalised. Whilst many are benign, a small but significant number are detrimental to our native flora and fauna. Plants such as Himalayan balsam and Japanese knotweed vigorously out-compete native vegetation and can be difficult to control.

4.24 An increasing problem in the waterways and ponds of the UK is the introduction of invasive non-native weeds. These include species such as Australian swamp stonecrop, water fern and parrot's feather, which were originally sold as garden pond plants but which have now spread into the wild. These plants are more competitive than our native species and can cover whole areas very rapidly, crowding out other pond life. Eradication programmes for these species are being developed but there is a need to raise awareness amongst the general public about the dangers of introducing garden waste into natural habitats.

Lack of Knowledge

4.25 Most recording of wildlife is carried out by partner organisations during the course of their statutory and non-statutory duties, and through a network of amateur naturalists, who, in most cases, are active within one of the local species groups (see Appendix 6). Whatever the source of data, the Hampshire Biodiversity Information Centre acts as a repository for an increasing volume of species data covering a range of sites. Despite the efforts of recorders, however, there are still large gaps in our collective knowledge of species distribution (see Map 7) particularly in farmed open countryside. Any efforts to protect and enhance biodiversity in Test Valley must therefore go hand in hand with efforts to increase our knowledge of species distribution, as well as ensuring that there is local expertise in species identification.

Species Action Plans

4.26 Several BAP priority species have local or UK Species Action Plans (SAPs). To include all of these is beyond the scope of this BAP. Where opportunities exist for enhancing conditions for priority species, however, relevant SAPs should be consulted for details of habitat requirements and management recommendations:

- Where there is a Hampshire SAP for a species, it can be found at **www.hampshirebiodiversity.org.uk/vol-two.html**

- For UKBAP priority species without a Hampshire SAP, UK SAPs can be found at **www.ukbap.org.uk/species.aspx**

Development and Recreation

4.27 Pressure from development, particularly around Andover and on the urban fringe of Southampton, has a direct and visible effect on the environment, but also knock-on effects including the need for more accessible recreational space, landfill, mineral extraction, and abstraction from, and discharges into, watercourses.

4.28 Legislation is in place which requires protection of sites with statutory designation such as SPAs, SACs and SSSIs, as well as protection of species listed in the Wildlife and Countryside Act 1981. There is also Government guidance for protection of locally important wildlife sites (SINCs). These policies are recognised within Test Valley Borough Local Plan and should be carried forward into the Local Development Framework.

4.29 Planning decisions and strategic documents should be based on sound ecological data to ensure that key areas for biodiversity are rightly identified. There is a need to implement the policies relating to protection of species and habitats within and beyond statutory designations, notably through the Natural Environment and Rural Communities (NERC) Act (2006) Section 40 which states:

"Every public body must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity"

4.30 Translating regional development targets from the South East Plan into a local context represents an opportunity to link development requirements with provision of multi-functional 'green infrastructure': accessible open spaces to improve quality of life, ecological networks, and ecological services such as flood risk management and storing carbon.

4.31 Policy NRM4 in the Draft South East Plan sets out mechanisms by which local authorities and other partners can ensure no net loss of biodiversity, and aim for gains. This policy also gives a spatial perspective and identifies six areas of strategic opportunity, either wholly or partly, within the Borough for habitat restoration and recreation. These are:

- The New Forest
- Emer Bog
- North Wessex Downs AONB
- The River Test
- Tytherley Woods
- Harewood Forest

4.32 If a specific proposal is likely to have a direct or indirect effect on any feature of conservation interest then there must be a plan of action to ameliorate the effects of the development, as well as to enhance and monitor adjacent habitats. New developments can also contain an element of biodiversity within the design brief. This will not compensate for lost biodiversity habitat but may help to encourage wildlife back into built-up areas.

4.43 Where land uses such as mineral extraction and waste management have a marked impact on the environment, plans need to be in place to limit detrimental impacts. There is also the opportunity to restore areas of land, such as mineral extraction sites and watercress beds. If restored sensitively, these areas can provide new habitats for species to colonise.

4.44 Farming and forestry are not the only activities in the countryside. There is public access to the Borough's rights of way network and the public now have the 'right to roam' over certain areas of land. Recreational activities include dog walking, sports and the keeping and riding of horses. The countryside also supports rural tourism.

4.45 Some of these activities constitute 'development' and require planning permission. It is important that biodiversity issues are fully taken into account when proposals for development in the countryside are considered. Many other activities do not require planning permission and in such cases any potential harm needs to be addressed through site management. Many sites with public access are also of significant wildlife value. On such sites management strategies need to be in place to protect the most vulnerable areas, provide access in ways that do not harm wildlife and, where appropriate, inform visitors about local wildlife.

Climate Change and Sea-Level Rise

4.46 Climate change is a global issue, which will have increasingly significant effects on biodiversity in the future. It is predicted that global temperatures could increase between 1.4 and 5.8ºC over the next 100 years. In the UK, climate change will probably mean more summer droughts, increases in winter rainfall and higher temperatures throughout the year.

4.47 These changes will affect both habitats and species. Habitats may change in character and the distribution of certain species may change, with some becoming extinct or less common locally, and others colonising new areas where habitats are sufficiently well connected. Reduced rainfall will mean that watercourses and wetlands will become less suitable for biodiversity; increased winter rainfall may lead to an increase in the frequency of pollution from land as runoff, as well as localised flooding incidents.

4.48 One important implication is sea-level rise: it is estimated that sea levels will rise by 0.5 metres over the next 50 years, which on the Lower Test could see the High Water Mark move inland by over 500 metres. Recent vegetation mapping at Hampshire Wildlife Trust's Lower Test nature reserve supports such predictions. Sea-level rise will cause increased flooding, erosion and saltwater incursion. This will dramatically change the types of habitats and species found along the coast.

4.49 On the Lower Test the undeveloped landscape means that the natural retreat of the existing coastal habitats can take place without threatening human habitation. However, the coasts on either side of Southampton Water are more developed and may need protection. Any protection measures should be designed to ensure that sufficient sediments remain in the system to allow deposition to take place in areas like the Lower Test. This is essential both to reduce the rate of erosion and to enable new habitats to establish. The aim of management in coastal areas should be to allow sea-level rise to occur, whilst preventing the net loss of species and habitats by allowing their movement upstream.

Lack of Coordination

4.50 Sharing of information and coordination between partners is essential to the BAP process in order to avoid duplication of effort and to monitor and report progress. To achieve BAP objectives there needs to be a system in place to coordinate action for biodiversity. The sections on a Borough-wide and local action plans (Section 4 and 5) therefore set out priority objectives, actions, timescales and named partners to for delivery and monitoring of progress (see Section 7).

4.51 Different organisations have different strengths to offer, and by working together there is a greater chance of achieving high quality results on the ground. It is the aim of this BAP to bring partners together to develop and implement projects, to prevent duplication of effort and to target work where it is needed most. In Test Valley there is the added complexity of cross-boundary working, as it lies on the border of the county and also on the edge of the South East region, both in terms of South East England regional bodies and Environment Agency teams.

4.52 The BAP process in Test Valley must be flexible and adapt to changes in priorities, because conservation should respond to changes in the environment and the natural fluctuations in species and habitats. This plan will be reviewed periodically, to ensure that it is still applicable (see Section 7).

Broadleaved Woodland Issues

4.53 Ancient woodland is now much more widely appreciated as a valuable biodiversity resource and this is reflected in both planning and forestry policy. For example, with regard to ancient woodland Government advice indicates that local planning authorities "should not grant planning permission for any developments that would result in its loss or deterioration unless the need for, and benefits of, the development in that location outweigh the loss of the woodland habitat."[46] Such policies should ensure that the losses of the last 70 years would not be repeated in the future.

4.54 The England Forestry Strategy[47] now promotes the ecologically sensitive management of Ancient Semi-Natural Woodlands, and funding for sympathetic management is available through grant schemes. Perhaps the greatest opportunity to enhance the biodiversity of ancient woodland is through the removal of conifers on ancient sites and restocking, either by planting or natural regeneration, with broadleaved species.

46 Planning Policy Statement 9: Biodiversity and Geological Conservation, ODPM, 2005

47 The England Forestry Strategy – A New Focus for England's Woodlands: Strategic Priorities and Programmes, Forestry Commission, 1999

4.55 Despite the positive steps, ancient woodlands and parklands still suffer from a lack of traditional management such as coppicing, pollarding, the retention of dead wood, and ride and glade management. Lack of management is the result of a lack of demand for woodland products, and the use of woodlands for game. Advice on woodland management techniques and grants is available from Hampshire County Council's Woodland Officer and from the Forestry Commission. Certification is available for woods that are being managed in a sustainable way.

4.56 For more details on woodland management, consult the Hampshire Habitat Action Plan for Ancient Semi-Natural Woodland and Wood Pasture & Parkland at the following website: www.hampshirebiodiversity.org.uk/vol-two.html

Unimproved Grassland Issues

Neutral Grassland

4.57 The remaining neutral grasslands in Test Valley are under threat from loss and inappropriate management. Sites are often small and not productive for the landowner. Sites can become neglected or abandoned because the low intensity grazing or hay cutting management they require is difficult to maintain. Alternatively, sites may be lost to drainage or agricultural improvement when the rationalisation of the management of a holding is sought, particularly following a change in ownership.

4.58 Neutral grassland sites are often used for the keeping of horses. Small fields can make good pony paddocks; however, this can lead to a loss of wildlife interest due to overgrazing and the feeding of horses within the site. Where neutral grassland sites are located close to settlements they can come under threat from development. These sites tend not to be highly valued by the public because their interest is only readily appreciated during the short flowering period in late spring/early summer.

4.59 Neutral grasslands require low intensity grazing, sometimes in conjunction with cutting for hay, to maintain diversity. The appropriate grazing management of a neutral grassland site will also usually require the use of adjacent land. Periodically stock need to be taken off neutral grassland sites to prevent over-grazing, poaching during periods of wet weather and disturbance to breeding birds. The small size of remaining sites and their fragmentation makes them vulnerable to external pressures such as spray drift from agriculture, water abstraction on adjacent land and informal recreation, particularly where sites are located close to settlements.

4.60 Grants and advice are available through agri-environment schemes for the management of neutral grassland sites, though small and isolated sites cannot be managed in isolation and are therefore least viable for sustainable management.

Calcareous Grassland

4.61 Most calcareous grassland or chalk downland that remains within the Borough occupies steep slopes where conversion to arable or improved pasture has proved too difficult or uneconomic. The main exception to this is Porton Down, where about 550 hectares, mostly used by the Ministry of Defence, has survived on flatter ground. The topographical nature of much of the remaining chalk downland means that it is perhaps less vulnerable to further direct losses than other grassland habitats.

4.62 Chalk downland develops where there has been a long history of grazing typically either by beef cattle or sheep. Maintaining or reintroducing grazing is perhaps the key issue for conserving the biodiversity of the remaining chalk downland in the Borough.

4.63 In order to manage chalk downland appropriately grazing at low stocking densities needs to be carried out. A stocking density of 0.5 cattle or 2.5 sheep per hectare is considered optimum, although this is dependent to a certain extent on the sward structure required. Sheep will produce a close turf with patches of taller grasses but will not graze and control scrub. Cattle will eat a wider range of species but can trample sensitive features such as anthills. Grazing management of chalk downland also requires other land because stock need to be removed at certain times of year to allow species such as butterflies to complete their lifecycles.

4.64 The dung of grazing stock has traditionally been broken down by specialist invertebrates, including dung flies, beetles and fungi. These flies and beetles are a valuable part of the downland ecosystem, providing food for birds and bats. However, in recent years some of the specialist dung species have been killed off by ivermectins, which have been developed as a worming treatment for stock. Ivermectins are a threat to the biodiversity of chalk downland as they remove a valuable source of food for birds and bats and also leave sterile non-degrading dung on the ground.

4.65 Many remaining chalk downland sites exist as small fragments and there is potential to link some of these up through habitat re-creation.

4.66 For more details on neutral and calcareous grassland management, consult the Hampshire Habitat Action Plan for Neutral Grassland and Lowland Calcareous Grassland at the following website: www.hampshirebiodiversity.org.uk/vol-two.html

Wetland Issues

4.67 Most wetlands need some form of active management. In wetland sites this is often best achieved through reinstatement of water levels and grazing. The Water Framework Directive should result in improvements for wetland habitats through water resource management generally, whilst the Water Level Management Plan for the River Test represents a specific opportunity to ensure designated wetland sites have sufficient water. Links will be needed between flood defence, abstraction and development policies in order to protect wetlands. It will be possible to use the natural processes of rivers and their floodplains to alleviate flooding and resolve water storage issues.

4.68 A natural river will have a range of vegetation structure all-year round vegetation cover. Riverside trees should not completely shade the in-channel vegetation as this will lead to a reduction in stream flora. Significant plantations of poplar occur in the floodplain of the River Test – where possible these should be removed as they are detrimental to wetland vegetation.

4.69 A natural river profile will have riffles, shingle banks and meanders. There will be a natural variation in sediment types downstream, with clear gravel beds at the river's source, and finer sediments towards the river's mouth. A meandering river will have a stable bank structure with small cliffs. Where the riverbank has become eroded it can be restored with the use of willow faggots. Any flood management work should seek to use the river's natural processes to store and release water, without the need for excessive dredging.

4.70 Within the floodplain there should be large tracts of wet grassland, wet woodland, marsh, fens and reedbeds. These wetlands require low intensity grazing, high water levels for part of the year and no artificial fertilisation. Wetlands are resilient and will respond well to restoration; it is important to create connecting corridors and not just to protect isolated pockets of well-managed habitat. Arable land which may suffer from waterlogging and which is difficult to cultivate can be ideal for reversion to wet pasture.

4.71 There is the potential to restore large areas of wet grassland within the River Test floodplain. At the mouth of the River Test, where it flows into Southampton Water, the wetland habitats are under the influence of the sea. This creates habitats and species that are tolerant of saltwater incursion for all or part of the tidal cycle. There needs to be room for habitats to move inland in response to the rising sea level. Where there is little development there may be opportunities to allow natural sea-level retreat to occur.

4.72 For more details on wetland management, consult the Hampshire Habitat Action Plan for Chalk Streams and Lowland Wet Grassland and the Topic Action Plan for Water & Biodiversity at the following website: www.hampshirebiodiversity.org.uk/vol-two.html

Heathland and Acid Grassland Issues

4.73 The heathlands and acid grasslands on the edge of the New Forest and to the north of North Baddesley are protected for their very important wildlife interest and these protected areas are not under threat from further losses. However, there are areas of heathland and acid grassland interest outside the protected areas, which could be threatened by changes in agricultural or other forms of land management. The small residual heathland sites in the Chilworth area are threatened by a lack of management, which has led to the encroachment of scrub and trees. The proximity of Chilworth to Southampton also means that development and informal recreational use are threats.

4.74 Heathlands have traditionally been grazed by cattle or ponies and this form of management continues on the New Forest Commons and at Emer Bog/Baddesley Common. Grazing prevents encroachment by trees and scrub, creates a varied age structure to the heather and maintains areas of open or bare ground. This diversity of structure is important because it provides a variety of habitat conditions for different species.

4.75 It is unlikely that grazing would be a viable option in the Chilworth area, because of the small size and fragmentation of the habitats. However, where these habitats occur within woodlands, there may be scope to alter the woodland management to maintain, enhance or restore areas of heathland.

4.76 Heathland sites are vulnerable to human activity. The fragile soils can easily be eroded by visitors and ground-nesting species such as nightjars, may be disturbed. Heathlands close to settlements are more at risk from deliberate or accidental fire and may also be affected by vandalism and litter. Interpretation and the involvement of the local community can help to overcome these problems.

4.77 For more details on heathland management, consult the Hampshire Habitat Action Plan for Heathland, Acid Grassland and Bog at the following website: www.hampshirebiodiversity.org.uk/vol-two.html

Farmland Issues

Arable Land

4.78 Arable land is becoming increasingly 'multi-functional': it generates income from crops, game, access routes and wildlife-friendly practices. Specific techniques are now well established to allow arable land to fulfil each of these functions, such as uncultivated margins, which provide ideal cover for ground-nesting birds (e.g. grey partridge) and small mammals, and also act as a buffer to other habitats such as hedgerows and rivers, protecting them from agricultural spray drift and runoff. Conservation headlands around the margins of arable fields involve reduced fertilisers and chemical inputs, but they can still be cultivated, and can be planted with wild flower mixes.

4.79 Land that is 'set-aside' can be managed to benefit biodiversity. If set-aside areas are located next to habitats such as hedgerows they can increase habitat diversity and act as a buffer. Alternatively, 'set-aside' can be rotated around the farm, even as plots within crops, to benefit species such as brown hare. 'Set-aside' land can be left to regenerate naturally, if the aim is to benefit arable flora, or it can be planted with game cover crops.

4.80 Environmental Stewardship grants are available to help increase farmland biodiversity: Entry Level Stewardship (ELS) will give payments for environmental features across the farm, based on awarding points. Higher Level Stewardship (HLS) will provide payments for management and creation of additional wildlife habitats – particularly valuable in Test Valley will be options to restore chalk grassland on arable land adjacent to existing grasslands. See Appendix 6 for details.

Hedgerows

4.81 There has been widespread uptake of ELS options for hedgerow management, including replanting, and, where agreements exist, hedgerow networks are being restored across the landscape of Test Valley. Without management, hedges become leggy and gappy and over-grazing at the base often compounds this. At the other extreme, a mechanically cut hedge, managed once a year or more, will also have lost much of its wildlife value.

4.82 Popular ELS options ensure that hedges are dense and tall to create cover for nesting birds. Cutting every two years allows woody species to produce fruits. This will provide a food source for many wintering birds. Brown hairstreak butterflies lay their eggs on young suckers of blackthorn and therefore need patches of new growth. The butterflies remain as eggs over winter; therefore if cutting occurs every year, the species will be lost. Where a hedge needs to be cut to prevent crop shading, the side of the hedge away from the crop should be managed for wildlife.

4.83 Dead wood and trees within the hedge can be very important microhabitats. Trees that have been part of the hedge for a long time, particularly where they have been pollarded, are home to rare fungi and lichens. Trees provide roosting sites for species such as bats, and nesting sites for little owls and woodpeckers. Ivy can increase diversity even further and is not damaging to the tree.

4.84 The hedge base can be as important as the hedge itself, hence the added value of combining wildlife-friendly options for field margins with good hedgerow management.

4.85 For more details on farmland management, consult the Hampshire Habitat Action Plan for Arable Land and Hedgerows at the following website: www.hampshirebiodiversity.org.uk/vol-two.html

Urban Issues

4.86 It is important to consider the built environment alongside the habitats of the wider countryside, particularly in Test Valley, where the Test and Anton rivers bring wildlife into the heart of Andover and Romsey. A number of recent studies have confirmed that urban gardens are intrinsically good habitats for wildlife because they offer features usually absent from the wider countryside such as ponds, nectar and pollen sources for a wealth of insects, and nesting sites for birds and small mammals. Yet, gardens are considered 'brownfield' sites on which development is preferred.

4.87 Allotments, parks and open spaces, brownfield sites and churchyards can also provide important habitats for wildlife. Many species have adapted to share our living space, which offers 'microhabitats' often absent from the wider countryside. Brownfield sites including abandoned waste ground, for example, hold features such as undisturbed sun-drenched walls, ideal basking sites for reptiles and butterflies. Abandoned mineral sites have unique communities of animals and plants that are adapted for harsh conditions – recent surveys have shown that such sites contain high concentrations of rarities. In the light of this, the updated list of UKBAP priority habitats includes a new category: 'Open Mosaic Habitats on Previously Developed Land'.

4.88 Development planning within urban areas should not only consider the need to protect notable urban features such as large gardens but should also integrate wildlife into the design brief (e.g. retaining roof designs that can be used by birds such as swifts and sparrows, or planting native trees). Developers should also consider the opportunities for supporting the local economy when sourcing materials for developments, for example using local timber to provide a market for traditionally managed woodlands.

4.89 Developments can and should bring benefits for both biodiversity and people's appreciation of it, through the provision of green infrastructure in close proximity to built-up areas. In practice, in addition to any opportunities coming forward through development proposals, this will potentially mean allocating areas in the Local Development Framework that provide benefits for biodiversity and access for recreation.

4.90 For more details on farmland management, consult the Hampshire Topic Action Plan for Urban Areas and the Habitat Action Plan for Road Verges at the following website: www.hampshirebiodiversity.org.uk/vol-two.html

Borough–Wide Action Plan

4.91 During the consultation on this BAP, partners helped identify a tier of strategic, Borough-wide actions that could apply anywhere and on any timescale. These have been translated into more detailed area-specific actions and projects where priorities and opportunities for localised action exist: these are given in Section 5.

4.92 The Borough-wide actions include wildlife site protection, habitat management, advice and raising awareness, and have been developed on the basis of advice from partners with relevant or site-specific expertise and actions listed in relevant Habitat and Species Action Plans published as part of Hampshire BAP or the UKBAP.

4.93 The Borough-wide action plan (see Table 5) and subsequent area-specific action plans have been broken down into specific themes, namely:

- Designated sites – considerations in relations to sites designated for conservation such as SSSIs and SINCs
- Wider countryside – outside designated sites, but frequently adjacent to designated land or forming part of a key network
- Species – related to one or more priority species
- Awareness – covering objectives and actions related to raising awareness and engagement of people with biodiversity

4.94 For each of the above themes, objectives and associated actions at a Borough-wide scale have been identified. The resultant expected outcomes and lead partners have been noted. The lead partners named support and are well placed to deliver the action in conjunction with other partners and, crucially, landowners.

Table 3: Borough-wide Action Plan

	Objective	Action
DESIGNATED SITES	Ensure SSSI land is maintained in favourable condition	Protect SSSI/SAC/SPA through the Local Development Framework
		Owners of sites in unfavourable condition receive specialist advice and assistance in managing SSSI land
		Owners of sites in favourable condition receive ongoing advice and support in managing SSSI land
		Monitoring with focus on sites in strategic areas
		Improved survey records for designated sites
	Ensure SINC land is managed for biodiversity in strategic areas	Protect SINCs through the Local Development Framework
		Notify SINC owners; conservation advisor to visit and advise
		Monitor site condition

Outcome (link to Hampshire Biodiversity Partnership's Key Objectives in brackets)	**Lead Partner(s)** (Names provided in full in Appendix 6)
• Site protected (2a)	TVBC
• SSSIs managed suitably and sustainably for biodiversity (1b)	NE
• SSSIs maximised as reservoirs of biodiversity (1b)	
• Increased knowledge of biodiversity on SSSIs (3c)	
• Site protected (2a)	TVBC
• Site managed suitably and sustainably for biodiversity (1c)	HBIC, HCC, HWT, FWAG
• Site assessment made and fed-back to land manager (1c)	HBIC

	Objective	Action
WIDER COUNTRYSIDE	Protect and enhance the water resource requirements of wetland habitats	Encourage management of water levels to support wetland habitats and species through, for example, implementation of Water Level Management Plan, the planning process, and water level control on partners' land
	Reverse past fragmentation of priority habitats	Create buffer areas around designated sites and sites containing priority habitats through the planning system and agri-environment schemes
	Protect BAP priority habitat outside of designated sites	Survey and designate sites as SINC where appropriate
		Promote and utilise opportunity mapping as a decision-making tool for targeting resources
		Select sites for protection and designation where there is value for connectivity of existing sites through, for example, Planning Policy Statement 9 and the NERC duty
	Create habitats in the wider countryside and in urban areas	Provide advice to landowners on appropriate Environmental Stewardship options to implement corridors, buffers, margins and reversion schemes on farmland
		Restore/create/re-create wildlife habitats in urban areas
		Target public and local businesses with advice on habitat creation opportunities in built-up areas

Outcome (link to Hampshire Biodiversity Partnership's Key Objectives in brackets)	**Lead Partner(s)** (Names provided in full in Appendix 6)
• Water requirements of river and wetland species and habitats are maintained (1c, 1g)	EA, NE, TVBC
• Reduced edge effects on BAP habitat (1e, 1g) • Reduced effects of diffuse pollution in freshwater habitats (1e, 1g) • Potential enlargement of fragments through restoration (1e, 1g) • Creation of ecological networks (1e, 1g)	NE, TVBC, HWT, HCC, FWAG
• Priority habitats and species protected through the planning system (3c)	HBIC
• Landowners offered advice on conservation management (1a, 4c)	HBIC, HCC, HWT, FWAG
• Suitable connecting sites identified and protected through the planning system (1e, 1g)	TVBC
• Suitable sites designated as SINCs/SSSIs (3c)	HBIC/NE
• Ecological networks established (1e)	No lead partners
• Biodiversity able to adapt to climate change	No lead partners
• Wildlife value of farmland increased (1a) • Wildlife and character of farmland improved at a landscape scale (1e, 1g)	NE, FWAG, HWT, HCC AONB/NFNPA
• Isolated habitat patches linked in urban areas (1e, 1g)	TVBC
• Public involvement (4c)	
• Local business involvement (4c)	

	Objective	Action
WIDER COUNTRYSIDE	Promote traditional and sensitive management as a means of restoring habitats	Promote grazing as a means of managing grassland, heathland and wetlands following scrub management
		Target woodland sites for the reintroduction of sustainable coppicing regimes
		Leave standing and fallen dead wood in situ
	Protect the water ecosystem	Encourage sensitive cultivation and land management practice, especially on slopes and near lanes and drains
	Protect ancient trees and hedgerows in the district	Development of a Borough Tree Strategy or equivalent
		Survey ancient hedgerows and give advice to landowners on appropriate management

Outcome (link to Hampshire Biodiversity Partnership's Key Objectives in brackets)	**Lead Partner(s)** (Names provided in full in Appendix 6)
• Local graziers supported	HCC
• Local coppicers supported • Habitat structure maximises biodiversity (1g) • Populations of grassland and woodland species maintained (1f)	FC, HCC
• Runoff and soil erosion reduced (4c)	EA, NE, FWAG, HWT
• Diffuse pollution and siltation reduced (4c)	
• Water quality maintained and enhanced (1g)	
• Ancient tree and woodland biodiversity maintained (1f, 1g)	TVBC
• Ecological habitat and corridor value of hedgerows maintained and enhanced (1e, 1g)	HBIC, FC, HCC

	Objective	Action
SPECIES	Update and improve species records	Ensure local groups and recorders share records with the wider recorder community and HBIC
		Identify lesser-known priority species and areas and target surveys accordingly
		Encourage recorders and local groups to targeting surveys in data-deficient areas
		Circulate species list to all surveyors for updating
	Monitor and encourage populations of flagship species in strategic areas	Species groups continue to monitor key species
		Share good management practice and promote link between recording schemes and site management plans, e.g. through site-specific forums

Outcome (link to Hampshire Biodiversity Partnership's Key Objectives in brackets)	**Lead Partner(s)** (Names provided in full in Appendix 6)
• Greater understanding of the range and distribution of biodiversity in the Borough (3c)	HBIC
• Local surveyors aware of importance of their data in the wider community (3b)	HWT
• Recording activity promoted (3b)	HBIC
• More robust data available to make informed decisions (3c)	
• Key flagship species monitored (3c)	BC, HARG, HFG, HMG, HOS, HWT, TVBC
• Habitat management linked to appropriate objectives for flagship species (1f)	
• Populations increase within and between protected sites (1f)	

	Objective	Action
AWARENESS	Promote biodiversity and its conservation to the public	Use a variety of media to raise awareness of local biodiversity
		Develop school-partner forums to promote links and develop resources
		Develop environmental study sites in public places
		Develop programme of talks, walks and events for local communities
		Provide resources to train groups in species identification, surveying and monitoring
	Promote biodiversity and its conservation to landowners, land managers and decision-makers	Develop and implement initiatives to train land managers and developers, businesses, parish and district councillors in local biodiversity issues and actions
	Promote local produce as a way of sustaining traditional land management practice.	Provide advice to farmers on branding and marketing local produce which his compatible with conservation practice (e.g. charcoal from coppice; beef from nature reserves).
		Promote traditional management amongst the landowner community in strategic areas.
	Increase knowledge base of skills for use in conservation	Improve communication between groups to increase access to individuals with specific conservation skills
		Develop volunteer training
	Promote district and local rights of way as a way of appreciating biodiversity	Create Borough-wide rights of way map which is user friendly
		Cross-reference map to BAP, sites and other districts

Outcome (link to Hampshire Biodiversity Partnership's Key Objectives in brackets)	**Lead Partner(s)** (Names provided in full in Appendix 6)
• Information available to public in a wide range of media (4c)	TVBC
• Appreciation and understanding of biodiversity and its conservation increased (4b, 4c) • Local communities are aware of why management takes place (4c)	HCC
	TVBC
	AONB/NFNPA, HCC, HWT
• Local community involved in species monitoring (3b, 3c, 4c)	HWT
• Appreciation and understanding of biodiversity and its conservation are increased (4c)	HCC, NFU, AONB/ NFNPA, FC, TVBC
• Local decision-makers made aware of how they can protect and enhance biodiversity (2d, 4c)	
• Economic viability of traditional practices such as coppicing and grazing improved. (4c)	CLBA, Hampshire Fare, HCC, TVBC
• Semi-natural habitats maintained in a favourable condition. (1b, 1c, 1d, 1f)	
• Increased access to available skills for conservation projects (4c)	BTCV, Local Conservation Groups
• Increased skilled volunteer base (4b)	BTCV
• Local community made aware of how they can access the countryside (4b, 4c)	HCC, NE, TVBC
• Appreciation of biodiversity and its conservation are increased (4b)	

5

B Section 5

A Action Plan:

P Part 2 – Issues And Actions For Local Areas

Introduction

Local Areas

5.1 Within the Borough, areas for biodiversity action have been identified according to groupings of similar landscape character areas (see Appendix 3 for links to Test Valley Landscape Character Assessment). These areas have been chosen because they are defined by a distinctive type of geology, habitat and/or land use, and are mapped below.

Format for Local Areas

5.2 In the following sections, each local area has:

- A description of the landscape and biodiversity value of that area, with examples of key habitats, species and sites. These narratives draw upon Hampshire Biodiversity Information Centre data for SINCs and habitats, Natural England SSSI data, and the Test Valley Borough Landscape Character Assessment, to which specific references are made.
- A list of key issues derived from each narrative, or highlighted elsewhere in the BAP
- A project action plan for each area, identifying suggested partners and timescales
- A map showing numbered project areas

Biodiversity Action

5.3 For each of the areas there is a table of potential actions and projects, with a series of listed Actions and Outcomes that have been categorised into the four broad biodiversity themes from the Borough-wide action plan.

5.4 These tables reflect the overall objectives of the BAP, and are a translation of the priorities within the strategic actions, listed within the Borough-wide action plan, into localised actions based on:

- expert advice through consultation with partners
- up-to-date data on habitats, species, sites and schemes
- areas with potential for linking or protecting sites of high biodiversity at a local landscape scale to increase robustness in response to climate change and other factors

- areas with current action or with the potential for action under various conservation schemes
- areas with opportunities for enhancement of biodiversity through creation and / or restoration of habitats
- areas noted for priority species
- areas which link with residents or visitors to local biodiversity
- areas with undesignated sites containing BAP priority habitats
- areas with designated sites in unfavourable condition for wildlife

5.5 Actions which relate to a specific project area are numbered and mapped. These areas do not exclusively cover the sites with maximum biodiversity – such as those designated as SSSIs – many actions relate to the wider countryside around these sites, and people's interaction with biodiversity in their locality. Numbered actions correspond to numbered target notes shown on the accompanying map.

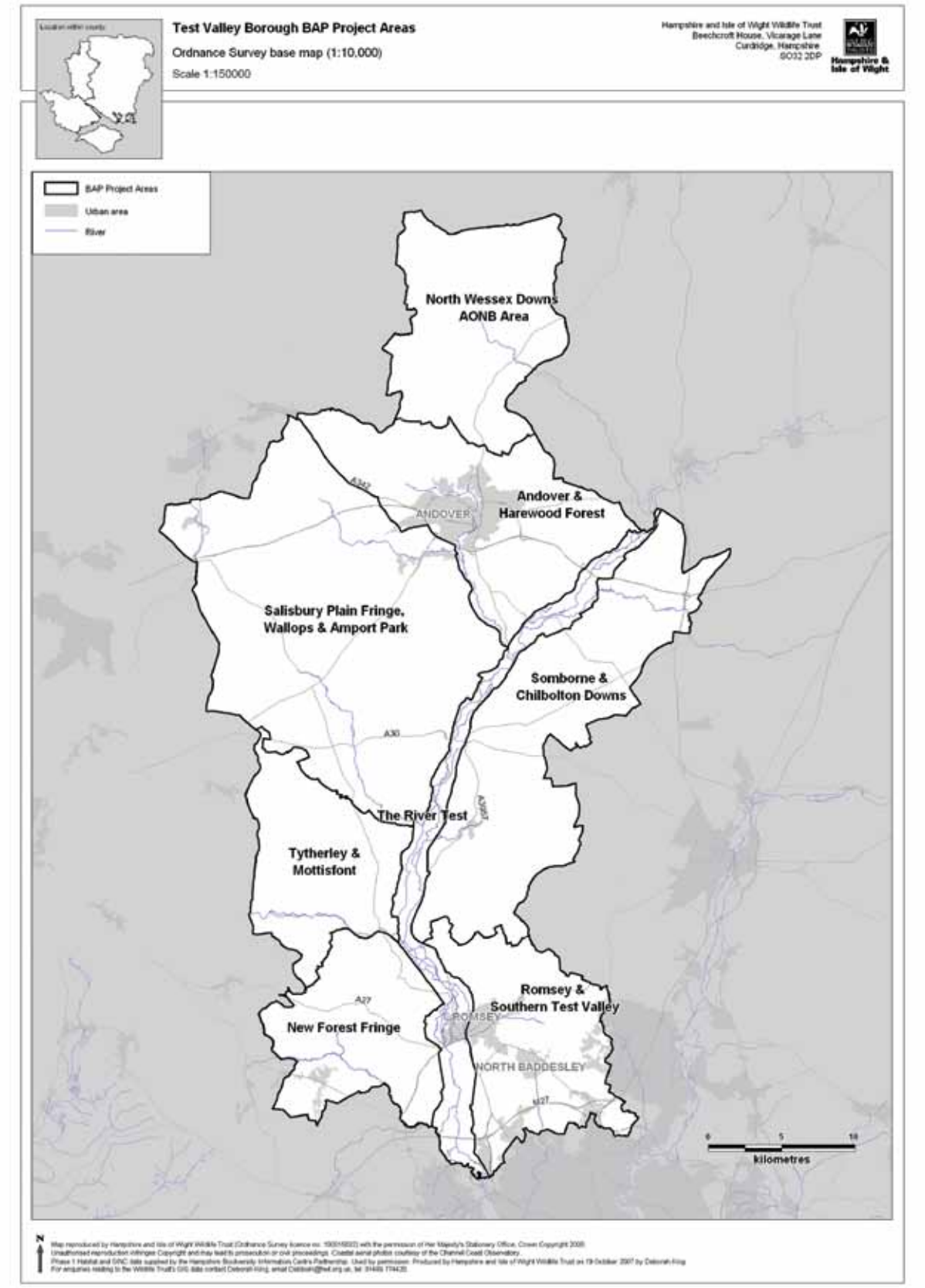
5.6 Each project has a suggested lead partner, or partners – abbreviations for which are defined in Appendix 6. It is assumed that all projects will involve partnership working, to prevent duplication and to ensure success. Partners may already be achieving success within their area, and their own projects may overlap with those listed within the BAP. Partners will have the opportunity to report on all projects that are fulfilling BAP objectives within Test Valley, and therefore achieving county, regional and national objectives (see Section 7).

5.7 Suitable timescales are proposed for each project to enable effective delivery and reporting. It is hoped that this should provide flexibility and allow partner organisations to respond, as opportunities and funding become available.

*	within year 1
**	within next 3 years
***	within next 5 years
****	within next 10 years
	then ongoing

5.8 All proposed projects within this plan are subject to landowner permission, and should be used as a guide to the possibilities that exist within the Borough, to fulfil the objectives of this plan. Landowners cooperation is fundamental to the success of the BAP initiative at all levels, and land managers should perceive inclusion of their land as an opportunity for contributing to biodiversity, often bringing with it financial benefits.

Map 10: BAP Project Areas



The River Test

5.9 A nationally important chalk river and associated wetland habitats, both the River Test's biodiversity and economic significance as a fishery is dependent upon a healthy environment. The river provides water resources for inhabitants, while lessening the risks of flooding and erosion where a natural floodplain is maintained. The huge volumes of peat also act as a carbon sink as long as water levels are sufficient.

Landscape and Biodiversity Profile

5.10 The River Test is one of the best examples of chalk river habitat in the UK and as such it has been designated as a SSSI since 1996. It has been modified by humans over a long period of time but the water remains of high quality. It is flanked by a diversity of wetland habitats and evidence of man-made water meadow systems exist along its length, historically diversifying the conditions for wildlife, although many are now abandoned. Management of the river channels, banks and vegetation to support game fishing have contributed to the current appearance of the river. The Test can be divided into three reaches: the Upper, Middle and Lower Test.

5.11 The Upper Test (LCA5C) features multi-braided water channels of relatively slow flowing water within a narrow, flat valley floor. The dominant habitats along this stretch of the river are permanent pasture with woodland patches including alder and willow carr. There are three notable designated sites along this stretch of the Test: East Aston Common SSSI, Bransbury Common SSSI and Chilbolton Common SSSI. All three are significant for their wetland habitats and unimproved grasslands.

5.12 Chilbolton Common is a diverse site supporting over 265 recorded plant species including marsh arrowgrass and adder's-tongue fern. It is also important for wetland birds including redshank, lapwings, snipe and warbler. Bransbury Common SSSI is a complex and rich example of a chalk valley alluvial fen meadow and fen complex which is rich in specialist fen vascular plants and mosses. Species of note include petty whin, lesser tussock sedge and flat sedge. Diversity at these sites is increased by the presence of adjacent disused water meadows and site condition is dependent on sufficient grazing levels.

5.13 The Middle Test (LCA5B) is similar to the Upper Test with braided channels within a wide flat valley of alluvial soils and peatlands enclosed by chalk slopes. The biodiversity along this stretch is enhanced with areas of permanent pasture, unimproved grassland and carr woodland on the valley floor, and areas of ancient semi-natural woodland on the chalk slopes. There are two large lakes on the site of former gravel pits at Timsbury and Houghton. Stockbridge Common Marsh and Stockbridge Fen are SSSIs within this section of the Test.

5.14 Stockbridge Common Marsh SSSI is a large area of wetland habitat owned by the National Trust with common rights of pasturage still exercised. The species-rich marsh is dominated by a mixture of dwarf sedge and taller sedge species, with stands of tufted hair grass and purple moor grass increasing diversity. There are also a number of old gravel workings which are characterised by an anthill, neutral grassland community. Stockbridge Fen SSSI has a botanically rich fen community dominated by sedges, which has evolved over six former peat workings.

5.15 The Lower Test (LCA5A) is characterised by braided channels meandering through a broad floodplain over alluvium and plateau gravels. The floodplain is dominated by small agricultural fields with reedbeds and marshes and is subject to a strong tidal influence; the lower reaches are regularly inundated at peak tides. Many of the wet meadows are unimproved as they are unsuitable for crops. These neutral grasslands are a nationally important BAP habitat.

5.16 The Lower Test Valley SSSI is at the head of Southampton Water and much of it is managed by Hampshire Wildlife Trust. The site represents a transition from salt and freshwater; as a result it contains a wide variety of habitats including unimproved neutral meadows, saltmarsh, some woodland and one of the most extensive areas of reedbed on the south coast. These reedbeds support BAP priority species such as cetti's warbler, while the coastal grazing marshes support rare species such as sea arrow-grass, bulbous foxtail, and brookweed; the site is regularly used by over-wintering wildfowl.

5.17 Other species of importance on the Test include the southern damselfly, which is of European importance. Two well-established populations exist at Bossington and Houghton and recently the species has also been recorded at Mottisfont and near Romsey. Water voles appear to have declined on the Test, partly due to the introduced predatory mink, whereas the otter appears to be returning to the area. Breeding birds such as snipe and lapwing have declined drastically in recent decades, as have populations of the native white-clawed crayfish.

Key Issues

- Need for management and restoration of designated areas
- Increased abstraction and the potential for low flows impacting river biodiversity and associated wetland habitats
- Surface water runoff from agricultural land creating localised pollution
- Loss of semi-improved and unimproved grassland habitat through conversion to arable and the application of fertilisers
- Increased scrub due to loss of grazing
- Pollution and silting-up of streams from poorly managed fish farms and watercress beds
- Re-profiling of river banks for fishing leading to a loss of aquatic and bankside habitats
- Risk of development leading to loss of habitat, increased demand for abstraction and conversely an increase flood risk if the floodplain is developed
- Sea-level rise resulting in loss of habitat
- Abandoned water meadow earthworks provide potential for habitat restoration
- Undeveloped land within historic estates provide potential for large areas of habitat restoration
- Alien invasive species

Table 4: Actions for the River Test

	Action	Outcome
DESIGNATED SITES	1) Targeting of resources and advice to managers of Bransbury Common, East Aston Common, Stockbridge Common Marsh SSSIs and the River Test SSSI as a whole	• SSSI managers of riverbank, commons and fens needing restoration receive specialist advice and resources for improving and/ or sustaining management – notably establishing a suitable grazing regime • Site attains favourable condition • Condition assessment monitoring in place
	3) Reintroduction of extensive grazing to strategic SINCs: Fishlake & Ashley Meadows, and restoring flow to the former water meadows on the Test SSSI adjacent to Romsey	• Initial contact with landowner made • Opportunities for reintroducing extensive grazing identified and promoted • Site receives sympathetic management • Site surveyed as part of a rolling programme
	Manage localised pollution in River Test	• Sources of runoff and nutrient enrichment identified • Impacts ameliorated through targeted advice, e.g. Catchment Sensitive Farming • Extent of grass buffer strip along watercourse increased • Water quality improved
WIDER COUNTRYSIDE	4) Allow habitats to shift upstream in response to sea-level rise in the Lower Test	• Relevant strategies and plans accommodate natural shift in vegetation upstream from Lower Test Marshes • Manage and maintain grazing of habitats to maximise biodiversity • Monitor impact of sea-level rise
	Develop habitat restoration and creation opportunities on farms and estates in the Test floodplain	• Farm/estate management plans incorporate projects such as reinstating permanent wet pasture, restoring water meadow systems, and managing former gravel and peat pits for wildlife. • Increased area of land under positive sustainable management • Extent of BAP habitats and species increases
	Good practice promoted amongst river-based businesses	• Environmentally responsible activities at local watercress farms and fisheries identified • Good practice demonstrated at locally organised workshops • Sustainability of brand promoted • Ecosystems protected

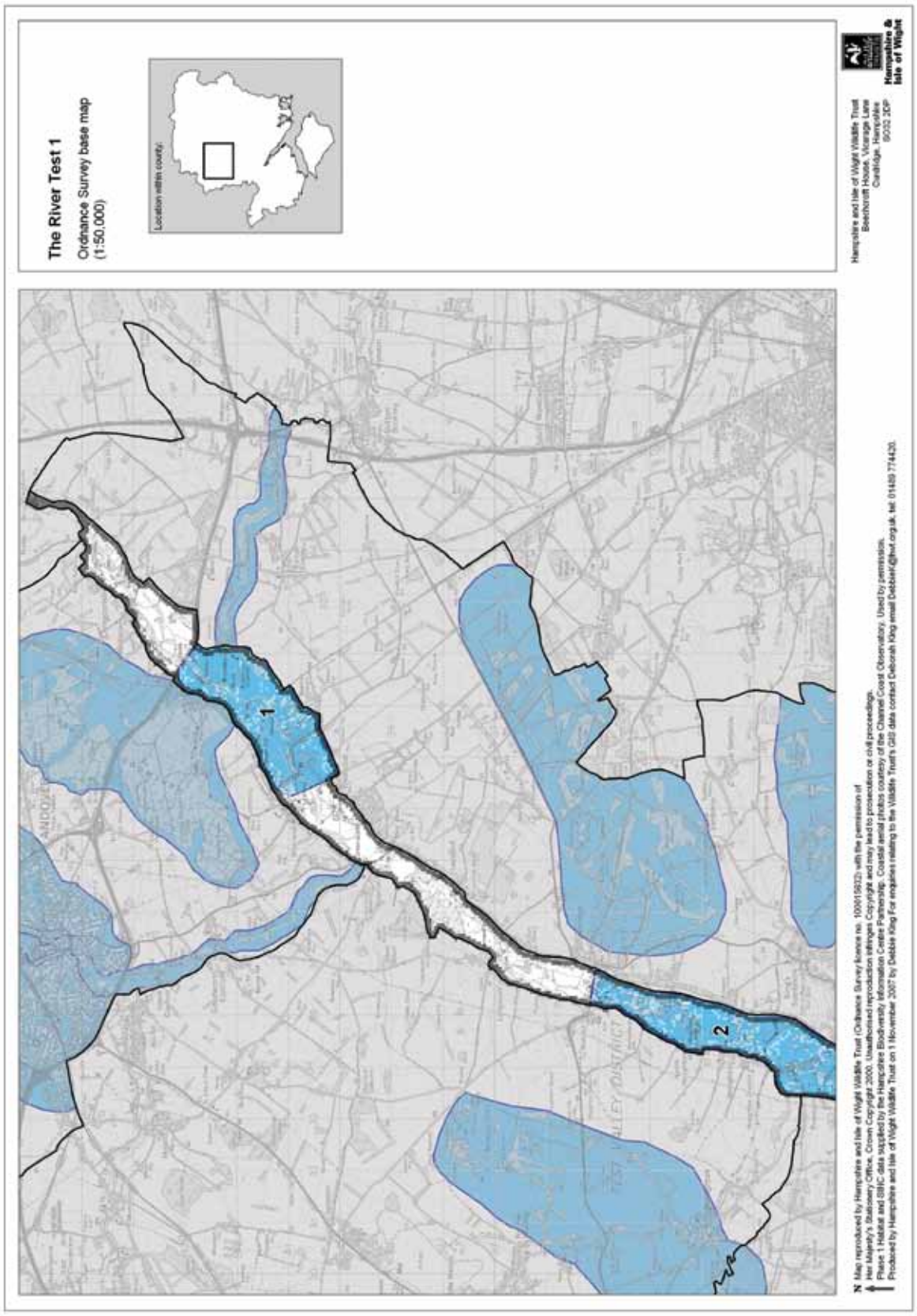
Partners (Names provided in full in Appendix 6)	**Time Scale**
NE	* → **→ **→
HWT, NE, FWAG, HBIC	* ** **→ *→
NE, EA	* ** ** ***→
NE, HWT, EA, TVBC	* *→ *→
HWT, NE, FWAG, HCC	** *** ****
HWT, EA, TVBC	* ** ***→ ***→

SPECIES	Implement mink control programme on the River Test and its tributaries	• Resources secured for mink surveillance and control • River keepers trained and equipped in appropriate and ongoing mink control • Mink population reduced • Water voles, wetland birds and other species increase
	Locate and enhance breeding sites for snipe, lapwing and redshank	• Past and present breeding sites identified • Water levels and habitat structure at key sites restored • Predator control introduced as appropriate • Breeding populations recover
	2) Encourage dispersal of main southern damselfly populations at Houghton and Bossington	• Strategic locations for ditch restoration identified around Houghton, Bossington and Mottisfont • Centres of population reconnected through ditch restoration, using the Mottisfont project as an exemplar
AWARENESS	Highlight biodiversity issues in strategic policy documents	Develop and adopt policies which riverine biodiversity and its significance as green infrastructure: • Catchment Abstraction Plans • Local Development Framework • Flood Defence Strategies • Minerals Plans
	4) Promote Testwood Lakes Study Centre as a resource for the local community	• Centre continued to be used as educational resource for schools • Events, walks and talks which promote the biodiversity of Test Valley held • Centre used by local natural history study groups
	Plan events at accessible wetland sites to demonstrate the need for management and management techniques	• Identify 2–3 sites along the length of the Test where a variety of management techniques are being used to benefit biodiversity within the floodplain • Plan and hold events for the public and for land managers • Public understand why management is necessary • Land managers equipped with knowledge to implement conservation management

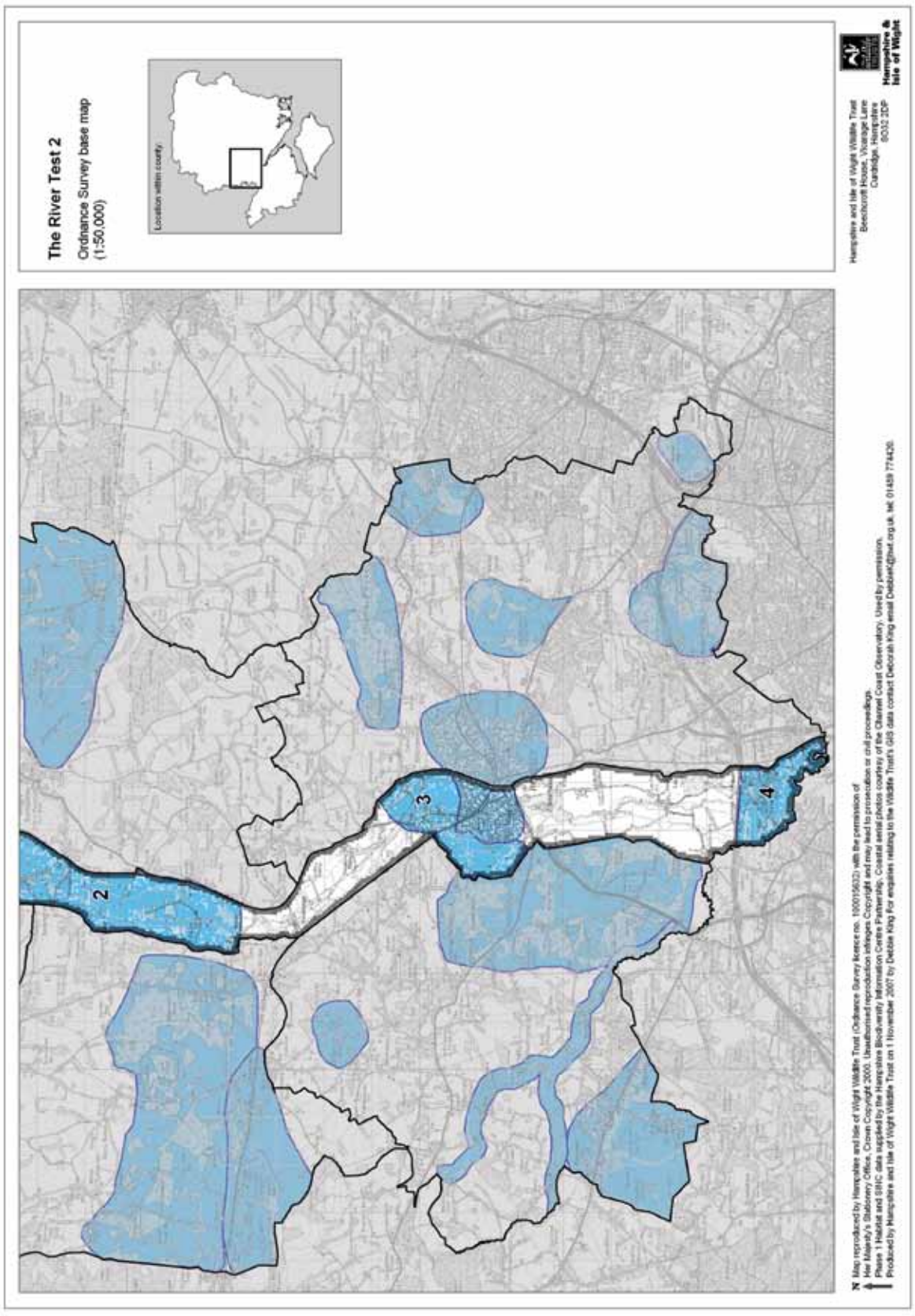
* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

EA, HWT, GWCT	** ** ***→ ****→
HOS, EA, NE	** ** *** **
EA, HWT, NT	** ***
EA, HCC, TVBC	 *→ *→ *→ *→
HWT, HBIC, TVBC	*→ *→ *→
HWT, FWAG	* ** ** **

Map 11: River Test Area 1



Map 12: River Test Area 2



New Forest Fringe

5.18 An internationally important ecosystem with a mosaic of habitats in the south of the area, changing to a more typical farmed and wooded landscape upon which the local economy is highly dependent.

Landscape & Biodiversity Profile

5.19 This area is a transitional landscape encompassing three different landscape character types in the southwestern corner of the Borough. The soils are predominantly sands and gravels with some intrusion of clay, forming a mosaic of habitats separating the heathlands and woodlands of the New Forest from the chalk and clay habitats to the north.

5.20 West Wellow Heaths (LCA1A) is a small area within the New Forest National Park and is strongly influenced by the New Forest ecosystem. It is a gently undulating landscape displaying an open mosaic of wet mires, acid grassland and heathland with occasional tracts of pasture woodland.

5.21 The New Forest, which includes this area of Test Valley, has been designated as a SSSI, Ramsar Site, SPA, SAC and National Park. Habitats such as Plaitford Common managed by the National Trust, West Wellow Common and Canada Common have developed and been maintained by grazing for thousands of years and as a result have a diverse and often rare biodiversity. Species such as breeding populations of woodlark, Dartford warbler, meadow pipit and stonechat have been recorded in this area along with nationally rare plant species such as marsh clubmoss and small water-pepper – species which may have been adversely affected by past drainage for forestry.

5.22 North of the New Forest the landscape changes to one of improved pasture, some larger arable fields with areas of woodland. The River Blackwater, a significant tributary of the Test, flows through different landscape areas and represents opportunities for restoring an extensive corridor of riverine habitats including damp pasture, fens and valley mires such as Sherfield English Fen and Woodington Nature Reserve. These habitats were historically important breeding sites for wading birds such as snipe, which is almost certainly now lost from the area.

5.23 Embley Wood SINC is one of the few extensive blocks of habitat in this area and includes ancient woodland, mires, dry acid grasslands, heathland and pasture woodland (Embley Wood and Heaths LCA2A). Other significant woodland SINCs are in the east of the area and include Squabb Wood, Yew Tree Copse and Burnt Copse. This mosaic of habitats stretches into the Melchet and Awbridge Wooded Farmland (LCA3B) landscape area, a rich area for biodiversity, especially woodland butterflies.

5.24 Carters Clay SINC in the northeast of the area is an old mineral working which has been regenerated and now provides a habitat for nesting sand martins. There are several significant ponds and lakes in the area, many of which have arisen from abandoned gravel workings. Because of the microhabitats available, these sites can be important habitats for invertebrates, birds, amphibians and reptiles.

5.25 Throughout the area are large parkland estates, which have the potential to support notable species such as invertebrates, fungi and bats with careful management. For example, there is also great potential to restore the parkland of Melchet Park which lies on the border of the county and Whiteparish Common SSSI, on the border of the Borough.

Key Issues

- Continuity of commoning and availability of traditional 'lay-back' land for commoning stock
- Potential over-grazing at West Wellow and Canada Commons; lack of grazing in parts of Plaitford Common leading to scrub invasion
- Impacts of past drainage on localised New Forest wetlands
- Loss of wood pasture and heath due to invasion of secondary woodland
- Habitat fragmentation by A36 acting as barrier to species dispersal
- Maintaining habitat mosaics with well-managed woodland and open habitats in close proximity
- Potential for restoration of areas of mineral extraction, including ponds
- Potential for management of parkland estates for biodiversity

Table 5: Action for the New Forest Fringe

	Action	Outcome
DESIGNATED SITES	1) Restore SSSI land at Plaitford, West Wellow and Canada Commons through appropriate scrub clearance, grazing and managing drainage	• Scrub cleared, wetlands restored where previously drained • Commons grazed with New Forest stock at suitable densities • All SSSI units attain favourable condition • Condition assessment monitoring in place
	Support New Forest style commoning on SSSI land through provision of advice, lay-back land and markets for produce	• Advice given to commoners • Grazing continues to be a viable practice for commoners • Sustainable markets for produce
	2) Target advice and resources to woodland and open habitat complexes on SINC around Yewtree Copse, Embley Wood and Squabb Wood	• Initial/ongoing contact with landowner made • Opportunities for reintroducing extensive grazing and traditional woodland management identified and promoted • Site receives sympathetic management as part of a key habitat complex
WIDER COUNTRYSIDE	Provision of advice to landowners on the management of parkland where it occurs, e.g. Melchet Park	• Advice given and parklands restored • Dead wood and ancient pollarded trees managed to support biodiversity
	4) Restoration of abandoned mineral excavation sites around Carters Clay and south of Sherfield English	• Survey to identify key sites of value for species • Key sites managed by removal of scrub and restoration of sand banks and open areas • Populations of sand martin, reptiles and invertebrates increase
	3) Re-create wet grassland habitats along the River Blackwater and its tributaries through targeted advice and resources	• Wetlands are buffered from surrounding agriculture • Suitable habitat management • Water levels of wetland sites monitored and maintained • Ecological links along river restored
	Survey and enhancement of standing open water	• Audit of biodiversity value of ponds and lakes in the area • Management advice provided • Great crested newt sites identified and designated as SINC • New ponds created to provide stepping-stones for species dispersal

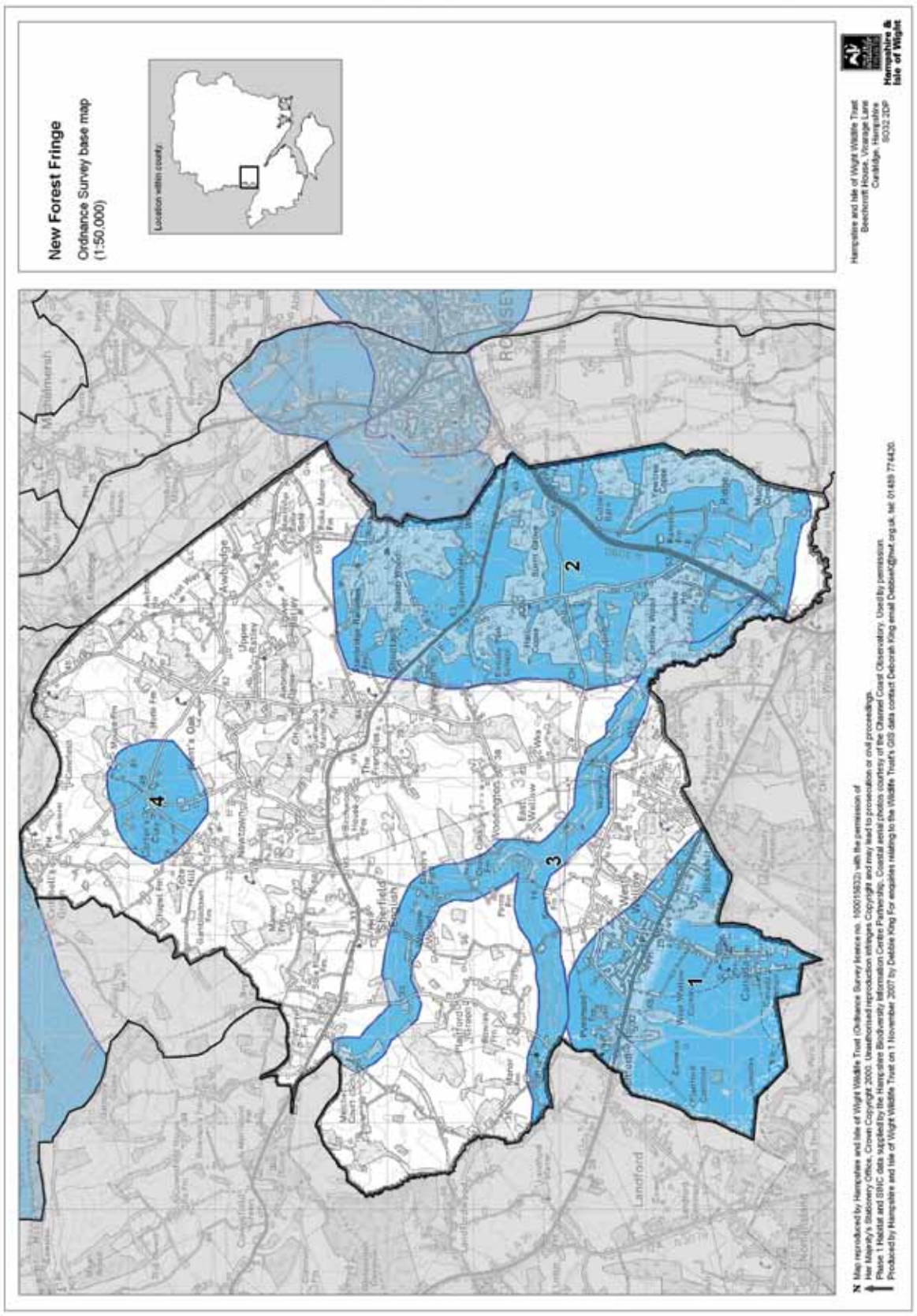
Partners (Names provided in full in Appendix 6)	**Time Scale**
NFNPA, NFDC, NE, NT, FC	** ***→ ***→ ***→
NFNPA, HWT	** **→ **→
HBIC, HWT, HCC	* ** **→
HCC	** **→
HWT	* * ***
NE, EA, HWT, FWAG	** *→ *** ***
HARG, BTCV	** ** ** ***

SPECIES	Locate and enhance breeding sites for wading and heathland birds around the New Forest commons and River Blackwater	• Past and present breeding sites identified • Water levels and habitat structure at key sites restored • Predator control introduced as appropriate • Breeding populations recover
	Survey traditionally managed woodlands for butterflies	• Larger SINC woodlands targeted for survey • Landowners given advice on management • Data supplied to HBIC
	Former mineral extraction sites surveyed for reptiles, amphibians, invertebrates and flora to identify priority sites	• Priority sites identified • Landowners advised on management • Data supplied to HBIC/sites designated SINC as appropriate • Sites recognised in Local Development Framework and Minerals strategies
AWARENESS	Develop a holistic approach to management and support of the New Forest landscape through relevant strategies and initiatives	• Local Development Framework recognises biodiversity value of New Forest periphery • Strategies and projects developed which expand the ecological functioning of the New Forest periphery • Adjacent habitats recognised locally as highly significant • Support for commoning in the area
	Utilise the Test Way and New Forest National Park brands for raising awareness of local biodiversity issues amongst the public	• Information materials available locally • Programme of walks and talks developed which focus on notable local wildlife • Public aware of why management is required to maintain local wildlife and landscape character.
	Raise awareness amongst local rural industries (game, equestrian, fisheries) of practical measures to support biodiversity	• Partners utilise local forums and events to provide information and advice on sensitive land management practice

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

HOS, EA, NE	** ** *** **
BC, FC	** ** **
HARG, HFG, HBIC, HWT	** ** ** **
TVBC, NFDC, NFNPA, NE	** ** *** **
NFNPA, HCC, HWT, TVBC	* ** ***
FWAG, HWT, TVBC, NFU	**→

Map 13: New Forest Fringe Area



Romsey and Southern Test Valley

5.26 A strategic area which on a landscape scale presents substantial areas of countryside in proximity to high density habitations. The area represents great potential as 'green infrastructure' for improving quality of life alongside biodiversity.

Landscape and Biodiversity Profile

5.27 This area is bounded by the urban areas of Southampton to the south, and contains Valley Park, North Baddesley and Romsey in the centre and Michelmersh in the northwest. There are still significant areas of habitat designated for biodiversity. The landscape characteristics are similar to the New Forest fringe due to a similar geology of predominantly sands and gravels with some intrusion of clay. The M27 motorway cuts through the southern end of the area creating a visual intrusion and drastically reducing species dispersal. Despite the considerable ecological value of many sites in this area, several designated are not considered to be in favourable condition.

5.28 The North Baddesley and Chilworth Woodland Mosaic (LCA2C) in the south of the area is characteristically woodland, including plantation, with arable farming and improved pasture. There are a number of golf courses and occasional patches of heathland and semi-improved grassland.

5.29 Lords Wood, Hut Wood, Chilworth Wood and Nightingale Wood are all managed by the Forestry Commission and create a swathe of woodland on the southern boundary adjacent to Southampton's urban areas. There is a need here to restore some of the more ecologically valuable ancient and wet woodlands such as Lords Wood, Home Copse and Home Wood SINCs, as well as relic heathlands.

5.30 A site of particular interest on the edge of this character area is Trodds Copse SSSI, which is one of the richest ancient coppiced woodlands in Hampshire with associated unimproved wet fen meadows and flushes. The site is of particular importance because of the number of different woodland stand types, of which four are nationally rare with over fifty Ancient Woodland Indicator Species recorded, including rarities such as tutsan. Alder woodland with a diverse ground flora dominates on the wetter soils, where the acid peats support rare fern and moss communities. The woods and fens support a rich invertebrate fauna, including a species of robber fly.

5.31 The Baddesley Mixed Farmland and Woodland (LCA3A) landscape area surrounds Romsey and is characterised by improved pasture and arable fields with some woodland and occasional isolated heathland patches, a good example of which is Baddesley Common and Emer Bog SSSI/SAC, managed as a nature reserve by Hampshire Wildlife Trust. This site is a mosaic of grassland, wet heath and mire with pasture woodland; it is largely open and supports a variety of specialist plants such as marsh gentian, petty whin and diverse sphagnum communities. The surrounding heath is important for its bird and butterfly populations, including stonechat and tree pipit. Wildfowl are attracted to the site during the winter.

5.32 Michelmersh to Ampfield Wooded Farmland (LCA4B) is in the north of the area and is the transitional landscape between sands and gravels and the chalk geology to the north. The area is less wooded than further south but still retains patches of heathland and ancient meadow. One of the most species-rich unimproved grasslands in Hampshire is Ratlake Meadows SSSI, which is inhabited by a diverse mixture of grasses, and herbs including sneezewort, heath spotted orchid, common spotted orchid and southern marsh orchid.

5.33 Another important site in the area is Ampfield Wood, which has been managed as a mixed commercial plantation by the Forestry Commission on what was an ancient woodland site. It is now part of a Forestry Commission project to restore ancient woodland features.

5.34 Careful expansion of publicly accessible land whilst protecting biodiversity would make this area of prime value as green infrastructure. Avoiding detrimental impacts on sensitive habitats can be achieved through appropriate visitor management and awareness raising: residents are often unaware of the wealth of wildlife on their doorstep. A good example of the management of sites with involvement of the local community has occurred in Valley Park, where the woodland has been designated as a Local Nature Reserve.

Key Issues

- Key designated sites are not currently in favourable condition, and suffering from isolation
- Impacts of the local population on ecologically rich habitats close to urban areas, e.g. high density equestrian use, fires, erosion of paths and disturbance
- Loss of ancient woodland to plantation woodland and neglect of management
- Loss of grazing from grassland and heathland
- Potential for restoration of areas of mineral extraction, including ponds

Table 6: Action for Romsey and Southern Test Valley

	Action	Outcome
DESIGNATED SITES	1) Targeting of resources to Baddesley Common & Emer Bog SSSI/SAC/HWT nature reserve	• Management plan in place which is underpinned by best available information • Appropriate and sustainable management of site, especially scrub clearance, grazing regime, and visitor management • Whole site attains favourable condition status • Condition assessment monitoring in place
	1) Targeting of resources and advice to SINCs adjacent to Emer Bog & Baddesley Common	• Unimproved neutral grasslands under suitable grazing regime • Woodlands managed so as to increase biodiversity • Biodiversity improvements at a landscape scale
	1) Protect the hydrological system feeding Emer Bog	• Water levels and water quality monitored • Nutrient status of groundwater determined • Suitable hydrology maintained
	2) Targeting of resources and advice to Trodd's Copse and Ratlake Meadows SSSIs and surrounding land	• Management of site sustainable: including low intensity grazing and low intervention woodland management with alder coppicing • Neighbouring land managed sensitively to buffer small SSSIs • Sites attain favourable condition status • Condition assessment monitoring in place
	3) Continue habitat creation and restoration at Ampfield Wood and Hilliers Arboretum SINCs	• Conifers removed within blocks containing relic semi-natural features • Replanting using native broadleaves, ensuring open habitats are maintained • Rides and glades managed for wildlife
	4) Develop habitat creation and restoration projects at Lords Wood, Home Copse and Home Wood SINCs	• Conifers removed within blocks containing relic semi-natural features, e.g. heathland and ancient woodland • Replanting using native broadleaves, ensuring open habitats are maintained • Rhododendron control programme implemented • Rides and glades managed for wildlife

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
NE, HWT	* **→ *** ****→
NE, HWT, HCC	***→ ***→ ****→
HWT, EA	*→ ** ***
NE, HCC	***→ ***→ ****→ ****→
FC, HCC	**** **→ **→
FC	**** **→ **→ **→

	Action	Outcome
WIDER COUNTRYSIDE	Develop a local network of stock for conservation grazing	• SSSI, SINC and priority habitats on adjacent land under sustainable grazing management
	Provision of advice on the management of churchyards and publicly owned spaces	• Initial visit made • Conservation group organised from the local community • Site condition improves
	Provide accessible woodlands and robust open spaces adjacent to urban areas	• Areas identified within the Local Development Framework • Areas managed for access and biodiversity • Local residents benefit from exposure to the natural environment
	Restore abandoned mineral excavation sites	• Removal of scrub • Sand banks and ponds restored • Populations of sand martin, great crested newt and reptiles increase
	Revert degraded open habitats to rich grassland and heaths	• Where possible horse paddocks managed less intensively to increase biodiversity • Arable and pastoral sites adjacent to/ between designated areas restored
SPECIES	Former mineral extraction sites surveyed for reptiles, amphibians, invertebrates and flora to identify priority sites	• Priority sites identified and surveyed • Survey results disseminated through HBIC • Important sites identified and designated as SINCs • Advice given to landowners, e.g. creation of hibernacula and ponds
	Survey traditionally managed woodlands for birds and butterflies	• Larger SINC woodlands targeted for survey • Landowners given advice on management • Data supplied to HBIC

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

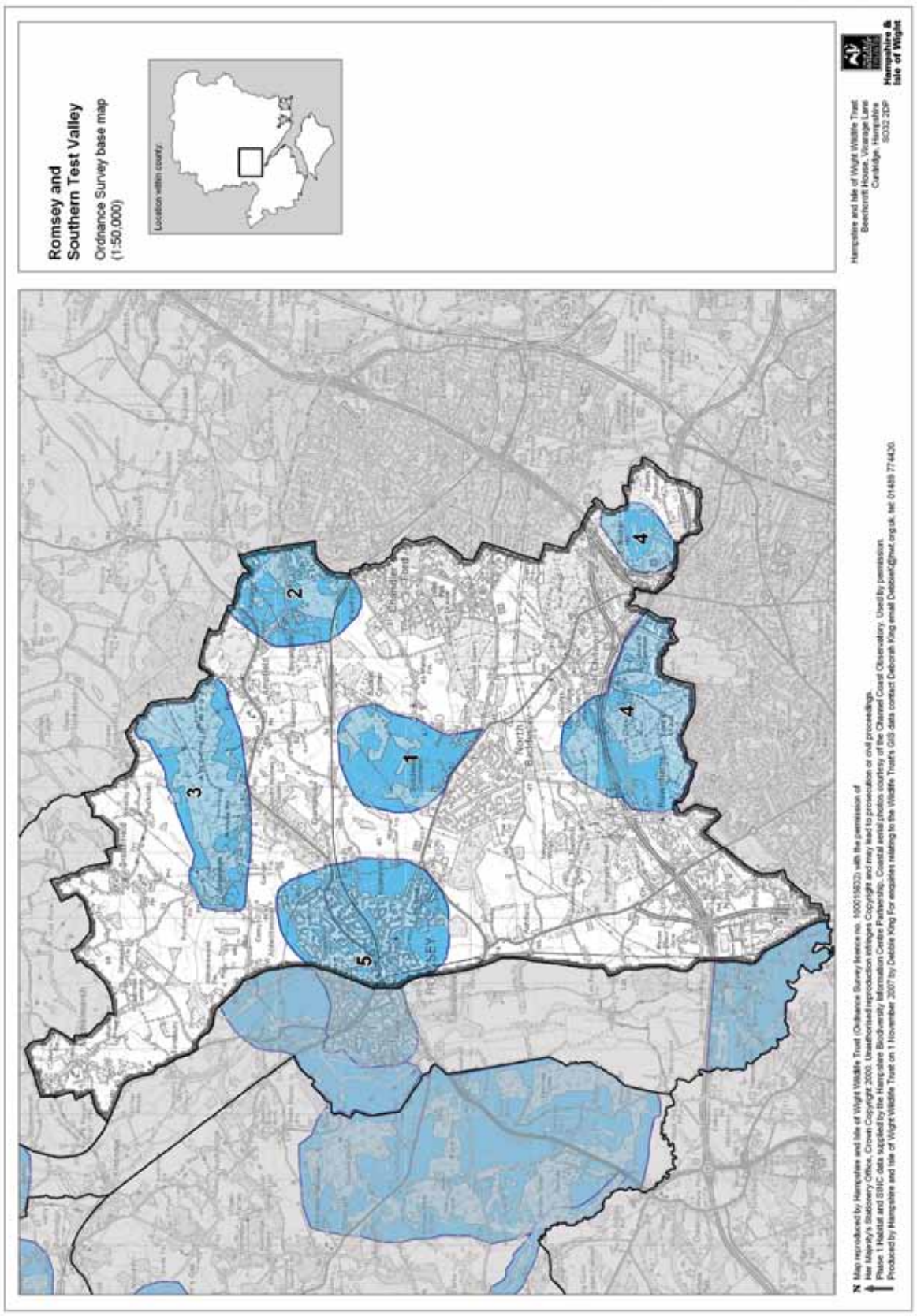
Partners (Names provided in full in Appendix 6)	**Time Scale**
HWT, HCC	***
BTCV	** ** ***
TVBC	** ***→ ***→
HWT, TVBC	*** *** ****
HWT, HCC	*** ***
HARG, HFG, HBIC, HWT	** ** ** **
BC, FC, HOS	** ** **

	Action	Outcome
AWARENESS	4) Promote woodlands and commons between Rownhams, Chilworth and North Baddesley as Green Infrastructure in the Local Development Framework	• Area remains as a strategic gap between built-up areas • Planning agreements secure management of adjacent habitats for biodiversity and local residents • Local residents benefit from exposure to the natural environment
	5) Continue to hold awareness-raising events and resources for the public in Romsey	• Programme of guided walks held at local wildlife sites • Different audiences targeted with publicity for events, e.g. families
	Raise awareness amongst local rural industries (game, equestrian, fisheries) of practical measures to support biodiversity	• Partners utilise local forums and events to provide information and advice on sensitive land management practice
	Raise awareness amongst small-scale developers of practical measures to support biodiversity	• Awareness-raising guidelines developed • Guidelines disseminated during the development control process

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
TVBC	*→ *→ *→
TVBC, HWT	*→ *→
FWAG, HWT, TVBC, NFU	**
TVBC	*→ *→

Map 14: Romsey and Southern Test Valley Area



North Wessex Downs AONB

5.35 An area of high landscape value, with opportunities for enhancing biodiversity and its appreciation through promotion as a recreational resource. There are potential links between the rural economy and biodiversity enhancement.

Landscape & Biodiversity Profile

5.36 The North Wessex Downs Area of Outstanding Natural Beauty (AONB) was designated in 1972, because of the unspoilt nature of chalk downland. It extends across the north of Test Valley spreading west to Salisbury Plain, accounting for 10% of the land area of the Borough. The habitat is dominated by rolling chalk hills and dry winterbourne valleys, within a dip and slope landscape. Large open arable fields are characteristic of the chalk plateau, with smaller fields surrounding pastureland on the slopes; woodlands remain on the tops of the hills and on the steep slopes. The landscape is interconnected with hedgerows, particularly within the valleys and along the road networks.

5.37 In the northeast of this area is Faccombe Wooded Downs (LCA6G), a landscape extensively wooded with hangars on the slopes of steep combes such as Faccombe Wooded Downs to Netherton Hanging Copse SINCs, forming a series of wooded hangers with open ridges of arable land. Scarps also feature strongly in this area. They include Hart Hill Down and Pilot Hill, whose woodlands and adjacent chalk grassland and scrub support many butterfly and moth species (e.g. speckled wood, purple hairstreak and dark green fritillary) as well as specialist flora.

5.38 Combe Wood and Linkenholt Hanging SSSI is an important designated site partly within this area, and is an extensive area of semi-natural woodland with nationally important populations of lichens and mosses. Remnants of open downland support a rich chalk flora including autumn gentian and meadow saxifrage. Linkenholt Hanging consists of ancient maple, ash and hazel coppice with a diverse ground flora.

5.39 Further south the landscape gently undulates until south of Vernham Dean, Upton and Hurstbourne Tarrant where the landscape of Rushmore Wooded Downs (LCA6F) becomes more dramatic with a distinctive chalk escarpment. Rushmore and Conholt Downs SSSI is a series of chalk grasslands with extensive tracts of chalk scrub and mostly ancient woodland. The chalk scrub is nationally important and includes a well-established stand of juniper.

5.40 Tangley and Doles Wood (LCA8A) is in the south of the project area and is dominated by arable farmland and improved grassland with some large tracts of woodland towards the east. With good management and restoration this could be a key area for biodiversity.

5.41 The River Swift valley (LCA12A) cuts through the area and is a shallow, narrow, winterbourne valley which is typical of chalk uplands. The river has a seasonal flow but the high water table supports wet mesotrophic grassland with a diverse fauna and flora. Only one unimproved grassland site, Upton Meadows, has been designated as a SINC.

Key Issues:

- Intensive arable cultivation with large open fields
- General lack of species data in the area
- Loss of marginal habitats to arable cultivation
- Loss of traditional woodland management
- Need for management and restoration of SSSI chalk grassland
- Lowered water table in the River Swift valley
- Loss of unimproved grassland to arable farming and application of fertilisers
- Potential for restoration of plantation woodland in Doles Wood area
- Potential for restoration of wet meadows along River Swift

Table 7: Action for the North Wessex Downs AONB

	Action	Outcome
DESIGNATED SITES	1) Target resources for restoration of Rushmore & Conholt Downs SSSI	• Restore chalk grassland through appropriate scrub management and grazing • Reinstate management in wooded sections for biodiversity • Site maintained as a viable part of the North Wessex woodland and downland systems
	2) Target resources for restoration of Doles Wood area woodland SINC complex	• Suitable woodland management, including coppicing, sustained or reinstated using the AONB Woodland Strategy as a model • Variety of woodland types enhanced • Landscape-scale reservoir of woodland diversity maintained
	3) Target resources for restoration of Faccombe Woods area woodland SINC complex	• Suitable woodland management, including coppicing, sustained or reinstated using the AONB Woodland Strategy as a model • Variety of woodland types enhanced in a mosaic with farmland • Landscape-scale reservoir of woodland diversity maintained
	4) Target resources for restoration of the Pilot Hill SINC area	• Restore chalk grassland through appropriate scrub management and grazing through implementation of the AONB Chalk Grassland Strategy • Reinstate management in wooded sections for biodiversity • Mosaic of grassland and wooded downs enhanced in a key cross-boundary landscape area

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
NE	*→ *→ *→
AONB, FC, HCC	** ** ****→
AONB, FC, HCC	** ** ***
NE, AONB, FC, HCC	*→ *→ ***→

	Action	Outcome
WIDER COUNTRYSIDE	1) Promote uptake of Higher Level Stewardship options which expand ecosystem around Rushmore & Conholt Downs SSSI	• Farmed land receives support for arable reversion to chalk grassland and maintenance of grazing adjacent to SSSI • Arable HLS options support migration of downland species across the landscape through creation and maintenance of strategic networks
	Re-create wetland habitats along the River Swift	• Wetland pastures grazed • Wetlands are buffered from surrounding agriculture • Water levels of wetland restored and monitored • Functional links along river restored • Populations of wetland species increases
	Investigate hydrological change in winterbourne streams	• Long-term monitoring of River Swift feeder streams in place • Impact of abstraction on winterbourne stream determined • Needs of winterbourne streams fully considered in CAMS
	2) and 3) Expand ancient woodland habitats through continuation of the Woodland Strategy approach where opportunities exist	• Native broadleaved tree planting within historical woodland footprint, using appropriate species of local provenance • Diversity of woodland types maintained
	2) and 3) Remove secondary planting of conifers on ancient woodland sites	• Conifers removed • Management of site sustainable • Site in good condition • Site surveyed as part of a rolling programme

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

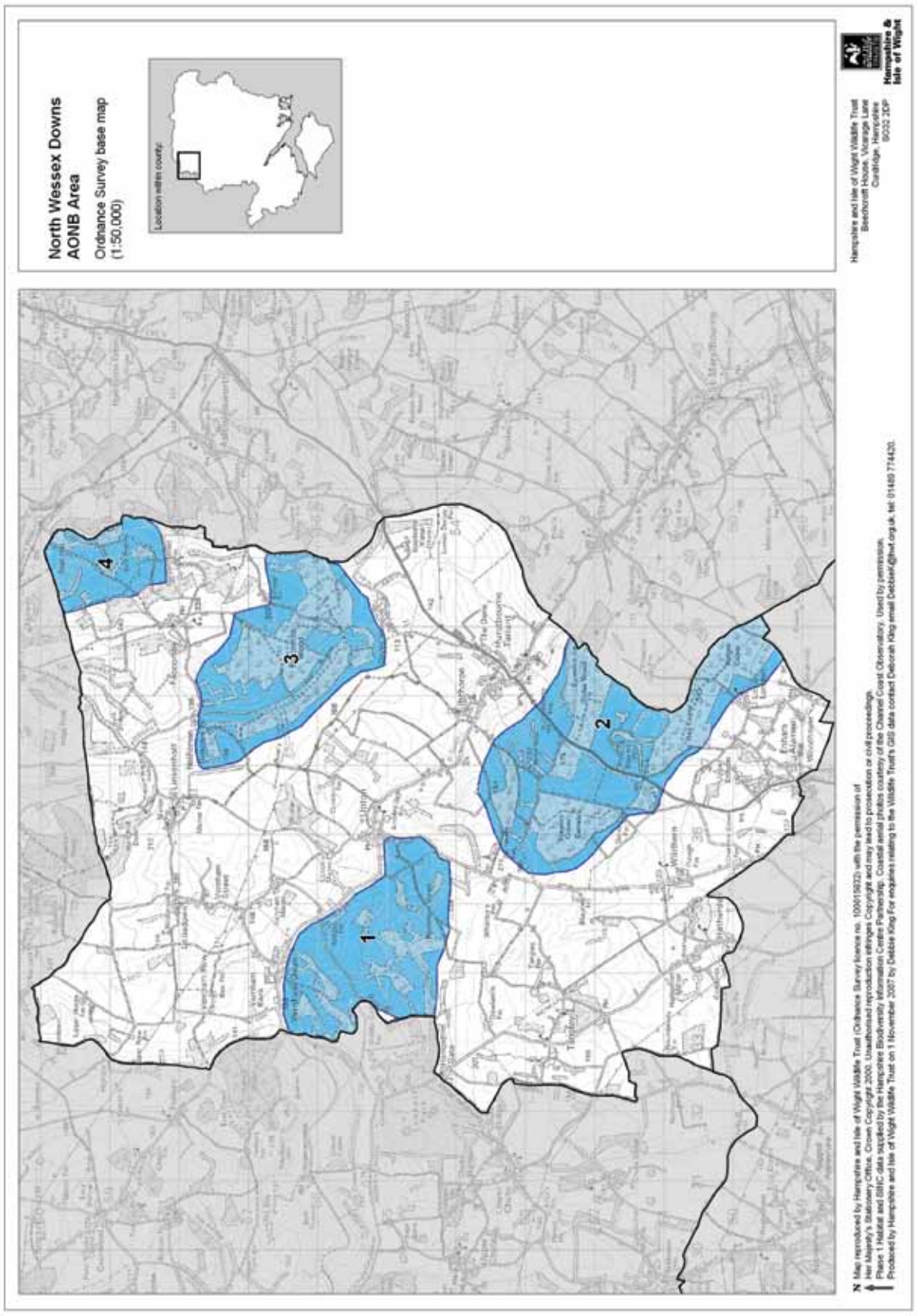
Partners (Names provided in full in Appendix 6)	**Time Scale**
NE, FWAG	*** ****
EA, AONB, FWAG, HOS	** ** **→ *** ****
EA	** *** **
FC, AONB, HCC	** **
AONB, FC, HWT	** ** *** *→

	Action	Outcome
SPECIES	4) Target volunteer survey for flora around Pilot Hill	• Woodland and downland species inventory enhanced • Data shared with HBIC • Land management informed by species requirements
	Make provision for rare arable flora and farmland birds on arable land	• Higher Level Stewardship options targeted according to best available data on the species' distribution and habitat requirements • Increased populations of priority plant and bird species in the area
	Conduct volunteer surveys to identify ancient hedgerow networks	• Hedgerow network condition assessed • Management advice provided • Creation of hedgerows to plug gaps • Functional links between woodland blocks restored
	Target volunteer survey for birds	• Local bird recorders adopt a site for monitoring • Status of farmland and woodland birds assessed • Survey for breeding waders • Data shared with HBIC
	1), 2), 3) and 4) Set up new butterfly transects in the area	• Transects in place in woodlands and open downland to monitor populations • Management plans consider needs of butterfly populations
AWARENESS	Utilise the Test Way and North Wessex Downs brands for raising awareness of local biodiversity issues amongst the public	• Information materials available locally • Programme of walks and talks developed which focus on notable local wildlife • Public aware of why management is required to maintain local wildlife and landscape character.
	Raise awareness of farmland management for biodiversity in AONB	• Exemplar site identified for farmland biodiversity • Site used as an example of best practice, e.g. awareness-raising event for other landowners
	Promote woodland management as a viable land management option	• Database of coppice workers available • Timber sourced locally • Market for coppiced goods • Deer control programme in place

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
HFG, HWT	** ** **
NE, FWAG	** ***→
AONB, CPRE, FWAG	** ** *** ***
RSPB, HOS, HBIC	*→ ** ** **→
BC, HBIC	*→ **
AONB, HCC, HWT, TVBC	* * *
AONB, FWAG	** ***
AONB, HCC	* ** *** ***

Map 15: North West Downs AONB Area



Andover and Harewood Forest

5.42 Andover, the largest town in the Borough, is surrounded by a predominantly arable landscape with which it is economically linked. Andover is in close proximity to some important wildlife sites, and there is a need to ensure that expansion of the town is matched by the development of green infrastructure.

Landscape & Biodiversity Profile

5.43 The plateau in which Andover lies is part of the gently rolling downland plain, dominated by large open arable and small mixed farmlands. Woodland is an important feature on the clay with flints cap to the southeast of the town, and there is some parkland. Features between these habitats include hedgerows and field margins, which support important farmland biodiversity. To the south of Andover the landscape changes to that of a chalk river valley.

5.44 Southeast of Andover is the Harewood Forest Wooded Downs (LCA6D) area; apart from a few open arable patches it is dominated by the extensive Harewood Forest SINC, which is the largest area of ancient woodland in Hampshire outside the New Forest. The forest is of exceptional quality because of its size, and because of the variation in soil types which support a diverse number of plant species. The wood is of particular importance for butterflies and moths, including records for white admiral, pearl-bordered fritillary, Duke of Burgundy, argent and sable and common fan-foot. Historically the woodland was coppiced but significant areas have now been planted with conifers.

5.45 Between Harewood Forest and Andover is the Andover Chalk Downland area (LCA10F), which is largely given over to arable farming – the hedgerow network here will be an important feature for biodiversity, especially when accompanied by field margins managed for wildlife. To the north and west of Andover is the North Andover Plateau (LCA9A), dominated by arable farmland and dry valleys. There are large fields with a lack of hedgerows, although some shelterbelts have been planted on the most exposed fields. Pastureland and isolated woodlands occur around the settlements of Appleshaw and Enham Alamein.

5.46 The River Anton runs through the area and is an important chalk stream supporting many species, including otter, water vole, kingfisher, reed warbler, Daubenton's bat, bullhead, brook lamprey and wild brown trout. The Upper River Anton Valley Floor (LCA5I) is made up of two tributaries. The first tributary springs at Penton Grafton, where it flows through pasture woodland and improved pasture, while the second begins at Knights Enham through abandoned watercress beds. The tributaries converge on the northern edge of Andover at Anton Lakes Local Nature Reserve and then flow through Andover where the channel has been heavily modified. The Lower River Anton Valley Floor (LCA5J) flows from south of Andover through a mixed landscape with numerous ponds and lakes, small woodlands, alder and willow lined banks, unimproved pasture, improved grassland and agriculture to where it joins the Test. The whole length of the river is designated as a SINC, although only one grassland site has been designated, at Church Meadow.

5.47 The River Anton Strategy recognises the value of the river as a resource not only for biodiversity but also as green infrastructure for local residents. The Strategy is a partnership venture to restore the chalk stream characteristics and naturalise the river upstream of the A303. In practice this means replacing hard engineered river structures such as concrete channels with 'softer' features which are better for species such as water vole, whilst also managing flood risk.

Key Issues

- Urban expansion of Andover, and the need for publicly accessible green infrastructure
- Continuation of traditional coppice, and loss of native woodland to conifers at Harewood Forest
- Large, intensively managed arable fields
- Pollution of River Anton from industry and agricultural runoff
- Degradation of River Anton's chalk river characteristics and canalisation of the channel
- Potential for enhancing urban habitats and residents' awareness of biodiversity
- General lack of species data from the wider countryside

Table 8: Action for Andover and Harewood Forest

	Action	Outcome
DESIGNATED SITES	1) Ensure sensitive management of publicly owned SINCs in Andover	• Habitats restored and re-created at River Anton corridor • Road verge SINCs managed to mimic unimproved grassland habitats
	2) Restore River Anton SINC and associated wetlands	• Implement actions in the River Anton Strategy • Public access and interpretation along river improved • River condition improved • Populations of wetland species increased
	3) Develop large-scale management for biodiversity in Harewood Forest SINC	• Management plan in place which takes woodland biodiversity into account • Notable features supported through good management practice, for example: – dead wood maintained for fungi and invertebrates – boxes for bats – traditional coppicing cycle maintained – ancient trees and features preserved • Populations of woodland flora and fauna increased
WIDER COUNTRYSIDE	1) Recognise urban habitats as potentially valuable for wildlife through the planning system	• Valuable urban habitats surveyed in Andover • Notable urban gardens, brownfield sites, parks and road verges protected via the Local Development Framework.
	2) Protect the River Anton watercourse through sensitive management of adjacent land	• Sources of urban and rural pollution identified • Mitigation measures in place to manage pollution • Landowner advice directed to land managers in problem areas • Water quality improved
	Promote uptake of Entry Level Stewardship options which create wildlife habitats on arable land around Andover	• Hedgerow and field margin options for arable biodiversity promoted • Migration of downland species across the landscape increased through creation and maintenance of networks
	Protect sensitive sites from adverse effects of recreation	• Ensure provision of ample robust open green space by allocation in the Local Development Framework • Invest in area to increase opportunities for public access

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

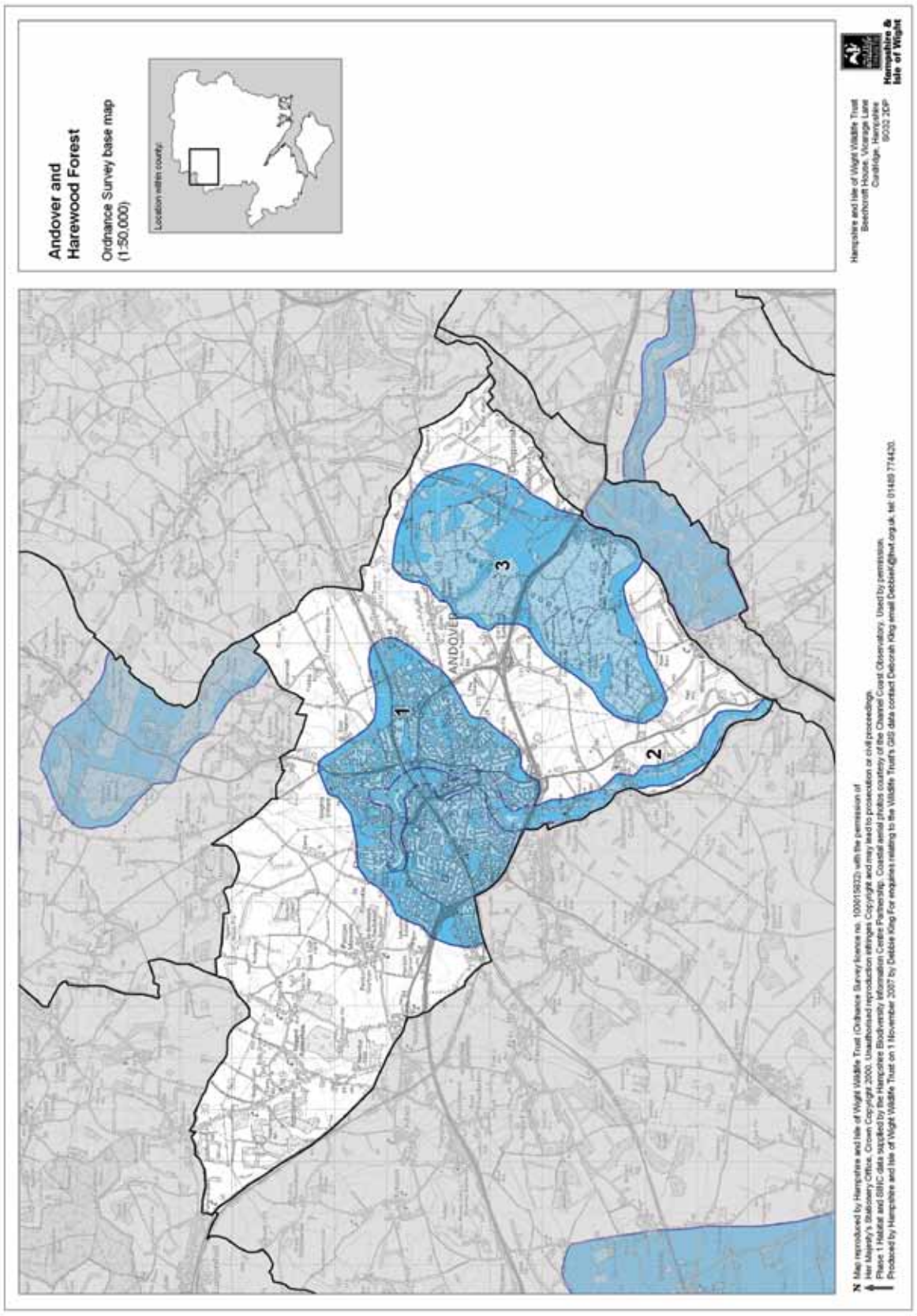
Partners (Names provided in full in Appendix 6)	**Time Scale**
TVBC, HWT, BTCV	** **
TVBC, EA, HWT, HCC	*→ ** *** ***
HCC, FC	** **→ ***→
HBIC, TVBC	** ***
EA, TVBC, NE	*→ ** *** ***
NE, FWAG	*** ****
TVBC, HWT, HCC	** **

	Action	Outcome
SPECIES	Improve conditions for flagship wetland species along River Anton	• Surveys for water vole, otter and white-clawed crayfish undertaken • Control of alien species, habitat creation and management implemented at key locations
	3) Survey for dormouse at Harewood Forest and woodlands around Appleshaw	• Volunteer 'nut hunt' conducted in accessible woodlands in the area • Potential populations identified • Nest boxes installed and monitored • Advice given on management of woodlands for dormice
	Liaise with landowners to organise survey for fungi and rare woodland flora in Harewood Forest	• Distribution of notable species within forest identified • Advice given on management to create the right conditions for notable species • Specific conservation management in place where appropriate
AWARENESS	1) Promote volunteer work parties at wildlife sites in and around Andover, e.g. Anton Lakes	• Sites managed for biodiversity • People's awareness of biodiversity increased • Improved quality of life for residents
	1) Increase public support for local produce in Andover	• Markets identified in Andover for produce arising from traditional management practices in the locality • Profitability of local produce increased • Viability of conservation management increased
	1) Promote 'Gardening for Wildlife' in Andover	• Information disseminated and talks/events held, e.g. with local gardening clubs • Demonstration wildlife gardens opened • Garden wildlife ideas adopted in Andover
	Raise awareness of woodland management as a viable land management option	• Database of coppice workers available • Timber sourced locally • Market for coppiced goods • Deer control programme in place

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
HWT, EA, TVBC	* **
HMG, HCC, TVBC	** ** ** **
HFG, HFRG, HCC, TVBC	* * **→
BTCV, TVBC	*→ *→ *→
TVBC, HCC, Hampshire, Fare, NFU	** ** ***→
HWT, BTCV, TVBC	* ** **
HCC, FC	* ** *** ***

Map 16: Andover and Harewood Forest Area



Tytherley and Mottisfont

5.48 This area contains swathes of woodland and chalk downland with great value for biodiversity – notably butterflies and bats, for which the area is of international importance. This area offers great opportunities for linking sites across borders in a landscape with a strong economic dependence on the land.

Landscape & Biodiversity Profile

5.49 The Mottisfont to West Tytherley area describes the semi-enclosed chalk and mixed woodland habitat at the base of the Hampshire Downs. It includes the River Dun in the south and extends to the Roman Road, which cuts through Buckholt Parish in the north. Land ownership in this area is divided between the MOD, National Trust, estate landowners and private smallholdings.

5.50 The River Dun (LCA5D) flows through a complex of small pastoral fields in the valley floor, interspersed with some important wet woodlands. There are a number of sites designated as SINCs although these are separated by areas of improved grassland. There is concern that the river may suffer eutrophication from agricultural runoff and, downstream, runoff from fish farms and watercress beds. Opportunities for linking existing habitats and buffering them from these adverse effects are a priority.

5.51 On the surrounding slopes, land use is dominated by arable farming and dissected by a network of hedgerows. The green lanes, trackways and double hedgerows are valuable habitat to species such as turtle dove and lesser whitethroat. On the higher slopes to the north of this area the hedgerows become fewer and the fields more open, as a result of agricultural intensification.

5.52 The East Dean Chalk Downland (LCA10A) contains Brickworth Down and Dean Hill SSSI, part owned by the National Trust. It has important chalk grassland, juniper scrub and ancient yew woodland communities. The site is grazed, maintaining a short sward with a rich diversity of plant species including frog orchid, chalk milkwort and autumn lady's tresses.

5.53 The juniper is not grazed by the livestock, and has developed into a range of age classes. The diversity of habitats on this site supports a range of nationally rare invertebrates including five priority butterflies, unusual flies and two true bugs which are specific to juniper scrub. Dean Hill has suffered from a decline in habitat quality due to a lack of management, but still retains many priority species. Restoration of this site would be a valuable addition to the chalk downland habitat of the Borough.

5.54 In the middle of the area lies a swathe of wooded farmland (LCA3C) extending from Bentley Wood SSSI, the edge of which is inside the Borough to the west, to Mottisfont Bats SSSI/SAC and the River Test in the east. Bentley Wood is ancient woodland that has suffered to some extent from replanting with commercial timber crops. However, ride management has allowed it to maintain a diverse and nationally significant butterfly and moth assemblage, with six species of fritillary, including Duke of Burgundy and small pearl-bordered fritillary. Over forty butterfly species have been recorded and over three hundred species of moth, including several UK and Hampshire BAP priority species. Other woods in the area are of equal importance. These include Tytherley Common and Holbury Wood, where the rides have been designated in addition to the wood itself, because of their important butterfly populations

5.55 A landscape-scale project for butterflies and moths, in particular small pearl-bordered fritillary and pearl-bordered fritillary, is under way for the woodland sites in and around East and West Tytherley. The project is led by Butterfly Conservation. This management should also benefit woodland bird species such as nightingale, which need open patches of ground for feeding. The mosaic of grasslands may also become a focus for this project.

5.56 The woodlands around Mottisfont have been designated as a SSSI and as a SAC because of the internationally important population of barbastelle bats using the site as a maternity roost. It is known that this species favours woodland habitats but little else is known about their ecological requirements. Barbastelle bats occur in only seven other sites in the UK, but why this species should be rare throughout Europe is not clear. Other bats recorded here include whiskered bat, brown long-eared bat, pipistrelles, serotine, noctule, Daubenton's and Natterer's bat. Management at Mottisfont appears to be successful and should be promoted as a best practice example. There are opportunities to conduct research into species requirements.

5.57 Broughton Down SSSI, managed by Hampshire Wildlife Trust as a nature reserve, lies within the Broughton Downs (LCA7B) landscape of chalk grassland and woodland on an escarpment. The open grassland habitat has characteristic anthill vegetation, including species such as early forget-me-not and field fleawort, as well as rare mosses and lichens growing on bare ground. The grasslands support important invertebrate communities including chalk carpet moth and silver-spotted skipper. The rabbit-grazed grasslands grade into hawthorn, elder and buckthorn scrub to mature beech, ash and yew woodland. This mosaic of habitats hosts turtle dove, a summer visitor which has declined markedly in recent decades. Broughton Down is isolated from other chalk grasslands, but the effects are undoubtedly reduced by agri-environment agreements on neighbouring farmland. A priority will be to expand areas of chalk grassland around the site through arable reversion projects.

Key Issues:

- Management of woodlands to enhance populations of butterflies and bats
- Unfavourable condition of some SSSI sections
- Ensuring that isolated downland sites are expanded where possible
- Habitat and water quality and quantity in localised stretches of the River Dun

Table 9: Action for Tytherley and Mottisfont

	Action	Outcome
DESIGNATED SITES	1) Targeting of resources to Dean Hill (Brickworth Down & Dean Hill SSSI)	• Suitable scrub management and grazing regime in place • Chalk grassland habitat structure improved • Yew and juniper regeneration encouraged • Favourable condition status attained
	1) Targeting of resources and advice to SINCs in the Dean Hill area	• Suitable scrub management and grazing regime in place • Wet grassland along the River Dun surveyed and restored • Chalk and wet grassland habitat structure improved • Conditions for priority species improved
	2) Targeting of resources and advice to woodland SINCs between Bentley Wood and Mottisfont	• Management plans developed which enhance biodiversity • Coppicing reinstated with concerted and sustainable approach • Rides, glades and dead wood managed for biodiversity • Conifers replaced by native broadleaves • Populations of priority species reinforced
	3) Targeting of resources and advice to woodland and downland SINCs in the Broughton Down area	• Landowners with downland and woodland SINCs visited by conservation advisors • Resources secured and management plans in place to restore habitats for priority species

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
NE NT	** *** *** ***
NE EA HWT FWAG	** *** *** ***→
FC BC HCC NE	* ** ** ***→ **→
HWT FWAG HCC NE	* **→

	Action	Outcome
WIDER COUNTRYSIDE	1) Maximise Environmental Stewardship value for biodiversity on farmland around Dean Hill	• Large-scale arable reversion options taken up where possible • Chalk grassland re-established and grazed • Options for farmland birds and arable flora promoted elsewhere • Farmland biodiversity supports wider ecosystem
	1) Provision of advice to landowners with undesignated priority habitat along the River Dun	• Initial contact with landowners • Increase area of land under grazing management • Water quality of River Dun improves • Increase in numbers of chalk river priority species
	2) Provision of advice to landowners with undesignated priority grasslands around Bentley–Mottisfont woodlands	• Initial contact with landowners • Increase area of land under grazing management • Woodland edge ecotones established • High quality habitat mosaic re-created
	3) Maximise Environmental Stewardship value for biodiversity on farmland around Broughton Down	• Large-scale arable reversion options taken up where possible • Chalk grassland re-established and grazed • Options for farmland birds and arable flora promoted elsewhere

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

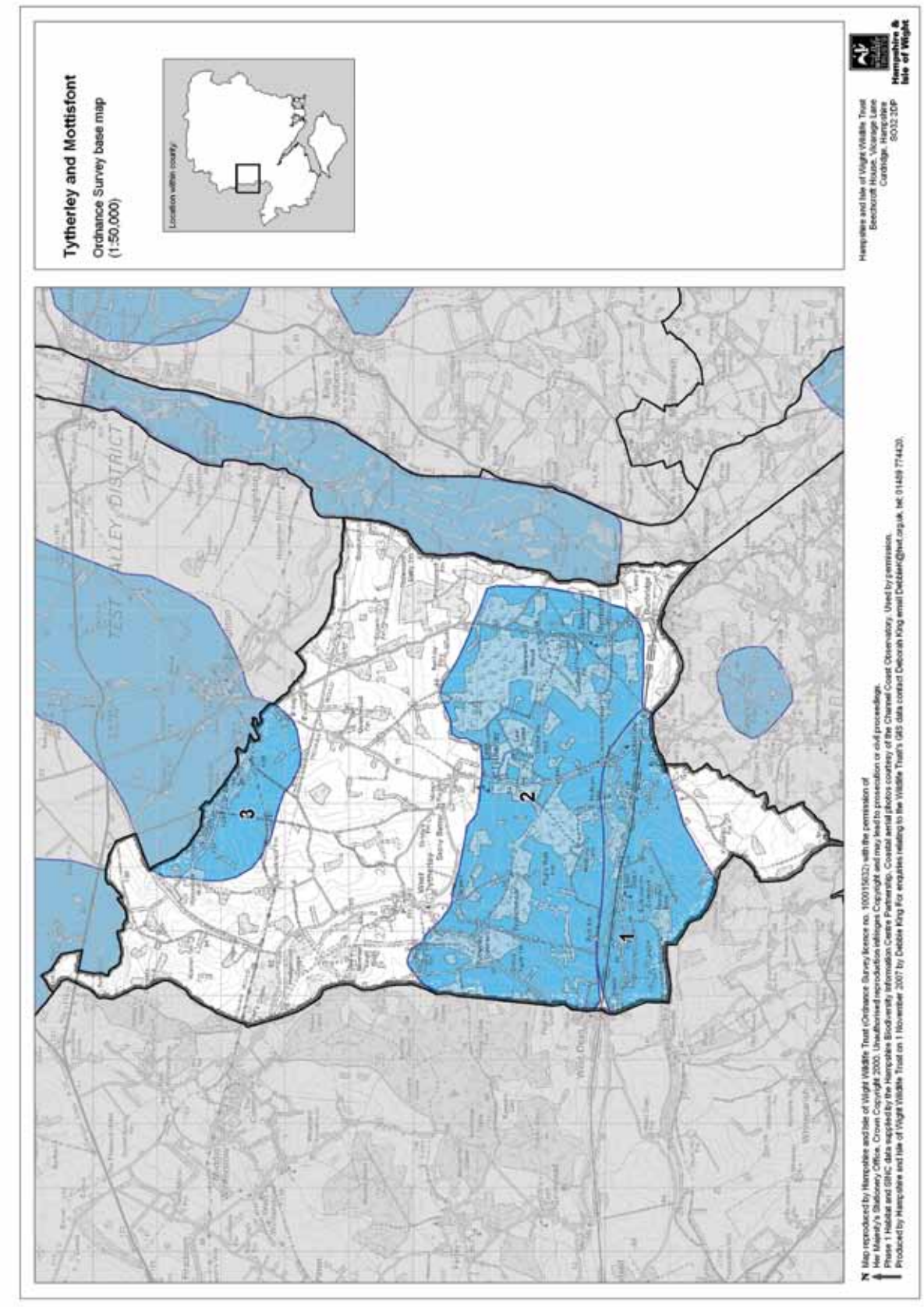
Partners (Names provided in full in Appendix 6)	**Time Scale**
NE, FWAG, HWT	** *** ** ***
HWT, FWAG, EA	* ** *** ****
HWT, FWAG, BC	* ** *** ****
HWT, HCC, NE	** ***→ **→

	Action	Outcome
SPECIES	Monitor juniper regeneration around Dean Hill	• Distribution of juniper mapped • Baseline survey of age structure conducted • Ongoing periodic survey conducted
	2) Investigate ecology of bats at Mottisfont	• Determine ecological requirements of barbastelle bats • Include requirements within management planning • Conduct thorough survey of woods in this area for bat populations
	2) Expand survey effort for butterflies	• Continue to monitor woodland butterfly populations at key sites • Promote survey at woodlands between Bentley Wood and Mottisfont • Disseminate findings of surveys to influence management and to promote this area as one of the most important sites for butterflies
AWARENESS	Good practice promoted amongst river-based businesses	• Environmentally responsible activities at local fisheries identified • Good practice demonstrated at locally organised workshops • Sustainability of brand promoted • Ecosystems protected
	Raise awareness of farming and biodiversity	• Advisors target priority areas surrounding designated land • Locally relevant workshops/events held to maximise benefits of Environmental Stewardship options for biodiversity • Knowledge of the distribution of farmland biodiversity increased

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
HFG, NE	** ** ***→
HBG, NT	** ** **
Bentley, Wood Trust, BC, NT	*→ ** **→
HWT, EA, TVBC	* ** ***→ ***→
FWAG, GWCT	* * **

Map 17: Tytherley and Mottisfont Area



Salisbury Plain Fringe, The Wallops and Amport Park

5.58 With huge open vistas containing internationally important chalk downland at Porton Down, this area is largely arable and is economically productive. The landscape is dotted with sites of high biodiversity, but these are under pressure from fragmentation and recreation.

Landscape and Biodiversity Profile

5.59 The largest of the areas in this BAP is the open arable plain, the west of which forms part of the Salisbury Plain chalk downland system – cross-boundary working is therefore important. Historically this area would once have been dominated by chalk grassland grazed by sheep. The river valleys were used as grazing land for cattle and to grow crops, and the ancient woodlands on the valley slopes were managed for timber and fuel.

5.60 Some areas retain the habitats and features that this low intensity farming produced. However, the agricultural intensification of the 20th century has fragmented and isolated sites within an expansive arable landscape. Chalk downland sites remain on land unsuitable for farming or where longevity of ownership by the military has preserved the site from intensive cultivation.

5.61 Within the Quarley Hill Downs (LCA11A), Porton Down SSSI is a hugely significant wildlife area, owned in the most part by the MOD as part of the Salisbury Plain Training Area (SPTA). This site is also designated as an SPA and part of the SAC for Salisbury Plain and constitutes one of the largest unbroken swathes of chalk downland habitats in Britain. The calcareous chalk downland habitat has outstanding assemblages of lichens, vascular plants, fungi and invertebrates, including a diverse spider fauna and eight high priority butterfly species, such as grizzled skipper, Adonis blue and silver-spotted skipper. There are breeding populations of stone curlew in and around this area and it is hoped that this population will colonise further into Hampshire if suitable habitat is made available. It is also possibly the only site in Test Valley with breeding redstart.

5.62 Blocks of ancient woodland within the SSSI support species associated with strongly calcareous soils including yellow birds-nest and bird's-nest orchids. Additional diversity on the grasslands is provided by juniper. Porton Down has 20% of the population in the South of England. This habitat supports an invertebrate population restricted to juniper, including two nationally important moths.

5.63 Quarley Hill SSSI is an Iron Age Hill Fort on the same chalk downland ridge as Porton Down. The top of the site has a mixed scrub community, whilst the north-facing slope comprises a species-rich chalk downland community with a sward dominated by sheep's fescue. The habitat is maintained by cattle grazing and has some rare species including frog orchid, greater butterfly orchid, bastard-toadflax and a small number of juniper. Opportunities should be sought to increase the area of extensive grazing around these chalk downland sites, to prevent species isolation and reduce the risk of extinction. There is also a need to provide back-up grazing land to allow stock to be managed effectively.

5.64 The land to the north of Broughton Down SSSI forms the border with the Thruxton and Danebury Chalk Downland (LCA10C) – a vast and largely arable chalk plateau dotted with hills such as the isolated Danebury Hill. Originally an Iron Age hill fort, Danebury is crowned by planted beech woodland but the surrounding slopes still support a species-rich chalk grassland and scrub habitat. The site is managed as a public open space by Hampshire County Council, and is grazed by rabbits and sheep, supporting species such as horseshoe vetch, burnt-tip orchid and frog orchid. Its biodiversity is likely to suffer from isolation and reconnecting it to other grassland sites is a priority.

5.65 Farmland biodiversity has evolved in this area alongside agriculture and there are some important bird populations. Over 1,000 golden plover have been recorded wintering on Middle Wallop and Thruxton Airfields. For declining species such as corn bunting, projects such as feeding stations should be considered; a successful project was completed for barn owl, with the introduction of nest boxes. In order to maintain this success the boxes need to be re-checked and repaired where necessary.

5.66 The Wallop Brook Valley Floor (LCA5F) cuts down through this open chalk landscape to join the River Test. The river rises in a small valley at Over Wallop, but opens out further downstream into a valley dominated by carr woodlands, wetlands and small holdings. There are few unimproved grassland sites at the source of the Wallop but the middle section is under Countryside Stewardship creating an important key area for biodiversity. The river is designated as a SINC for only part of its length, which may be due to enrichment reducing the in-channel flora further downstream. Functional links will need to be restored between the wet grasslands below Broughton if they are to be managed sustainably in the long term.

5.67 Shipton Bellinger lies on the River Bourne, which is an important chalk river. However it has been degraded by drainage for arable cultivation and would benefit from reinstatement of water levels and grazing. To the west lies the Cholderton Downs (LCA10G) the landscape is more enclosed – the network of hedgerows here supports the rare brown hairstreak butterfly. In order to implement sensitive management of blackthorn to support this species there needs to be a survey to determine distribution. Further west, Salisbury Plain SSSI, SPA and SAC lies on the boundary of Test Valley Borough and has become the largest remaining area of chalk downland habitat in Europe because of its ownership by the MOD since the turn of the century. The landscape is predominantly open chalk downland supporting 13 species of nationally scarce plants, 67 species of scarce invertebrates and internationally important birds.

5.68 The Pillhill Brook (LCA5H) flows through the north of this area from Fyfield to Upper Clatford. The habitats are a mixture of pasture, meadows and tree-lined watercourses. Commercial watercress manufacture along this river has reduced its quality to some extent, but there is potential to restore sites after use for wetland birds and breeding waders.

5.69 Surrounding the Pillhill Brook is an extensive area of enclosed arable land with woodland copses on the clay with flint outcrops. Much of this woodland is of ancient origin particularly around Amport Wooded Down, Abbotts Ann and Red Rice Park. This park also has a number of interesting remnant parkland features including veteran trees. A good hedgerow structure is still in place between here and the floodplain of the River Test. Maintenance of these hedges could help to allow species dispersal to newly restored habitats.

5.70 There are a number of parks in this area that provide for public enjoyment, including Finkley Down Farm, Cholderton Rare Breeds Farm and the Hawk Conservancy. These venues provide an opportunity for the public to understand how the landscape around them today has been shaped by humans throughout history. In doing so they may highlight how the decisions we make today can impact on future generations of people and wildlife. The Hawk Conservancy has been particularly active in the conservation of its landholdings for BAP species such as bumblebees, and in promoting conservation messages. It has been invaluable in programmes for conservation of the barn owl and red kite.

Key Issues:

- Habitat quality and water quality and quantity in localised stretches of the Wallop and Pillhill Brooks
- Unfavourable condition of some SSSI sections
- Ensuring that ecological function is restored to the arable landscape between isolated sites
- Restoration of chalk grassland
- Lack of accessible robust open space

Table 10: Action for Salisbury Plain Fringe, The Wallops and Amport Park

	Action	Outcome
DESIGNATED SITES	1) Continue restoration and management undertaken on Porton Down SSSI/SPA/SAC	• Habitat restoration continued following the LIFE programme where opportunities exist in unfavourable sections • Favourable sections of Porton Down maintained suitably sustainably • Area remains a major reservoir of chalk downland biodiversity
	1) Target resources for restoration of Quarley Hill Fort SSSI	• Restore chalk grassland through appropriate weed control • Vegetation composition reflects target community • Site maintained as a viable part of the Porton Down/Salisbury Plain downland system
	2) Restore grasslands within SINC complex around Shipton Bellinger Down and Bedlam Plantation	• Landowners with downland on SINCs visited by conservation advisors • Resources targeted and agreements in place to restore and sustainably manage habitats for priority species
	3) Manage visitor pressure at Danebury Hill	• Robust zones for visitor recreation allocated within site • Pressure on sensitive habitats alleviate
	3) Ensure favourable management at grassland SINCs between Danebury Hill and Broughton Down	• Grassland at Chattis Hill and unimproved meadows along the Wallop Brook managed suitably by tree removal, scrub management and grazing where feasible. • Fragmented sites function as reservoirs and stepping-stones for wildlife at a landscape scale

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
MOD, NE	*** *→ *→
NE	*→ **→ **→
FWAG, NE, HWT	* **
HCC	** ***
NE, HCC	** ***

	Action	Outcome
WIDER COUNTRYSIDE	1) Promote uptake of Higher Level Stewardship which expands ecosystem around Porton Down	• Farmed land receives support for arable reversion to chalk grassland and maintenance of grazing immediately adjacent to Porton Down • Arable HLS options support migration of downland species across the landscape through creation and maintenance of strategic networks
	2) Restore undesignated chalk grassland between Shipton Bellinger and the fringe of Salisbury Plain	• Higher Level Stewardship options targeted to chalk grassland restoration through arable reversion • Arable HLS options support migration of downland species across the landscape through creation and maintenance of strategic networks
	Promote shared resource of layback land for local grazing stock	• Increased viability of conservation grazing through allocation of pasture land for stock • Supply of stock maintained for grazing priority habitats in the area
	Promote buffering of designated sites and streams from adverse effects of neighbouring land use	• Ensure that sites have sufficient buffer from surrounding land use • No net loss of habitat as a result of edge effects
	Reduce eutrophication in Pillhill and Wallop Brook through catchment sensitive farming advice	• Locations and sources of nutrient enrichment identified • Recommendations made based on results provided by advisors • SINC designation extended as water quality improves

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
NE, FWAG	*** ****
NE, FWAG	*** ****
FWAG, HCC	*** ***→
HWT, FWAG	* *
EA, NE, HBIC	** *** ***

	Action	Outcome
SPECIES	2) Develop survey project for brown hairstreak	• Local volunteers trained in identification of brown hairstreak eggs • Volunteers survey scrub and hedgerow in the Shipton Bellinger area • Data shared with stakeholders via HBIC • Guidance targeted to landowners in strategic areas
	Make provision for breeding stone curlew on arable land	• Higher Level Stewardship options targeted according to best available data on the species' distribution and habitat requirements • Increased number of breeding pairs in the area
	Make provision for breeding corn bunting on arable land	• Higher Level Stewardship options targeted according to best available data on the species' distribution and habitat requirements • Increased number of breeding pairs in the area
	Survey barn owls using nest boxes	• Local farmers targeted for involvement in a breeding barn owl nest box survey in the area • Data used to inform distribution and identify opportunities for new/replacement nest boxes and grassland management
	Make provision for rare arable flora on arable land	• Higher Level Stewardship options targeted according to best available data on the species' distribution and habitat requirements • Increased populations of priority plant species in the area

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

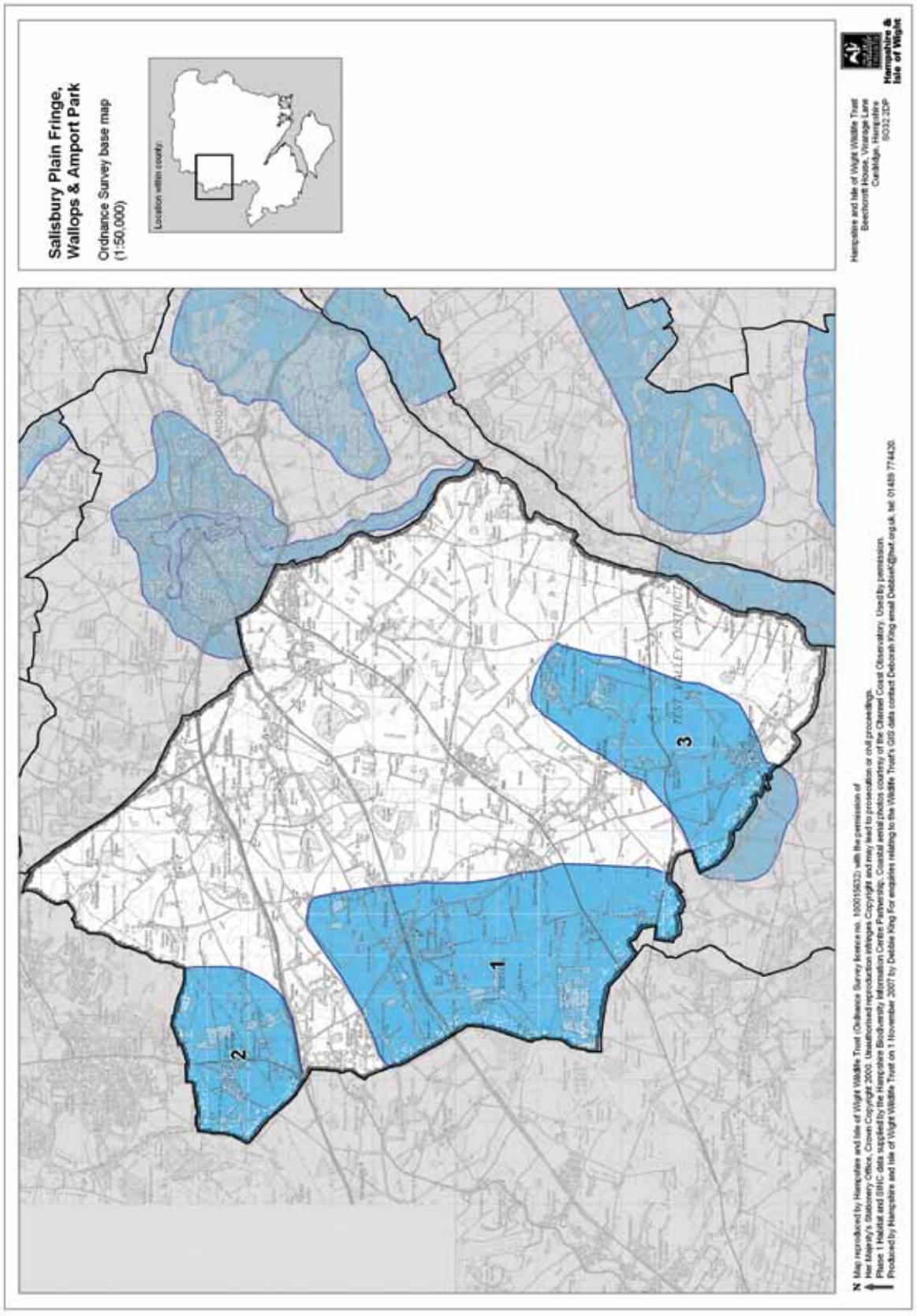
Partners (Names provided in full in Appendix 6)	**Time Scale**
BC, HBIC	** *** *** ***
NE, HOS, RSPB	** ***→
NE, HOS, RSPB	** ***→
HOS, HWT, Hawk, Conservancy	** ***→
NE, FWAG	** ***→

	Action	Outcome
AWARENESS	Develop opportunities for biodiversity appreciation at Danebury Hill	• Interpretation of biodiversity features of the local landscape provided through materials and events • Public understanding of landscape and biodiversity value of chalk downland increased
	Increase public support for local produce in Andover	• Markets identified in Andover for produce arising from traditional management practices in the locality • Profitability of local produce increased • Viability of conservation management increased
	Promote liaison across administrative boundary	• Active liaison across government regions regarding delivery of biodiversity objectives • Habitats and species crossing boundaries are not given less priority
	Raise awareness of the importance of back-up land for grazing	• Awareness held through local printed materials and events to increase cooperation between graziers and farmers • Back up grazing land for conservation management allocated in the Local Development Framework

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
HCC	** **
TVBC, HCC, Hampshire, Fare, NFU	** ** ***→
EA, NE, GOSE	*→ *→
FWAG, TVBC, HWT, NFU	*→ **

Map 18: Salisbury Plain Fringe, The Wallops and Amport Park Area



Somborne and Chilbolton Downs

5.71 This is a landscape with prime wooded downland habitats and the potential to link the important ecosystems: the South Downs with the Hampshire Downs; the River Test catchment with the River Itchen Catchment. Although consisting largely of private agricultural estates, game, fishing and other rural industries are economically significant in their own right, and these areas also hold sites and paths popular with local residents, improving quality of life.

Landscape and Biodiversity Profile

5.72 To the east of the River Test the landscape displays all of the characteristics of the rest of the Borough in a series of swathes in an east–west orientation. In the north of the area the River Dever flows in from Winchester District to join the River Test at Bransbury; further south subtly different downland systems host woodlands, chalk grasslands and farmland.

5.73 The River Dever Valley Floor (LCA5G) chalk stream cuts down through a steep valley of pasture and carr woodland. Watercress beds at Upper Bullington may be causing some enrichment and this is probably compounded by the amount of bankside tree growth and intensive pasture. A large area of land at Barton Stacey is under a positive land management scheme, and could be enhanced to increase the quality of wetlands. To the north, Drayton Chalk Downland (LCA10E) is an area of open chalk downland character mostly under arable cultivation. Farmland biodiversity has become established where agriculture is less intensive, and an important area of chalk downland has survived on a disused army camp.

5.74 A band of arable land (Leckford and Chilbolton Chalk Downs LCA10D) cuts across the Borough from Newton Stacey to Stockbridge. At one time this would have been part of the woodland and parkland swathe from Harewood Forest through into Winchester District. The Leckford Estate is within this area, promoting agricultural production with high environmental standards – as such it represents a useful demonstration of coexisting agriculture and biodiversity.

5.75 Brockley Warren SSSI lies within the Little Somborne Wooded Downs (LCA6C). The site is significant because it is one of the few remaining chalk grassland habitats on the chalk plateau; many other sites have been lost to agriculture. The grassland hosts notable plants such as round-headed rampion, felwort and bastard-toadflax, but these are dependent on correct grazing. There are areas of juniper scrub but these are not successfully regenerating. The site requires restoration and links need to be made to other habitats to prevent isolation.

5.76 Within the same area Stockbridge Down SSSI was designated for the outstanding ecological interest of the woodlands and the diversity of the chalk downland scrub and grasslands. The wider area has a complex of well-managed coppice woodland SINCs, yew and beech woodland, mixed scrub and chalk downland, providing one of the richest sites for butterflies and moths in Hampshire, with several priority butterfly and moth species.

5.77 The two SSSIs in this area are amongst the few places with public access on this side of the Test Valley. This makes them vulnerable to concentrated pressure from recreation. The sites are carefully managed to reduce this damage but a longer term solution will need to be found to dilute visitor pressure across a wider area and onto less vulnerable habitats.

5.78 The Ashley Downs (LCA7A) are a band of chalk downlands which include Beacon Hill and Furzedown SINCs. There are extensive remnant woodlands, although the area would benefit from hedgerow restoration. The mixed arable and pasture farms increase opportunities for biodiversity. Green lanes are a particular feature, supporting species such as white letter hairstreak on suckering elms. This feature needs to be recognised in management plans.

5.79 Further south, the landscape changes to a more wooded landscape with clay soils – around Michelmersh the woodlands begin to take on the characteristics of those found in the Baddesley and Tytherley area. Some sites are already under active coppice management. Other sites such as Parnholt could be restored back to native woodland because they are currently planted with conifers. If managed, the sites will allow expansion in range of species found in the woodlands to the south.

Key Issues:

- Habitat quality and water quality and quantity in localised stretches of the River Dever
- Unfavourable condition of SSSI land
- Ensuring continuity of management in traditionally managed woodlands
- Lack of habitat connectivity
- Lack of accessible robust open space

Table 11: Action for Somborne and Chilbolton Downs

	Action	Outcome
DESIGNATED SITES	1) Restore unfavourable sections of the River Dever (SSSI)	• Grazing reintroduced on wet grasslands and fens • Opportunities developed for raising water levels, e.g. through Water Level Management Plan • Bankside habitats restored through tree removal and/or coppicing • Ecological function of river and adjacent habitats restored
	1) Promote good land cultivation, watercress and fishery practice along the River Dever (SSSI)	• Advice targeted so as to increase size of uncultivated buffer strips to prevent diffuse pollution from agricultural land • Watercress beds and fish farms managed so as to protect water quality • Fishery management enhances riverbank vegetation structure • Water voles and aquatic biodiversity increased
	2) Target resources for the restoration of Brockley Warren SSSI	• Suitable scrub management and grazing regime in place • Rabbit grazing controlled if detrimental to juniper regeneration and integrity of grassland • Site attains favourable condition
	2) Restore Stockbridge Down SSSI to favourable condition	• Suitable scrub management and grazing regime in place • Manage visitor pressure at Stockbridge Down SSSI through provision of robust zones for visitor recreation allocated within site • Site attains favourable condition
	2) Advice and support targeted to landowners of woodland SINCs between Stockbridge and Little Somborne	• Initial contact with landowner made, and advice on management and resources for wooded downland offered. • Woodlands maintained sustainably for their notable biodiversity

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
NE, EA	*** *** *** ****
NE, HWT, FWAG	** *** ** ***
NE	** * ***
NT, NE	** *** ****
HCC	* **

	Action	Outcome
DESIGNATED SITES	3) Restore downland grassland and woodland SINCs on the escarpment following the Clarendon Way	• Initial contact with landowner made, and advice on management and resources for wooded and open downland offered • Woodlands maintained sustainably for their notable biodiversity
	Manage visitor pressure at West Down SINC	• Visitor pressure successfully managed so as to reduce impacts on downland habitat
WIDER COUNTRYSIDE	Seek to improve quality and diversity of chalk downland habitat on Drayton Down	• Provide advice about appropriate management on this habitat type • Grazing reinstated where feasible
	2) Make provision for robust, accessible greenspace in the Local Development Framework	• Visitor pressure on designated sites alleviated
	3) Improve hedgerow and green lane network between designated sites from King's Somborne to the Borough border	• Condition of hedgerow and green lane network assessed • Management advice provided • Features restored and managed through Environmental Stewardship options • Functional links between downland sites restored
	Target advice and resources to create links between strategic areas for biodiversity	• Priority sites reconnected through agri-environment schemes • Farmland BAP species and habitats increase • Species are able to move between sites in response to climate change in a key landscape area

* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

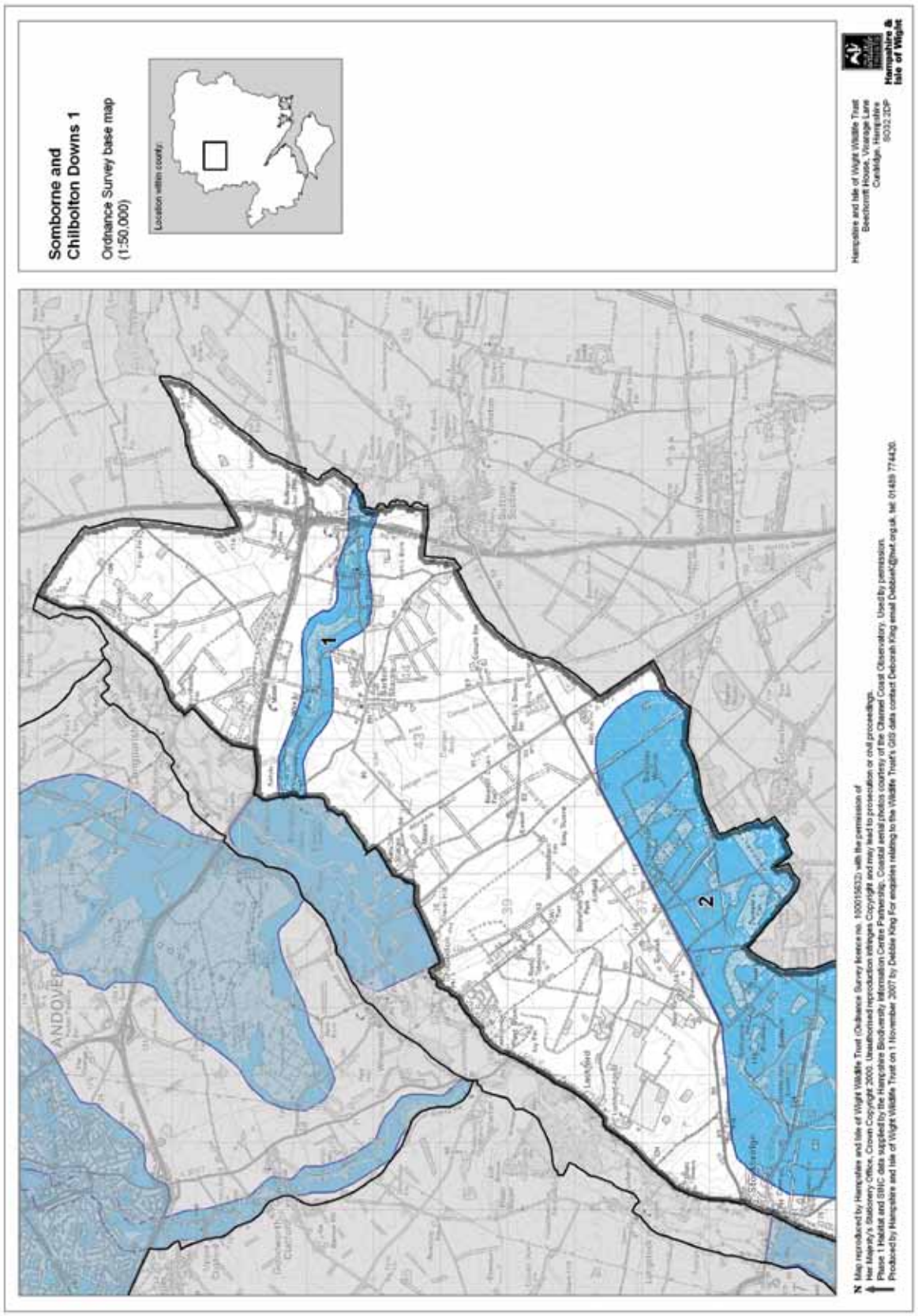
Partners (Names provided in full in Appendix 6)	**Time Scale**
HCC, FWAG	** ***
HCC	**
FWAG, MOD	* **
TVBC	**
FWAG, HWT	** ** *** ***
NE, FC	*** *** ***

	Action	Outcome
SPECIES	Survey of farmland birds on open arable and downland	• Identification of important areas, e.g. for lapwing • Appropriate management in place • Populations of farmland birds increased
	Survey of woodlands for butterflies	• Appoint volunteers to monitor a local site • Identify transects • Monitor effect of management on populations
	Survey of woodlands for dormice	• Appoint volunteer nut collectors • Provide survey for woodland owners who think they have dormice • Use results of survey to advise on management
AWARENESS	Share good ecological practice at the Leckford Estate with local land managers	• Estate developed as an exemplar of viable practices benefiting biodiversity • Ecological basis for targeting options demonstrated • Events held to showcase options to local land managers • Awareness of good management for biodiversity enhanced
	2) Raise awareness amongst public as to their potential impacts at Stockbridge Down and West Down and other accessible sensitive sites	• Information and events held to raise awareness of recreation impacts on biodiversity, e.g. dog-walking • Public awareness increased • Impacts managed for the benefits of biodiversity
	Raise awareness amongst woodland owners that woodland management is a viable land management option	• Database of coppice workers available • Timber sourced locally • Market developed for coppiced goods • Deer control programme in place

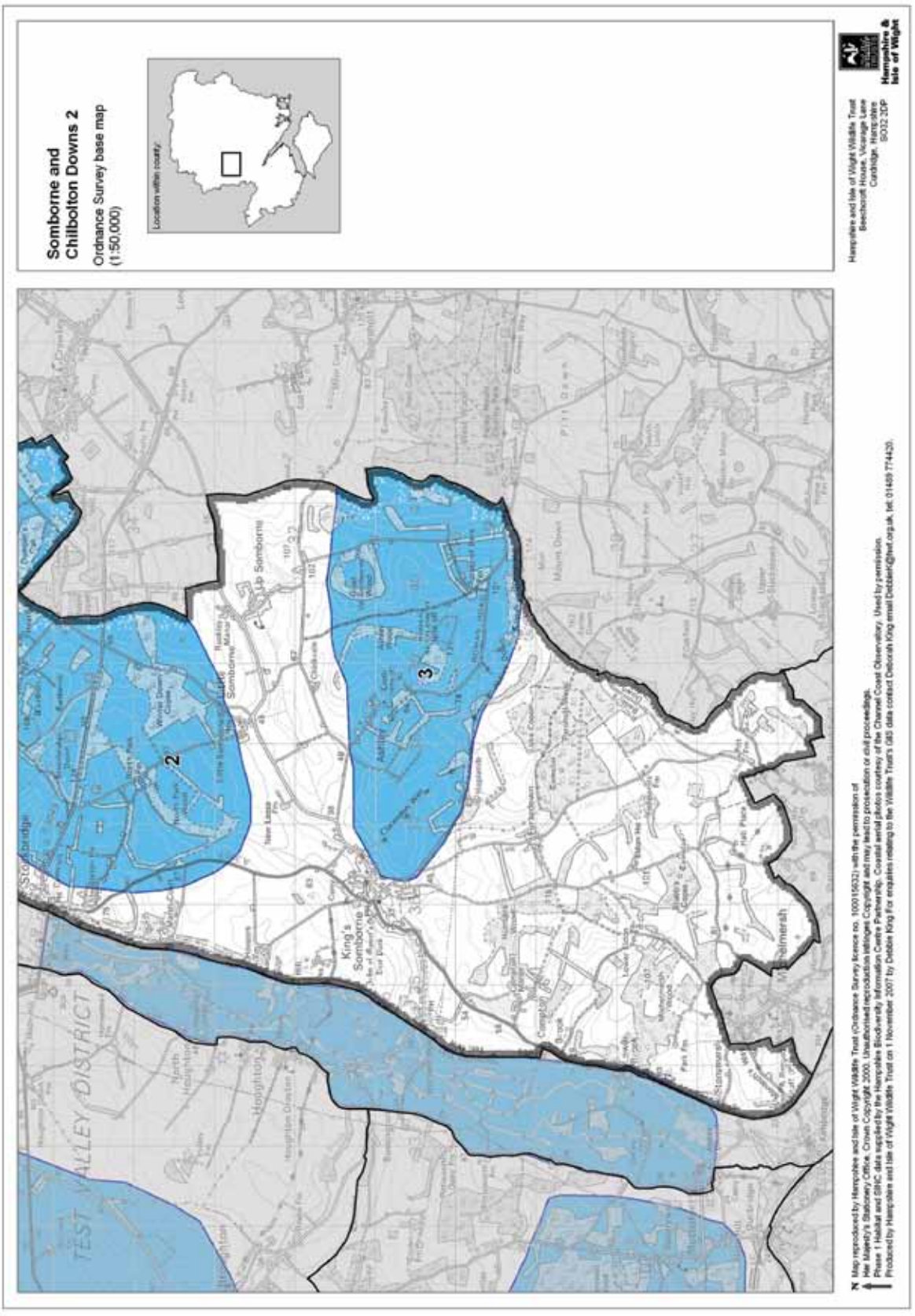
* within year 1, ** within next 3 years, *** within next 5 years, **** within next 10 years, ⟶ then ongoing

Partners (Names provided in full in Appendix 6)	**Time Scale**
RSPB, HOS	* ** ***
BC	** ** ***
HMG, HCC, GWCT	* ** **
Leckford Estate, FWAG, NE	** ** ** **→
NT, HCC, TVBC	*→ *→ *→
HCC, FC	* ** *** ***

Map 19: Somborne and Chilbolton Downs Area 1



Map 20: Somborne and Chilbolton Downs Area 2



6

B Section 6

A Action Plan:

P Part 3 – Practical Ways To Get Involved

6.1 Everyone can help to protect and enhance the environment in which we live, work and play. Each of us can choose to do our bit for conservation, even in our own gardens. There are many organisations which you can join to support the work they do in your Borough. Alternatively, you may be a community group with an idea who needs some advice about how to proceed and where to get grant aid.

Become a Tree Warden

6.2 Test Valley is part of the nationwide scheme set up after the 1987 storm, in which volunteers are specially trained to become Tree Wardens. They are responsible for caring for the trees in their community and increasing the number of trees.

6.3 Tree Wardens are involved in a wide range of activities including, planting schemes, surveys, planning creative projects with schools and taking part in Tree Council initiatives such as National Tree Week, Walk in the Woods and Seed Gathering Sunday. For more information about becoming a Tree Warden in Test Valley, please contact Test Valley Borough Council.

Become a pond warden

6.4 If you are particularly interested in all things aquatic, then you should consider becoming a pond warden. The British Trust for Conservation Volunteers (BTCV) provides training in all aspects of pond management, species identification and pond creation. This can be great if you have a community area that you would like to build a pond in, but are not sure where to start.

Join a community group

6.5 Joining your local community group provides the perfect opportunity to voice your opinions on conservation issues. Contact your local parish council for further details. The Hampshire Wildlife Trust has its own planning officer, who can offer advice on applications that may have a negative effect on the environment. People living in a Borough will understand the nature of the environment better than someone who is not as familiar with the area. The knowledge that you have of a particular site or changes which you have observed over time can be invaluable.

Join a voluntary work party

6.6 If you don't mind a bit of hard work, there are several organisations that run practical volunteer days on local nature reserves, such as the British Trust for Conservation Volunteers (BTCV), Test Valley Borough Council and the Hampshire Wildlife Trust. Tasks vary but include tree planting, scrub clearance and hedge laying. Hampshire Wildlife Trust is represented locally by its District Group in Romsey. Fundraising, walks and talks are just some of the other activities organised.

Gardening for wildlife

6.7 We are becoming increasingly aware of the importance of gardens as habitats for wildlife. Gardening with wildlife in mind can be practised whatever the size of your garden. Choosing flowers that provide a source of nectar and pollen to butterflies and bees can even bring a window box to life! The only thing to remember is that wildlife needs four things to survive – shelter, food, water and places to breed. Providing these essential elements will have animals queuing up.

6.8 A pile of stones or logs will attract beetles, spiders and therefore birds. Planting native trees and shrubs such as rowan and holly provides a source of food and shelter to birds. A pond will complete any wildlife garden, providing a place to breed for frogs and dragonflies. Contact WildLine at Hampshire Wildlife Trust for information on Gardening for Wildlife (www.hwt.org.uk/what-we-do/wildlife-info/wildlife-advice.htm).

Here are a few suggestions for improving the biodiversity in your garden:

6.9 **Create a wildlife border:** Plant up a border with a mix of native wild flowers, including species such as primrose, forget-me-not, foxglove, ivy, field scabious and goldenrod. It is important to provide a selection of plants that will flower throughout the year. Butterflies such as orange-tip, meadow brown, red admiral and large white will be drawn to your garden. Don't forget to add a mix of grasses, such as cocksfoot, timothy and Yorkshire fog, which are essential food plants for some caterpillars. The nectar will also attract many bees.

6.10 Uncompacted soils at the base of shrubs will provide a home for the burrowing bumblebee. Additional homes can be made or bought for mason, honey and other bees. If you plant a mixture of night-flowering plants such as honeysuckle and evening primrose, you will also attract moths, including the beautiful hawk moths. The moths will attract bats which you may be lucky enough to have roosting in your loft.

6.11 **Build a pond:** Even the smallest of ponds will be teeming with wildlife in a very short space of time. Ponds will attract frogs, newts, dragonflies and lots of aquatic invertebrates. Ponds don't need to be very deep, and you should make the sides nice and gentle to allow lots of aquatic plants to grow, and animals to climb in and out. Make sure that you plant up the edges with native species such as marsh marigold, water mint, purple loosestrife and flowering rush. If possible connect the pond to a marshy area to increase its wildlife potential.

6.12 **Provide shelter:** Little nooks and crannies in the garden may be invisible to us, but they are essential shelter for many species. If you turn over a stone or log in the garden, it will be hiding a wealth of invertebrates, including spiders, millipedes, beetles and woodlice. You may even be lucky enough to find a toad, or a slow-worm. You can help these species by building an undisturbed log pile in a sheltered area of your garden. In winter this will provide hibernating sites for newts, and butterflies like the small tortoiseshell.

6.13 **Gardening for birds:** We all enjoy watching birds in the garden, and many species have made a home alongside us because their natural habitats are in decline. To make the most of your garden for them, plant a variety of thick native shrubs, so that they have somewhere to nest and berries for the winter. If you haven't got room for shrubs then build a nest box. You could even go one step further and build a communal nest box for species such as sparrows. If you want to feed the birds, then buy good quality feeders and seed, and make sure you keep areas clean to prevent the spread of disease. Always provide birds with a clean, unfrozen supply of water.

6.14 **Wildlife watching:** Now that you've created a garden that has animals queuing for miles around why don't you tell someone about it? Recording wildlife in your garden can help conservationists to determine the status of species. There are many national and local surveys that want information about your garden wildlife. In Test Valley there is some concern that the numbers of swallows are declining. Counting their nests each year will inform us of how serious this problem is and help us to concentrate conservation effort.

Get involved through your school

6.15 There are many ways we can encourage schools to engage with their local environment. Organisations including the Hampshire Wildlife Trust, Test Valley Borough Council and Hampshire County Council offer a variety of opportunities to visit local nature reserves and important wildlife sites through events, competitions and school education programmes. Most organisations and interested individuals will be more than happy to come and help schools with events or to give a talk about their experiences with wildlife.

6.16 Closer to home why not create a wildlife refuge within your school grounds to benefit the local wildlife? Providing an 'outdoor classroom' offers a good opportunity for children to learn about local wildlife around the school and provides the potential for practical conservation work with teachers and parents. If your school cannot run its own activities, then get involved with a local Watch Group – the Wildlife Trust's group for young people. If you want to get involved you can do it at any level.

Join a species group

6.17 There are enough species groups in Hampshire to cover almost all specialist recording interests. If there isn't one already then perhaps you are the person to set one up! The Hampshire Ornithological Society, Hampshire Bat Group, Butterfly Conservation, British Dragonfly Society, Hampshire Amphibian and Reptile Group, Hampshire Mammal Group, Hampshire Network for Invertebrate Conservation and Hampshire Flora Group are just a few of the possibilities.

6.18 Becoming a member is a great way to get involved with local conservation projects and to meet like-minded people. Newsletters keep you informed of all the latest developments and there are opportunities to take part in training days, surveys and practical habitat management. If you want more information about the variety of different species groups that are coordinated throughout Hampshire then take a look in the list of contacts in Appendix 6.

Become a business which is supporting the local environment

6.19 Businesses can do their bit for the environment by recycling paper and implementing green transport plans. Local government and industry should aim to use local produce, to encourage economic growth in sustainable markets. It is also possible to contribute by sponsoring a local conservation project or a species group that will undertake research into a threatened local species, or by holding corporate volunteering events such as installing bird boxes or dormouse boxes in local woodland. These measures positively contribute to the local environment and do not harm the reputation of your business!

Conserve water around the home

6.20 The more water we waste, the more water needs to be taken from the water supplies which feed our rivers and wetlands. You can take simple steps around the home, such as placing a 'Water Saver' or immersing a milk bottle vertically in your toilet cistern – this will save a pint of water every time you flush! Installing a dual flush device to your existing toilet will allow you to control the amount of water needed to flush it. Also, you can turn off the tap whilst brushing your teeth to save thousands of litres per year. In the garden, recycle your 'grey' water from washing the dishes by watering the plants. In addition, there are a growing number of drought-tolerant plants available to buy, which require less watering.

Buy local produce from conservation enterprises

6.21 Buying locally available coppice products such as charcoal and hurdles helps to make sure our woodlands are managed in a way which supports wildlife. Other local produce such as meat from local grazing stock will help support the grazing economy which is so desperately needed for managing our wildlife-rich habitats. Buying from farmers' markets not only reduces food miles and gives you a fresher product, it allows you to get to know your local farmers, and find out what they are doing to protect biodiversity.

7

B Section 7

A Action Plan:

P Part 4 – Reporting On Progress Involved

Implementation

7.1 The success of the BAP will depend upon the actions of a large group of organisations who have their own duties and responsibilities. The Council, through its Planning Service, will seek to coordinate these organisations and bring together the outcomes of their actions via an annual monitoring report. The Environment Group of the Local Strategic Partnership would provide a wider forum for discussion on the BAP and its progress. Its implementation and future review will be a key role for the group.

7.2 Once launched, this BAP will be implemented by a broad partnership of individuals and organisations. As the Lead Partner, the Council will be best placed to promote relevant projects through its own staff, or through agreement with staff in a partner organisation, thus delivering the BAP's objectives.

Monitoring and Review

7.3 In order to determine the effectiveness of this BAP and the progress towards the actions within it, the Environment Group of the Test Valley Local Strategic Partnership will act as a forum for partners to give updates on the projects which have arisen. The Council, as the lead partner, may also use this information to measure progress towards its own corporate objectives. It will also report progress to the Hampshire Biodiversity Partnership who will use the criteria listed below to measure progress at county level, reporting nationally through the Biodiversity Action Reporting System (BARS) where appropriate.

7.4 Actions in the Borough-wide action table in Section 4 are grouped by the same themes as the area action tables in Section 5. Progress against each of the actions listed in the tables in Section 5 can either be linked to the outcomes in Table 3, each of which has a reference to the relevant Hampshire BAP Key Objective(s), or can be directly linked to the list of objectives shown below.

7.5 Annual monitoring of progress towards the BAP's actions will give partners an ideal opportunity to report and review progress. It is envisaged that at this early stage in the BAP's development, existing data collection and analysis undertaken by partners would form the basis for an annual report. The potential to additional monitoring initiatives will be considered.

7.6 As part of its reporting to Government, the Council will also work with Hampshire Biodiversity Information Centre to assess progress towards managing SINCs in the Borough (the Biodiversity Indicator NI 197). Positive conservation management of SINCs is a fundamental part of this BAP; monitoring for the Biodiversity Indicator NI 197 will therefore be a very useful measure of this BAP's success.

Keeping People Informed

7.7 To enable those interested to keep up to date with the BAP's progress, a dedicated section will be included in the Council's Planning webpage. The potential for a dedicated website will be considered as a possible long-term project.

7.8 The webpage can be updated following the annual round of monitoring, as well as following other notable achievements as and when they occur. Other options for the group overseeing the BAP include newsletters and events open to the public.

Hampshire Biodiversity Partnership's Key Objectives

Theme 1 Land Management

Aim: to ensure favourable condition of priority habitats and species in Hampshire

	Key Objective
1a	**Maximise the extent of land covered by incentive schemes and land management projects** (see also 1g below) e.g. land covered by agri-environment/woodland grant schemes; projects such as Hampshire Heathland Project, New Forest LIFE Project etc.
1b	**Ensure favourable condition of Hampshire's Sites of Special Scientific Interest (SSSIs)** (as defined by English Nature)
1c	**Ensure favourable management of Sites of Importance for Nature Conservation (SINCs)** e.g. management plans/projects for SINCs; advice to landowners; action on-the-ground etc.
1d	**Ensure favourable management of local authority land** (county/district/Borough councils, unitary authorities) e.g. management for nature conservation in parks, school grounds, on road verges etc.; declaring LNRs; audits of landholdings etc.
1e	**Promote management of land at 'landscape scale' for nature conservation** e.g. AONBs and projects such as those at Tytherley Woods, Itchen Navigation and Forest of Bere
1f	**Ensure appropriate action for priority species** (see also 3c below) e.g. specific habitat management to conserve a Hampshire/UK priority species; reintroduction projects; policies for species in plans and strategies
1g	**Restore/re-create priority habitats or create new habitats** (includes land within or outside SSSIs) e.g. recreation of heathland on former waste sites; reintroduction of coppice management etc.

Theme 2 Planning, Plans and Strategies

Aim: seek to ensure no net loss of biodiversity through the planning process, and establish commitment and implementation programmes for biodiversity through plans and strategies

	Key Objective
2a	**Ensure appropriate consideration of biodiversity in development plans and the development control process, and promote good practice by developers** e.g. regional plans, sub-regional strategies and local development frameworks; guidance notes etc.
2b	**Ensure all priority habitat and species assemblages that meets SINC or SSSI criteria are designated**
2c	**Ensure Community Strategies in Hampshire include biodiversity policies and plans**
2d	**Establish biodiversity as a key element of all relevant plans and strategies and promote appropriate changes in regulations and legislation** e.g. plans and strategies for the coast, forestry, climate change, sustainable development, waste, transport etc.
2e	**Produce and implement local biodiversity action plans**

Theme 3 Data and Information

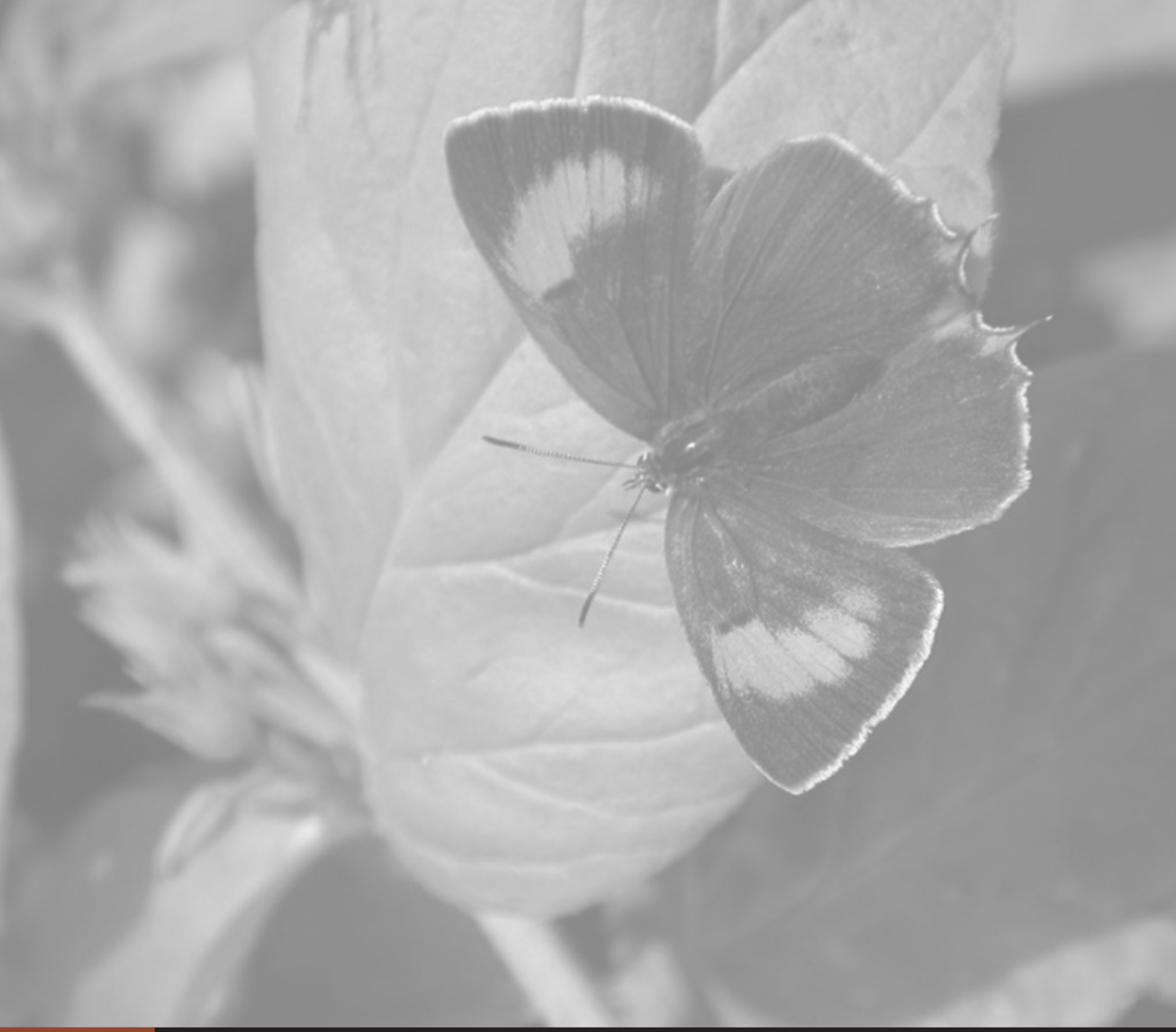
Aim: to ensure availability of appropriate data and information on Hampshire's habitats and species

	Key Objective
3a	**Develop the Hampshire Biodiversity Information Centre to share data and make more widely available**
3b	**Encourage and support a voluntary network of recorders and recording groups**
3c	**Survey/monitor extent and condition of key habitats and species**
3d	**Monitor the implementation of your organisation's/group's action for biodiversity** e.g. monitoring progress against targets
3e	**Monitor 'external' influences on biodiversity** e.g. major influences such as outcomes of planning decisions, climate change, sea-level rise, changes in laws governing public access to land etc.
3f	**Pro-actively encourage research and ensure that research is disseminated**

Theme 4 Education, Awareness and Communication

Aim: to broaden awareness of biodiversity and involvement in its conservation

	Key Objective
4a	**Promote the aims and work of the Hampshire Biodiversity Partnership** e.g. Partnership website, publications, seminars; national reporting etc.
4b	**Promote biodiversity as beneficial to quality of life (health, wellbeing etc) and key to sustainable development** e.g. publications, initiatives that relate biodiversity to recreation, education, recycling, energy conservation etc.
4c	**Raise general awareness and commitment to biodiversity** (e.g. giving guidance and specialist advice, development of demonstration areas or centres, exhibitions, seminars etc.) **in the following sex sectors:**
	• **public sector** (local government, statutory organisations etc)
	• **farmers, landowners and other land managers**
	• **business and industry**
	• **education**
	• **community/user groups** (ramblers, gardeners, residents associations, sailors etc)
	• **public**



B Appendices

A

P

Appendix 1:

Internationally Important Wildlife Sites In Test Valley

Test Valley includes all or part of five Special Areas of Conservation (SACs), four Special Protection Areas (SPAs) and two Ramsar Sites. Some wildlife sites, such as The New Forest, are subject to more than one international designation. All sites that are covered by one or more international designations are also designated as Sites of Special Scientific Interest (SSSIs), in recognition of their national nature conservation importance.

Special Areas of Conservation

Emer Bog

Site Area	37.5 ha
Area in Test Valley	37.5 ha
Constituent SSSI(s) in Test Valley	Baddesley Common

Notes: The boundaries of Emer Bog SAC are coincident with the boundaries of Baddesley Common SSSI, except in the southeast corner where a narrow strip of broadleaved woodland has been excluded from the SAC.

Mottisfont Bats

Site Area	196.9 ha
Area in Test Valley	196.9 ha
Constituent SSSI(s) in Test Valley	Mottisfont Bats

Notes: The boundaries of Mottisfont Bats SAC are coincident with Mottisfont Bats SSSI.

The New Forest

Site Area	29,262.4 ha
Area in Test Valley	272 ha
Constituent SSSI(s) in Test Valley	The New Forest Whiteparish Common

Notes: The New Forest SAC includes the vast majority of The New Forest SSSI and five other SSSIs including Whiteparish Common, a very small part of which lies within the Borough. In Test Valley, the SAC includes Canada Common, West Wellow Common and the main part of Plaitford Common south of the A36. The part of the Common (which forms part of The New Forest SSSI) north of the A36 is excluded from the SAC.

Salisbury Plain

Site Area	21,438.1 ha
Area in Test Valley	547.3 ha
Constituent SSSI(s) in Test Valley	Salisbury Plain/Porton Down

Notes: Salisbury Plain SAC includes both Salisbury Plain and Porton Down SSSIs. Only a very small part of Salisbury Plain SSSI lies within Test Valley, but about a third of Porton Down SSSI is in the Borough.

Solent Maritime

Site Area	11,325 ha
Area in Test Valley	6.6 ha
Constituent SSSI(s) in Test Valley	Lower Test Valley

Notes: Solent Maritime SAC is made up of a large number of SSSIs and includes a wide range of coastal habitats both on the southern coast of Hampshire and the northern coast of the Isle of Wight. Within the Borough the SAC includes only a small part of Lower Test Valley SSSI.

Special Protection Areas

The New Forest

Site Area	28,001 ha
Area in Test Valley	272 ha
Constituent SSSI(s) in Test Valley	The New Forest

Notes: The New Forest SPA is about 1,200 hectares smaller than The New Forest SAC. The SPA excludes a number of peripheral SSSI areas, such as Whiteparish Common. In Test Valley, the SPA includes Canada Common, West Wellow Common and the main part of Plaitford Common south of the A36. The part of the Common (which forms part of The New Forest SSSI) north of the A36 is excluded from the SPA.

Porton Down

Site Area	1,227.4 ha
Area in Test Valley	539.6 ha
Constituent SSSI(s) in Test Valley	Porton Down

Notes: Porton Down SSSI forms part of Salisbury Plain SAC, but is a separate SPA. The SPA excludes part of the SSSI in Wiltshire. In Test Valley the SPA and SSSI boundaries are coincident.

Salisbury Plain

Site Area	19,688.9 ha
Area in Test Valley	7.7 ha
Constituent SSSI(s) in Test Valley	Salisbury Plain

Notes: The boundaries of Salisbury Plain SPA are very similar to the SSSI boundaries. Only a small part of the SPA lies within Test Valley and in this area the SPA boundaries are co-incident with the SSSI boundaries.

The Solent and Southampton Water

Site Area	5,505.9 ha
Area in Test Valley	52 ha
Constituent SSSI(s) in Test Valley	Lower Test Valley

Notes: The Solent and Southampton Water SPA is similar in extent to Solent Maritime SAC but excludes Chichester and Langstone Harbours. Within the Borough the SAC includes slightly more of the Lower Test Valley SSSI than is included in Solent Maritime SAC.

Ramsar Sites

The New Forest

Site Area	28,001 ha
Area in Test Valley	272 ha
Constituent SSSI(s) in Test Valley	The New Forest

Notes: The boundaries of The New Forest Ramsar Site are coincident with the boundaries of The New Forest SPA.

The Solent and Southampton Water

Site Area	5,414.6 ha
Area in Test Valley	52 ha
Constituent SSSI(s) in Test Valley	Lower Test Valley

Notes: The boundaries of The Solent and Southampton Water Ramsar Site are very similar to the boundaries of The Solent and Southampton Water SPA. The Ramsar Site includes the same part of the Lower Test Valley SSSI that lies within the SPA.

Appendix 2:

Sites Of Special Scientific Interest In Test Valley

There are 25 Sites of Special Scientific Interest (SSSIs) wholly or partly in Test Valley covering over 2000 hectares. Seven of these SSSIs (Baddesley Common, Mottisfont Bats, The New Forest, Whiteparish Common, Salisbury Plain, Porton Down and Lower Test Valley) are also covered by one or more international wildlife designations. Refer to Table 2 in the main document for a summary of the condition of these sites.

Site name	Total area (ha)	Area in Test Valley (ha)
Baddesley Common & Emer Bog	38.3	38.3
Bentley Wood	665	18.5
Bransbury Common	155.6	155.6
Brickworth Down & Dean Hill	118.6	31.0
Brockley Warren	12.6	12.6
Broughton Down	44.7	44.7
Chilbolton Common	36.1	36.1
Combe Wood & Linkenholt Hanging	107.5	17.1
Danebury Hill	12.8	12.8
Dunbridge Pit	0.7	0.7
East Aston Common	18.8	17.6
Lower Test Valley	138.7	51.7

Site Name	Total Area (Ha)	Area in Test Valley (Ha)
The New Forest	28,947.4	271.1
Porton Down	1,561.8	539.6
Quarley Hill Fort	4.7	4.7
Ratlake Meadows	4.5	4.5
River Test	442.9	389.0
Rushmore & Conholt Downs	113.2	113.2
Salisbury Plain	19,689.9	7.7
Stockbridge Common Marsh	67.2	67.2
Stockbridge Down	69.5	69.5
Stockbridge Fen	5.8	5.8
Trodds Copse	25.2	25.2
Whiteparish Common	64.5	1.3
Total for Test Valley		**2,132.4**

Appendix 3:

Landscape Character Of Each Local BAP Area

Test Valley Community Landscape Project:				
BAP Local Area	Landscape Character Type	Description	Landscape Character Area	Description
Test Valley	LCT5	River valley floor	LCA5A	Lower Test floodplain
			LCA5B	Middle Test valley floor
			LCA5C	Upper Test valley floor
New Forest Fringe	LCT1	Heathland	LCA1A	West Wellow heaths
	LCT2	Pasture and woodland associated with heath	LCA2A	Embley Wood and heathland
	LCT3	Mixed farmland and woodland – medium scale	LCA3B	Melchet and Awbridge woodland farmland
	LCT4	Mixed farmland and woodland – small scale	LCA4A	Sherfield English
Romsey and Southern Test Valley	LCT2	Pasture and woodland associated with heath	LCA2B	North Baddesley to Chilworth woodland mosaic
	LCT3	Mixed farmland and woodland – medium scale	LCA3A	Baddesley mixed farm and woodland
	LCT4	Mixed farmland and woodland – small scale	LCA4B	Michelmersh to Ampfield wooded farmland

Test Valley Community Landscape Project:				
BAP Local Area	Landscape Character Type	Description	Landscape Character Area	Description
North Wessex Down AONB	LCT5	Enclosed chalk and clay woodland	LCA6F	Rushmore wooded downs
			LCA6G	Faccombe wooded downs
	LCT7	Semi-enclosed chalk and clay farmland	LCA7C	Linkenholt downs
	LCT8	Enclosed clay plateau farmland	LCA8A	Tangley and Doles Wood
	LCT12	Bourne valleys	LCA12A	River Swift valley
Andover and Harewood Forest	LCT5	River valley floor	LCA5I	Upper River Anton valley floor
			LCA5J	Lower River Anton valley floor
	LCT6	Enclosed chalk and clay woodland	LCA6D	Harewood Forest wooded downs
	LCT9	Semi-enclosed clay plateau farmland	LCA9A	North Andover plateau
	LCT10	Open chalklands	LCA10F	Andover chalk downland
Tytherley and Mottisfont	LCT3	Mixed farmland and woodland – medium scale	LCA3C	Tytherley and Mottisfont wooded farmland
	LCT5	River valley floor	LCA5D	Dun river valley floor
	LCT6	Enclosed chalk and clay woodland	LCA6A	Norman Court wooded downs
	LCT7	Semi-enclosed chalk and clay farmland	LCA7B	Broughton Downs
	LCT10	Open chalklands	LCA10A	East Dean chalk downland

Test Valley Community Landscape Project:				
BAP Local Area	Landscape Character Type	Description	Landscape Character Area	Description
Salisbury Plain Fringe, The Wallops and Amport Park	LCT5	River valley floor	LCA5F	Wallop Brook valley floor
			LCA5H	Pillhill Brook valley floor
	LCT6	Enclosed chalk and clay woodland	LCA6E	Amport wooded downs
	LCT10	Open chalklands	LCA10C	Thruxton and Danebury chalk downland
			LCA10G	Cholderton chalk downs
	LCT11	Chalk downland ridges	LCA11A	Quarley Hill downs
	LCT12	Bourne valleys	LCA12B	River Bourne valley
Somborne and Chilbolton Downs	LCT5	River valley floor	LCA5E	King's Somborne river valley floor
			LCA5G	River Dever valley floor
	LCT6	Enclosed chalk and clay woodland	LCA6B	Compton with Parnholt and Michelmersh woods
			LCA6C	Little Somborne wooded downs
	LCT7	Semi-enclosed chalk and clay farmland	LCA7A	Ashley Downs
	LCT10	Open chalklands	LCA10B	King's Somborne chalk downland
			LCA 10D	Leckford and Chilbolton chalk downs
			LCA10E	Drayton chalk downland

Appendix 4:

Hampshire BAP Species Recorded In Test Valley

The following are species recorded in the Borough in the last decade that are either UKBAP or Hampshire BAP priority species, using data held by the Hampshire Biodiversity Information Centre and the result of amateur and professional surveys. Also listed are notable plant species according to the Botanical Society of the British Isles' local list. Note that this list is not comprehensive.

NOTE: The UKBAP priority list was updated in August 2007 – the Hampshire BAP priority species list is due to be updated in 2008 in response. The listed species conform to the pre-August 2007 lists but will be updated in due course

Group	Species	Common name
Amphibians and Reptiles	Triturus cristatus	Warty Newt/Great Crested Newt
Birds	Acrocephalus palustris	Marsh Warbler
Birds	Acrocephalus scirpaceus	Eurasian Reed Warbler
Birds	Alauda arvensis	Skylark
Birds	Anas strepera	Gadwall
Birds	Aythya ferina	Common Pochard
Birds	Botaurus stellaris	Great Bittern
Birds	Burhinus oedicnemus	Stone Curlew
Birds	Calidris alba	Sanderling
Birds	Calidris alpina	Dunlin
Birds	Carduelis cannabina	Common Linnet
Birds	Circus cyaneus	Hen Harrier
Birds	Egretta garzetta	Little Egret
Birds	Emberiza schoeniclus	Reed Bunting
Birds	Falco columbarius	Merlin
Birds	Falco subbuteo	Eurasian Hobby
Birds	Gallinago gallinago	Common Snipe
Birds	Larus melanocephalus	Mediterranean Gull
Birds	Limosa limosa	Black-tailed Godwit
Birds	Locustella naevia	Common Grasshopper Warbler
Birds	Lullula arborea	Wood Lark
Birds	Luscinia megarhynchos	Common Nightingale

Group	Species	Common Name
Birds	Mergus merganser	Goosander
Birds	Milvus milvus	Red Kite
Birds	Muscicapa striata	Spotted Flycatcher
Birds	Panurus biarmicus	Bearded Tit
Birds	Perdix perdix	Grey Partridge
Birds	Pluvialis apricaria	European Golden Plover
Birds	Podiceps nigricollis	Black-necked Grebe
Birds	Pyrrhula pyrrhula	Common Bullfinch
Birds	Saxicola rubetra	Whinchat
Birds	Streptopelia turtur	European Turtle Dove
Birds	Sylvia undata	Dartford Warbler
Birds	Tringa totanus	Common Redshank
Birds	Turdus philomelos	Song Thrush
Birds	Vanellus vanellus	Northern Lapwing
Bryophytes	Ctenidium molluscum	A moss
Butterflies and Moths	Adscita geryon	Cistus Forester
Butterflies and Moths	Agrotis cinerea	Light Feathered Rustic
Butterflies and Moths	Apatura iris	Purple Emperor
Butterflies and Moths	Apoda limacodes	Festoon
Butterflies and Moths	Argynnis paphia	Silver-washed Fritillary
Butterflies and Moths	Boloria euphrosyne	Pearl Bordered Fritillary
Butterflies and Moths	Boloria selene	Small Pearl-bordered Fritillary
Butterflies and Moths	Cosmia diffinis	White-spotted Pinion
Butterflies and Moths	Cossus cossus	Goat Moth
Butterflies and Moths	Cupido minimus	Small Blue
Butterflies and Moths	Eilema sororcula	Orange Footman
Butterflies and Moths	Hamearis lucina	Duke of Burgundy Fritillary
Butterflies and Moths	Heliothis viriplaca	Marbled Clover
Butterflies and Moths	Hemaris fuciformis	Broad-bordered Bee Hawk
Butterflies and Moths	Hemaris tityus	Narrow-bordered Bee Hawk
Butterflies and Moths	Hesperia comma	Silver-spotted Skipper
Butterflies and Moths	Heterogenea asella	Triangle
Butterflies and Moths	Hypena rostralis	Buttoned Snout
Butterflies and Moths	Lysandra bellargus	Adonis Blue
Butterflies and Moths	Lysandra coridon	Chalk hill Blue
Butterflies and Moths	Minoa murinata	Drab Looper
Butterflies and Moths	Moma alpium	Scarce Merveille du Jour
Butterflies and Moths	Mythimna favicolor	Mathew's Wainscot
Butterflies and Moths	Noctua orbona	Lunar Yellow Underwing

Group	Species	Common Name
Butterflies and Moths	Pechipogo strigilata	Common Fan-foot
Butterflies and Moths	Rheumaptera hastata	Argent and Sable
Butterflies and Moths	Satyrium w-album	White Letter Hairstreak
Butterflies and Moths	Schrankia taenialis	White-lined Snout
Butterflies and Moths	Thecla betulae	Brown Hairstreak
Butterflies and Moths	Trichopteryx polycommata	Barred Tooth-striped
Butterflies and Moths	Xanthorhoe biriviata	Balsam Carpet
Insects	Ampedus quercicola	A click beetle
Insects	Asilus crabroniformis	Hornet Robberfly
Insects	Coenagrion mercuriale	Southern Damselfly
Insects	Cordulia aenea	Downy Emerald
Insects	Lucanus cervus	Stag Beetle
Insects	Odontomyia argentata	A soldierfly
Insects	Tomoxia bucephala	A flower beetle
Mammals	Apodemus flavicollis	Yellow-necked Mouse
Mammals	Eptesicus serotinus	Serotine bat
Mammals	Lepus europaeus	Brown Hare
Mammals	Muscardinus avellanarius	Hazel Dormouse
Mammals	Neomys fodiens	Water Shrew
Mammals	Pipistrellus pipistrellus	Common Pipistrelle bat
Molluscs	Helicodonta obvoluta	Cheese Snail
Vascular Plants	Aceras anthropophorum	Man Orchid
Vascular Plants	Chamaemelum nobile	Chamomile/Common Chamomile
Vascular Plants	Equisetum hyemale	Rough Horsetail
Vascular Plants	Euphorbia platyphyllos	Broad-leaved Spurge
Vascular Plants	Juniperus communis	Common Juniper
Vascular Plants	Leucojum aestivum	Summer Snowflake/Loddon Lily
Vascular Plants	Lithospermum arvense	Field Gromwell/Corn Gromwell
Vascular Plants	Ranunculus arvensis	Corn Buttercup
Vascular Plants	Ranunculus penicillatus	Stream Water-crowfoot

Appendix 5:
References To Legislation, Strategies And Initiatives

Birds Directive – The Birds Directive requires EU Member States to take special measures to conserve some vulnerable bird species and all migratory birds. Sites designated under the Birds Directive are known as Special Protection Areas.

Catchment Abstraction Management Strategies – Produced by the Environment Agency in response to the Government publication 'Taking Water Responsibly' (1999). The principle aim is to allow balance between the needs of abstractors and those of the aquatic environment. To be determined in consultation with the local community and interested parties.

Catchment Flood Management Plans – This is an Environment Agency initiative which will provide a strategic planning framework for integrated management of flood risks to people and the developed and natural environment in a sustainable manner.

Community Strategies – Part I of the Local Government Act 2000 places a duty on local authorities to prepare 'community strategies', for promoting or improving the economic, social and environmental wellbeing of their areas, and contributing to the achievement of sustainable development in the UK. It also gives authorities broad new powers to improve and promote local wellbeing as a means of helping them to implement those strategies.

Countryside and Rights of Way Act 2000 - This states that any Government department has a general duty to have regard to the conservation of biodiversity, which is defined as including restoration and enhancement.

Habitats Directive 92/43/EEC – The Habitats Directive requires EU Member States to endeavour to encourage the management of features of the landscape which are of major importance for wild flora and fauna. These features are those, which because of their linear and continuous structure or their function as stepping-stones, are essential for migration, dispersal and genetic exchange. Examples given in the Directive are rivers and their banks, traditional field boundary systems, ponds and small woods. The Directive is also the mechanism that enables the designation of SACs, which will form part of the Natura 2000 Network.

The Hampshire Landscape Strategy – A Strategy for the Future (Hampshire County Council, 2000) – sets out a broad framework for district-level strategies. A mechanism through which the Council contributes to the delivery of the Hampshire Biodiversity Action Plan.

Landscape Character Assessment/Community Landscape Project – An audit of broad landscape character types and specific character areas within Test Valley, including perceptions of landscape character and value.

LEAPs and Local Contributions – LEAPs are plans that help the Environment Agency identify, assess and address environmental problems in a river catchment whilst taking into account the views of the local community. The LEAP process has recently been superseded by a new strategy called 'Local Contributions'. This is an over-arching document covering all the LEAP catchments and identifies the key environmental targets and outcomes that the Environment Agency will be delivering over the next five years.

Local Biodiversity Action Plans – Local plans produced by each county to implement the UK Biodiversity Action Plan, part of the Government's response to signing the Convention on Biological Diversity during the 1992 Earth Summit in Rio de Janeiro.

Local Sites Systems (DETR Local Sites Review Group Report, 2000) – "The series of non-statutory Local Sites seek to ensure, in the public interest, the conservation, maintenance and enhancement of species, habitats, geological and geomorphological features of substantive nature conservation value. Local Site systems should select all areas of substantive value including both the most important and the most distinctive species, habitats, geological and geomorphological features within a national, regional and local context. Sites within the series may also have an important role in contributing to the public enjoyment of nature conservation." In Hampshire these sites are called Sites of Importance for Nature Conservation (SINCs).

NERC Act 2006 Section 40 – "Every public body must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity".

Planning Policy Statement Note 9: Biodiversity and Geological Conservation – "Regional planning bodies and local planning authorities should adhere to … key principles to ensure that the potential impacts of planning decisions on biodiversity and geological conservation are fully considered."

Regional Forestry Framework – identifies what is special about forestry and woodlands in an area. It charts a route to maintain and enhance the tree, woodland and forestry assets that can bring social, environmental and economic benefits to the region and to all who live, work and visit there.

Regional Sustainable Development Framework 2001 – A Better Quality of Life in the South East – Produced by regional government it sets out a vision for the region with four themes including effective protection of the environment and prudent use of natural resources. The objectives of the framework will be measured using indicators such as the extent and condition of key BAP habitats.

South East Regional Plan/Spatial Strategy – Policy NRM4 indicates that councils should "seek to avoid a net loss of biodiversity, and actively pursue opportunities to achieve a net gain across the region …".

Water Framework Directive 2000/60/EC – Article 1 of the Water Framework Directive states that signatories must "Prevent further deterioration, protect and enhance aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands".

Water Level Management Plans – Many SSSIs have a water level management plan which investigates the hydrological regime of each site and ensures that they remain in favourable condition.

Wildlife and Countryside Act 1981 – The presence of a protected species is a material consideration when a local planning authority is considering a development proposal, which, if carried out, would be likely to result in harm to that species, or its habitat.

Working with the grain of nature: A biodiversity strategy for England (DEFRA, 2002) – Government strategy with a partnership of stakeholders in the public, voluntary and private sectors. The document sets out a series of actions to make biodiversity a fundamental consideration in agricultural, water, woodland, marine and urban policies and initiatives.

NB: This is not an exhaustive list of policies and initiatives relevant to the Test Valley, but sets the BAP into a wider context.

Appendix 6: Contacts

Abbreviations for Partners given in Sections 4 and 5:

AONB	(North Wessex Downs) Area of Outstanding Natural Beauty
BC	Butterfly Conservation
BTCV	British Trust for Conservation Volunteers
CLBA	Country Land and Business Association
CPRE	Campaign to Protect Rural England
EA	Environment Agency
FC	Forestry Commission
FWAG	Farming and Wildlife Advisory Group
GOSE	Government Office for the South East
GWCT	Game & Wildlife Conservation Trust
HARG	Hampshire Amphibian & Reptile Group
HBIC	Hampshire Biodiversity Information Centre
HCC	Hampshire County Council
HFG	Hampshire Flora Group
HMG	Hampshire Mammal Group
HOS	Hampshire Ornithological Society
HWT	Hampshire (& Isle of Wight) Wildlife Trust
MOD	Ministry of Defence
NE	Natural England
NFDC	New Forest District Council
NFNPA	New Forest National Park Authority
NFU	National Farmers' Union
NT	National Trust
RSPB	Royal Society for the Protection of Birds
TVBC	Test Valley Borough Council

Every effort has been made to ensure the following details are up to date, but changes to personnel and websites are inevitable.

For assistance with land management for biodiversity, including available grants:

- **Entry Level Stewardship** – Administered by DEFRA, aimed to encourage a large number of farmers across a wide area of farmland to deliver simple yet effective environmental management. Contact your local Natural England office to apply.

- **Higher Level Stewardship** – Administered by DEFRA, aims to deliver significant environmental benefits in high priority situations and areas. Contact your regional Natural England office to apply – a pre-Farming Environment Plan is required from Natural England in order for applications to be considered.

- **England Woodland Grant Scheme** – Available from Forestry Commission, aims to sustain and increase benefits to the public from existing woodlands and help create new woodlands to deliver additional benefits.

- **Single Farm Payment** – Administered by an Executive Agency of DEFRA, the Rural Payments Agency. Payments available to farmers, aimed at acknowledging and rewarding environmentally friendly farming practices.

Department for Environment, Food and Rural Affairs

Rural Payments Agency, PO Box 1058, Lancaster House, Hampshire Court, Newcastle Business Park, Newcastle-upon-Tyne NE99 4YQ
TEL: 0845 603 7777
EMAIL: customer.service.centre@rpa.gsi.gov.uk
WEBSITE: www.rpa.gov.uk

Farm Conservation Advisor

Farming and Wildlife Advisory Group

Hampshire FWAG, The Old Cart Shed, Herriad Park, Basingstoke, Hants, RG25 2PL
TEL: 01962 79744
EMAIL: Debbie.miller@fwag.org.uk
WEBSITE: www.fwag.org.uk

Game & Wildlife Conservation Trust

Fordingbridge, Hants SP6 1EF
TEL: 01425 652381
EMAIL: info@gct.org.uk
WEBSITE: www.gct.org.uk

Hampshire & Isle of Wight Wildlife Trust

Beechcroft, Vicarage Lane, Curdridge, Hants SO32 2DP
TEL: 01489 774400
EMAIL: feedback@hwt.org.uk
WEBSITE: www.hwt.org.uk

Forestry Commission

South East England Forest District, Bucks Horn Oak, Farnham, Surrey GU10 4LS
TEL: 01420 23666
EMAIL: enquiries.seefd@forestry.gsi.gov.uk
WEBSITE: www.forestry.gov.uk

Conservation Advisor – Test Valley

Hampshire & Isle of Wight Wildlife Trust

The Old Cartshed, Herriard Park, Basingstoke RG25 2PL
TEL: 01489 774427
EMAIL: elizabetha@hwt.org.uk

Hampshire Heathlands Project

Environment Group, Planning Department, Hampshire County Council, The Castle, Winchester, Hants SO23 8UE
TEL: 01962 845788
EMAIL: jonathan.mycock@hants.gov.uk

Woodlands Project Officer

Environment Group, Planning Department, Hampshire County Council, The Castle, Winchester, Hants SO23 8UE
TEL: 01962 845788
EMAIL: ecology.group@hants.gov.uk

Natural England

1 Southampton Road, Lyndhurst, Hants SO43 7BU.
TEL: 02380 286410
EMAIL: hants.iwight@naturalengland.org.uk
WEBSITE: www.naturalengland.org.uk

If you want information on water quality, resources and river biodiversity:

Environment Agency

Colvedene Court, Wessex Business Park, Wessex Way, Colden Common, near Winchester, Hants SO21 1WP
TEL: 01962 713267
EMAIL: enquiries@environment-agency.gov.uk
WEBSITE: www.environment-agency.gov.uk/regions/southern

South East Otters and Rivers Project

Hampshire Wildlife Trust, Beechcroft, Vicarage Lane, Curdridge, Hants SO32 2DP
TEL: 01489 774428
EMAIL: grahamr@hwt.org.uk
WEBSITE: www.hwt.org.uk

If you want to know about protected sites and protected species:

Hampshire SINC Project

Environment Department, Hampshire County Council,
The Castle, Winchester, Hants SO23 8UE
TEL: 01962 846802
EMAIL: ecology.group@hants.gov.uk

Hampshire Biodiversity Information Centre (SINCs)

Ashburton Court West, The Castle, Winchester, Hants SO23 8UE
TEL: 01962 845046
EMAIL: enquiries.hbic@hants.gov.uk
WEBSITE: www.hants.gov.uk/biodiversity/hbic

Natural England

1 Southampton Road, Lyndhurst, Hants SO43 7BU
TEL: 02380 283944
EMAIL: hants.iwight@naturalengland.org.uk
WEBSITE: www.naturalengland.org.uk

If you want to know about biodiversity or have a wildlife enquiry:

Hampshire Biodiversity Information Centre

Ashburton Court West, The Castle, Winchester, Hants SO23 8UE
TEL: 01962 845046
EMAIL: enquiries.hbic@hants.gov.uk
WEBSITE: www.hants.gov.uk/biodiversity/hbic

Biodiversity Officer/Hampshire Biodiversity Partnership

Environment Department, Hampshire County Council, The Castle, Winchester SO23 8UE
TEL: 01962 846770
EMAIL: ecology.group@hants.gov.uk
WEBSITE: www.hampshirebiodiversity.org.uk

Wildline – Wildlife Information Service

Hampshire & Isle of Wight Wildlife Trust, Beechcroft,
Vicarage Lane, Curdridge, Hants SO32 2DP
TEL: 01489 774446
EMAIL: Wildline@hwt.org.uk
WEBSITE: www.hwt.org.uk

Hampshire and Isle of Wight Business Advisory Forum

Regional Business Centre, Harts Farm Way, Havant, Hants PO9 1HR
TEL: 023 9244 9404
EMAIL: bef@chamber.org.uk
WEBSITE: www.egeneration.co.uk/hants

If you want to know about rural issues:

Campaign to Protect Rural England

Beaconsfield House, Andover Road, Winchester, Hants SO22 6AT
TEL: 01962 843655
EMAIL: director@cprehampshire.org
WEBSITE: www.cpre.org.uk

Country Landowner & Business Association

Highclere Office, Brookfields, Westridge, Highclere, Newbury, Berks RG20 9RX
TEL: 01635 255412
EMAIL: info.southeast@cla.org.uk
WEBSITE: www.cla.org.uk

National Trust

Polesden Lacey, Dorking, Surrey RH5 6BD
TEL: 01372 45340
EMAIL: enquiries@thenationaltrust.org.uk
WEBSITE: www.nationaltrust.org.uk

National Farmers' Union

Unit 8 Ground Floor, Rotherbrook Court, Bedford Road, Petersfield, Hampshire, GU32 3QG
TEL: 01730 711950
EMAIL: South.East@nfuonline.com
WEBSITE: www.nfuonline.com

North Wessex Downs AONB

Denford Manor, Hungerford, Berkshire RG17 0UN
TEL: 01488 685440
EMAIL: info@northwessexdowns.gov.uk
WEBSITE: http://northwessexdowns.org.uk/

If you want information about planning and your administrative area:

Test Valley Borough Council

Beech Hurst, Weyhill Road, Andover, Hants SP10 3AJ
TEL: 01264 368000
Council Offices, Duttons Road, Romsey, Hants SO51 8XG
TEL: 01794 527700
EMAIL: info@testvalley.gov.uk
WEBSITE: www.testvalley.gov.uk

Government Office for the South East

Bridge House, 1 Walnut Tree Close, Guildford GU1 4GA
TEL: 01483 882255
EMAIL: reception.gose@go-regions.gov.uk
WEBSITE: www.go-se.gov.uk

Hampshire County Council

The Castle, Winchester, Hants SO23 8UE
TEL: 01962 870500
EMAIL: info.centres@hants.gov.uk
WEBSITE: www.hants.gov.uk

Hampshire Association of Parish and Town Councils

St. Thomas' Centre, 20 Southgate Street, Winchester, Hants SO23 9EF
TEL: 01962 841699
EMAIL: hantsparish@classicfm.net
WEBSITE: www.haptc.parish.hants.gov.uk

Senior Planning Officer

Hampshire & Isle of Wight Wildlife Trust

Beechcroft, Vicarage Lane, Curdridge, Hants SO32 2DP
TEL: 01489 774419
EMAIL: paulineh@hwt.org.uk
WEBSITE: www.hwt.org.uk

If you want to know about species events and recording:

Botanical Society of the British Isles (Hampshire Branch)

Contact for the North of the District:
EMAIL: vc12Recorder@hantsplants.org.uk
Contact for the South of the District:
EMAIL: vc11Recorder@hantsplants.org.uk

Hampshire Amphibian and Reptile Group

Hampshire Wildlife Trust, Beechcroft, Vicarage Lane, Curdridge, Hants SO32 2DP
TEL: 01489 774400
EMAIL: feedback@hwt.org.uk
WEBSITE: www.hwt.org.uk

Hampshire Bat Group

TEL: 023 8061 7551
EMAIL: michael.pawling@btintermet.com
WEBSITE: www.hants.gov.uk/bats

Butterfly Conservation (Hampshire Branch)

13 Ashdown Close, Chandler's Ford, Eastleigh, Hants SO53 5QF
TEL: (023) 80 270042
EMAIL: lindajane@tcp.co.uk
WEBSITE: www.butterfly-conservation.org

Hampshire & Isle of Wight Wildlife Trust

Hampshire & Isle of Wight Wildlife Trust, Beechcroft,
Vicarage Lane, Curdridge, Hants SO32 2DP
TEL: 01489 774400
EMAIL: feedback@hwt.org.uk
WEBSITE: www.hwt.org.uk

Hampshire Biodiversity Information Centre

Hampshire County Council, Ashburton Court West,
The Castle, Winchester, Hants SO23 8UE
TEL: 01962 846858
EMAIL: enquiries.hbic@hants.gov.uk
WEBSITE: www.hants.gov.uk/biodiversity/hbic

Hampshire Fungus Recording Group
55 Cherville Street, Romsey, Hants SO51 8FB.
TEL: 01794 522192.
EMAIL : hfrg@hampshirefungi.org.uk

Hampshire Flora Group
Hampshire Wildlife Trust, Beechcroft, Vicarage Lane, Curdridge, Hants SO32 2DP
TEL: 01489 774400
EMAIL: feedback@hwt.org.uk
WEBSITE: www.hwt.org.uk

Hampshire Network for Invertebrate Conservation
Hampshire Wildlife Trust, Beechcroft, Vicarage Lane, Curdridge, Hants SO32 2DP
TEL: 01489 774400
EMAIL: feedback@hwt.org.uk
WEBSITE: www.hwt.org.uk

Hampshire Mammal Group
Hampshire Wildlife Trust, Beechcroft, Vicarage Lane, Curdridge, Hants SO32 2DP
TEL: 01489 774400
EMAIL: feedback@hwt.org.uk
WEBSITE: www.hwt.org.uk

National Conchological Society
Conservation Officer, 14 Goodwood Close, Midhurst, West Sussex GU29 9JG
TEL: 01483 411217 (work)
EMAIL: conservation@conchsoc.org
WEBSITE: www.conchsoc.org

Hampshire Ornithological Society
The Membership Secretary, 11 Waterloo Avenue, Winklebury, Basingstoke RG23 8DL
TEL: 01489 571486
EMAIL: a.wall@tesco.net
WEBSITE: www.hos.org.uk

Royal Society for the Protection of Birds
South East England Office, 2nd Floor, 42 Frederick Place, Brighton, East Sussex BN1 4EA
TEL: 01273 775333
WEBSITE: www.rspb.org.uk

Parks and Countryside Manager
Test Valley Borough Council
Beech Hurst, Weyhill Road, Andover, Hants SP10 3AJ
TEL: 01264 368815
EMAIL: leisure@testvalley.gov.uk
WEBSITE: www.testvalley.gov.uk

If you want to volunteer:

British Trust for Conservation Volunteers
BTCV Southern Central Area Office Room 3, 2 Venture Road, Southampton Science Park, Chilworth, Southampton, Hampshire SO16 7NP
TEL: 02380 769719
EMAIL: btcvhampshire@btcv.org.uk
WEBSITE: www.btcv.org.uk

Volunteering Manager
Hampshire & Isle of Wight Wildlife Trust,
Beechcroft, Vicarage Lane, Curdridge, Hants SO32 2DP
TEL: 01489 774400
EMAIL: feedback@hwt.org.uk
WEBSITE: www.hwt.org.uk

Pond Warden Scheme
BTCV, Conservation Centre, Micheldever Wood, Micheldever, Hants SO21 3BP
TEL: 01962 774714
EMAIL: btcvhampshire@btcv.org.uk
WEBSITE: www.btcv.org.uk

Parks and Countryside Manager
Test Valley Borough Council
Beech Hurst, Weyhill Road, Andover, Hampshire, SP10 3AJ
TEL: 01264 368815
EMAIL: leisure@testvalley.gov.uk
WEBSITE: www.testvalley.gov.uk

Visit the following website, hosted by Hampshire County Council, which gives links to volunteer opportunities in Hampshire.
http://www.e.volve.org.uk

If you want more information about wildlife education resources:

Senior Education Officer

Hampshire & Isle of Wight Wildlife Trust

Beechcroft, Vicarage Lane, Curdridge, Hants SO32 2DP

TEL: 01489 774400

EMAIL: feedback@hwt.org.uk

WEBSITE: www.hwt.org.uk

Learning Through Landscapes

3rd Floor, Southside Offices, The Law Courts, Winchester, Hants SO23 9DL

TEL: 01962 846258

WEBSITE: www.ltl.org.uk

Appendix 7: Glossary

Agri-environment schemes – these are schemes offering payments to farmers to promote farming compatible with the protection of the environment and the maintenance of the countryside as part of the Rural Development Regulation. Schemes applicable in all countries of the UK are Environmentally Sensitive Areas, Countryside Access Scheme, Organic Aid Scheme and Habitat Scheme.

ASNW – Ancient Semi-Natural Woodland.

Ancient Woodland Indicator Species – these are plant species that are characteristic of ancient woodland. They are restricted to ancient woodland because of their poor dispersal abilities.

Anthropogenic – caused or influenced by human impact on natural systems.

Biodiversity – the diversity of life on Earth.

Bryophytes – a group of plants that include mosses and liverworts.

Buffer zone – a strip that partially or fully encloses an area to protect the inner section from ecological disturbance by outside pressures.

Carr woodland – woodland, usually comprising alder and willow, naturally occurring in marshy conditions.

Carrying capacity – for any given environment, the carrying capacity is the amount of activity that can be supported in a sustainable manner. If pressures of population, extraction of materials, or pollution exceed this limit, the environment will suffer long-term damage.

Condition assessment – a methodology developed by Natural England to assess the condition of a site, based on indicative attributes.

Coppice – trees which are cut back to near ground level every few years and which grow again from the stump or stool. The many straight stems which grow from each stool are used for firewood, tools and other purposes.

Coniferisation – the planting of any habitat with conifers.

Countryside Stewardship – an agri-environment scheme which enables farmers and land managers in England to enter 10-year management agreements to maintain or enhance certain landscapes and features – being replaced by Environmental Stewardship schemes.

Ecological corridor/network – the principle of connections between wildlife habitats. Closely related to the theory of fragmentation, ecological networks and corridors aim to provide a corridor for migration of all species between suitable habitat areas

Ecotone – a transition zone between two structurally different ecosystems.

Ecosystem – the interactions of animals, plants, fungi, and micro-organisms with each other and the non-living world.

ELS – Entry Level Stewardship: the entry scheme of Environmental Stewardship.

Environmental Stewardship schemes – agri-environment schemes (ELS, OELS, HLS) that enable farmers and land managers to enter management agreements to maintain or enhance certain landscapes and features.

England Woodland Grant Schemes (EWGS) - grants from the Forestry Commission to create new woodlands and to encourage the good management and regeneration of existing woodlands.

Eutrophication – the process of artificial enrichment of water bodies, usually by pollutants or agricultural fertiliser runoff, which leads to over-activation of the water-dwelling bacteria and microscopic life which in turn decreases oxygen levels in the water and causes many species of plants and animals to be lost from the water body.

Flagship species – species, often with public appeal, that are used to promote the conservation of a habitat, e.g. otters for rivers.

Fragmentation – the disruption of large areas of habitat into smaller, separate units. Involves both a total loss of habitat area and the isolation of remaining habitat patches, which prevents interaction between some organisms located in the fragments, and renders them effectively separate populations.

Habitat – a place where animals, plants, fungi, and micro organisms live.

Headwaters – upper tributaries of a river or stream; the water from which a river or stream rises.

HLS – Higher Level Stewardship: the higher scheme of Environmental Stewardship, targeted to priority features of environmental interest.

Improved land – land that has been improved for the purposes of agricultural production by the application of fertilisers.

Invasive alien species – species from other countries not naturally found in Britain, with a tendency to dominate communities to the detriment of native species.

Key habitats – included in the UK Biodiversity Action Plan because, the UK has international obligations, the habitat is rare or at risk or, the habitat is important for key species.

Lay-back land – areas of land used in the management of stock for conservation grazing.

Local Biodiversity Action Plan – plans produced at county, district, parish or similar level to interpret the actions of the UKBAP.

Mesotrophic – medium levels of agricultural or natural nutrient enrichment.

Niche – the unique set of resources used by a species within an ecosystem.

OELS – Organic Entry-Level Stewardship; the organic entry scheme of Environmental Stewardship.

PAWS – Plantation on Ancient Woodland Site.

Priority species – those species on the short and medium lists of the UK Biodiversity Steering Group Report (1995).

Ride – open trackways cut through woods originally for the extraction of timber. Rides are now important conservation areas for butterflies, other invertebrates and wild flowers growing there due to the increased sunlight along the woodland edge.

Riparian – living or growing along the banks of a river.

Semi-natural habitat – a habitat which is rich in biodiversity because of the joint influence of human and natural processes such as grazing.

Site of Importance for Nature Conservation (SINC) – non-statutory designation. Sites are identified as being of at least county significance for their habitats or species populations. Landowners, local authorities and others are encouraged to enter them into protective management agreements, and local authorities are also encouraged to steer harmful development away from them through recognition in local planning policies.

Site of Special Scientific Interest (SSSI) – an area of land notified under the Wildlife and Countryside Act 1981 as being of special nature conservation interest. The SSSI designation applies in England, Wales and Scotland. In Northern Ireland sites are known as ASSIs. Sites are notified by the appropriate country conservation agency; in England this is Natural England.

South East England Biodiversity Forum – forum attended by leading voluntary and statutory nature conservation organisations, with a remit to provide advice to regional government and coordinate biodiversity activity across the region.

Special Area for Conservation (SAC) – a site designated by the UK Government under EC Directive 92/43 on the conservation of natural habitats and of wild fauna and flora.

Special Protection Area (SPA) – a site designated under Article 4 of EC Directive 79/409 on the conservation of wild birds. Together SACs and SPAs form a network of European sites known as Natura 2000.

Sustainable development – development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

UK Biodiversity Action Plan – the UK's priorities in biodiversity conservation formulate a series of focused action plans designed to achieve these objectives.

Unimproved grassland – usually botanically rich grasslands not improved agriculturally by recent ploughing, drainage or fertiliser application

Whole farm management plan – a management plan to incorporate the conservation of species and habitats across a whole farm as part of sustainable farming practice.

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Photograph on the front cover is of a brown hairstreak by Philip Precey. Photographs on page 3: barn owl by Elliot Smith, otter by Stewart McDonald, brown hare by Damian Waters, little egret by David Longshaw and Small Blue butterfly by Ian ralphs.