

Local authorities and the  
protection and management  
of ancient woodland

No. 250 - English Nature Research Reports



working today  
for nature tomorrow

English Nature Research Reports

Number 250

**Local authorities and the protection and management of  
ancient woodland**

Christine M. Reid  
English Nature  
Northminster House  
Peterborough  
PE1 1UA  
01733 455000

ISSN 0967-876X  
© Copyright English Nature 1997



## Contents

<b>Acknowledgements</b> .....	2
<b>Preface</b> .....	2
<b>Introduction</b> .....	3
Methodology .....	4
<b>Woodland Characteristics</b> .....	4
Table 1: County and Ancient Woodland Statistics .....	4
Hampshire .....	4
Hertfordshire .....	5
Lake District National Park .....	5
Lancashire .....	5
Northamptonshire .....	5
<b>What are the main issues and problems affecting ancient woodland?</b> .....	6
<b>Who is involved with ancient woodland policy and management (internal and external)?</b> .....	8
Table 2: Specialist staff involved with ancient woodland .....	8
<b>How well is ancient woodland protected?</b> .....	9
Structure and Development Plan policies .....	9
Nature conservation strategies .....	9
Designated sites. ....	10
<b>Positive action to overcome ancient woodland problems</b> .....	11
Table 3: Examples of positive action to overcome ancient woodland problems .....	11
<b>Research and Education for ancient woodland conservation and management</b> .....	13
Table 4: Local Authority research and education for ancient woodland ....	13
<b>How can English Nature help?</b> .....	16
Table 5: English Nature's input .....	16
<b>Conclusions</b> .....	17
<b>Appendix 1: Questionnaire</b> .....	18
<b>Appendix 2: County Ancient Woodland Maps</b> .....	20
<b>Appendix 3: Summary of key policy instruments</b> .....	26
<b>Appendix 4: Progress on local Biodiversity Action Plans</b> .....	27
<b>Appendix 5: Digitisation of ancient woodland boundaries</b> .....	30
<b>Appendix 6: Publications</b> .....	36



## **Acknowledgements**

The following local authority staff generously gave their time and knowledge to provide the information which forms the substance of this report:

Alan Fishwick, Assistant Chief Planning Officer, Lake District National Park

Nigel Blandford, Wildwood Project Officer, Hertfordshire

David Pape, County Planning Officer, Hampshire

Nik Bruce, County Ecologist and Dave Brackley, County Forester, Lancashire

Sonia Percival, Tree/ Landscape Officer, Northamptonshire

English Nature local team staff also provided examples and comments, and Greg Smith gave help and advice.

## **Preface**

There are a confusing array of local authority policies and planning tools which could be employed to benefit ancient woodland conservation in England. Nature conservation staff from English Nature's Local Teams, from the voluntary wildlife sector, and from local government may find ideas in this report for policies and practices that they could promote locally to help overcome some of the problems encountered in the protection and management of ancient woodland.



# **Local Authorities and the Protection and Management of Ancient Woodland**

## **Introduction**

Ancient woodland (and particularly semi-natural ancient woodland) is considered by English Nature to be of the highest value for nature conservation. These woodlands are also important for their contribution to creating attractive landscapes, their link to our cultural heritage, and for recreation and education. Our Inventories of Ancient Woodland portray major losses of this valued habitat since the 1930s - both its total area (with resulting fragmentation of the habitat) and its quality (much semi-natural ancient woodland has been planted with conifers). In addition, traditional management practices have often been discontinued, resulting in species loss.

A major thrust of English Nature's woodland policy is therefore to promote the protection and positive management of the remaining ancient woodland. This is done through a number of means such as influencing government forestry policy (for example to promote better targeting and utilisation of forestry grant schemes where they will benefit nature conservation), and designating Sites of Special Scientific Interest (and National Nature Reserves), which are legally protected. However, only about 20% of ancient semi-natural woodland is protected through the SSSI system.

Local authorities can have a considerable impact on the protection afforded to ancient woodland through the planning system, and on woodland management through other policies and initiatives. The treatment which ancient woodland receives in such plans, policies and initiatives varies considerably between counties and authorities within counties, which may affect the way publicly-owned woods are managed and the motivation of private woodland owners to manage their woods appropriately.

This study seeks to identify examples of local authority 'best practice' in ancient woodland protection and positive management. Some of the policies and practices illustrated here could be promoted and applied more widely to achieve consistently good ancient woodland conservation across the country.



## Methodology

A geographically diverse group of five county local authorities was selected for the study, to illustrate areas with different woodland characteristics and issues, and a range of best practice solutions. Where relevant, examples from other areas are also included. Each local authority completed a questionnaire (*Appendix 1*), and sent helpful extracts from recent documents regarding ancient woodland policy and practice. An interview was conducted with forestry and ecology staff at Lancashire County Council to supplement the questionnaire. This study is largely based on their replies.

## Woodland Characteristics

**Table 1: County and Ancient Woodland Statistics**

LA	County Statistics		Ancient Woodland Statistics (over 2 ha)			
	Area (hectares)	Population density (people per ha)	% of county covered	Total area (hectares)	Semi-natural area (hectares)	% of all AW that is semi-natural
Hampshire	378 022	4.2	6.7	25 434	15 992	63
Hertfordshire	163 416	6.1	3.3	5 453	3 408	62
Cumbria	682 455	0.7	2.3	15 507	9 719	62
LDNP*	229 200	0.2	6.2 (all blv wood)	14 260 (all blv wood)		
Lancashire	306 951	4.6	0.9	2 703	2 252	83
Northamptonshire	236 737	2.5	3	6 998	2 486	35

\* Lake District National Park

See **Map** for each county (*Appendix 2*).

### Hampshire

Hampshire has a large amount of lowland ancient woodland of high nature conservation value. The New Forest includes hundreds of hectares of ancient semi-natural woodland which is mostly designated as SSSI, and, it is a proposed Special Area for Conservation which recognises its

international importance. There is a relatively high population density which is greatly increased by influxes of tourists. Recreation pressure on ancient woodland is therefore high. There is a long tradition of woodland management and craft skills which are being revitalised through local authority initiatives.

### **Hertfordshire**

Hertfordshire is a small densely populated county on the outskirts of London. The existing ancient woodland tends to be comprised of (sometimes large) fragmented blocks, scattered throughout the county. The woods contain some of the more unusual woodland vegetation types such as oak hornbeam woodland. The local authority has some pioneering initiatives with which it hopes to encourage active management of neglected sites.

### **Lake District National Park**

The Lake District has numerous small (often less than 5 hectares) upland woodlands, however, a feature of this area are the extensive valley side woods such as those of Borrowdale and Duddon Valley. The area is of outstanding importance for woodland wildlife containing a huge variety of woodland vegetation types. The National Park Authority owns 700 ha of mostly broadleaved woodland, and is involved with projects (eg Cumbria Broadleaves and ESAs) to encourage appropriate management of privately owned woodland within the National Park. New planting to extend existing ancient woodland is also being promoted. The population density is very low but the area is heavily used for recreation purposes.

### **Lancashire**

Lancashire has a very small ancient woodland resource (and large areas of commercial conifer plantations), however the majority of it is semi-natural, and there are some nationally important woodland types such as the oceanic oak birch woods with abundant bryophytes. The local authority is working with farmers to encourage them to value and extend the woodland fragments on their farms.

### **Northamptonshire**

Much of the ancient woodland in Northamptonshire has been replanted with conifers, and semi-natural sites are suffering from neglect. Many of the woods are much fragmented elements of the Royal Hunting forests. The local authority is working on projects to restore the ancient woodland

landscapes and traditions of the past.

## **What are the main issues and problems affecting ancient woodland?**

The five counties selected for this study illustrate a fairly typical suite of the problems affecting ancient woodland across England.

Hertfordshire, as an urbanised county on the outskirts of London, was the only county which identified loss of ancient woodland to other land uses as a problem. There was particular concern that ancient semi-natural woodland which is less than 2 hectares in size - and thus is not listed on the Ancient Woodland Inventory - is more vulnerable to such development pressure and loss.

Several local authorities (*eg* Northamptonshire and Hertfordshire) recognise that in the past, much ancient woodland has been replanted with conifers, and there was some concern that the forestry grants available under the Woodland Grant Scheme still allow restocking of these Ancient Replanted Sites with conifers.

Lack of management and poor management of ancient woodlands are highlighted as issues in all counties where they have resulted in species loss and degradation of specialized habitats. There are many reasons for these management problems: in some areas of the Lake District heavy grazing by sheep and deer is causing a lack of regeneration and disturbance of the ground flora (it is recognised however, that grazing may not always be detrimental at least in the short-term, and at the right level may be beneficial to some woodland communities); in Lancashire small farm woods are facing neglect largely because of the lack of a forestry culture in this poorly wooded county; in Northamptonshire traditional coppice management systems have been abandoned because of the high cost of labour and lack of markets for the products; in Hertfordshire the small size and fragmented nature of the woodland resource results in very high management costs which reduces the incentive to manage.

Several local authorities felt that the payments offered under the Forestry Authority's Woodland Grant Scheme (and in the uplands under MAFF's ESA payment tiers) are not nearly large enough to make forestry economically competitive with agriculture, discouraging uptake of woodland management. Where grazing is an aspect of management the scheme may fall between the

agricultural and woodland management regimes of different agencies, thus adding confusion for the claimant. Grants such as the Woodland Improvement Grant and the Livestock Exclusion Annual Premium may help in certain situations. Funding opportunities through the Heritage Lottery Memorial Fund or European LIFE funds could make important contributions in the future, but can be difficult to acquire. Community Forest sites (eg in Lancashire) do, however, attract extra funding. The ability to combine different grants and payments without breaking “treasury rules” was seen as important in securing adequate resources. It was felt that incentives should relate to individual owner objectives as well as the strategic views of the countryside agencies.

Some issues which were a problem in the past are declining (eg damage from acid rain in the uplands, or illegal felling outside the licence system), whilst new management issues, such as increased pressure from recreation, are arising. In Northamptonshire, for example, the creation of hard surface paths for horse riders have meant that ride-side ground flora is being destroyed.

## Who is involved with ancient woodland policy and management (internal and external)?

**Table 2: Specialist staff involved with ancient woodland**

STAFF	Project officer	Ecologist	Forester	Consultants	Views/ needs expressed by LA
Hampshire	1	4		Woodland advisor	A good staff compliment; work is being increasingly contracted out
Hertfordshire	1	Consult with Envir. Records Centre			A multi disciplined woodlands officer would be useful, and a wider coverage for the Project (presently confined to SE Herts)
Lake District National Park		2	1 + estate staff		There are other staff who deal with general countryside issues including forestry, making the staff compliment adequate with the help of other agencies.
Lancashire		2	1		
Northamptonshire	4				Forestry specialist would be useful but woodlands are a small part of the work

Local authority staff directly involved with ancient woodland policy and management are foresters, ecologists, planners and special project officers. For the counties studied, the staff compliment was in most cases considered good or reasonable, particularly where there were good working relationships with the statutory agencies and voluntary wildlife conservation sector. All of the local authorities liaised with the Forestry Authority and English Nature over operational matters relating to ancient woodland (eg felling licences, or Woodland Grant Scheme on SSSIs), and very often sought advice or discussion over strategic issues. Recent changes to the Forestry Authority's WGS consultation process have meant there will be less consultation of Local Authorities over the smaller WGS applications, causing concern that some woodland conservation issues may be missed. The use of consultants to carry out particular research or planning tasks or provide advice is becoming more common. Environmental Records Centres are seen as a key source of information and expertise for some local authorities. Three of the authorities consulted had established project teams (or funded project posts) which deal with countryside and/ or nature conservation issues, two of these concentrate particularly on promoting woodland management (Hertfordshire and Hampshire). The Lake District National Park (LDNP)

staff form the equivalent of a project team dealing with all natural habitats. The success of this type of arrangement depends to a large extent on good liaison and partnership with other organisations.

How to maintain knowledge of current woodland practice and thinking was seen as an issue for local authority staff, and liaison with other organisations can improve this. Networking groups such as ALGE (Association of Local Government Ecologists) have a key role in spreading best practice and ideas. Woodland liaison groups or forums have also been formed between the statutory, voluntary and land management sectors to spread ideas of best practice, raise issues and promote communication. Database information on recent publications relating to woodland management *etc.* could be made more widely available, for example via the Internet.

### **How well is ancient woodland protected?**

A mixture of development plans, strategies and designations are being used to help protect ancient woodland (*Appendix 3* gives a summary of key policy instruments).

**Development Plan policies.** A Development Plan includes Structure Plans, Local Plans and Unitary Development Plans. Structure plans should provide a strategic framework for the production of local plans and development control. They must include policies for wildlife conservation and encourage the management of features of importance for nature conservation. The EC Habitats Regulations and Planning Policy Guidance 9 (Nature Conservation) have encouraged local authorities to include strong nature conservation policies within Development Plans. They indicate that key sites of nature conservation importance should be identified (which may include most ancient woodland), along with designated sites such as SSSIs or Ramsar sites. Particular emphasis is on a strategic and tiered approach to protect these sites, which places greater emphasis on internationally important sites. Development Plans can help protect a wood against clearance due to a change of land use, but have no policies for protection against management decisions within a wood as this lies outside the remit of the Town and Country Planning system.

**Nature conservation strategies** are used by some local authorities to outline the aims for nature conservation and proposals for the management of wildlife habitats. They highlight the value of the wildlife resource (including listing sites of nature conservation importance) and can then be

used to defend it in development plans. These documents should avoid being so general that the opportunity to provide meaningful guidance for improved protection and management is missed. At the Convention on Biological Diversity at Rio in 1992, the UK government signed up to producing a **Biodiversity Action Plan** which lists specific costed targets for key species and habitats, including many associated with woodland. These targets are being produced jointly by English Nature, wildlife trusts, local authorities and the voluntary wildlife sector through the BAP steering group. Local authorities are heavily involved with meeting the targets at the local level and many are involved in producing local BAPs, which in some cases will replace nature conservation strategies. For individual species and habitats listed in the UK BAP (eg upland oakwoods or parks and wood pasture), local authorities may also be producing plans. Hampshire and Lancashire are proposing to re-issue their current strategies in response to the Biodiversity Action Plan. For Lancashire, the intention is to base the new strategies on the series of 1000 Biological Heritage Sites in Lancashire of which about half are woodland. These new documents hope to have specific targets for protection and management of ancient woodland, and methods by which these could be achieved. *Appendix 4* is a preliminary list of those local authorities which have produced local BAPs for woodland types.

**Designated sites.** Sites of Special Scientific Interest and Local Nature Reserves afford legal protection of a site within the constraints of the planning system, and are far more easily defended from development proposals than non-designated sites. Local Nature Reserves can be designated by local authorities after consultation with English Nature who will consider the strategic value to wildlife of designating the site. Second tier nature conservation sites (known as Sites of Nature Conservation Importance, Prime Sites, Listed Wildlife Sites, Biological Heritage Sites *etc.*) may also be identified by the authority and given protection in the planning system, however the protection such sites receive is variable amongst authorities. Criteria for site selection had been identified by most authorities consulted - these may be devised in collaboration with Wildlife Trusts or English Nature. In some cases all ancient or ancient-semi natural woodland is included as a second tier designation. At present ancient woodland is purely a historical classification and not a designation, and it is entirely discretionary as to whether local authorities subject it to similar policies as the statutorily designated sites.

## Positive action to overcome problems of ancient woodland conservation

The majority of the problems for nature conservation faced by ancient woodland stem from a lack of management or from inappropriate management. There are a number of common approaches that local authorities are adopting to overcome these recurring problems.

**Table 3: Examples of positive action to overcome ancient woodland problems**

LA	ACTION		
	Projects	Landscape Strategies	Advice and Grants
Hampshire	Wessex Coppice	Landscape Strategy with criteria and prescriptions on planting and management of woodland	Grant aid for private coppice restoration, fund officer for Wessex Coppice
Hertfordshire	Wildwood Project	Co-ordinated management zones for woodland	Grant aid for Community Forest work, and provide advice through Project
Lake District National Park	Native Woods Initiative; Cumbria Broadleaves	Woodland policies are integrated with other land uses in the National Park Management Plan	Provide grants for work not assisted by other agencies, and labour and materials for other work
Lancashire	Lancashire Woodland Project	Environmental Action Program, and Indicative Forestry Strategy	Community Forest support, advice through Project
Northamptonshire	Woodland Management Initiative	Landscape Guidelines and Strategy for woodland creation and management	Provide advice and grant through the Countryside Management Service

Most of the local authorities surveyed had set up or were involved in a project or initiative focused particularly on woodlands or on an aspect of woodland management. These projects may be in partnership with outside organisations or with other sections within a local authority (eg ecology, forestry, archaeology and planning). The Native Woods Initiative, for example, is a joint national initiative between the National Park Authorities and the Forestry Authority which the LDNP authority have developed locally by involving a range of agencies and major landowners. Partnerships can improve the credibility of a project and give it a greater breadth of staff experience and skills, leading to improved successes. Often, however, there is little monitoring, so it is difficult to attribute success or change in management to any particular project or scheme.



The objectives and methods of the projects are varied, some having a wider scope than others. Many of these “special” initiatives or projects are set up with funding for a limited period which may not be long enough to establish definite and enduring change.

To target the use of limited resources to benefit nature conservation, several local authorities have adopted a strategic approach for new woodland creation and existing woodland management. Creating new woodland can benefit ancient woodland by, for example, reducing fragmentation of sites and diverting recreation pressure from existing sites. In Hampshire there are plans to create new forests at Eversley and Bere (potentially funded through a Millennium bid) which are in part designed to reduce recreation pressure in the New Forest. In the Lake District the New Native Woods initiative is encouraging the planting and natural regeneration of native woodland types which are rare or under-represented, thus improving the long term survival opportunities for associated species. Lancashire has produced an Indicative Forestry Strategy<sup>1</sup> which it hopes will encourage new woodland in places which will be of most benefit to nature conservation whilst taking account of the many other needs of woodland management objectives (distance from markets, landscape effects, potential for recreation and so on). The Local authority hosted a seminar for investment foresters as a means of encouragement and advice for new planting.

Well-wooded counties have more need of improved woodland management than of new woodland planting and so some Local authorities (such as Hertfordshire or Hampshire) felt that Indicative Forestry Strategies were an inappropriate means of strategic planning. In the Lake District National Park a separate woodland/ forestry strategy was felt to be inappropriate as it was seen as preferable to integrate all semi-natural habitats and land-uses when planning in this case. In Hertfordshire, therefore, a new Woodland (management) Strategy is planned which is intended to provide guidance for woodland owners and managers to encourage them to submit successful Woodland Grant Scheme applications and thus bring more woodland into management. Areas will be highlighted in the strategy as Co-ordinated Management Zones where groups of woodland owners will work together to improve woodland management through economies of scale. All authorities stressed that some form of strategy could be useful, but their success in initiating change depended on their interpretation and implementation, including the provision of adequate

---

<sup>1</sup>In 1992, the DoE circular 29/92 *Indicative Forestry Strategies* was issued to local authorities to encourage them to promote the right sort of new forest planting in the right places to meet the needs of local people, the economy and the environment.

resources.

Local authorities often provide grant assistance and (largely free) advice for woodland owners under the auspices of the woodland initiatives (see **Table 3**). It was felt that grant aid generates positive support and good relationships with the private sector in particular, and encourages owners to spend their own money on management if part of the costs are covered. Advice on woodland management can take the form of demonstration sites (*eg* on local authority managed reserves and other sites) and day courses which have proved successful in Lancashire and Hertfordshire. Advice on woodland product marketing and businesses has also been welcomed, for example the Lake District National Park financed a feasibility study on charcoal production in 1987, and several charcoal businesses have since established.

## Research and Education for ancient woodland conservation and management

**Table 4: Local authority research and education for ancient woodland**

LA	Research		Education for the public	
	Data held/ Surveys	Projects funded	Open days/ walks/ talks etc	Training Courses/ Publications
Hampshire	Computerised biological record covering 2000 ancient woodlands	Game birds in coppice woodland; Deer control	Open days on woodland crafts <i>etc</i> , guided walks	Training courses on woodland (coppice) management; publications
Hertfordshire	Use the Biological Records Centre	Public attitude to woodland management; Management zones; Hornbeam hedge banks	Craft days; participatory guided walks	
Lake District National Park	Survey using Stand Types	Landscape change survey (with CoCo)	Involved in the Woodland Education Program, guided walks, open days	Cumbria Broadleaves training program; work with BTCV has a training component
Lancashire	Survey for Biological Heritage Sites	Farm forest budget models project	Rangers trained to give guided walks;	Demonstration days to give examples of management; leaflet on New Native woodland produced

Northampton shire	"Northamptonshire 100" (list of 100 species/ habitats seen as priority for action); GIS mapping including ancient woodland	Extent and condition of coppice	Forest fairs; support to tree warden and pocket park volunteers	Training through Countryside Management Team
-------------------	--	---------------------------------	---	--

**Survey data** was seen as important for assessing the value of the natural environment and how it is changing through time, and identifying gaps in knowledge. It is used to guide the selection of designated sites (Hampshire has designated several new Local and National Nature Reserves in recent years based on survey data) and inform landscape strategies. The Lake District woodland survey using Peterken’s Stand Types has been used to underpin the preparation of woodland management plans.

Data held and used by local authorities varies in its quality and extent. In some counties such as Hertfordshire there are strong links with Biological Records Centres who employ ecologists to undertake surveys. Several local authorities stressed the need to reduce the “noise” of data available and make it as meaningful as possible. There is too much data being collected but not used efficiently. Northamptonshire is hoping to try mapping target or indicator species rather than using the entire range of species data available. The development of databases and Geographic Information Systems needs to be co-ordinated between datasets and departments to achieve a complete and useful environmental record.

The Forestry Authority, English Nature and the local authorities are undertaking a joint project to digitise the boundaries of the ancient woodland inventory so they can be used as a layer in a GIS (details are given in *Appendix 5*).

**Table 4** illustrates the variety of **research projects** which have been funded by the local authorities. These tend to address specific issues and the results are then used to direct funding or other actions or as demonstrations to convince owners of the benefits of a particular technique. For example the Lancashire Farm Forest Budget Models project is hoping to demonstrate to farmers the likely benefits and drawbacks of woodland planting and management on farms under different circumstances so that they can make informed choices and hopefully turn around the lack of forestry culture in the farming community. The Woodland Management Zones trial project in Hertfordshire is trialing ways of regrouping fragmented woodland landscapes and achieving sustainable management through economies of scale. It is hoped that other woodland

owners will see the benefits of this approach and seek advice in adopting similar techniques.

**Education** efforts by the local authorities have generally been well received by the public. They concentrate on raising the profile of woodlands and their diverse values, and encouraging understanding of woodland processes and management. More formal training courses or demonstrations for owners and managers of woodland have also been successful, however implementation and take-up of suggested management does depend on follow-up support from the local authority and other organisations.

## How can English Nature help?

The above examples illustrate ways in which local authorities are working towards achieving protection and appropriate sustainable management of ancient woodland, a goal shared by English Nature. There a number of areas where input from English Nature may be of assistance to local authorities, some suggestions are laid out below.

**Table 5: English Nature's input** \* indicates free leaflet/ report available now from English Nature - see *Appendix 6*

	How could English Nature help?	Current
<u>Problems and Issues</u>		
Loss of ancient woodland	Produce guidelines for planners and developers on identification of ancient woodland <2ha *.	Now available & AW inventories available (>2ha)*.
Restocking grants	Lobby the Forestry Authority to introduce new incentives for re-introduction of native trees on replanted ancient woodland.	
Poor management/ Lack of management	Lobby MAFF about ESA tier system in uplands; Contribute to EU research project on grazing management in woodland *; Support marketing initiatives; Report on deer management techniques *; Use NNRs for demonstration purposes; Study on WGS - is it achieving conservation objectives?; Campaign for better targeting of WGS; Produce guidelines on management (eg coppicing, minimum intervention, veteran trees and dead wood*, recreation *); Veteran Trees Initiative *; Habitat Restoration Project to reduce habitat fragmentation *; Focus group on recreation in semi-natural habitats; Selection of publications available on species recovery eg dormouse *.	In progress Support NSW Available now In progress In progress In progress  In progress Both to run for 3 years from 1996  In progress Available now
<u>Staff/ Liaison</u>	Provision of training for local authority staff eg NVC or woodland management.	Organised on an ad hoc basis

	<b>How could English Nature help?</b>	<b>Current</b>
<u>Protection policies</u>	Statutory input to LA development plans; Designation of SSSIs *, including the production of site management statements; Guidelines for developers on badgers and newts *.	In progress Available now.
<u>Positive action</u> Landscape/ -use strategies	Assistance, where requested, with developing Indicative Forestry Strategies*, Biodiversity Action Plans or other woodland/ nature conservation related strategies eg ancient woodland information available on a Natural Area basis *; Possible grant aid to Project/ Initiative work.	Work with Norfolk County Council and others in progress
<u>Research and Education</u> Survey material	Hold ground flora survey information for a number of woodland sites at Local Team offices, and some 'Phase 1' data; Currently updating the woodland NVC atlas for the UK *.	Available for viewing on request.  In progress

## **Conclusions**

The Local authorities included in this report were a diverse group covering about 15% of all county authorities. District authorities have not been covered, although locally they may have a significant impact on ancient woodland protection and management. The many different initiatives and ideas for ancient woodland policy and management which have been adopted by the local authorities examined here, could be adapted and employed by other counties, regions or unitary authorities. English Nature will endeavour to assist wherever possible with these initiatives, and encourage them where they are lacking, as one step towards achieving our common goal of protection and positive management of the remaining ancient woodland.



## ***Appendix 1: Questionnaire to local authority forestry/ ecology staff***

### **Information on the Protection and Positive Management of Ancient Woodland**

(The following questions are intended as a guide please don't feel restricted by them).

- 1. What in your opinion are the major problems/ issues affecting (ancient) woodland in your county, and how widespread are these?**  
(eg loss to developments or agriculture; fragmentation; neglect or poor management; not enough new planting; inappropriate new planting etc.)
- 2. By what means is the local authority (LA) working to overcome these problems or issues?**

#### ***(a) Staff/ Liaison***

- Does the LA employ a forester; ecologist or nature conservation adviser?
- Is there liaison with any of the nature conservation and forestry bodies (English Nature, Forestry Commission; County Wildlife Trusts; Environmental Records Centres; RSPB; BTCV etc)? - over which issues and how regularly?

#### ***(b) Statutory Protection***

- Does the LA have development plan policies which protect ancient woodland?
- Does the LA have a nature conservation strategy, which includes plans for ancient woodland?
- Has the LA declared any Local Nature Reserves within ancient woodland?
- To what extent is ancient woodland covered by the SSSI designation and what protection does this confer?

#### ***(c) Proactive Initiatives***

- Does the LA have a separate Countryside Management Unit or similar? To what extent does this deal with woodland issues?
- Has the LA compiled an Indicative Forestry Strategy? If not do you think this would be a useful approach to take?
- Does the LA support with financial or other assistance any Woodland Management Initiatives; Community Forest Initiatives; Forest Product Marketing schemes etc.?

#### ***(d) Research and Education***

- Has the LA undertaken (or contracted out) any research into woodland conservation or management?
- Does the LA promote woodland conservation and/ or management through education such as training courses/ demonstration days/ publications?



**3. How successful/ effective has this been? Please give reasons for your answers (numbered as in 2. above, some may not be applicable)**

***(a) Staff/ Liaison***

- Do you think the staff compliment is reasonable to carry out the work required on woodland issues?
- Is liaison with external conservation bodies helpful? Which contacts do you value the most?
- Do you consider the level of guidance/ training available to LA staff is appropriate? (eg with respect to new government commitments to biodiversity and sustainability for production of effective strategies and plans. Please give other examples of areas where improvements could be made, particularly where this could involve English Nature or other organisations).

***(b) Statutory Protection***

- Are development plan controls effective in preventing the loss of ancient woodland?
- Is the Nature Conservation Strategy of practical help in planning for ancient woodland conservation?
- Are the second tier conservation designations (LNR/ SNCI) as useful and as numerous as you would like to protect nature conservation interest?

***(c) Proactive Initiatives***

- Has the Countryside Management Unit (or similar) been a success in achieving its objectives?
- Do you think the Indicative Forestry Strategy will achieve its aims? (If not what would help?)
- Are grant aided woodland initiatives and schemes proving successful?

***(d) Research and Education***

- Has the research and education been well targeted and well received?

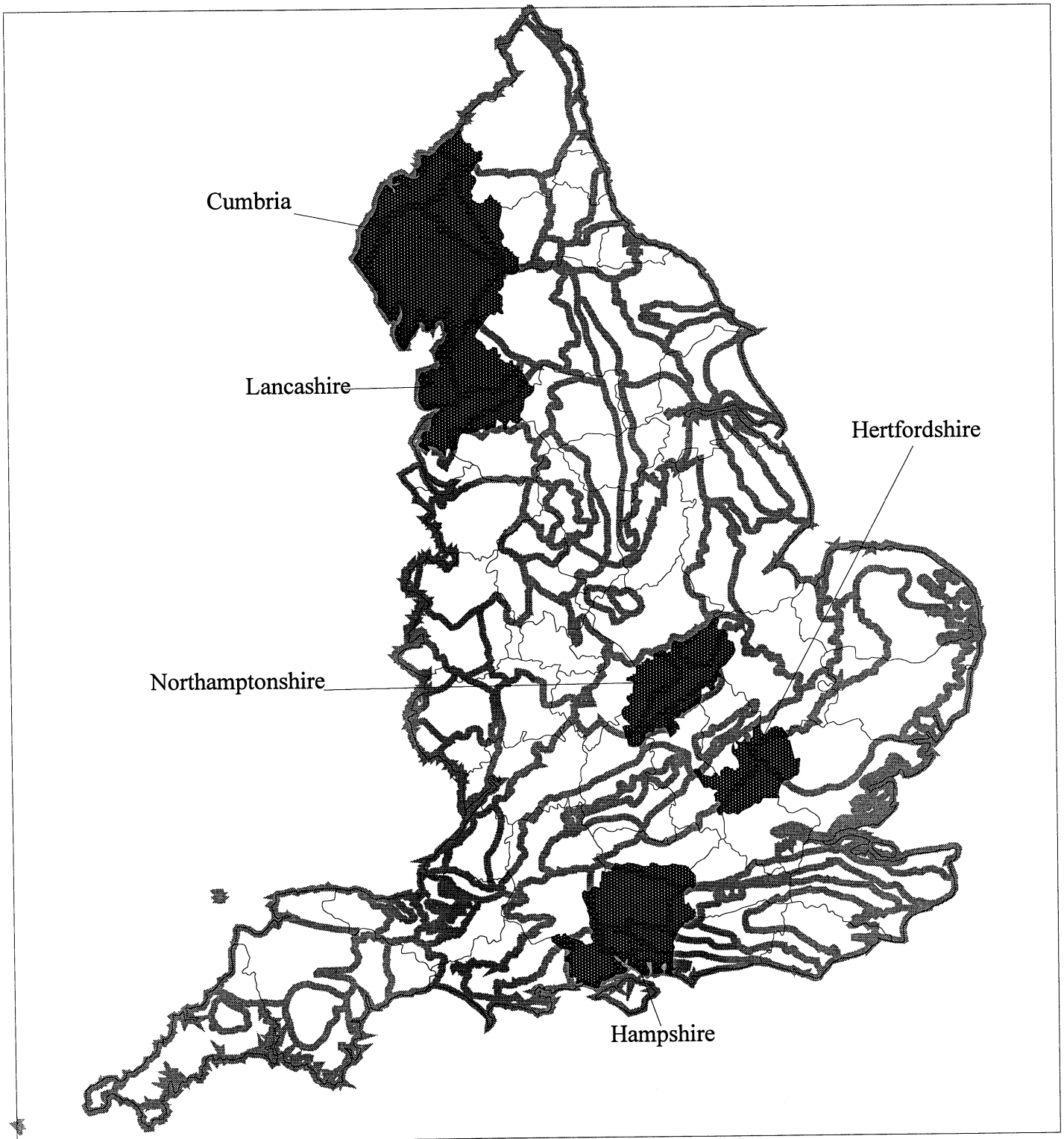
**4. Do you have any other comments on present or future actions or plans on woodland conservation?**

**Thank you very much for answering these questions.**

Please return your answers and comments to Christine Reid at  
**English Nature**  
**Northminster House**  
**Peterborough PE1 1UA**  
**Telephone 01733 318450 Fax 01733 68834.**

**Appendix 2:**

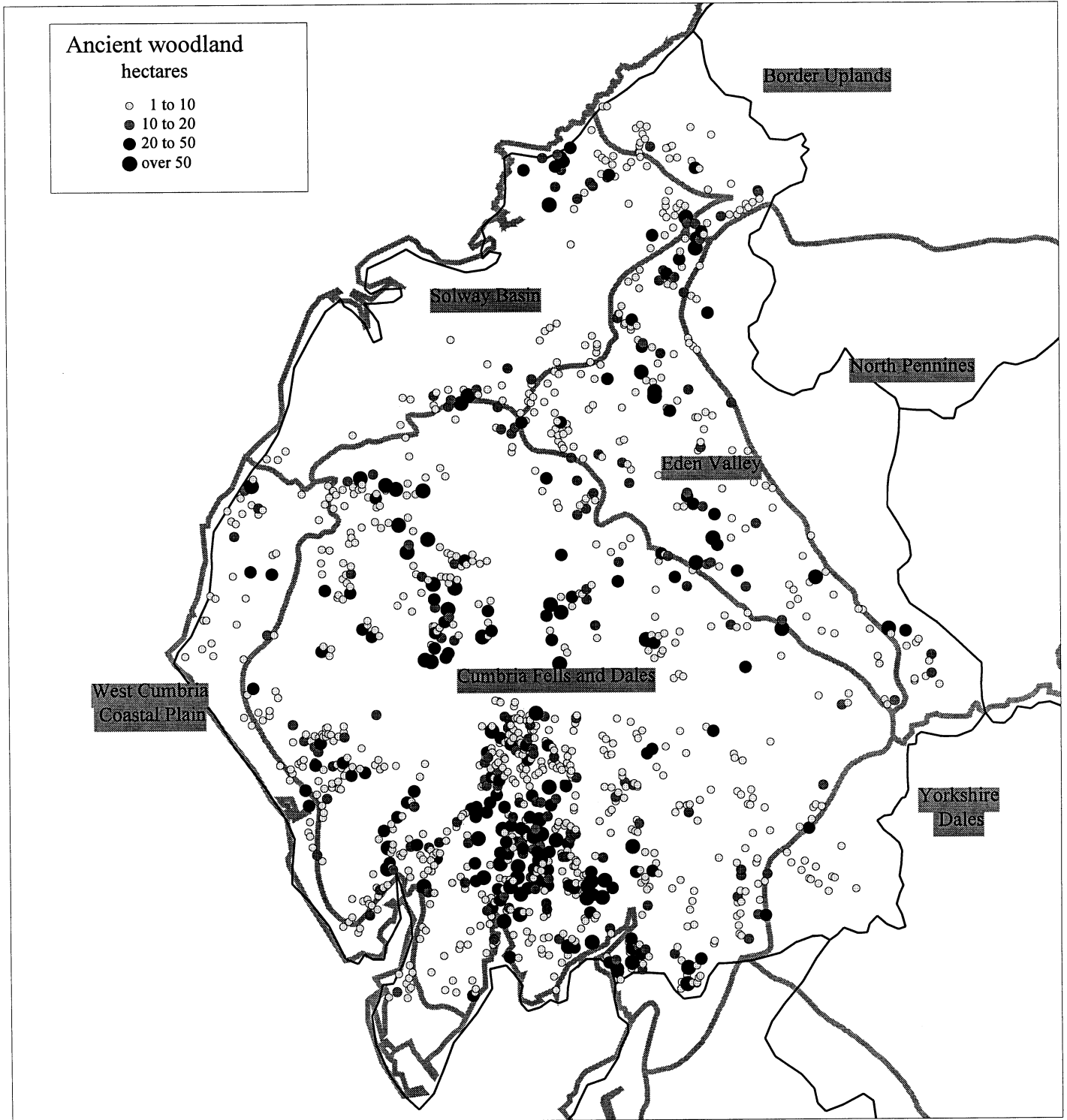
The following pages show ancient woodland distribution and Natural Areas in the counties covered in this report





Appendix 2:

Ancient woodland distribution and Natural Areas in Cumbria

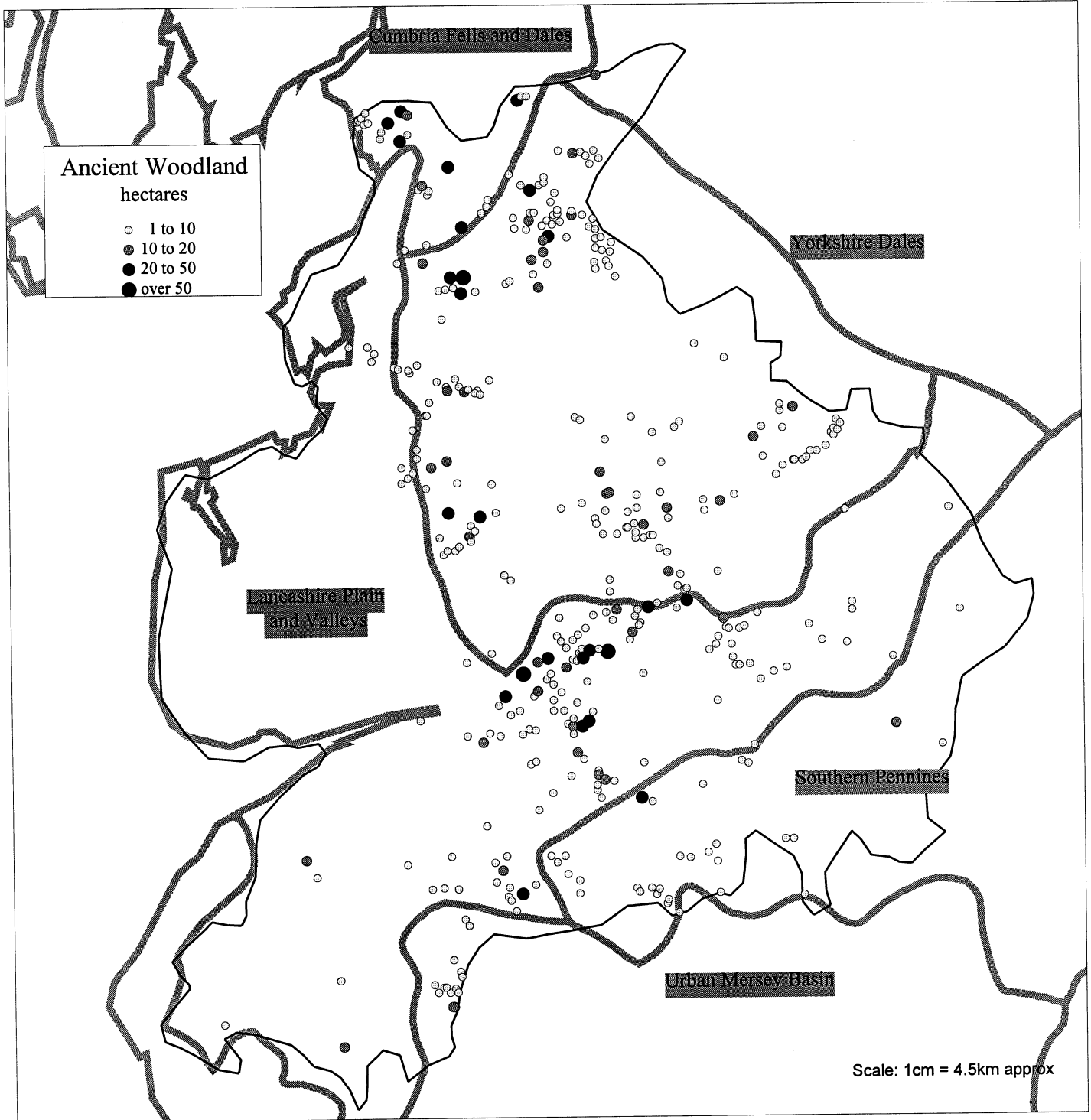


———— Natural Area boundary    **Eden Valley**    Natural Area name  
———— county boundary



*Appendix 2:*

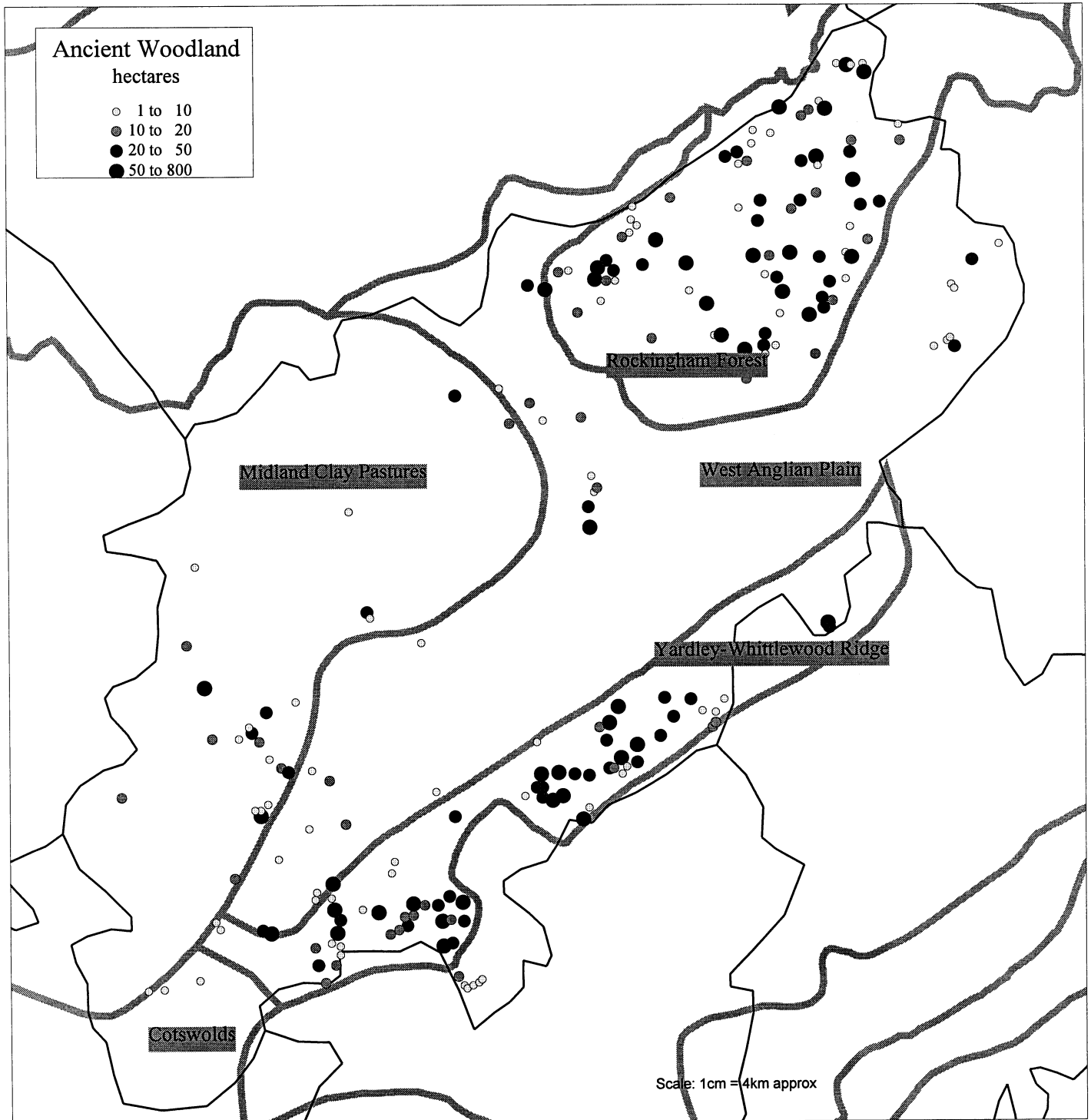
Ancient woodland distribution and Natural Areas in Lancashire





**Appendix 2:**

**Ancient woodland distribution and Natural Areas in Northamptonshire**

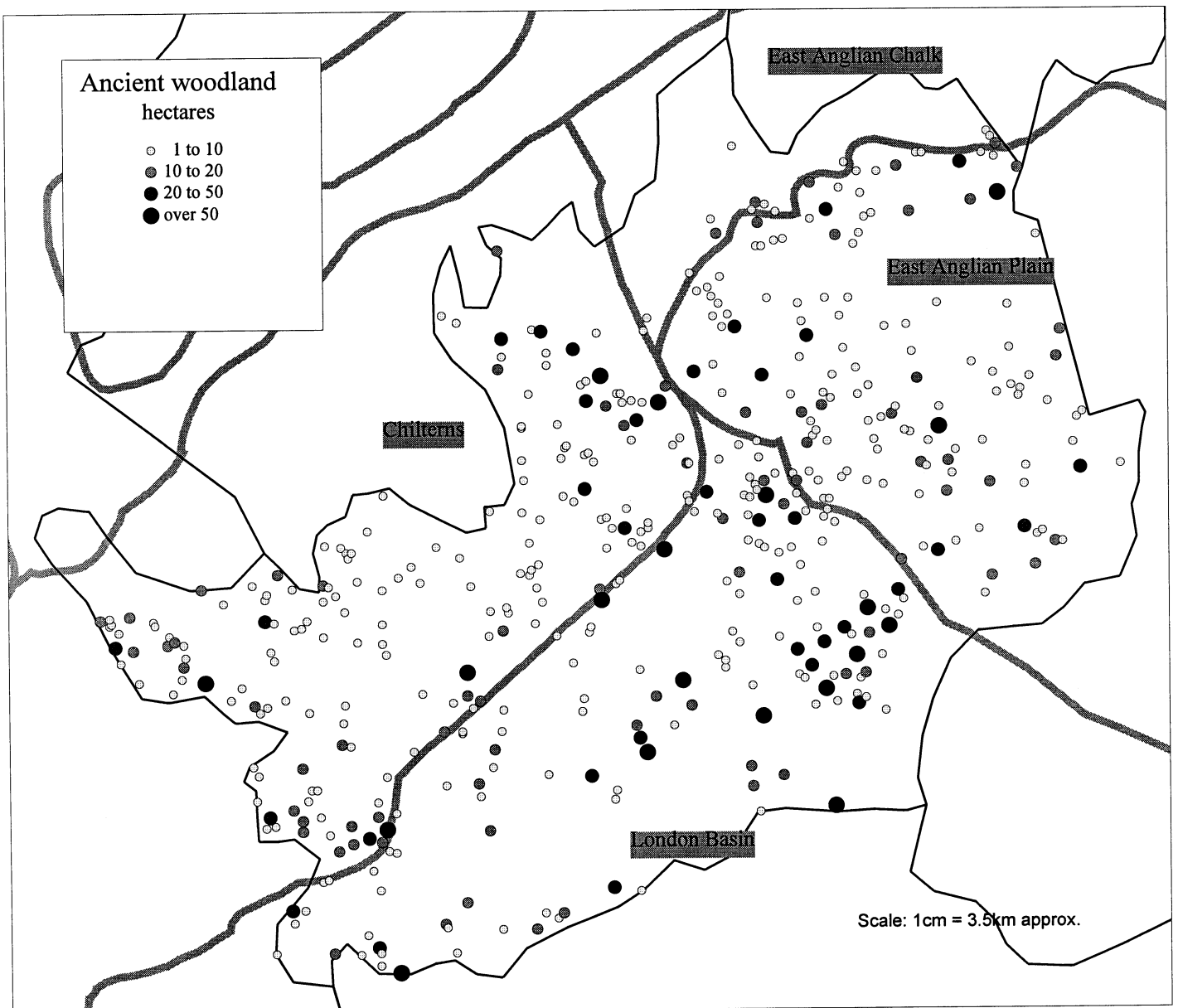






*Appendix 2:*

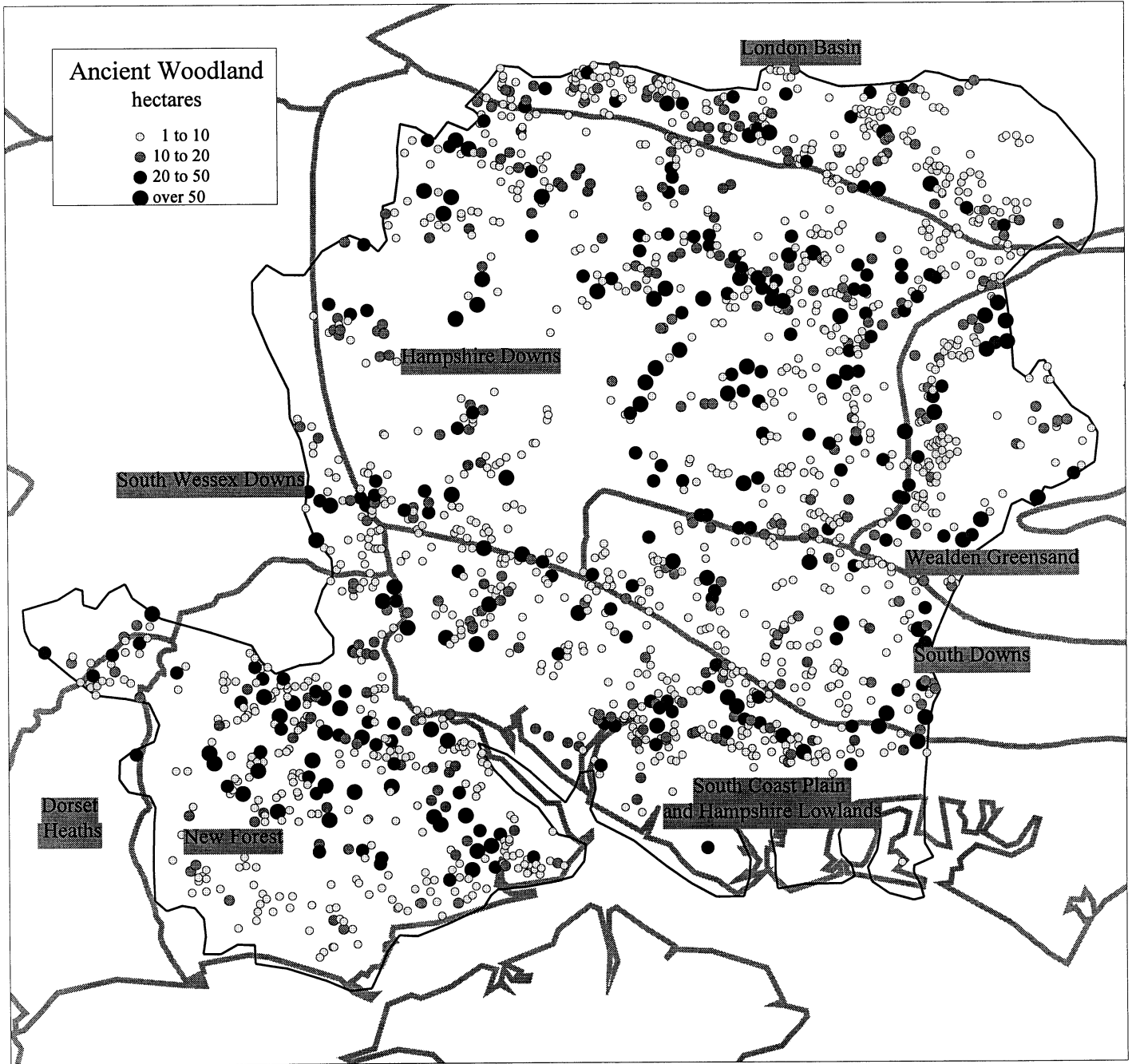
Ancient woodland distribution and Natural Areas in Hertfordshire





Appendix 2:

Ancient woodland distribution and Natural Areas in Hampshire



————— Natural Area boundary

**London Basin** Natural Area name

————— county boundary



### Appendix 3:

#### Summary of the main policy instruments available to local authorities to help protect and manage ancient woodland

Instrument	Use
<ul style="list-style-type: none"> <li>• compulsory purchase (eg under Article 4 of the General Permitted Development Order 1995)</li> </ul>	<p>Article 4 directions are used only in exceptional circumstances to remove permitted development rights - they can include compulsory purchase. Nature conservation could be a legitimate reason for proposing an Article 4 direction. LAs can be liable for compensation.</p>
<ul style="list-style-type: none"> <li>• Section 106 agreements or planning obligations (of Town and Country Planning Act 1990)</li> </ul>	<p>These can be imposed on the landowner either requiring tasks to be done or done in a specified way, or requiring tasks <u>not</u> to be done eg management or monitoring after a development.</p>
<ul style="list-style-type: none"> <li>• Section 39 agreements (of Wildlife and Countryside Act 1981)</li> </ul>	<p>These are the main nature conservation management agreements with landowners for LA's. These tend to be under used but can be very successful. EN can become involved in an advisory capacity.</p>
<ul style="list-style-type: none"> <li>• Tree Preservation Orders</li> </ul>	<p>These can be used to protect trees and woodland that are of amenity value, but not specifically for those of nature conservation value.</p>
<ul style="list-style-type: none"> <li>• Local Nature Reserve agreements (Section 21 National Parks and Access to the Countryside Act 1949).</li> </ul>	<p>LA may declare LNRs following consultation with EN, and should ensure the site is managed as a nature reserve.</p>
<ul style="list-style-type: none"> <li>• structure and local plan policies</li> </ul>	<p>These strategic and implementation policies often include clauses to protect ancient woodland from development. It is not generally within their remit to include management aspects.</p>
<ul style="list-style-type: none"> <li>• PPG 9 Nature Conservation (1994)</li> </ul>	<p>This document states the policy regarding nature conservation that is relevant to planning and how it should be used. Other PPG's may be relevant as well.</p>
<ul style="list-style-type: none"> <li>• Nature conservation strategies</li> </ul>	<p>NCS may still have a role in the future to set strategic vision but in many cases these will be superseded by BAPs.</p>
<ul style="list-style-type: none"> <li>• local Biodiversity Action Plans and Habitat Action Plans</li> </ul>	<p>Local BAPs and HAPs are the local interpretation of the UK BAP. Often a very large group of organisations is involved in their production, co-ordinated by the local authority in some cases. These will measure indicators of performance ie whether targets for biodiversity are being achieved.</p>
<ul style="list-style-type: none"> <li>• woodland initiatives</li> </ul>	<p>These take many forms but often are set up with local authority resources eg for 3 years then continue through sponsorship and other income.</p>
<ul style="list-style-type: none"> <li>• Indicative Forestry Strategies</li> </ul>	<p>These are intended to provide a strategic vision for the creation of new woodland and the management of the existing resource. They apply to all woodland, not just that with a high value for nature conservation. Only a few authorities have gone for this approach so far (see text).</p>



**Appendix 4:**

**Local Biodiversity Action Plans: progress on woodland**

*by Jeanette Hall (Woodland Liaison Officer for the Joint Nature Conservancy Committee) 1997*

Biodiversity: The UK Steering Group Report (HMSO 1995) listed six woodland Key Habitats:

- Upland Oakwood
- Native Pine Wood
- Lowland Beech
- Upland Mixed Ash Woodland
- Wet Woodlands
- Lowland Wood Pastures and Parklands

So far Costed Action Plans have been written for two of these (Upland Oakwood, Native Pine Wood), and plans for the other 4 should be available by the end of 1997. An additional two woodland Broad Habitats were also identified:

- Broadleaved and Yew Woodland
- Planted Coniferous Woodland

and Habitat Statements have been produced for them.

The costed plans will be implemented at a local level through Local Biodiversity Action Plans (local BAPs). In order to aid in the planning of this implementation an exercise was undertaken to collate information on existing local BAPs. Details of 67 local BAPs, including the names of local contacts for each, are given in the Wildlife Trusts Local Biodiversity Action Plan database. Information was sought from the local contacts and 49 replies were received. Of these, fifteen provided copies of their woodland action plans. These ranged from rough notes to published plans. In several cases the local organisers had decided to produce an audit of the area's biodiversity before writing a local BAP.

In addition to the local BAPs, which generally cover counties or districts, there are four regional plans covering East Anglia, the North West, The South West and the South East.

**The Current State of the local BAPs**

The stage reached by these plans so far can be summarised as follows:

<i>Stage</i>	<i>Number</i>
1. Very little done so far	17
2. HAP - initial stages, working on first draft	9
3. HAP - well underway, consultation on first or further drafts	7
<b>4. HAP - complete, some have been published</b>	<b>8</b>
5. Audit - initial stages, working on first draft	4
6. Audit - well underway, consultation on first or further drafts	0
<b>7. Audit - complete, some have been published</b>	<b>6</b>
<b>Total</b>	<b>51</b>



## **Appendix 4:**

The total is more than the number of people replying because some areas are undertaking Biodiversity Audits and Habitat Action Plans. Audits are currently being produced for Cumbria, Dorset, Lancashire (not yet started), Warwickshire and West Lothian; and have been completed for Cleveland, Cornwall, Lincolnshire, Peterborough, Purbeck (complete) and South West Region. Of these Cleveland, Lincolnshire, Purbeck and West Lothian are currently working on local BAPs; and Cornwall, Peterborough and South West Region have completed both.

### **Geographical Coverage**

The majority of England will be covered by the local BAPs already known of. Scilly is not covered but should be included in the South-West regional plan. It is likely that the whole of Somerset will be covered; although no final decision has yet been made to produce a plan for West Somerset District Council, each of the other district councils will be covered.

Wales, Northern Ireland and the Isle of Man will all be covered by local BAPs. In Scotland, however, there are only two LAPs (Fife and West Lothian) which, between them, cover a very small proportion of Scotland.

### **Woodland Types Referred to in the Plans**

The plans use varying terminology for woodland types. Those basing plans on the types in the national Biodiversity Action Plan are:

Durham which uses the Key Habitats of the national Biodiversity Action Plan with the addition of Planted Coniferous Woodlands (a Broad Habitat Type) and Juniper woodlands;

Norfolk and Suffolk which will produce local BAPs corresponding to the national ones when relevant national plans are produced;

South-West region which also uses national types with the addition of Ash-Maple Woodland which was selected for its regional significance.

Wales, which intends to use the national BAP types when it reaches the stage of writing local BAPs;

Berkshire, Buckinghamshire, Cumbria, Dartmoor, East Riding, Essex, Northumberland, Oxfordshire, Sheffield, Staffordshire, Tyne and Wear (North and South of the River) have not yet decided what woodland types they will produce plans for. Birmingham and the Black Country, Coventry, Devon, East Anglia, and Warwickshire provided no information on this issue.

The other areas are using their own woodland types as follows:

Cheshire Ancient/Ancient Semi-Natural Woodland, Recent Semi-Natural and Planted Woodland (Broadleaved and Coniferous), Lowland Wood Pasture and Parkland, Ancient and/or Species Rich Hedges, Scrub. They hope to produce plans for Key Habitats later.

Cleveland Semi-Natural Broadleaved Woodland, Planted Coniferous Woodland. Scrub and Hedgerows are included in the Boundary Features section.

Cotswold Water Park Ancient Woodland, Secondary Woodland and Scrub, Plantations (including conifers).

#### ***Appendix 4:***

Derbyshire	Ancient Broadleaved Woodland, Semi-Natural Broadleaved Woodland, Plantation (including Conifers). Scrub and Parkland and Scattered Trees will be done later.
Hertfordshire	Lowland Beech, Lowland Oak-Hornbeam, Lowland Ash-Maple, Alder Carr, Willow Carr, Scrub.
Kent	Woodland and Scrub, Wood Pasture and Historic Parkland, Old Orchards, Hedges.
Lancashire	the criteria used for the selection of County Biological Heritage Sites.
Leics and Rutland	Mature Trees, Pasture Woodland, Wet Woodland, Sessile Oak Woodland.
Lincolnshire	according to reserve status and whether they are ancient or not.
Isle of Man	Semi-Natural Broadleaved Woodland, Wet Woodland. Remnant Primary Woodland (mostly coastal oakwood) may also be included.
Mendip DC	Ancient Semi-Natural Broadleaved Woodland.
National Forest	Ancient Broadleaved Woodland, Semi-Natural Broadleaved Woodland, Plantation (including Conifers). Scrub and Parkland and Scattered Trees will be done later.
Northamptonshire	Wet Woodland, Lowland Wood Pasture and Parkland, Coniferous Woodland, Ancient Semi-Natural Woodland, Scrub, Veteran Trees, Dead Wood.
Peak District	Ancient Broadleaved Woodland, Semi-Natural Broadleaved Woodland, Plantation (including Conifers). Scrub and Parkland and Scattered Trees will be done later.
Peterborough	Ancient Woodland and Hedges, Secondary Woodland, Parkland and Old Trees, Pollard Willows, Willow Beds.
Sussex	Ancient Woodland, Coppice Woodland, Wood Pasture and Parkland, Recent Woodland and Commercial Forestry, Gills and Sandrock Exposures in Woodlands. It also has a new near-natural forest in the Sussex Weald.
Suffolk	Ancient Woodland and Planted Coniferous Woodland.
Taunton Deane	Ancient Broadleaved Woodland.
West Lothian	Native Woodland.
Worcestershire	Broadleaved Woodland.





# **Digitisation of ancient woodland boundaries**

**Christine Reid  
Dawn Isaac  
Martyn Potton**



## **Digitisation of ancient woodland boundaries**

### **A joint project between the Forestry Authority and English Nature with the help of local authorities**

#### **Introduction**

The boundaries of all ancient woodlands are being digitised in a joint project between the Forestry Authority (FA) and English Nature (EN) with the help of local authorities. Here, we report on the aims of the digitisation project, the methods we are using and the progress to date.

English Nature's Ancient Woodland Inventory identifies all woods believed to have been present since at least 1600 AD, and that are over 2 hectares in size. This includes over 22,000 sites covering a total area of 340,000 hectares or 2.8% of the surface area of England. The Inventory distinguishes between ancient woodland sites that remain in a semi-natural condition and those that have been felled and replanted with conifers (about 40%). The semi-natural ancient woodland is believed to be the most important woodland for nature conservation.

#### **Justification**

##### *Forestry Authority*

The Forestry Authority (FA) has started a National Inventory of Woodland and Trees. A key output is a digital map of all woodland over 2 hectares. Ancient woodland data will form one layer of this digital map and will be used to help inform woodland management decisions. Field work being carried out by the FA will collect a diverse range of data such as timber potential and structural diversity on sampled woodlands. The intention is to import the digital map and field data into a Geographic Information System (GIS).

##### *English Nature*

English Nature is responsible for keeping the inventory as accurate as possible and for using it to promote woodland conservation. Having the boundaries in digital form on GIS will enable the inventory data to be manipulated, analysed and combined with other data sets in a variety of ways not possible with paper maps.

##### *Local Authorities*

Increasingly, local authorities (L.A.s) are producing nature conservation strategies, Indicative Forestry Strategies and/ or Biodiversity Action Plans. Holding different environmental datasets in spatially referenced digital form (ie on a GIS) will help with planning and formulation of strategies to be implemented on the ground.

#### **Aims**

To digitise the boundaries of the Ancient Woodland Inventory so that they are available for use as a dataset on a digital mapping or GIS.

#### **Methods** (*Flow diagram* on page 3 summarizes the stages)

##### *Digitisation*

The Forestry Authority, at the England National Office in Cambridge, is digitising the boundaries of ancient woodland in all English counties. Where the boundaries have already been digitised by local

authorities and where the authority is willing, these boundaries can be incorporated into the project avoiding duplication of effort and resources. The boundaries are normally digitised from the 1:50,000 scale maps found in the county Ancient Woodland Inventory reports. In some cases 1:25,000 scale maps held by English Nature in Peterborough are being used by the FA.

*Validation*

English Nature is responsible for checking the digital boundaries (from the FA and L.A.s) against the original dataset and maps held at the EN head office in Peterborough. Where amendments are necessary (so far about 5-10% of all boundaries) these are marked up and returned to the FA or the appropriate LA for correction. Small funds may be available from EN to assist local authorities with the digitisation and amendments. The boundaries are now considered by EN to be accurate representations of the status of the ancient woodland resource.

*Data transfer*

After the data capture is completed by L.A.s, the data will be transferred to the FA so that all the data is in a standardized format. Validated data captured by both the L.A.S and FA is then transferred to EN (through the FA). EN is then responsible for further amendments to the data set. These can then be made available to the other organisations.

**Progress** (*Table on page 4 and 5 details the progress of the digitisation on a county basis*).

The FA hope to complete data capture for the counties they are working on by April 1997. We hope that the validation and data transfer program will be complete by December 1997.

**Resources and staff**

*FA*

Martyn Potton is the digitisation project manager at FA, and is responsible for a team of digitisation staff.

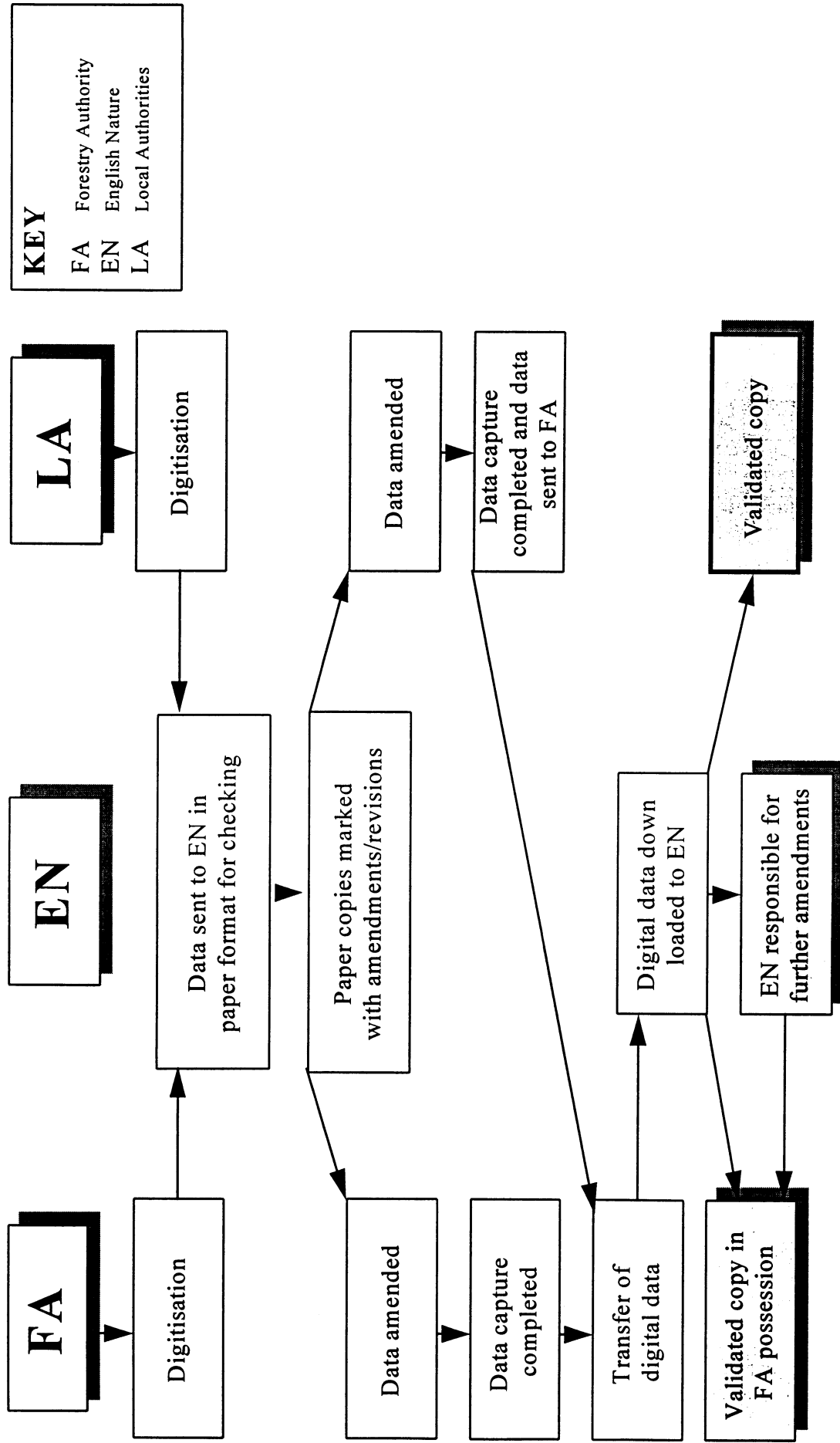
*EN*

The project manager from the EN side is Christine Reid based at Peterborough. Dawn Isaac is presently employed part-time to check the digital boundaries. Jonathan Budd of the Geographic Information Unit at English Nature is responsible for overseeing the technical aspects of transferring and storing the data for English Nature.

**General technical specifications**

The digital mapping system used by the FA to collect data is a Laser-Scan system using VMS Digital Alpha platforms. The GIS used by EN is an Intergraph system based on UNIX and Windows NT platforms. Within EN the data is also interrogated using MapInfo Professional. The method used to transfer data between the different systems is the Data Exchange Format (DXF) based on a layer structure, however, the FA also has the potential to transfer information through the National Transfer Format (NTF). The method of transfer between the FA and L.A.s will depend upon the structure of the data held by L.A.s and whether information, which needs to be retained, has been attributed to the line work.

JOINT DIGITAL DATA COLLECTION PROCEDURE





Appendix 5:

**Progress on FA digitisation**

Key- ✓ progress achieved as at March 1997

( ) expected date of achievement

County	No progress to date	Possible data available from others	FA Digitisation capture complete	Digitised maps checked	Data transferred to EN
Avon		✓			
Bedfordshire			✓		
Berkshire			✓	✓	(June 1997)
Buckinghamshire			✓		
Cambridgeshire			✓		
Cheshire			✓		
Cleveland			✓	✓	(May 1997)
Cornwall			✓		
Cumbria			✓		
Derbyshire			✓		
Devon			✓		
Dorset			✓	✓	
Durham			✓	✓	(May 1997)
New Forest	✓				
East Sussex			✓		
Essex		✓			
Gloucestershire			✓		
Greater London			✓		
Greater Manchester			✓		
Hampshire			✓	✓	(June 1997)
Herefordshire			✓		
Humberside			✓	✓	(May 1997)
Hertfordshire		✓			
Kent		✓			
Lancashire			✓		
Leicestershire			✓		
Lincolnshire			✓		
Merseyside			✓		
Norfolk			✓		
Northamptonshire		✓			
Northumberland			✓	✓	(May 1997)
North Yorkshire			✓	✓	(May 1997)
Nottinghamshire		✓			

Appendix 5:

County	No progress to date	Possible data available from others	FA Digitisation capture complete	Digitised maps checked	Data transferred to EN
Oxfordshire			✓	✓	
Shropshire			✓		
South Yorkshire			✓	✓	(May 1997)
Somerset			✓		
Staffordshire			✓		
Suffolk			✓		
Surrey			✓		
Tyne and Wear			✓	✓	(May 1997)
Warwickshire			✓		
West Midlands			✓		
West Sussex		✓			
West Yorks			✓	✓	(May 1997)
Worcestershire			✓		
Wiltshire			✓	✓	(June 1997)
Isle of Wight			✓	✓	✓



## **Appendix 6: Publications list (in order as for Table 5)**

All the publications below are available from the Enquires Service, English Nature, Northminster House, Peterborough PE1 1UA 01733 455101.

English Nature 1996 (booklet) *Guidelines for identifying ancient woodland* Peterborough, English Nature.

English Nature (1984 - 1997) *Ancient Woodland Inventories* (report, maps and database print-out) (available for each English county) Peterborough, English Nature

English Nature 1996 (booklet) *Grazing management to benefit upland woods* Peterborough, English Nature.

Putman, RJ 1994 *Deer management on National Nature Reserves* (English Nature Research Report No 173) Peterborough, English Nature.

English Nature 1997 (booklet) *Deer management and woodland conservation in England* Peterborough, English Nature.

English Nature/ Ancient Tree Forum 1996 (booklet) *Guidelines for the care of ancient trees* Peterborough, English Nature.

English Nature/ European Paintball Sports Federation 1993 (booklet) *Paintball games in woods - a guide to good environmental practice* Peterborough, English Nature.

English Nature 1996 (leaflet) *Veteran Trees Initiative* Peterborough, English Nature.

English Nature 1996 (leaflet) *Habitat Restoration Project* Peterborough, English Nature.

English Nature 1997 (leaflets) *Habitat Restoration Project Fact sheet 3 Woodland creation for wildlife; and Habitat creation bibliography: woodland* Peterborough, English Nature.

English Nature 1996 *Dormouse Conservation Handbook* Species Recovery Programme, Peterborough, English Nature £4.50

English Nature 1996 (leaflets) Species Recovery Programme information eg *Dormouse/ Red Squirrel/ Plymouth Pear* Peterborough, English Nature

English Nature 1994 (booklet) *What you should know about Sites of Special Scientific Interest* Peterborough, English Nature

English Nature 1995 (leaflets) *Badgers/ Great Crested Newts - Guidelines for Developers* Peterborough, English Nature

Kirby KJ, Miller H 1996 *Nature conservation input to Indicative Forestry Strategies* (English Nature Research Report No. 198) Peterborough, English Nature

Reid CM, Kirby KJ, Cooke R 1996 *A preliminary assessment of woodland conservation in England by Natural Areas* (English Nature Research Report No. 186) Peterborough, English Nature

Kirby KJ and Reid CM 1997 *Woodland and Forestry: Preliminary nature conservation objectives for Natural Areas* (English Nature Research Report No. 239) Peterborough, English Nature

Hall J 1996 *NVC database for woodlands* (English Nature Research Report No. 181) Peterborough, English Nature