Ancient and Semi-Natural Woodland HAP

1. Introduction

There is evidence in the pollen record of clearance and modification of British woodlands since the Neolithic period. Before this, in the period from the end of the last glaciation the majority of Britain was wooded, with the exception of mountain tops, coastal and very wet areas. It is now estimated that approximately 1% of Britain remains covered in ancient semi natural woodland (ASNW) i.e. woodland that has existed in its current location for at least 400 years and approximately 5% broadleaved woodland in general. This plan aims to provide a plan of action to conserve and extend all the different types of semi-natural woodland found in the NNP, including upland oak woodland, upland ash woodland and wet woodlands, habitats that have been placed on the UK BAP priority list. It does not include Juniper scrub woodland, which is covered in the NNP Juniper SAP that complements this plan. The plan is also complemented by SAPs for Black grouse, pipistrelle, aspen and red squirrel and the Rivers and Burns HAP. This habitat supports several UK BAP priority species including the dormouse and pine marten and it is envisaged that by protecting the habitat these species will also benefit. See end table for considerations. Woodlands have a role to play as carbon sinks and new woodlands should be looked at favourably in sustainability terms for the future.

This plan is complemented by the National Park woodland and landscape strategies, which describe the resource in each area of the Park and opportunities for expansion.

2. Current Status

National

Three types of woodland highlighted in the UK BAP are present in the Northumberland National Park. Throughout Britain upland semi-natural woods have declined by about 30-40% in area over the last 60 years. A rough estimate of upland ashwood in the UK is 67,500 ha. There are no precise figures for the total extent of upland oak woodland type, but it is believed to be between about 70,000 and 100,000 ha in the UK. Upland oak woods of Britain and Ireland are considered to be important in a European context due to their extent and the species they support. A rough estimate of the total wet woodland area in the UK is believed to be 50,000 - 70,000 ha.

Local

It is estimated that approximately 700 hectares, of the NNP is covered by ASNW. There are no figures for the extent of each type of woodland therefore they have been covered together in this plan, but it will be important to determine how much there is of each type within the NNP. The majority of the resource is found in cleughs and steep sided valleys in small and isolated fragments. The largest blocks of ASNW left in the Park include Hareshaw Dene, Holystone Woods, Billsmoor Park, and Harrowbog. Some ASNW is also found within the extensive blocks of plantation forestry within the NNP. ASNW add considerably to the landscape of the NNP, providing contrast between the open hill ground and in-bye fields. There are 9 SSSIs that are designated for their woodland interest and a further 2 that contain important areas of ASNW.

3. Factors causing Loss or Decline

3.1 Clearance – This is the major reason why most of the land in the NNP is devoid of ASNW. Most of this clearance happened long before modern times, indeed there is evidence to suggest that by the Romano- British period the majority had already disappeared. Clearance led to fragmentation and isolation of the remaining woodlands. Clearance of boundary features such as hedges as farming methods intensified has isolated fragments further.

3.2 Grazing – This is the major cause for concern in the remaining woodlands in the NNP. Stock use woodlands for shelter and eat seedlings, ground flora and browse bark and leaves in

the winter months. This prevents regeneration in the wood, which means that as older trees die there is nothing to replace them and the lifetime of the wood is limited to the life of the trees currently in it. The problem is often exacerbated by rabbits, hares, deer and/or wild goats where there is already stock grazing, or they can cause considerable damage even in the absence of stock. Grazing by all these animals can also lead to destruction of the ground flora and enrichment of the soil by dung. Deer are a particular problem in the NNP and it is suggested that deer management should be initiated.

3.3 Conifer planting – some 20% of the National Park area was planted with conifers between 1950 and 1980 and although the majority of land that was originally planted up was moorland, some areas of ASNW were also included. This planting has however ceased in recent years as Forest Enterprise are no longer planting open ground, the majority of their unplanted land having been sold. Their emphasis is now on forest restructuring that should be beneficial for ASNW and ancient woodland sites as broadleaved planting is planned along burns and in areas of high landscape value. Historically small scale introductions of conifers and other non-native species, particularly beech and sycamore have also occurred either within parts of woodlands or replacing ASNW on a piecemeal basis.

3.4 Disease – Dutch elm disease has had a profound effect on (mainly) the upland ash woodlands of the National Park, where elms were once a dominant species. Ash and sycamore have replaced the elm to some extent, but the natural composition of the woodlands has been permanently altered as a result of this disease. Where elm regenerates following the spread of the disease through a wood, the trees never reach maturity, but rather stay as an under-storey component before succumbing again to the disease. Other diseases such as Phytophora may have localised effects but there is no known data about the extent within the Park.

3.5 Air pollution – This has probably declined since the Industrial Revolution, but is still likely to have an effect in woodlands. Certain lichens and bryophytes are known to be vulnerable to acidification and it has been hypothesised that diffuse air pollution can make trees more susceptible to diseases.

3.6 Bracken and other invasive species – Bracken can be invasive inside woodlands where it can shade out ground flora and prevent regeneration of natural or planted seedlings and saplings. Controlling this species can be hazardous to other woodland ferns if Asulox is used, or to many species if treated with Glyphosate. Non-native species such as rhododendron, beech, sycamore, conifers and Himalayan balsam can also be invasive in woodlands shading out and replacing native flora. Control can often be difficult due to their effective regeneration methods and once in a woodland they become very hard to remove.

3.7 Change in drainage regimes – This is particularly relevant for wet woodlands that may be affected by changes within the woodland or on surrounding land. Changes to river flood defences can also alter the water levels within a floodplain. Flushes or species composition may also change in other woodlands if water levels or supplies are altered.

3.8 Climate change – As with all habitats it is difficult to predict exactly the changes that may occur as a result of climate change. Connected landscape scale woodlands rather than isolated fragments are likely to be more robust and enable species to move and survive future climatic regimes. Wet woodland probably has the highest potential to change in extent with changes in precipitation.

4. Current Action

4.1 The NNPA have entered into section 39 management agreements (under WCA 1981) with landowners to protect remaining fragments of ancient semi-natural woodlands. Currently

(2003) there is approximately 210 hectares under this type of agreement. The agreements are generally for 25 years and involve fencing to remove stock grazing. In some cases the woods have also been deer fenced. Other work carried out in the woodlands varies; protection of naturally regenerated tree and shrub seedlings with tree and shrub shelters, erection of rabbit and deer exclosures, bracken spraying, scarifying and planting of native trees of local provenance. Very few have detailed management plans.

4.2 Other fragments of woodland are protected by the MoD, NWT as LNRs and reserves, by Forest Enterprise and by English Nature under WES agreements. Under the undertakings and conditions from the Otterburn Public Inquiry the MoD have commitments relating to both protection and management of ASNW and the planting of New Native Woodlands.

4.3 Some fencing along rivers and burnsides has taken place to protect existing woodland and allow regeneration. This has been undertaken under a number of schemes including the Northumbrian Rivers Project, Tweed HLF project, and the Otters and Rivers Project.

4.4 In 1995 the Forestry Commission (FC) and the Association of National park Authorities (ANPA) signed an agreement on native woodlands in National Parks. This set a framework between FC and ANPA:
- to encourage the appropriate management of semi-natural woodland;
- to encourage the extension of semi-natural woodland;
- to identify areas where it is appropriate to encourage the establishment of new woodland which emulates semi-natural woodland in composition and structure.
A Local Memorandum of agreement between the Northumberland National Park and the Forestry Commission set an annual target of 100ha of native woodland creation 1995-2000, which was achieved through a combination of forest restructuring and new planting. The National Accord was updated in 2002. The new agreement states as a shared priority 'Conserve wildlife and deliver the UK Biodiversity Action Plan by:
- supporting the appropriate restoration of semi-natural habitats from non-native plantation woodlands, including ancient woodland sites;
- developing mechanisms that support the improvement in ecological condition of native woodlands in National Parks;
- creating woodland and habitat networks that buffer and expand areas of ancient and semi-natural woodland;
- enabling removal of plantations in situations where there is greater potential for biodiversity through restoration to open ground habitats.

4.5 A two year Northumberland Native Woodland Project has recently been developed aimed at assessing the extent and condition of native woodland,by type; increasing the area of ASNW with approved plans for sustainable management and bringing an increase in woodland SSSIs in favourable condition. The project is to be steered by a partnership consisting of FC, FE, NNPA, EN, Northumberland County Council, Northumberland Wildlife Trust and Woodland Trust.

4.6 Nationally and locally Forest Enterprise are committed to increasing the amount of broadleaved woodland within their forestry plantations. Within Kielder Forest District the long term strategic plan is to convert 8% of the forest area to native broadleaves with forest restructuring. The total plantation area is 18,172 hectares, therefore approximately 1454 hectares will be native woodland.

4.7 Under their approved Long Term Forest Plan the College Valley Estate proposes to convert all of the conifer forests in the valley (543 ha) to new native woodland by 2035.

4.8 The local joint action plan between EN and NNPA seeks to ensure that all ASNW are fenced and managed and that they all have management plans and to secure the expansion of native woodland in line with NPA targets agreeing priority areas.

4.9 Other new native woodland planting has taken place in the NNP, some large scale. The Forestry Commission's New Native Woodland in National Parks Challenge scheme has funded 538.8 hectares of such planting in the Park in the period 1998-2004.

4.10 Other small scale planting and woodland protection has been undertaken under CSS schemes, standard WGS and NNP tree planting schemes, which have included linking areas with hedgerows.

5. Broad Objectives and Targets

5.1 Maintain the extent of ASNW in the NNP
5.2 Increase the quality of the existing resource in terms of structure and diversity.
5.3 Increase the amount of new native woodland in the NNP to 4000 hectares (4 % of the NNP by 2050, 1000 ha on open land by 2012 – see table below)
5.4 Link areas of existing ASNW.
5.5 Restore Planted Ancient Woodland Sites (PAWS) within the NNP.
5.6 Increase awareness of the importance of ASNW and its associated species.

Table 1 Native woodland area planted by 2004 or planned in restructuring.

Native Woodland Type	**Approx. Area (hectares)**
Existing ASNW	700
FC Restructuring	1454
FC Challenge scheme planting	540
Other new native planting	200
Private forest restructuring	280
Total	**3174**

Target is 4000 hectares in NNP in total, therefore approximately 1000 hectares of additional planting on open land is required.

6. Proposed Action

6.1 Policy and Legislation

Action	**Target**	**Partners**	**Achieving Objective**
6.1.1 Ensure that woodlands and important linking features such as hedgerows are protected by policies in future Local Plan reviews.	2003 and each review	NCC	1, 4
6.1.2 Ensure that existing woodlands and new native woodlands are protected and valued in the NNPA management plan/topic papers	2003 and each review	-	1, 3, 4, 6
6.1.3 Lobby to ensure that there is a successive scheme to follow up the Challenge scheme, with 100% funding for new native woodland.	2005	FC	3, 4

6.2 Site Management and Protection

Action	**Target**	**Partners**	**Achieving**

			Objective
6.2.1 Ensure that all woodlands in s39 agreements and SSSIs and LNRs have current management plans	2007	FC, FE, EN, NWT, MoD	1,2
6.2.2 Ensure that all 9 SSSI woods are in favourable condition by 2010 – PSA target	2010	EN, FE, FC, MoD, NWT	1,2
6.2.3 Ensure that all remaining ASNW in the NNP are fenced to remove stock grazing.	2012	FC, EN, FE, MoD	1,2
6.2.4 Encourage natural regeneration in fenced woodlands by scarification, grass and bracken control and small enclosures.	In each s39 wood by 2008	FC, EN, FE, NWT, MoD	2,1
6.2.5 Ensure that PAWS are not replanted with conifers or other non-native trees and that native woodland cover is restored	All 87.64 ha by 2012	FE, FC, EN	3, 5
6.2.6 Ensure that dead wood habitats are maintained in ASNW by leaving fallen wood, keeping standing dead wood and artificially creating dead wood habitats. Consideration on grounds of health and safety where there is public access should be taken.	In all m/ment plans by 2007.Creat e habitat in 5 woods by 2006.	MoD, FE, EN, NWT	2
6.2.7 Form a deer management group for the NNP and surrounding area to address deer control measures.	2005	FC, FE, EN, MoD, estates	1,2,3,6

6.3 Species management and Protection

Action	Target	Partners	Achieving Objective
6.3.1 Plant new native woodlands prioritising areas where they adjoin ASNW, link other woods or semi-natural habitats, or on PAWS sites or areas with remnant woodland flora. Use trees of local provenance.	1000 ha 2002-12. Record type of w/land planted	FC, FE, EN, MoD	3, 4
6.3.2 Specifically target areas for wet woodland creation. Forest restructuring along burns may provide opportunities.	2 new woods by 2007	FC, FE, EN, MoD, EA	3, 4, 5
6.3.3 Create new native woodland through forest restructuring, following good practice in UK Woodland Assurance Scheme.	1700 hectares by 2050	FC, FE, private owners.	3, 4,5
6.3.4 Plant trees of local provenance where natural regeneration is not successful in ASNW.	All new planting.	MoD, FE, EN	2
6.3.5 Investigate seed collection and growing on of stock from ASNW sources within the NNP.	Material from 3 sites in NNP by 2007	EN, NWT, MoD, FE, local nurseries	2, 3
6.3.6 Instigate deer control where regeneration and planting is curtailed due to browsing where other options are not practical.	Ongoing	FE, MoD, estates	2
6.3.7 Ensure that hedgerow trees are planted in all	All CS	MoD,	2,4

hedgerows	apps. and other grant schemes	DEFRA	
6.3.8 Maintain veteran trees in parks, woodlands & other locations by management to prolong life	Always consider rather than fell	EN, FC, NWT, LAs estates, churches,	1,2
6.3.9 Plant new specimen trees in parkland & other locations e.g. churchyards to become future veterans.	When necess. & trees dying	EN, FC, NWT, LAs estates, churches,	3

6.4 Advisory

Action	**Target**	**Partners**	**Achieving Objective**
6.4.1 Advise landowners of grant schemes for ASNW management. Actively approach landowners of ASNW fragments that remain unprotected.	Approach by 2005 & ongoing	FC, DEFRA, EN, NWT	1,2,6
6.4.2 Advise landowners about grants for new native woodland planting. Actively approach landowners adjacent to ASNW or those holding land which could link ASNW.	Approach by 2007 & ongoing	FC, DEFRA, EN, NWT	3,4,6
6.4.3 Advise landowners when discussing CSS about potential woodland protection, management and planting opportunities	ongoing	DEFRA, EN	1-4, 6
6.4.4 Ensure that contractors are aware of the importance of planting stock of native provenance and where to obtain it if NNP stock grown on.	2004	FC	3,6

6.5 Future Research and Monitoring

Action	**Target**	**Partners**	**Achieving Objective**
6.5.1 Carry out surveys to confirm the presence and exact locations of rare species so their needs can be incorporated into management plans. E.g. *Amblestegium compactum* at Hareshaw and small pearl bordered fritillary (SPBF)	Hareshaw survey 2003. SPBF sites 2006. Bryos in import w/lands by 2007	EN, MoD, FE, FC, NWT, volunteers	2, 6
6.5.2 Obtain good estimate of extent of each woodland type and other fragments (< 2ha) of ASNW.	Project complete by 2005	FC, FE, EN, NCC, NWT	

6.6 Publicity and Communication

Action	Target	Partners	Achieving Objective
6.6.1 Use woodland and its associated species as the focus for interpretation and education events for one year in the rolling programme of Celebrating Biodiversity.	2003	schools, NWT, local media.	6
6.6.2 Re-state the importance of sustainable management of woodland to the general public in talks, walks and publications.	5 events/ articles by 2011	EN, NWT, RSPB, FE, MOD, GCT	6
6.6.3 Publicise the need for nurseries to provide trees of real local provenance and to make the public aware of the importance of these when planting native woodland.	approach all local nurseries by 2006	NWT,	3,6

Associated Species and Habitats in relation to woodland targets

Species/Habitat	Conflicting/contributing issues
Aspen	No issues other than the use of local seed sources
Black grouse	Where deer fencing is required fences should be marked to prevent bird strike
Dormouse	No additional issues
Pine Marten	No additional issues
Bats	Creation of artificial holes and slits in mature trees may help bats
Red squirrel	May need to limit large seeded broadleaf planting in red squirrel areas
Rivers and burns	No additional issues if good practice water guidelines are followed in plantations.