



DRAFT REVISED PLAN SEPTEMBER 2015

WOODLAND

1. INTRODUCTION

Woodland is one of the most important habitat categories in the sub-region, supporting many species and a variety of benefits such as landscape, public amenity and timber production. The multi-functional value of woodlands has been increasingly acknowledged nationally and in recent years reflected regionally by the West Midlands Forestry Framework and Delivery Plan 2010-2013 '[Growing Our Future](#)'.



Bunsons Wood
© Steven Falk

The sub - region has relatively low woodland cover, of c.13420ha, although a mosaic of small woodlands and mature hedgerow trees gives the impression of a wooded environment. Locally, it may include patches of beech woodland, and small wet areas. Rides and edges may grade into grassland and scrub ([JNCC, 2008](#)), important for providing a woodland margin with a range of heights and species, a valuable habitat for butterflies and dormice (*Muscardinus avellanarius*) in particular. The following butterflies are useful indicators for assessing the quality of woodland habitat: silver washed fritillary (*Argynnis (ex-Dryas) paphia*), wood white (*Leptidea sinapis*), purple hairstreak (*Neozephyrus quercus*) and white admiral (*Limenitis arthemis*) (M.Slater, pers.comm. 2013).

The following birds are indicators of good woodlands: woodcock (*Scolopax rusticola*) very scarce as a breeding bird in the county, sparrowhawk (*Accipiter nisus*), tawny owl (*Strix aluco*), great spotted woodpecker (*Dendrocopos major*), song thrush (*Turdus philomelos*), blackcap (*Sylvia atricapilla*), chiffchaff (*Phylloscopus collybita*), spotted flycatcher (*Muscicapa striata*), marsh tit (*Poecile palustris*), nuthatch (*Sitta europaea*), treecreeper (*Certhia familiaris*) and jay (*Garrulus glandarius*). (Jon Bowley, pers.comm. 2015).

Wet woodland (or carr) occurs on poorly drained or seasonally wet soils, usually with alder, birch and willows as the predominant tree species, but sometimes including ash, oak, pine and beech on the drier riparian areas. It is found on floodplains, as successional habitat on fens, mires and bogs, along streams and hill-side flushes, and in peaty hollows. These woodlands occur on a range of soil types including nutrient-rich mineral and acid, nutrient-poor organic ones. The boundaries with dry woodland may be sharp or gradual and may change with time through succession, depending on the hydrological conditions and the treatment of the wood and its surrounding land. Therefore wet woods frequently occur in mosaic with other woodland key habitat types (e.g. with upland mixed ash or oakwoods) and with open key habitats such as fens. Management of individual sites needs to consider both sets of requirements ([JNCC, 2008](#)). The scarce lesser spotted woodpecker (*Dryobates minor*) and willow tit (*Poecile montanus*) depend on wet woodland for both feeding and nesting, requiring decaying wood in which to excavate their nests.

The [Ancient Woodland Inventories](#) (AWI) were compiled in the 1980s and 1990s by the Nature Conservancy Council to identify woodland sites over 2ha that are considered to be of an ancient origin, pre-dating 1600. In Warwickshire and the West Midlands a few sites, characterised by the presence of small-leaved lime (*Tilia cordata*) and sessile oak (*Quercus petraea*), may be especially old. [Piles Coppice](#), to the east of Coventry, is considered by some researchers to be a remnant of the primeval “wildwood” that formed 8000 years ago. There are many smaller woodlands which have the characteristics of ancient woodland that are currently unrecorded as such. From the Warwickshire Inventory ([Forestry Commission](#), 2002), about 4236ha of woodland are listed, based on all sites over 2 ha in area. Of this, 2439ha are classified as [ancient semi-natural woodland](#) (ASNW), our most biologically important woodland resource. The remaining 1797ha of ancient origin woodlands are recorded as plantation on ancient woodland sites (PAWS). Many of the larger PAWS sites were converted wholly or in part to conifer plantations in the twentieth century. These areas tend to retain features of the original semi-natural woodland and remain of high biodiversity value. Data from the West Midlands (Coventry & Solihull) Ancient Woodland Inventory has not been included.

The remaining woodland area (grown since 1600) is either plantation, grown mainly for timber production or is secondary semi natural woodland and scrub. Plantation woodlands are generally linked with the estate-lands parts of the Warwickshire sub-region, whereas the secondary semi-natural woodlands are associated with post-industrial sites (gravel and sand extraction, etc.) and poorer quality land not cultivated for agriculture. More recently there has been significant creation of new woodland by individual landowners as part of farm diversification, game shooting, shelter and screening and by organisations such as the Woodland Trust looking at social inclusion opportunities and core habitat areas. Principally these are broad-leaved or mixed woodlands and generally are of ‘small landscape’ scale, i.e. less than 10ha.

The best woodlands for biodiversity tend to be larger ones on long standing sites (Ancient Woodland Sites, AWS) with a varied and diverse structure. An abundance of different internal habitats such as standing and fallen deadwood, wide rides, clearings or open space, water, ‘soft’ woodland margins, ponds, scrub and field headlands are key components and can be supported by woodland management operations such as coppicing or thinning. With 20% of British fauna dependent on it, the value and role played by dead and dying wood in woodland biodiversity is important; the removal of this habitat from modern plantation woodland makes it a scarce resource for the lesser spotted woodpecker and other species dependent on mature woodland (Day, 2014).

At least 30 National Biodiversity Action Plan species, as well as Red Data Book and Nationally Scarce species, such as great crested newts (*Triturus cristatus*), inhabit woodland ponds. They support a wide variety of invertebrates, a key part of the foodchain, and provide drinking water; a number of scarce plants can also be found in woodland ponds. Their waters are often clean, certainly compared with water in many other terrestrial habitats as the trees filter out pollutants and buffer ponds from contaminated water.

2.	OBJECTIVES*	TARGETS*
Associated Action Plans are: 'Open Mosaic Habitats on Previously Developed Land', 'Old Parkland & Veteran Trees', 'Roadside Verges', 'Ponds', 'Great Crested Newt', 'Common Dormouse', 'Hedgehog', 'Bats', 'Song Thrush', 'Adder', 'Wood White', 'Leaf-rolling Weevil', 'Red Wood Ant' and 'Argent & Sable'		
PLEASE CONSULT THE ' GENERIC HABITATS ' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL HABITAT PLANS		
A.	To achieve condition of 2531ha of ancient semi-natural woodland over 0.25ha that are currently in unfavourable condition, to favourable or recovering, giving priority to those holding UK Biodiversity Action Plan Priority Species & Red Data Book species.	2026
B.	To restore 918ha of degraded ancient semi-natural woodland.	2026
C.	To expand the extent of native broadleaf woodland by 1006ha.	2026
D.	To establish and promote local markets for the produce from semi-natural ancient and other woodlands.	ongoing
*Derived from Regional Spatial Strategy Phase 3 Technical Report (2009) and based on a minimum mapping unit of 0.25ha. Numerical targets have been incorporated into section 6. See Generic Habitats Plan for rationale for derivation of targets and definitions of favourable and unfavourable condition ('Habitats overview' in 'State of the Natural Environment' (NE,2008,p49).		

3. NATIONAL BAP OBJECTIVES & TARGETS

Woodland is one of England's most important habitats for biodiversity and is on the current UK Biodiversity Action Plan (BAP) list of Priority Habitats published in 2007([Joint Nature Conservation Committee](#)). Habitat descriptions for [Lowland Mixed Deciduous Woodland](#) BAP, updated in 2010-11, and [Wet Woodland](#), may be seen online.

The [Woodland Trust](#) is working to a simple aspiration of doubling woodland cover over next 50 years. The [Government Forestry Policy Statement](#) (Defra, 2013) estimates that Government and the sector working together towards this shared objective could achieve 12% woodland cover by 2060, an average planting rate of 5,000 hectares per year, provided private investment in woodland creation increases in line with expectations.

4. CURRENT STATUS

The Forestry Commission's [National Forest Inventory](#) (NFI) (2009 – 2014) is a continuous inventory of Britain's forests and woodlands conducted on a five year cycle. The elements of the inventory are a digital map of woodland in Britain constructed from aerial photography, complemented by other sources of information, and a programme of ground surveying of woodland using a representative sample drawn from the woodland and forested areas of Great Britain. This publication contains initial provisional statistics for England on woodland area at 31 March 2010 and areas of new planting and observed woodland loss for 1998-99 to 2009-10. The woodland area statistics in this release make use of the 2010 National Forest Inventory map and woodland grant maps for 1989-90 to

2009-10 and Forestry Commission administrative data. The main findings are that the area of woodland in England at 31 March 2010 is estimated to be 1294000ha, 9.9 % of the total land area in England; this is around 164000ha more than the previously published estimate for 2010.

Woodlands are widespread but fragmented throughout Warwickshire, Coventry and Solihull. There are notable concentrations of ancient woodlands around Princethorpe, around Atherstone, and on the western side of Stratford-upon-Avon District. The eastern parts of the county are particularly sparsely wooded. The woodland community is heavily influenced by the underlying geology. Oak, birch (*Betula spp.*) and bracken-dominated woods are characteristic of more acidic soils (especially in the north and west), and oak-ash woods, usually with dog's mercury (*Mercurialis perennis*), are found on more lime-rich soils in the south and east. The semi-natural woodland types described above fall into two main categories of the [National Vegetation Classification](#): W8 *Fraxinus excelsior* - *Acer campestre* - *Mercurialis perennis* woodland and W10 *Quercus robur* - *Pteridium aquilinum* - *Rubus fruticosus* woodland. Alder (*Alnus spp.*) and willow (*Salix spp.*) woodland tend to form in wetter areas. The extent of wet woodland is not accurately known, in part because this habitat often forms a part of larger woodland areas. Grey poplar (*Populus x canescens*) woodland is a relatively new type of invasive woodland that has formed along certain southern river corridors. There are also a number of significant conifer woodland blocks throughout the sub region and more recently large poplar plantations have been created.

There are 15 woodland-dominated [Sites of Special Scientific Interest](#) (SSSIs) in the sub-region, covering 808ha (2014 data, see table below). According to NE (2013), all SSSI status woodlands in Warwickshire are in 'Favourable condition', with the exception of Knavenhill Wood which is 'Unfavourable recovering' as a result of deer pressure; as it has appropriate management in place it can be classed as 'recovering'.

District	Site	Area ha
Stratford on Avon	Aston Grove & Withycombe Wood	53
	Bannam's Wood	31
	Knavenhill Wood	24
	Long Itchington & Ufton Woods	79
	Rough Hill & Wirehill Woods	51
	Snitterfield & Bearley Bushes	61
	Whichford Wood	45
	Windmill Naps Wood	35
	Wolford Wood & Old Covert	65
North Warwickshire	Bentley Park Wood	105
	Hoar Park Wood	28
	Kingsbury Wood	62
Solihull	Clowes Wood & New Fallings Coppice	45
Rugby	Ryton Wood	94
Coventry	Tilehill Wood	29
Total area		808

Many other woodlands are formally designated Local Wildlife Sites (LWSs) and it is anticipated that most other good quality ASNWs will be selected as LWSs in the current review, which is being undertaken by the Local Wildlife Sites Project (LWSP). There are eleven woodlands managed as nature reserves by [Warwickshire Wildlife Trust](#) (WWT),

four of which are SSSIs. A number of other woods are in some form of protective ownership through the Woodland Trust, local authorities or sympathetic private owners.

Approximately 11% of ancient woodland (530ha) was destroyed between 1925 and 1988, and a further 38% (1797ha) was converted to plantation (Warwickshire AWI, 1989). Neglect, through a cessation of coppicing, has been an equally significant factor in the loss of woodland biodiversity since the mid-1900s. The Habitat Biodiversity Audit (HBA, 2012) suggests that the area of woodland has increased over the last 25 years through the creation of new plantations to 13420ha which includes all categories of woodland. Some of these new woods are being specifically targeted at achieving biodiversity gains, whilst further woods have been planted specifically for timber production, landscaping and other benefits. Examples of new woods include screen plantings around quarries and industrial or residential estates, blocks of trees within suburban countryside and a range of woodland types and size within agricultural settings.

In 2012, the total area of ASNW in the sub-region was 6017ha (HBA), this figure being the sum of all such sites, including those under 0.25ha. Provided targets for restoration and expansion are met, this area of ASNW will increase to 6618ha by 2015 and to 7941ha by 2026, a 25% increase which matches the national target of 50% by 2050. This will achieve a 4% cover of mature woodland for the sub-region and c.7% total woodland cover.

Woodlands have reasonable legal protection through the [Forestry Acts](#) (1967 and 1981) – and [Tree Preservation Orders](#) (TPOs) but these measures do not ensure that appropriate management is undertaken.

4.1 Legal and Policy Status

A wide range of species and habitats are protected under international and domestic laws, including the [Wild Birds Directive](#) (1979), the [Wildlife and Countryside Act](#) (1981), the [Conservation Regulations](#) (1994) and [EC Habitats Directive](#) (1992). Protection of sites is afforded nationally through SSSI, [Special Areas of Conservation](#) (SAC) and [Local Nature Reserve](#) (LNR) statutory status. Other sites are offered recognition of their value through Local Wildlife Site status (LWS), Local Character Areas and identified Landscape Scale Areas. The [National Planning Policy Framework](#) (2012) chapter/section 11 states conditions with regard to any development negatively affecting biodiversity, including protected sites, ancient woodland and other irreplaceable habitats (paragraph 118). The Wildlife & Countryside Act and schedule 2 of the [Conservation of Habitats & Species Regulations](#) (2010) make it an offence to intentionally kill, injure, take, possess, sell, buy or transport a range of species.

The Forestry Act 1967 (amended)

[Environmental Impact Assessment Regulations](#) (Forestry Projects) (FC, 2001)

[UK Forestry Standard](#) (UKFS) (FC, 1998)

[Ancient and Semi Natural Woodland Policy](#)

[England Forest Strategy](#)

[West Midlands Regional Forestry Framework](#) (RFF) (FC, 2004)

These areas of legislation and policy set the context under which the FC regulates and supports woodland stewardship and woodland creation.

The UK Forestry Standard presents the Government's approach to sustainable forestry stewardship, including key criterion on physical, biological, human and cultural resources. Standard notes on the best practice management of existing woodlands of different types, especially the management of semi-natural ancient woodland provide direction in the planning and implementation of woodland operations. Controls on tree felling through [Felling Licences](#) mean that the FC can regulate most proactive woodland management operations to ensure that they conform to UKFS and industry best practice. The [English Woodland Grant Scheme](#) (EWGS) enables the FC to financially support management that conforms to the standards detailed.

The UKFS includes a Standard Note (SN3) on "Creating New Native Woodland". The English Woodland Grant Scheme enables the FC to support woodland creation; the grants are subject to applications being assessed against a scoring system which reflects the priorities in the regional values of the Forestry Strategy for England. This promotes new woodlands that can be of high biodiversity value, as well as other targets.

Other legislation and protection affecting trees, woodlands and associated habitats include the [Town & Country Planning Act 2008](#), TPOs, [Hedgerow Regulations 1997](#), [1981 Wildlife & Countryside Act](#), [Register of Parks & Gardens](#), [Countryside and Rights of Way Act 2000](#), [Highways Act 1980](#) and the [Railways Act 2005](#).

4.2 Current Factors Affecting the Habitat

Despite losses of woodland in the sub region, particularly ASNW, relatively little new woodland planting has been undertaken, leaving the remaining ancient woodlands recorded on the AWI fragmented and isolated. Since 1985 the loss of ASNW woodland has been substantially reduced to the extent that lack of appropriate management is now seen as a greater threat than habitat destruction. There is still, however, some small-scale ASNW loss through farming practices, illegal felling activities and through planning approvals.

- **Fragmentation of habitat.** Isolation of woodlands leaves them unable to sustain woodland species populations. The continued and prolonged loss of hedgerows that has occurred over the last 50 years has left many small woodlands even more isolated from other areas of habitat making species less secure.
- **Loss of age structure of scrub** due to lack of awareness of its importance for wildlife and the need to manage it for this.
- **Loss of areas of wet woodland** due to drainage and change of management.
- **Neglect** or cessation of coppicing, partly due to a declining market for traditional woodland produce and the relative economic benefits of conifer timber production has resulted in a widespread loss of habitat quality in many woodlands as they became less structurally diverse and more densely shaded. Species such as the dormouse (*Muscardinus avellanarius*), several species of fritillary butterfly (*Argynnis spp.*), and the nightingale (*Luscinia megarhynchos*) are some of the victims and woodland flowers such as violets (*Viola spp.*) and certain orchids have become much scarcer.

- **Unsympathetic** management of woodland margins, particularly in respect of fertiliser and herbicide drift from cropped fields will lead to loss of adjacent woodland edge habitat.
- **A lack of mature and over mature trees** in many secondary, plantation and new woodlands, and on AWS felled during World War I and II, is leading to very limited deadwood habitats.
- **Health and safety concerns.** Trees are at risk of being lost due to perceptions of safety, size, subsidence etc. Issues such as '[Trees of Time and Place](#)' and fear of litigation and misunderstanding of risks contribute to the tendency of landowners to remove dead wood from areas with public access.
- **Increasing deer population** and lack of deer management groups is leading to unsustainable browsing damage of regenerating and planted trees and is acting as a disincentive to sustainable woodland management. There are limited opportunities for venison markets and farm business or shop diversification to sell venison. Culls between 30 and 60% are considered necessary (Journal of Wildlife Management, 2013)
- **Damage by grey squirrels** (*Sciurus carolinensis*) is causing limb and crown damage on trees and occasionally reduced timber quality and increased management costs.
- **Coniferisation** was undertaken in the mid 20thC at the expense of previous ASNW. This trend is now actively being reversed by both state and private owners guided by [Ancient and Semi Natural Woodland Policy Statement](#). The introduction of other inappropriate tree and shrub species of non-local provenance or the natural regeneration of such species including sycamore (*Acer pseudoplatanus*), rhododendron (*Rhododendron ponticum*) and [Himalayan balsam](#) (*Impatiens glandulifera*) is actively deterred but cannot always be prevented.
- **Change of ownership** - following opposition to their original proposal to sell off the country's forests. the Government Forestry and Woodlands Policy Statement (2013) has confirmed that the public forest estate will remain in public ownership after all.
- **Recreational and development pressure, particularly transport infrastructure and other urban development** e.g. construction of large housing estates adjacent to woodland and subsequent disturbance and erosion in and around woods. The intrusion of motorbikes, quads, 4X4's, fly-tipping and paint balling, and the increasing illegal and indiscriminate use of guns give cause for concern, especially in those woodlands on the urban fringe. It is estimated by the Woodland Trust that nationally 350 ancient woods are at risk from development proposals for housing, roads, high speed rail and quarries (British Wildlife, Conservation news, 2013).
- **Woodland creation** is leading to an increase in the resource and, if appropriately placed, an extension of existing woodlands and defragmenting isolated woods. The incentives for the creation of new woodland play a crucial role in decisions about woodland creation but high land values restrict woodland creation.
- **Organisations and individuals** - some organisations, such as The Woodland Trust, and occasionally wealthy individuals, are committed to creating new woodlands with social and biodiversity objectives at the forefront of their thinking.

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- **Diseases** including **Sudden Oak Death** caused by the plant pathogen *Phytophthora ramorum*, and **Ash Dieback** caused by the fungus *Hymenoscyphus pseudoalbidus* (formerly called *Chalara fraxinea*).

5. LOCAL ACTION

- An accurate digitised database of all woodland in the sub-region, including ancient woodlands of all sizes, has been established by the HBA and is annually updated; figures for each district as at 2012 exist. Note: the National Ancient Woodlands Inventory only includes woodlands above 2ha in area.
- **The Warwickshire Forest Design Plan (FDP), (FC, 2011-2021)**, aims to establish policies encouraging use of appropriate species for re-planting in semi-natural woods and for new woods intended for nature conservation, and encourage use of these on new developments.

Ancient Semi Natural Woodlands (ASNW)	Current Situation <ul style="list-style-type: none"> • There are 61ha of ASNW fragmented across the FDP area (21.4%) and this is stocked with oak, birch and hazel. • Isolated specimen / veteran oaks can be found throughout the woodlands but primarily along woodland boundaries and Black Poplar in Weston and Waverley wood. There are only a limited amount of deadwood habitats. • Regeneration in each of these woodlands
	Objectives/Planning Targets <ul style="list-style-type: none"> • ASNW will be managed through selective felling to create a complex woodland structure which will provide varied light levels for the ground flora, encourage natural regeneration, release established trees, ensure that the stands remain stable and any exotic species are removed. • Small groups of broadleaves and individual native broadleaf trees that remain within the FDP area will be retained wherever possible to provide a seed source to restock adjacent areas. • ASNW areas will be restocked through natural regeneration of indigenous species typical of the natural woodland characteristic. • Retain small groups and individual broadleaves in perpetuity to provide long-term retentions and deadwood habitat.
Plantations on Ancient Woodland Sites (PAWS)	Current Situation <ul style="list-style-type: none"> • The restoration of AWS is a key objective within this FDP and the West Midlands District Plan.
	Objectives/Planning Targets <ul style="list-style-type: none"> • The remaining areas of PAWS will be managed largely through a selective felling programme where the exotic species are removed to allow the established broadleaves to dominate the canopy and encourage further natural regeneration. • Areas adjacent to the fragmented ASNW areas and individual native trees will be targeted when management operations are carried out, opening them up to create adequate light and shelter to facilitate natural regeneration of indigenous species.
Secondary Woodland	Current Situation <ul style="list-style-type: none"> • Less than 1ha of the FDP is classified as Secondary Woodland: Arley Wood 0.2ha and May's Wood 0.3ha.
	Objectives/Planning Targets <ul style="list-style-type: none"> • The current conifer stands within Arley Wood and May's Wood will be managed in the same way as the rest of the woodland area with a gradual restoration to broadleaf woodland.

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Retentions	<p>Current Situation</p> <ul style="list-style-type: none"> All of the FDP woodlands are being formally managed and the only variation is within the research plot in Weston and Waverley Wood where management operations are carried out by Forest Research. <p>Objectives/Planning Targets</p> <ul style="list-style-type: none"> Within the new FDP, 5% (14.8ha) of the forest area will be managed as a natural reserve. Veteran and old deadwood will be retained wherever possible in each of the woodlands to create long-term retentions
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- **Woodland creation and management** - the FC and [Natural England](#) are supporting woodland creation and stewardship through the EWGS and Higher Level [Environmental Stewardship Scheme](#) respectively, with particular targets for creation of native species woodlands with significant open ground habitat and stewardship on Ancient Woodland Sites.
 - Notable examples are around Dorsington, on the Spenal Estate, Temple Balsall, Grandborough, Twomlow near Southam, the West Arden Living Landscape area ([Heart of England](#), HoE) and Barnroden, Priors Marston, a 30yr. old plantation now with a wide variety of habitats.
 - **Coppice management** is being actively implemented by WWT and other landowners in a number of woods, in parts of [Ryton Wood](#) SSSI, [Snitterfield Bushes](#) SSSI, [Wappenbury Wood](#) and [Hampton Wood](#). The FC has a coppicing project in Weston Wood funded by [SITA Trust](#) (2012).
 - **Deer management** is taking place (2012) in Wappenbury Wood, Snitterfield Bushes, Hampton Wood and Ryton Wood.
- **Through the EWGS**, the Forestry Commission (FC) supports large woodland creation projects (20ha+). In Warwickshire, The following amounts of woodland were entered into the EWGS:
 - New planting
 - from 1991 to 2003 - 1012ha of broad-leaved and 39ha of conifer
 - in 2011/12 and 2012/13 - 312.9 ha.
 - in 2013 – 53 approved Woodland Creation Grant(WCG) cases, a total area of 1043.7ha
 - Restocking from 1991 to 2003 - 93ha of broad-leaved and 19ha of conifer
 - The FC has funded a 10yr restoration of quarried farmland to woodland undertaken by CEMEX in 2012 to link Bubbenhall and Wappenbury Woods.
- **The NE ‘good practice guidelines’** encourage the use of appropriate species for re-planting in semi-natural woods and for new woods [e.g. Arden National Character area profile](#)
- The **UK Forestry Standard** (3rd edition, FC, 2011) defines a series of forestry requirements that ensure international commitments are addressed while focusing on the UK context. The UKFS sets out these statutory requirements together with requirements of good forest practice in the Ancient and Native Woodland Practice guidance ([Managing ancient and native woodland in England](#) , FC, 2008) to ensure the status of priority habitats and species is protected or enhanced.
- **Restoration of Plantations on Ancient Woodlands (PAWs) from conifer to deciduous woodland** - the FC is developing plans to naturally regenerate broad-

leaved woodland within their own estate. Conversion of pine to broadleaf woodland was implemented in 2012 at :

- Brandon Wood – low impact thinning by Friends of Brandon Wood (FoBW) plus the creation of ponds, scallops and planting of hedgerows
 - Weston & Waverley Wood – thinning of 40ha of conifers by FC (leasehold) for natural regeneration
- [Princethorpe Woodland Living Landscape Partnership](#) has been active since 2004 and is developing co-operative woodland management on a landscape scale, to establish active management of woodlands for the benefit of wildlife and people including the production of wood fuels for use in local communities, woodland management skills training, deer management and public access. In 2012, Warwickshire Wildlife Trust was successful in securing landfill credit funding from SITA Trust for woodland management in three Trust woodlands. Since 2012, 13.4ha of coppicing with standards, 600m of ride restoration and 2ha of tree planting has been carried out.
 - **Tree planting schemes** - through the [Warwickshire Tree Scheme](#) which ran from 1980 - 2009, over a million trees were planted across Warwickshire to create new woodland and enlarge existing woodlands, through the use of native species. The choice of tree and shrub types were shaped by the [Warwickshire Landscapes Guidelines](#) (1993); these identify landscape character areas [for example Arden] and direct decision making on appropriate tree or woodland location, scale, species choice etc. The [Solihull Free Tree Scheme](#) was used until 2005 to enlarge existing woodlands with native species trees and produced [Arden Landscape Character guidelines](#) (1993) to direct decision making on appropriate tree or woodland location, scale, species choice etc.
 - The [Big Tree Hunt](#) in Warwickshire, inspired by Steven Falk, collected data about location, size, age and form of notable and veteran trees within the sub region from 2005-2010. The following publications were produced:
 - [Warwickshire Tree Catalogue Part One: Introduction](#)
 - [Warwickshire Tree Catalogue Part Two: Conifers etc](#)
 - [Warwickshire Tree Catalogue Part Three: Broadleaves Acer-Morus](#)
 - [Warwickshire Tree Catalogue Part Four: Broadleaves Nothofagus-Zelkova](#)
 - [Warwickshire Tree Catalogue Part Five: Sites](#)
 - [Veteran Tree Booklet](#)
 - The HoE Forest Project has created 940ha of native species forest in Warwickshire (2013); about 20% of this is open woodland rides.
 - **'Friends of Woods'** groups are being established (2013) for Weston & Waverley, Oversley and Hay Woods, and at Daffern's Wood LNR, New Arley
 - [Butterfly Conservation \(West Midlands\)](#) has:
 - defined an area for action called the North West Woodlands Warwickshire Landscape; this includes Hay Wood where work is being undertaken to thin conifers by 30% and to widen the main rides, also to increase the area of heathland plants (2104).
 - carried out coppicing work in Weston & Waverley Wood (January 2014).
 - carried out management in Ryton Wood, resulting in a 185% increase in butterflies since 1990 (2014).

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- Riparian planting of 3515 trees by [Severn Rivers Trust](#) is part of the Avon & Leam Catchment Plan delivery.
- **Ongoing survey** of many woods by various wildlife recorders (especially high since the 1980s) is helping to establish their biodiversity, characteristics, cultural history and relative significance. In 2012 survey work was carried out by Warwickshire Flora Group and Butterfly Conservation. Breeding birds, bat, dormouse and butterfly surveys, and woodland condition monitoring, are being undertaken at Ryton Wood SSSI and Wappenbury Wood in 2012 and 2013 by Warwickshire Wildlife Trust, funded by SITA Trust and [People's Trust for Endangered Species](#) (PTES). Since 2009 the [Warwickshire Dormouse Conservation Group](#) has coordinated the survey of 12 woods in the county to update our knowledge of the status of the species; the programme is ongoing.

6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partners	By
PLEASE CONSULT THE ' GENERIC HABITATS ' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR ACTIONS COMMON TO ALL HABITAT PLANS			
Policy, Legislation & Protection			
PL1. Identify and assess for SSSI status suitable candidate ANSWs, particularly those supporting priority species such as dormice and those in landscape scale complexes.	NE	FC WWT LWSP	ongoing
PL2. Continue to select all qualifying ASNW, including sites of less than 2ha as LWSs and enter onto database.	LWSP	NE LAs WWT	ongoing
PL3. Ensure that the protection of all woodland is included in Local Development Frameworks, Neighbourhood Plans and any other relevant strategies, including targets for maintenance, achieving condition, restoration and expansion for each local authority.	WCC	NE LAs WWT	ongoing
PL4. Ensure that new minor or major developments result in net biodiversity gain through adherence to the mitigation hierarchy.	WCC	NE WWT LPAs NWBC NBBC	ongoing
PL5. Actively work to ensure development proposals do not affect the integrity or setting of ancient woodland sites or the opportunity to extend existing woodlands or impact on other sensitive habitat sites using the FDP.	WCC	BC WWT FC LAs	ongoing

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Site / Species Safeguard & Management				
SM1. Maintain favourable ecological condition of all 804ha (NE,2005) of SSSI woodlands by ensuring the appropriate management of all sites.	NE	WT FC LAs	WWT BC LOs	ongoing
SM2. Manage or create areas of scrub (see RM2) to achieve a varied age structure at the margins of woodland.	tbc	CCP	NT	ongoing
SM3. Maintain existing areas of wet woodland (see RM3) by coppicing and water management .	tbc	CCP TAMP	NT	ongoing
SM4. Retain old dead wet wood for nesting sites for lesser spotted woodpecker and willow tit; supplement with rotten logs with sawdust-filled holes for willow tit nest building, e.g. at Alvecote Pools.	WWT	WMBC RSPB	LAs	ongoing
SM5. Restore 287ha of conifer or non-native broad-leaved plantation on ancient woodland sites to native broad-leaved plantation or semi-natural woodland by 2015 and a further 631ha by 2026 (UK Forestry Standard. Ancient & Semi Natural Woodland Policy).	FC	LOs		2015-2026
SM6. Increase the extent of the woodland cover and resource by 314ha by 2015 and a further 692ha by 2026 by: <ul style="list-style-type: none"> expanding existing ASNW by natural regeneration or appropriate woodland creation using locally native species in accordance with FC Bulletin 112. expanding other plantation or farm woodland cover in the sub region in accordance with the regional spatial strategy and other policy and or legislation creating new plantations of native broadleaf species 	FC	LOs WT	HoE NT	2015-2026
SM7. Introduce additional woodland habitats e.g. open ground, rides, river banks, etc. and increase social, economic and biodiversity opportunities where appropriate during all the above actions.	FC	WWT NT HoE	SRT WT	ongoing
SM8. Work at a landscape scale, focusing effort on identified important clusters of ANSW to maximise benefit, 'rewilding' the wider countryside and restoring the range of the habitat to build resilience to climate change . Target areas are: <ul style="list-style-type: none"> Princethorpe Woodlands(Rugby/Warwick) West Arden landscape area 	WWT tbc	FC WDCG HoE	NT WT PWLLP	2026

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<ul style="list-style-type: none"> North Arden landscape area Hay Wood 'central' cluster 	NWBC FoHW			
SM9. Establish, implement and maintain deer management groups covering all the main concentrations of woodland in the sub-region and minimising loss caused by development or neglect, prioritising Princethorpe Woodlands Living Landscape area.	WWT	WCC LOs	DI	2015
Advisory				
A1. Inform landowners of all woodland SSSIs about appropriate sustainable management and grant schemes.	NE	WWT	FC	ongoing
A2. Inform all owners/managers of ancient semi-natural woodland and woodlands, particularly LWS, about appropriate sustainable management and the opportunities with respect to grants and markets.	WWT	NE BC LWSP SWA LAs		ongoing
A3. Provide advice on appropriate management of the remaining 5213ha (HBA, 2012) of ancient semi-natural woodland, including woodlands under 0.25ha.	FC	WWT WT LOs	BC LAs	ongoing
A4. Ensure that all Felling Licence and Stewardship or Woodland Creation Grant (EWGS/HLS) applications meet the UK Forestry Standard to comply with legislation for species and habitats.	FC	NE		ongoing
A5. Actively encourage that EWGS/HLS Stewardship agreements for management of woodland cover all habitat components, including rides, ponds, clearings, deadwood & woodland edge.	FC	NE	WWT	ongoing
Research & Monitoring				
RM1. Maintain the HBA digitised dataset of all woodland and other adjacent habitat types and seek to establish a record of habitat types within woodlands.	HBA	FC WWT LWSP	WCC	ongoing
RM2. Record areas of biodiverse scrub (see SM2)	HBA	LOs WWT	WBRC	ongoing
RM3. Record areas of wet woodland (see SM3).	HBA	LOs WWT	WBRC	ongoing
RM4. Identify plant indicator species for assessing the quality of woodland habitat.	WWT	BC LWSP		Done

RM5. Use existing indicator flora list for monitoring woodland condition and expansion every 5 years.	WWT	FC BC	2015, 2020
RM5. Using existing research, establish a project to develop local sustainable markets for the produce of ASNW and AWS to facilitate their management, e.g. Princethorpe Woodlands.	WWT	NE WWT BC LAs	2018
Communication & Publicity			
CP1. Raise awareness and understanding of the ecosystem services value of trees and woodlands, particularly ASNW & AWS amongst woodland owners, managers, contractors and the public.	WWT	FC WCC	ongoing
CP2. Organise a programme of training and discussion sessions to cover all elements of sustainable woodland management in Princethorpe Woodlands landscape area. One training event per year as a minimum.	WWT	BC WCC FC	2020

Abbreviations: BC – Butterfly Conservation, DI – Deer initiative, FC – Forestry Commission, FoHW – Friends of Hay Wood, HBA – Habitat Biodiversity Audit partnership, HoE – Heart of England, LAs – Local Authorities, LNPIG – Local Nature Partnership Implementation Group, LOs – landowners, LPAs – Local Planning Authorities, LWSP – Local Wildlife Sites Project, NE – Natural England, PWLLP – Princethorpe Woodland Living Landscape Partnership, SRT – Severn Rivers Trust, SWA – [Small Woods Association](#), TAMP – Tame Anker Mease Catchment Partnership, WBRC – Warwickshire Biological Record Centre, WCC – Warwickshire County Council, WDCG – Warwickshire Dormouse Conservation Group, WT – Woodland Trust, WWT – Warwickshire Wildlife Trust.

7. PROGRESS WITH ACTIONS

From 2015–2020 there will be a rolling programme of reporting on progress, of 10 action plans per year with an annual summary of results. Results will be entered onto the national Biodiversity Action Reporting System [BARS](#). Progress with this plan up to 2008 can be seen at www.warwickshirewildlifetrust.org.uk/LBAP.

8. BIBLIOGRAPHY

Kirby, P. (1992). [Habitat management for Invertebrates](#): a Practical Handbook. RSPB.

Peterken, G (1994) [Woodland conservation management](#). Chapman & Hall.

Forestry Commission (2002) [National Inventory of Woodland and Trees – Warwickshire](#)

Kirby, K.J., Smart, S.M., Black, H.I.J., Bunce, R.G.H., Corney, P.M. & Smithers, R.J. (2005). Long term ecological change in British woodland (1971-2001). Peterborough, Natural England (Research Report 653)

Countryside Agency (2005). Community Forest Programme 1990-2005.

Tudge, C. (2006). The Secret Life of Trees – How They Live and Why They Matter (Penguin Press Science).

Olsen, L. (2006). Small Woodland Creatures. OUP

Merryweather, J. (2007). Planting trees or woodlands? An ecologist's perspective. British Wildlife, vol.18, no.4:250-258.

DEFRA (2007). [A strategy for England's trees, woods and forests](#) (supercedes the 1998 forest strategy)

JNCC (2008) UK Biodiversity Action Plan: Priority Habitat Descriptions.

[Woodland Trust](#) (2008). Woodland actions for biodiversity and their role in water management.

Falk, S.J. (2009) [Warwickshire's Wildflowers](#) - provides habitat-specific species lists, and explanations of habitats from a botanical viewpoint.

Treweek Environmental Consultants (2009) Regional Spatial Strategy (R.S.S.) Phase 3 [Regional Habitats Targets Review](#), Technical Report pp.71-94, prepared for the W. Midlands Regional Assembly.

Lawton, J.H. (2010) [Making Space for Nature](#): a review of England's wildlife sites and ecological network. Report to Defra, advocating a landscape-scale approach guided by four key principles, summarised as '*more, bigger, better and joined*'.

Plantlife (2011) [Forestry Recommissioned](#) - bringing England's woodlands back to life.

Forestry Commission (2011) [Forests and Biodiversity](#): UK Forestry Standard Guidelines.

DEFRA (2011) [Biodiversity 2020](#): A strategy for England's wildlife and ecosystem services.

Natural England (2010) [Woodland BAP priority habitat - England v2.0](#) – habitat surveillance pilots and inventory updates are part of the ongoing monitoring projects carried out by Natural England.

[West Midlands Forestry Framework](#) Delivery Plan (2010 – 2013) '[Growing Our Future](#)'.

Forestry Commission (2011) [National Forest Inventory Woodland Area Statistics: England](#)

Forestry Commission (2012) Warwickshire Forest Design Plan 2011 – 2021

Wäber, K., Spencer, J. & Dolman, P.M. (2013) Achieving landscape-scale deer management for Biodiversity Conservation: the need to consider sources and sinks. Journal of Wildlife Management.

DEFRA (2013) [Forestry and Woodlands Policy Statement](#) (incorporating the Government's Response to the Independent Panel on Forestry's Final Report) - confirms that the Public Forest Estate will remain in public ownership, held in trust for the nation by a new independent body.

Forestry Commission (2013) [Woodland for Water](#) : Woodland measures for meeting Water Framework Directive objectives: An evaluation of the key issues relating to woodland and the Water Framework Directive.

RSPB (2013) State of Nature – a stocktake of all our native wildlife by 25 wildlife organisations.

HBA (2013) The State of the Habitats of Warwickshire, Coventry and Solihull.

Rackham, O. (2014) [The Ash Tree](#). Little Toller Monograph.

Day, J. (2014) Creating structural diversity and deadwood habitat by ring-barking. Habitat management News, British Wildlife vol.26, no.2. p.96.

9. FURTHER INFORMATION

Habitat Biodiversity Audit (HBA) for Warwickshire, Coventry & Solihull – mapping data set and associated information. Phase 1 ([JNCC](#)) 1996-2002 and Phase 2 (Local Wildlife Sites) ongoing.

[Biodiversity Planning Toolkit](#) - a new online resource to help incorporate biodiversity and geodiversity into the planning system and new development.

[Royal Society for the Protection of Birds](#) (2005) [Woodland Management for Birds](#) – a guide to managing for declining woodland birds in Britain (NHBS). Also for 9 new woodland management advice sheets, email: publications@rspb.org.uk

[Forestry Commission](#) (2003). Tree Felling – Getting Permission. Also (2007) [Forest Reproductive Material](#) – guidance in choosing seeds and young trees for planting.

Natural England (2005). [Development of good practice guidelines for woodland management for bats](#). Report no. 661 – available online or from 01733 455100

World Wildlife fund WWF (2005). Deadwood – Living Forests. The importance of veteran trees and dead wood for biodiversity.

[British Wildlife](#) (2007). A new deadwood habitat survey method. Vol.18, no.5.p.324.

Forestry Commission (2010) [Practice Guide: Managing ancient and native woodland in England](#).

Flora Locale - [Creating woodlands naturally](#) - an advisory note on types of planting stock.

[Plantlife](#) - a charity which carries out plant species and habitat conservation, owns and manages nature reserves, campaigns, and raises awareness through education.

Butterfly Conservation: [Woodland management for butterflies and moths: a best practice guide](#) - intended for anyone involved in the management of woodland, it provides guidance on the woodland habitat features needed by butterflies and moths, and how to create, maintain and improve them. Also [Woodland Scallops](#) – a management factsheet on ride- side scallops that can help provide habitats for many rare and declining species.

[Woodland Trust](#) - works on woodland policy issues across all parts of the UK.

[Future Trees Trust](#) is a charity dedicated to the improvement of broadleaved trees.

[Living Ash Project](#) by The Earth Trust, in partnership with Defra, to identify and secure ash trees showing good tolerance to the ash dieback fungus.

10. CONTACT

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