

Limestone Woodland (LW)

Habitat Action Plan

Doncaster Local Biodiversity Action Plan
January 2007

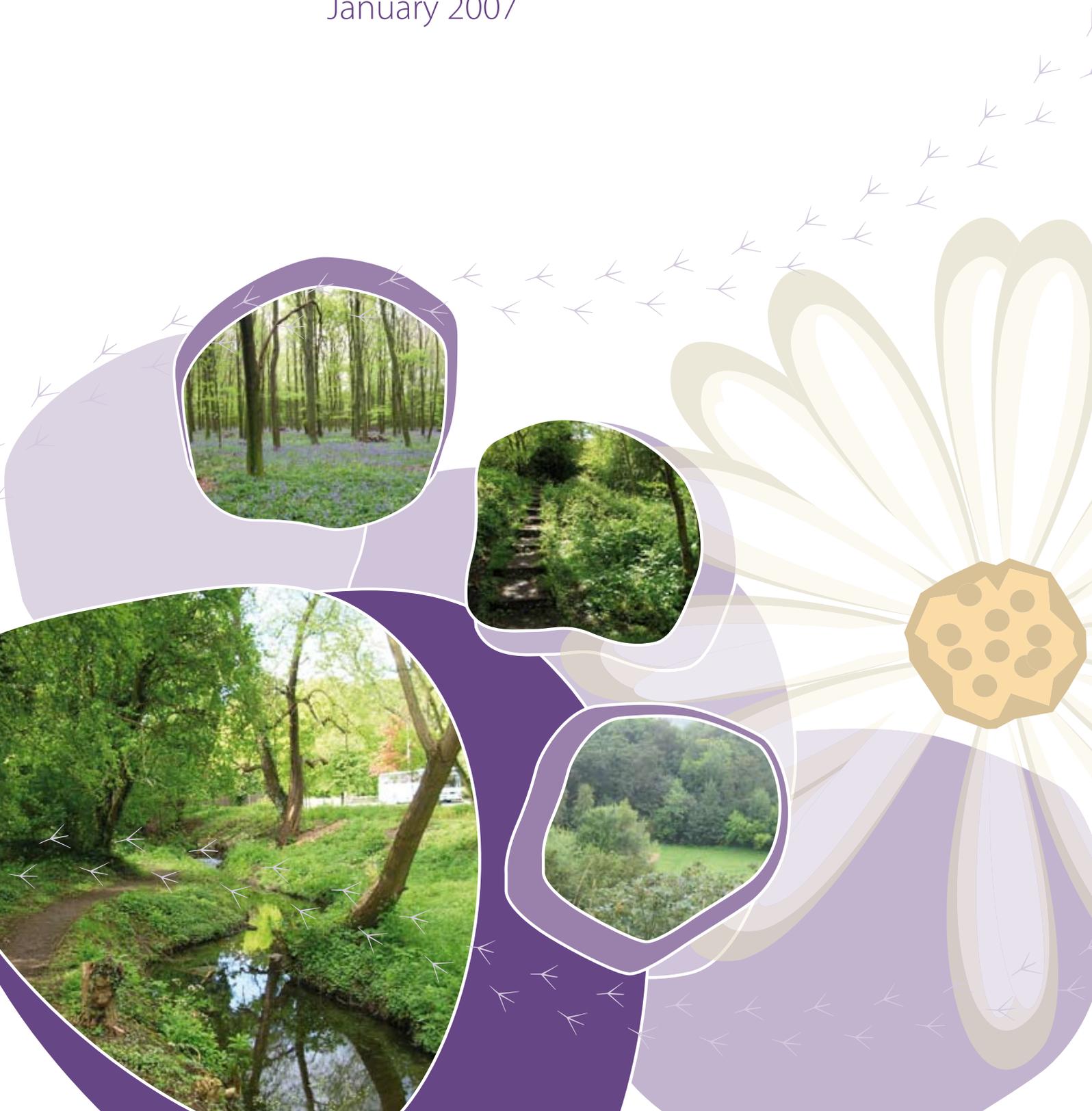


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Doncaster
Biodiversity
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A graphic element of the Doncaster Biodiversity Action Partnership logo, consisting of a stylized, multi-colored flower or leaf shape in shades of red, orange, and yellow.

1. Description

1.1 The Magnesian Limestone supports South Yorkshire's richest woodlands. Ash (*Fraxinus excelsior*), wych elm (*Ulmus glabra*), lime (*Tilia spp*) and yew (*Taxus baccata*) are characteristic tree species, with some oak (*Quercus spp*) and hazel (*Corylus avellana*). The limestone ground flora is often rich, including wild garlic (*Allium ursinum*), dogs' mercury (*Mercurialis perennis*) and sanicle (*Sanicula europaea*) in abundance. These woodlands are typical National Vegetation Classification type¹ W8 *Fraxinus excelsior* – *Acer campestre* – *Mercurialis perennis* woodland.

1.2 The canopy of such woodlands includes ash (*Fraxinus excelsior*), small-leaved lime (*Tilia cordata*), large-leaved lime (*Tilia platyphyllos*), field maple (*Acer campestre*), beech (*Fagus sylvatica*), sycamore (*Acer pseudoplatanus*), silver birch (*Betula pendula*), yew (*Taxus baccata*) and oak (*Quercus spp.*) with a lower canopy of holly (*Ilex aquifolium*), **spindle** (*Euonymus europaeus*), wych elm (*Ulmus glabra*), hawthorn (*Crataegus monogyna*) grey and goat willow (*Salix cinerea* and *Salix caprea*) and wild privet (*Ligustrum vulgare*). The lower shrub layer includes, dogwood (*Cornus sanguinea*), **purging buckthorn** (*Rhamnus catharticus*), guelder rose (*Viburnum opulus*) and gooseberry (*Ribes uva-crispa*). The herb layer is often very diverse and includes species such as dog's mercury (*Mercurialis perennis*), enchanter's nightshade (*Circaea lutetiana*), ivy (*Hedera helix*), bramble (*Rubus spp.*), herb bennet (*Geum urbanum*), lords and ladies (*Arum maculatum*), common dog violet (*Viola riviniana*), wood dog violet (*Viola reichenbachiana*), **goldilocks buttercup** (*Ranunculus auricomus*), yellow archangel (*Lamiastrum galeobdolon*), woodruff (*Galium odoratum*), lily of the valley (*Convallaria majalis*), wood sedge (*Carex sylvatica*), sanicle (*Sanicula europaea*), pignut (*Conopodium majus*), wood false brome (*Brachypodium sylvaticum*), hart's-tongue fern (*Phyllitis scolopendrium*), primrose (*Primula vulgaris*), wild garlic (*Allium ursinum*), bluebell (*Hyacinthoides non-scripta*) and orchids such as common twaybalde (*Listera ovata*) and early purple orchid (*Orchis mascula*).

¹ Rodwell, J.S. (1991), British Plant Communities (Volume 1) Woodlands and Scrub. Cambridge

1.3 Characteristic species including wild daffodil (*Narcissus pseudonarcissus*), moschatel (*Adoxa moschatellina*), thin-spiked wood sedge (*Carex strigosa*), hard shield fern (*Polystichum aculeatum*), **stinking hellebore** (*Helleborus foetidus*), opposite-leaved golden saxifrage (*Chrysosplenium oppositifolium*), **spurge laurel** (*Daphne laureola*), **wood barley** (*Hordelymus europaeus*), and giant bellflower (*Campanula latifolia*) are limited to only a few limestone woodlands.

2. National status

2.1 The Southern Magnesian Limestone Natural Area is of very restricted extent in the British Isles, being limited to a narrow band that stretches from Ripon in the north to Nottingham in the south. The Domesday Book records this limestone area as having particularly fertile soils, and extensive woodland clearance occurred from most areas to enable the cultivation of arable crops. Semi-natural woodlands survived in the more inaccessible river gorges and escarpments, or as part of private hunting grounds, and later as part of large country estates.

3. Local status

3.1 This type of habitat is represented in the Doncaster Borough in two Sites of Special Scientific Interest (SSSIs) and over 60 Sites of Scientific interest (SSIs)². Particularly diverse Ancient Woodland Sites (AWS) include Hampole Wood (SSI 6.12), Barnsdale Wood (SSI 7.1), Skelbrooke Rein and Harry Wood (SSI 6.15), Burghwallis (Squirrel) Wood (SSI 7.10), Scorcher Hills Wood (SSI 7.2), Hooton Thorn Covert and Hooton Pagnell Wood (SSI 6.4a+b) and the woodlands of the Sprotbrough Gorge. Replanted Ancient Woodland Sites (PAWS) such as Edlington Wood (SSSI), Melton Wood (SSI 6.47) and Scabba Wood (SSI 6.62) have a planted broadleaved or mixed canopy but retain an extremely diverse herb layer and understorey. Other woodlands such as Bella Wood, Stainton Little Wood (SSI 4.14), Wadworth Wood (South) (SSI 4.10a) and Wadworth Wood (North) (SSI 4.10b) have predominantly coniferous canopy however the rides, understorey and herb layer remain diverse.

4. Legal status

4.1 National forestry policies include a presumption against the clearance of broadleaved woodland for conversion to other land uses.

4.2 Felling licenses are required for many woodland management/forestry operations in woodlands not managed under Forestry Commission approved plans. Licences are generally required for the felling of greater than 5 cubic metres of timber. Operations such as deforestation, afforestation, quarry roads or quarrying may require consent from the Forestry Commission.

4.3 Several woodland areas within the Borough are covered by Tree Preservation Orders.

² DMBC, Re-survey of Sites of Scientific Interest in the Doncaster Metropolitan Borough 1996/97, Volumes 1-9

4.4 Sites identified as SSSIs and SSIs have a presumption against developments that would have an adverse effect on their conservation value.

4.5 Minerals Planning Guidance 7: Reclamation of Mineral Workings encourages the consideration of alternative (non-agricultural) reclamation where it would not affect the quality of the best and most versatile agricultural land.

5. Links to associated habitats & species

5.1 The Limestone Woodland Habitat Action Plan is linked to the following Habitat Action Plans:

- Rivers, Canals, Oxbows, Major Streams and Subsidence Flashes (RCF)
- Parkland, Wood Pasture and Veteran Trees (PWV)
- Limestone Grassland (LG)
- Ancient and Species Rich Hedgerows (ASH)
- Arable Field Margins (AFM)
- Crags, Caves and Tunnels (CCT)
- Greenways (GW)
- Urban Greenspace (UG)

5.2 '**A Species Audit of Doncaster Borough**' has been produced as part of the Doncaster Local Biodiversity Action Plan. Species highlighted in bold within the Habitat Action Plans are identified within Doncaster's Species Audit and are conservation priorities. The Audit identifies **95** species associated with Limestone Woodland.

6. Current factors causing loss or decline

6.1 There is a lack of traditional woodland management in many sites. Felling of large trees without replacement by replanting or natural regeneration causes a reduction in tree-age diversity. Uncontrolled grazing by deer and rabbits may decrease structural diversity and reduce natural regeneration. Grazing by the introduced Muntjac deer (*Muntiacus reevesi*) can deplete populations of bluebell.

6.2 There are few markets for the products of coppicing and pollarding.

6.3 Fragmentation and loss caused by development such as quarrying, landfill, road construction and widening, built development on, or in close proximity to woodlands and conversion to other land uses (mainly arable agriculture).

6.4 Uncontrolled access and inappropriate recreational use is a particular problem (bikes, motorcycles, quads, and use of air rifles) leading to excessive erosion, littering, fires, pollution, vandalism and disturbance to wildlife. Such recreational pressures have resulted in the unfavourable conservation status of several parts of the Sprotbrough Gorge SSSI woodlands.

6.5 Major disruption to woodland can be caused by large-scale harvesting techniques.

6.6 Replanting using non-native species reduces habitat quality.

6.7 Many woodlands were cut for timber during the World War II era. This has led to a dominance of even-aged stands of trees and has created woodlands with a limited structural diversity.

6.8 Dead wood habitats are lacking in some woodlands. Standing dead trees or dead limbs are often removed for reasons of public safety. Dead wood provides a vital habitat for a diversity of microorganisms and invertebrates. Standing dead wood is important in providing nesting sites and foraging habitat for woodland birds such as the great spotted woodpecker (*Dendrocopos major*).

6.9 Invasion by non-native species such as Rhododendron (*Rhododendron ponticum*) reduces the diversity of understorey species.

7. Current local action

Research & Monitoring

7.1 Natural England (formerly English Nature) has compiled a South Yorkshire Inventory of ancient and semi-natural woodlands and is responsible for the Veteran Trees Initiative.

7.2 Funding from the Big Lottery's Transforming Your Space initiative has enabled the further development of the Biological Records Centre at Doncaster Museum. The biological data collected as part of the project, particularly botanical information for local sites, species and habitats has enhanced the modern dataset. Historical biological information has also been transferred to the database.

7.3 The borough has a diverse series of Sites of Scientific Interest (SSIs), illustrating the variety of species and habitats that are represented on sites throughout Doncaster. All SSIs were surveyed in 1996/1997 and again in 2004/2005, when additional candidate sites were also identified. All known ancient Magnesian Limestone woodland sites have been identified as SSIs or as candidate SSIs.

7.4 The Doncaster Naturalists' Society holds regular field meetings and has carried out detailed surveys of many of the borough's key woodland sites. The Society routinely submit biological records to the Local Record Centre at Doncaster Museum.

Safeguarding & Management

7.5 DMBC has recently commissioned a TPO review, to update and inform the protection of trees and woodland of local importance.

7.6 Funding from the Big Lottery's Transforming Your Space initiative has enabled the development of a range of biodiversity initiatives, including the resurvey of the Borough's SSI's, research projects, production of site management plans and the provision of resources (equipment, educational, activity and promotional materials) to help raise awareness and encourage participation in the management and enhancement of local biodiversity. A number of management plans have been produced for woodland sites, including Conisbrough Mill Piece (SSI 5.10), Bilham Park Fish Pond Plantation (SSI 6.25) and Melton Wood (SSI 6.47).

7.7 A Woodland Operations Team carry out management work in some council-owned woodlands, the works being identified by DMBC's Woodland Strategy and existing Site Management Plans. Countryside rangers also carry out management work in some council-owned woodlands.

7.8 Some areas of semi-natural, broad-leaved Magnesian Limestone woodland are designated as SSSIs or are managed as nature reserves by the Local Authority and the Yorkshire Wildlife Trust. Edlington Wood and the woodlands of the Sprotbrough Gorge are SSSIs. Melton Wood (SSI 6.47), Campsall Country Park (SSI 7.8), Hanging Wood and Highfields Lake (SSI 3.6) and several other Magnesian Limestone woodlands are owned and managed by the Local Authority.

Communications & Publicity

7.9 The Local Authority provides interpretive leaflets, organises walks, and runs practical management events aimed at involving local people in care of woodlands and encouraging local communities to value neighbourhood woodlands.

Funding & Resources

7.10 There are several initiatives that aim to increase the amount of woodland habitat and encourage appropriate management of existing woodlands. These include the Forestry Commission's English Woodland Grant Scheme (launched 18th July 2005) and Objective One Forestry Resources Grant available through South Yorkshire Forest Partnership.

7.11 The new Environmental Stewardship Scheme provides funding for maintenance of woodland fences and management of woodland edges. The higher-level scheme also targets the creation of new habitat on land adjacent to, buffering or linking SSSIs or UK BAP habitats. It also targets the maintenance and restoration of habitats in Sites of Importance for Nature Conservation, known locally as SSIs. There is a greater potential for new woodland planting and woodland management under the higher level of the new Environmental Stewardship Scheme than was previously available under Countryside Stewardship, along with closer liaison with the Forestry Commission.

Links to other Strategies & Plans

7.12 The Outline Action Plan for the Regional Forestry Strategy for Yorkshire and The Humber Region³ provides policy support for many actions to raise public awareness of the value of woodlands, to assess the current condition of woodlands, to promote new markets for woodland and forestry products and to promote the sustainable management of woodlands.

7.13 The Don Gorge Strategic Management Plan has been produced on behalf of the Don Gorge Strategic Partnership, a body of key organisations and stakeholders active in the Don Gorge. The Plan includes a series of time framed action plans for key issues including; visitor management, access and recreation; geological, biological, archaeological and heritage interest; management of the river and banks; and species and habitat management.

³ Regional Forestry Strategy Steering Group, July 2005, "The Value of Trees in our Changing Region", Published by Forestry Commission.

Advisory

7.14 DMBC has introduced a programme of continuous professional development based on planning related issues, including 'Protected species' and 'Trees and Hedgerows'. The Environmental Planning Team has produced a suite of Supplementary Planning Documents, providing guidance on: Planning for Trees and Hedgerows, Nature, Sustainable Construction and Landscape Planning on Development Sites in Doncaster.

8 Objectives, targets & proposed actions

Please refer also to the Generic Actions in the LBAP Introduction & Overview document

Objective	Target	Ref	Action	Lead Partners	Costs	Category
1) To ensure the protection and maintenance of existing Limestone Woodland sites.	Continuous.	1.1	<p>Prevent depletion of Limestone Woodland resulting from development and/ or the delivery of statutory functions by:</p> <p>1) Having regard to the protection and enhancement of habitats when considering the allocation of sites, in line with the approach set out in PPS9 and the priorities set out in the LBAP.</p> <p>2) Having regard to the assessment, retention and enhancement of habitat types when formulating and making Development Control Policies and decisions, in line with the approach set out in PPS9 and the priorities set out in the LBAP.</p>	DMBC, Natural England (NE)	Staff costs	Advisory/ Safeguarding & Management

Objective	Target	Ref	Action	Lead Partners	Costs	Category
			<p>3) Providing advice to Development Control and Developers on appropriate types of survey i.e. ecological and/or hydrological, the interpretation of survey results and methods of incorporating habitat retention and enhancement into development proposals (for both designated sites and non-designated features of biodiversity value, as identified in the LBAP).</p> <p>4) Having regard to the priorities set out in the BAP in the interpretation of UDP/LDF policies (and any supporting SPGs/SPDs).</p> <p>5) Providing technical advice on the severity, implications and nature of suspected breaches in planning control (either conditions or unauthorised development).</p>			

Objective	Target	Ref	Action	Lead Partners	Costs	Category
			<p>6) Awarding appropriate site protection through designation, based upon routine environmental monitoring and assessment.</p> <p>7) Ensuring that all Partners and relevant landowners, service providers and operational contractors are informed of the existence and importance of Limestone Woodlands (both designated and non-designated sites).</p>			
	Continuous.	1.2	Continue to collect and maintain up-to-date, standardised, biological data using the Museum's Local Record Centre. Promote and initiate appropriate management, monitoring and the exchange of environmental data, to ensure the maximum level of site protection is awarded and habitat condition is maintained.	DMBC, NE, Doncaster Naturalists' Society (DNS), Forestry Commission (FC), Yorkshire Wildlife Trust (YWT), Don Gorge Strategic Partnership (DGSP)	Staff costs and volunteer time. Other costs to be evaluated	Future Research & Monitoring

Objective	Target	Ref	Action	Lead Partners	Costs	Category
	By 2008.	1.3	Expand DMBC's Environmental Planning protected species protocol to include LBAP habitats and species.	DMBC	Staff costs	Advisory
2) To restore degraded sites and ensure appropriate management of Limestone Woodland.	Equip 3 additional Limestone Woodland sites with Management Plans by 2008 and a further 3 by 2010.	2.1	Develop/review and implement woodland management for woodlands in public ownership. Ensure compatibility with HAPs and SAPs. Review Site Management Plans on a minimum 10-year cycle.	DMBC, NE, FC, YWT, DGSP	£6000 (1000 per plan)	Safeguarding & Management

Objective	Target	Ref	Action	Lead Partners	Costs	Category
	Implement active management on 6 sites by 2008, and a further 6 by 2010.	2.2	<p>Identify landowners of existing SSI woodlands. Provide assistance to owners seeking funding and/or assistance for appropriate nature conservation and woodland management operations, including:</p> <ul style="list-style-type: none"> • Selective felling of non-natives, • Removal of invasive species, • Replanting of native species, • Re-introduction of traditional management (e.g. Coppicing • Promotion of natural regeneration by preventing grazing by herbivores. <p>Monitor the effectiveness of the management, by regular assessment of critical habitat features and selected key or indicator species, and review the management regime as necessary.</p>	<p>DMBC, Farming and Wildlife Advisory Group (FWAG), FC, NE, DGSP, Private landowners</p> <p>(NE able to incorporate into Environmental Stewardship once sites have been identified.)</p>	<p>£225 per site for 12 sites =£2700</p> <p>Management costs to be evaluated</p>	Safeguarding & Management

Objective	Target	Ref	Action	Lead Partners	Costs	Category
	Implement species-specific management at 6 sites by 2008, and a further 6 by 2010.	2.3	Identify all Limestone Woodland sites where Priority Species are present and implement appropriate specialist management schemes to benefit these species.	DMBC, FWAG, FC, NE, DGSP, Private landowners	To be evaluated	Species Management & Protection
	Continuous.	2.4	Investigate the acquisition (where necessary, and feasible) of Limestone Woodlands of local significance, in order to ensure their future management for the benefit of biodiversity.	YWT, DMBC, local Trusts	Woodland purchase at £11,266 per ha	Safeguarding & Management
	Continuous.	2.5	Preserve standing dead wood and fallen wood as habitat for invertebrates and fungi and incorporate into all Woodland Management Plans.	DMBC, FWAG, FC, NE, DGSP, Private landowners	Negligible	Species Management & Protection

Objective	Target	Ref	Action	Lead Partners	Costs	Category
	By 2008.	2.6	Locate and protect veteran trees within woodland areas with Trees Preservation Orders. Seek to protect important private woodland sites using Tree Preservation Orders, on sites supporting special woodland types as listed in the SSI selection Criteria.	DMBC	To be evaluated	Safeguarding & Management
	By 2008.	2.7	Investigate and promote the harvesting of wood products to fund management work.	DMBC	Staff costs	Safeguarding & Management
	2 SSI woodlands by 2008 and a further 2 sites by 2010.	2.8	Prevent disturbance to the wildlife of woodlands by the control of recreational access and prevention of inappropriate and damaging activities. Produce action plans in conjunction with SY Police where necessary.	NE, DMBC, DGSP, SY Police	To be evaluated	Safeguarding & Management

Objective	Target	Ref	Action	Lead Partners	Costs	Category
3) To create 8 ha of W8 woodland linked to existing woodlands within the Magnesian Limestone Natural Area.	By 2010.	3.1	Work with landowners to find sites where new woodland can be created without loss of other priority habitats. Promote natural regeneration of woodland from scrub habitat in selected sites.	DMBC, YWT, DGSP Private Landowners	Staff costs	Advisory/ Habitat Creation & Restoration
	By 2010.	3.2	Use new woodlands to link existing Limestone Woodland sites (also Limestone grassland sites).	DMBC, YWT, FWAG, FC, NE, DGSP, Private landowners	£40,000 to create 8 ha	Habitat Creation & Restoration
	Continuous.	3.3	Promote the use of only native and local-provenance trees and shrubs, in new semi-urban and rural planting schemes.	DMBC	Staff costs	Advisory/ Policy & Legislation

Objective	Target	Ref	Action	Lead Partners	Costs	Category
	Continuous.	3.4	Research the establishment and running costs and operational requirements of a local tree nursery initiative and/or native seed project with existing nurseries to grow on seed gathered from local woodlands. Pursue opportunities to implement feasible initiatives.	DMBC, YWT, DNS, NE, British Trust for Conservation Volunteers (BTCV), FC	To be evaluated	Habitat Creation & Restoration / Species Management & Protection
4) Raise public awareness of the importance and special characteristics of Limestone Woodland.	Continuous.	4.1	Provide interpretive leaflets, organise walks, and run practical woodland management events.	DMBC, YWT, NE, DGSP	To be evaluated	Communications & Publicity
	1 per year.	4.2	Run species survey and identification workshops open to the general public.	DNS, DGSP	£256 plus volunteers	Communications & Publicity
	Leaflet for 1 site by 2010.	4.3	Provide interpretive leaflet to explain the special value of Limestone Woodlands and include a map showing the location of more accessible sites.	DBMC, YWT, NE, DGSP	£1000	Communications & Publicity

Objective	Target	Ref	Action	Lead Partners	Costs	Category
	1 demonstration by 2008.	4.4	Promote good practice through the use of demonstration sites and workshops.	DMBC, NE, Linking the Environment And Farming (LEAF), YWT, BTCV	£2640	Advisory/ Communications & Publicity

9. Indicative Habitat distribution & Opportunities map

The distribution of Limestone Woodland has been indicated by mapping species considered to be local indicators for this habitat, as selected by local experts. Certain species that may be considered to be typical indicators of the habitat have not been used, due to them being abundant throughout the Borough, or unrepresentative of a local habitat peculiarity.

The indicator species for this habitat are:

Allium ursinum, *Cornus sanguinea*, *Euonymus europaeus*, *Eurhynchium praelongum*, *Fragaria vesca*, *Mercurialis perennis*, *Phyllitis scolopendrium*, *Tilia cordata*

The species records have been compiled based on 1km grid squares of the Borough. The resulting score is based on how many of the different species are found within a particular square, reflecting a degree of match to the species assemblage, and not the number of records of a specific species.

To indicate how good a match each grid square is to the habitat a graduated colour has been applied, based on how many species are recorded in that square as a percentage of the highest number of matches. The higher percentage shows a better species match and therefore is a better indicator that the species assemblage exists, or could exist in that area. The percentages are split down as follows:

- 0% No matches in a grid square – these are left blank
- 1-25%  1-2 Species
- 26-50%  3-4 Species
- 51-75%  5-6 Species
- 76-100%  7-8 Species

