

Northern Ireland Habitat Action Plan
Oakwood
March 2005

1. Current Status

1.1 Biological Status

- 1.1.1 Oakwood is characterised by a predominance of sessile oak *Quercus petraea*, pedunculate oak, *Q. robur* and downy birch *Betula pubescens* in the canopy, with varying amounts of holly *Ilex aquifolium*, rowan *Sorbus aucuparia* and hazel *Corylus avellana* as the main understorey species. Some woods have been invaded by Beech *Fagus sylvatica*, sycamore *Acer pseudoplatanus* and rhododendron *Rhododendron ponticum*. The range of plants found in the ground layer varies according to the underlying soil type and degree of grazing; from bluebell *Hyacinthoides non-scripta*, bramble *Rubus fruticosus* agg. and fern communities, through grass, bracken *Pteridium aquilinum* or moss dominated areas. The UK Habitat Action Plan describes this habitat as Upland Oakwood. However, this has been taken to include oak woodland occurring in the cooler, moist north and west of the UK rather than to the altitude at which individual sites occur. In Northern Ireland all oakwood falls into this classification and hence the prefix of upland has been removed.
- 1.1.2 Within Northern Ireland, oakwoods encompass a range of plant communities that are similar to those identified in the National Vegetation Classification (NVC) of Great Britain (Rodwell, 1991). NVC descriptions and codes are given to associations of plants that are characteristic of particular environmental and management conditions. In Northern Ireland, most oakwood can be assigned to two NVC community types W11 *Quercus petraea* – *Betula pubescens* – *Oxalis acetosella* woodland and W17 *Quercus petraea* – *Betula pubescens* – *Dicranum majus* woodland. W11 is the main woodland type on moderately acidic soils in the north-west of Britain and Ireland. It is intermediate in type between W9 *Fraxinus excelsior* – *Sorbus aucuparia* – *Mercurialis perennis* woodland and W17. Bluebell can often be dominant and ungrazed stands can sometimes be dominated by Greater Wood-rush *Luzula sylvatica*, but the type is often marked by the absence of the more base-rich indicators of W9, rather than the presence of any particular community “character” species. W17 is the main woodland community found on highly acidic soils in north-west Britain and Ireland. Bilberry *Vaccinium myrtillus* and greater woodrush are usually dominant in ungrazed stands, with grasses, especially wavy hair-grass *Deschampsia flexuosa*, and acid-tolerant pleurocarpous mosses dominant where there is moderate to heavy grazing. Occasional stands of W10 *Quercus robur* – *Pteridium aquilinum* – *Rubus fruticosus* woodland have been recorded from drier parts of County Down (e.g. Rostrevor Oakwood). Although this NVC type is generally characteristic of more south-eastern parts of Britain, the more oceanic sub-communities (W10c and W10e) are included within this Habitat Action Plan.
- 1.1.3 Upland oakwood has been defined by the UK Native Woodland Habitat Action Plans (HAPs) Definitions Working Group and adapted for Northern Ireland oakwood. To qualify as oakwood priority habitat in Northern Ireland, the woodland must conform to the description outlined in 1.1.1 & 1.1.2 and meet the following criteria:

- Woodland area greater than 0.5 ha.
- 20% or more canopy cover, or the potential to achieve this in the case of newly planted stands.
- A canopy composed of 50% or more site-native trees or shrubs (or will be at canopy closure in the case of younger stands). Site native trees are those which are native to the locality and capable of growing naturally on the site.

And/Or

Typical woodland ground flora (which may be under non-native tree species such as Beech)

- 1.1.4 Oakwood is generally widespread in Northern Ireland on less base-rich soils. It is particularly common in the Sperrins and the north-west on metamorphic rocks and in County Fermanagh on sandstone. It is also found in parts of Counties Antrim, Down and Armagh, where the soils are less base-rich, although the most acidic communities are generally absent here.
- 1.1.5 In general oakwood is unmanaged in Northern Ireland often being utilised for grazing and shelter by livestock. The extent of coppicing in Northern Ireland is not known but in the past, some woods have been coppiced on an *ad-hoc* basis.
- 1.1.6 There are no precise data on the total extent of upland oakwood in the UK, but a crude estimate places the total between 70,000 ha and 100,000 ha (JNCC, 2001). It is estimated that oakwood occupies 2,350 ha in Northern Ireland, with an estimated 2,000 ha in private ownership and 350 ha in public ownership (EHS unpublished estimates, based upon Graham, 1975). The latter figure consists largely of oakwood in publicly owned National Nature Reserves (NNRs), Areas of Special Scientific Interest (ASSIs) and Forest Nature Reserves (FNRs). However, as the 350 ha of oakwood in public ownership excludes around 2,700 ha of woodland classified by Forest Service as planted conservation - i.e. semi-natural woodland habitats within productive planted woodland areas, it is likely that this figure may represent something of an underestimate.
- 1.1.7 The figure of 2,350 ha in Northern Ireland includes all oakwood, irrespective of age and condition. This estimate includes relatively recent oakwood (developed after 1900), in addition to more mature woodland. It is likely that only a proportion of oakwoods in Northern Ireland could be described as mature (around 1,400 ha dates from before 1900) (Graham, 1975). In addition, some of these older oakwoods may be dominated by non-native tree species (such as Beech), but retain a long-established native woodland ground flora.
- 1.1.8 The *Northern Ireland Countryside Survey* (NICS), funded by EHS, is a sample survey of Northern Ireland vegetation communities used to estimate the extent and distribution of broad habitats such as broad-leaved, semi-natural woodland, including oakwood. Repeat surveys are used to assess land-use change. The first phase in the process was *A land classification and landscape ecological study of Northern Ireland* carried out in 1988 (Murray *et al*, 1992). The *NICS 2000* (Cooper & McCann, 2001) repeated the survey in 1998. NICS (2000) indicates an 11% increase in the extent of woodland and scrub between 1988 and 1998. This estimated increase of 11,211 ha is a result of tree planting, both broad-leaved and coniferous, and natural regeneration. Within this broad habitat, broad-leaved semi-natural woodland (which includes both

oakwoods and mixed ashwoods, in addition to some wet woodlands) increased by 1,249 ha and now covers 1.7% (23,027 ha) of Northern Ireland.

- 1.1.9 The conservation value of oakwood can be partly determined by the condition of the habitat. Favourable condition is defined by setting targets or target ranges for a series of attributes. These are components or characteristics of the vegetation that are relatively easy to measure, and which are reliable indicators of the ‘health’ of the habitat. For oakwood, these include the percentage cover of native trees and shrubs, the vegetation structure, the presence of key indicator species and the absence of vegetation, species or factors associated with disturbance such as invasive species, overgrazing or dumping. Methods have been developed for assessing favourable condition of oakwood in designated sites, but the standards for assessing favourable condition of the habitat in the wider countryside have not yet been agreed.
- 1.1.10 Little information exists on the condition of oakwoods in Northern Ireland. A few sites are known to have compartments which have low cover of native trees, poor structure and/or lack a characteristic ground flora. The condition assessment of a site needs to consider the management history and potential nature conservation value of that individual site.
- 1.1.11 Oakwood is notable for its assemblages of lower plants. The ferns, mosses and liverworts found in the most oceanic of these woods are particularly rich; containing rare species such as the mosses *Hylocomium umbratum* and *Leucobryum juniperoideum* and the liverwort *Anastrophyllum hellerianum*. Notable fungi associated with oakwoods include *Inonotus dryadeus* and *Psylloporus pelletieri*. Many also hold very diverse lichen communities.

1.2 Links with other Action Plans

- 1.2.1 Oakwood may be associated with other habitats such as upland heathland, lowland heathland, lowland dry acid grassland, purple moor-grass and rush pastures, lowland meadows, mixed ashwoods, wet woodland and parkland, which have their own Northern Ireland HAPs. Requirements of these plans will need to be given due regard during implementation of this HAP.
- 1.2.2 Within Northern Ireland oakwood may be important for a number of UK and Northern Ireland priority species identified as part of the Biodiversity Action Plan programme. These include red squirrel *Sciurus vulgaris*, common pipistrelle *Pipistrellis pipistrellus* Spotted Flycatcher *Muscicapa striata*, song thrush *Turdus philomelos*, small cow-wheat *Melampyrum sylvaticum*, Killarney fern *Trichomanes speciosum*, the fungi *Hydnellum conrescens* and *Hydnellum spongiosipes* (Simonson & Thomas, 1999) and the Scottish wood ant *Formica aquilonia*. The requirements of these species should be taken into account during the implementation of this plan.
- 1.2.3 In addition, several Northern Ireland priority species are associated with oakwood. These include a number of bat species, intermediate wintergreen *Pyrola media* and the liverwort *Calyogeia intergristipula*. The requirements of these species should also be taken into account during the implementation of this plan.

- 1.2.4 Relevant published Northern Ireland Species Action Plans include small cow-wheat *Melampyrum sylvaticum*.

2. Current Factors Affecting the Habitat

- 2.1** Grazing, browsing and bark stripping - by domestic and feral stock and other fauna such as deer and squirrels, can lead to changes in the woodland structure, ground flora impoverishment, potential loss of habitat for some woodland birds and difficulties for regeneration.
- 2.2** Invasive species - including replacement of native trees by species that are not native to Northern Ireland such as beech and alien plant species including rhododendron *Rhododendron* spp., cherry laurel *Prunus laurocerasus*, Japanese knotweed *Fallopia japonica*, salmonberry *Rubus spectabilis*, snowberry *Symphoricarpos albus* and fuchsia *Fuchsia magellanica* can lead to changes in the composition of the woodland and decreased diversity of field layer respectively.
- 2.3** Habitat loss and fragmentation - through development including quarrying, as deforestation for agricultural practices leading to simplification of the landscape and greater ecological isolation of existing woods through the removal of trees in field boundaries and small patches of Oak and Downy Birch-rich scrub in fields and illegal dumping of building rubble, agricultural and domestic waste.
- 2.4** Lack of woodland management - may lead to a reduction in structural diversity within some woods.
- 2.5** Use for sport – can lead to soil enrichment and changes in ground flora.
- 2.6** Nutrient enrichment - may occur from spray drift, runoff from adjacent agricultural land and game bird rearing leading to changes in soils and ground flora,. In addition, pesticide drift into woodland margins may cause localised damage to some flora and/or fauna.
- 2.7** Disease - such as Sudden Oak Death caused by the fungus-like organism *Phytophthora ramorum* which invades susceptible trees through the bark, killing portions of the tree.
- 2.8** Air pollution – derived remotely from cars and/or industry and agro-chemical application could potentially cause pre-mature death of old and veteran trees.
- 2.9** Climate change - potentially resulting in changes in the vegetation communities. Summary predictions for temperature and sea level rise as a result of global warming have been modelled by the MONARCH project (Harrison *et al*, 2001). These models indicate a much smaller impact in Ireland than in Britain.

3. Current Action

3.1 Legal Status

- 3.1.1 In 1992, the EC adopted the *Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora*, known as the ‘Habitats Directive’. The Habitats Directive requires member states to designate and manage Special Areas of Conservation (SACs) for selected habitats (listed in Annex 1 of the Directive) and species (listed in Annex 2). A small proportion of these habitats and species, which are considered to be most in need of conservation at a European level, are given priority status. Annex 1 contains *Old sessile oak woods with Ilex and Blechnum* which is afforded priority habitat status because of its very limited distribution within Europe. In Northern Ireland, 11 sites covering 600 ha have been proposed as candidate Special Areas of Conservation (cSACs), including Largalunny cSAC, Owenkillew River cSAC, Breen Wood cSAC, Banagher Glen cSAC and Rostrevor Wood cSAC. The UK list includes 69 sites in the *Old sessile oak woods with Ilex and Blechnum* in the British Isles category. In the Republic of Ireland, 38 sites, covering 6,043 ha have been proposed as cSACs.
- 3.1.2 The *Conservation (Nature Habitats, etc.) Regulations (Northern Ireland) 1995* and *The Conservation (Natural Habitats, etc.) (Amendment) Regulations (Northern Ireland) 2004* (The Habitat Regulations) require competent authorities, when considering a plan or project not directly connected with the management of a European site e.g. an SAC or SPA, to undertake an Article 6 assessment. This assessment will determine if the plan or project, either alone or in combination with other plans or projects, is likely to have a significant impact on the site. In the case of a negative or undetermined assessment, a competent authority may only agree to the plan or project where it is satisfied that there are no alternative solutions and that the plan or project must be carried out for imperative reasons of overriding public interest, which may be of a social or economic nature. However, if the site hosts a priority habitat or species then the plan or project may only be approved for: a) reasons of human health, public safety, beneficial consequences of primary importance to the environment, or b) other reasons which the Department (DOE), having considered the opinion of the European Commission (EC), determines are imperative reasons of overriding public interest.
- 3.1.3 Under the terms of the Habitat Regulations, the above Article 6 assessment by the competent authority is required for plans or projects e.g. land reclamation, which are outside European sites but may still have an impact on the site.
- 3.1.4 Guidance to help competent authorities and others to interpret the Habitat Regulations has been published (EHS, 2002).
- 3.1.5 Guidance on the completion of an Article 6 assessment has also been published (European Commission, 2000)
- 3.1.6 At 31st March 2004, 25 of the more important areas of oakwood had been designated as ASSIs under the *Nature Conservation and Amenity Lands (Northern Ireland) Order 1985* ensuring compulsory consultation with Environment and Heritage Service (EHS) over management operations and development proposals. An estimated 33% (800 ha)

of the oakwood resource is protected within the ASSI series. Further ASSI declarations under the *Environment (Northern Ireland) Order 2002* are proposed, by 2014, to extend the overall proportion of the resource protected and its geographical coverage.

- 3.1.7 A number of oakwood ASSIs are owned, partially owned or leased by EHS and are managed for nature conservation. Several of these including Banagher Glen, Breen Wood, Correl Glen and Rostrevor are also designated as NNRs. NNRs are subject to a site management plan and positive management of these sites has been undertaken by EHS using best-practice management techniques.
- 3.1.8 In 2000, the Northern Ireland Biodiversity Group (NIBG) made its Recommendations to Government (NIBG, 2000). These were largely accepted by the Northern Ireland Executive in 2002, with the publication of the *Northern Ireland Biodiversity Strategy* (DOE, 2002). *The Regional Development Strategy 2025* (DRD, 2001) is underpinned by the sustainable approach and includes Strategic Planning Guidelines (SPGs) on the protection of the environment which bring together a comprehensive collection of natural heritage and built heritage strategic guidance that includes sustaining and enhancing biodiversity.
- 3.1.9 Regional Planning and Transportation Division within DRD is responsible for co-ordinating the implementation of the *Regional Development Strategy (RDS) for Northern Ireland 2025* (DRD, 2001). The RDS contains a Spatial Development Strategy and related Strategic Planning Guidelines (SPGs). The emphasis in the SPGs is on competitiveness, sustainable development and tackling social exclusion and division. Operational policies to give effect to the SPGs are contained in Planning Policy Statements (PPSs). Some of these policies have a direct or indirect bearing on the prevention of adverse impacts on priority habitats and species.
- 3.1.10 *PPS2 Planning and Nature Conservation* (DOE, 1997) (under review) contains planning policy for the hierarchy of sites of nature conservation importance. It also addresses trees and woodlands, protection of species and peatlands.
- 3.1.11 PPS2 also refers to the making of Tree Preservation Orders (TPOs) by Planning Service. The process for making a TPO is set out in *the Planning (Trees) Regulations (Northern Ireland) 2003*. These can be made to:
- (a) reinforce a condition, for the preservation of existing trees;
 - (b) protect trees of outstanding natural beauty or of special value to a particular area, even though no direct threat exists to them;
 - (c) ensure the retention of trees, not protected by a condition of a planning permission which are threatened and whose loss would significantly lower amenity, and
 - (d) protect a woodland area of amenity value, by securing the replacement of trees, which have been felled with the Department of the Environment's consent.
- 3.1.12 *PPS14 Sustainable Development in the Countryside* is due to be published by the end of 2005.
- 3.1.13 Site protection policies are included in Development Plans [*Planning Service*]. Sites of Local Nature Conservation Importance (SLNCIs) are being identified for consideration by Planning Service and will be formally included in Development

Plans. Where such sites are confirmed in adopted plans, specific planning policies will be applied to development proposals on those sites. The SLNCI network will include a number of oakwood sites of substantive nature conservation interest, which are not designated as ASSI or NNR.

- 3.1.14 Semi-natural areas, which are likely to be of particular environmental importance, are protected through the *Environmental Impact Assessment (Uncultivated Land and Semi-Natural Areas) Regulations (Northern Ireland) 2001*. These regulations, which came into operation in Northern Ireland in February 2002, are administered by Department of Agriculture and Rural Development (DARD) and seek to ensure that agricultural development of uncultivated land or semi-natural areas must first be assessed for environmental significance. This would include cases where the land use changes are aimed at restoring or enhancing oakwood.
- 3.1.15 Certain large-scale development projects and developments likely to have a significant impact may require an Environmental Impact Assessment (EIA) under the *Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 1999*. EIA is mandatory for those types of projects listed in Schedule 1 to the Regulations and is also required for those types of projects, listed and described in Schedule 2 to the Regulations, which is either wholly or in part in a 'sensitive area' or meet or exceeds one of the relevant thresholds and is likely to have significant environmental effects. Sensitive areas include designated Areas of Special Scientific Interest (ASSIs), including Ramsar sites, a designated Area of Outstanding Natural Beauty (AONB), a designated National Park, World Heritage Site, Scheduled Historic Monument or European Site as defined in Regulation 9 of the *Conservation (Natural Habitats, etc) Regulations (Northern Ireland) 1995*. EIAs assist Planning Service and EHS in reaching decisions regarding environmental impacts of proposed developments.
- 3.1.16 The UK Woodland Assurance Standard (UKWAS Steering Group, 2000), a voluntary certification standard, requires that valuable semi-natural habitats are being treated in a manner that does not lead to further loss of biodiversity. Forest Service is certified against this standard and is undertaking a survey of its lands to identify valuable semi-natural habitats which include grasslands.
- 3.1.17 *The Environmental Impact Assessment (Forestry) Regulations (Northern Ireland) 2000* require anyone who wishes to carry out a project including afforestation, deforestation, forest road works or forest quarry works that is likely to have significant effects on the environment to obtain consent for the work from the Department of Agriculture and Rural Development.
- 3.1.18 Forest Service acquisition policy is outlined in *Afforestation – the DANI Statement on Environmental Policy* (DANI, 1993). It states that there should be a presumption against afforestation of botanically rich sites, which have undergone little disturbance for many years.
- 3.1.19 An 'Options for Forestry' paper has recently been out to public consultation (DARD, 2004). One of the proposals for consultation is for Forest Service to seek powers to specify the conditions under which tree felling will be permitted. If implemented, this could add to the suite of protections against tree felling already outlined above and

result in the use of approved management plans or such mechanisms similar to ‘Felling Licenses’ which are used in other parts of the UK and Ireland.

- 3.1.20 The Rivers Agency as the statutory Drainage and Flood Protection Authority for Northern Ireland are responsible for maintaining the effective drainage function of designated watercourses under the *Drainage (Northern Ireland) Order 1973*. All drainage and flood defence proposals are subject to the *Drainage (Environmental Assessment) Regulations (Northern Ireland) 1991*, as amended, which require an assessment at planning stage of the environmental impact of the proposed works. Rivers Agency also consult with EHS on their annual programme of drainage maintenance, where this may have an impact on designated sites of nature conservation importance. This includes both localised operations such as the maintenance of outfalls for field drains and more significant river maintenance work. All of these operations can have adverse effects on oakwood.

3.2 Management, research and guidance

- 3.2.1 EHS, as part of the requirements of the Habitats Directive, has prepared conservation objectives for those sites submitted as cSAC’s. Where oakwood occurs on cSACs and ASSIs, they are protected by control of potentially damaging operations and by the application of targeted conservation objectives.
- 3.2.2 Common standards monitoring protocols are also being established across the UK to assess the extent and condition of oakwoods within designated sites. However, standards for assessing favourable condition of the habitat in the wider countryside have not yet been agreed.
- 3.2.3 The Management of Sensitive Sites Scheme (MOSS), launched in 2002 by EHS, is a voluntary scheme designed to ensure the positive management of the site features to maintain their extent and favourable condition within ASSIs. Under the scheme, landowners can receive payment for carrying out conservation work within the framework of a written agreement. MOSS covers issues that have relevance to the conservation of the site features including dumping, grazing and control of invasive species. EHS has negotiated several management agreements on ASSIs to help secure sympathetic ASSI management through the MOSS scheme.
- 3.2.4 Forest policy includes a presumption against clearance of broad-leaved woodland for conversion to other land uses, and in particular seeks to maintain the special interest of ancient semi-natural woodland. In Northern Ireland, Forest Service have responsibility for developing and implementing local forestry policies.
- 3.2.5 Management of all woodland should comply with the *UK Forestry Standard*, the government’s approach to sustainable forestry (Forestry Commission & Department of Agriculture for Northern Ireland, 1998). Much of Northern Ireland’s woodland is certified under the *UK Woodland Assurance Standard*, a voluntary certification standard (UKWAS Steering Group, 2000). UKWAS requires that valuable semi-natural habitats which have been colonised, planted or incorporated into plantations, but which have retained their ecological characteristics (or have a high potential to be restored) are being restored or treated in a manner that does not lead to further loss of

biodiversity or cultural value. A strategy for prioritisation of restoration projects has been developed for the Forest Service estate.

- 3.2.6 Grants for woodland planting, regeneration and some other management practices, are available from the Forest Service, DARD. Forest Service offers two grant schemes which are part funded by the European Union (Council Regulation 1257/1999). The Woodland Grant Scheme (WGS) offers grants towards the costs of establishing new woodland and management of existing woodland. The scheme is wide-ranging in order to encourage multiple use forestry. It is a requirement of the Forest Service that all planting and woodland must be in accordance with good silvicultural practice as determined by the UK Forestry Standard. There are two groups of grant available. Establishment Grants are designed to assist new planting, restocking and natural regeneration. Woodlands must be at least 0.2 ha in area and 20 metres wide to be eligible. Woodland Improvement and Sustainable Forestry Operations Grants are available for existing woodlands to bring them back to sustainable management and secure environmental, social and economic benefits. To be eligible, woods must be at least 1.0 ha. All grants are paid as part of an agreement under which the owner undertakes to maintain the woodlands in accordance with good forestry practice for a minimum of 30 years in the case of predominantly broad-leaved woods. The Farm Woodland Premium Scheme (FWPS) is designed to encourage the creation of new woodlands on farms. The Scheme offers annual payments, for either 10 or 15 years, depending on the trees planted and management, to compensate for agricultural income foregone.
- 3.2.7 New native woodlands should follow the guidelines set in the Forestry Commission *Bulletin 112 Creating New Native Woodlands* (Rodwell & Patterson, 1994). Non site native species should not constitute more than 5% of the canopy cover, and ideally should constitute none. Species which have the potential to be invasive should not be planted. Exceptions may be made in terms of mature or veteran trees and naturalised species where these add to the nature conservation value of the site, but each case should be assessed on an individual basis. Species which have the potential to be invasive should not be planted.
- 3.2.8 DARD, through its Countryside Management Branch (CMB), has developed a series of agri-environment schemes including the Environmentally Sensitive Areas (ESA) Scheme (revised in 2000) and the Countryside Management Scheme (CMS). A further revision to both the ESA and CMS has recently been approved under the current Northern Ireland Rural Development Programme (2000-2006). Their objective is to protect and enhance semi-natural habitats such as oakwood by encouraging more sensitive management practices. Both these schemes have are voluntary and apply to the whole farm. Within agri-environment schemes, 402 ha of broad-leaved woodland is managed under CMS and ESA agreements (31st March, 2004). The review of agri-environment schemes fine-tuned woodland habitat definitions to correspond with delivering targets listed in Habitat and Species Action Plans where appropriate.
- 3.2.9 The designation of ESAs commenced in 1988 and today there are five ESAs in Northern Ireland. DARD has determined a number of priority habitats which, if they occur on the farm, must be brought under agreement and managed according to relevant prescriptions determined by DARD. Under the original ESA scheme, there is

over 2,695 ha of woodland/scrub and under new ESA agreements there are currently 54 ha of woodland and 98 ha of scrub.

- 3.2.10 The Habitat Improvement Scheme (HIS) aims to help farmers protect, enhance and establish habitats which are considered to have major conservation value. This is achieved by taking land out of agricultural production or by entering into a 10 year agreement which involves extensive grazing based on non-application of fertilizers and pesticides to the land. No new applications for the HIS are being accepted as the scheme closed in mid-1999. The scheme has been replaced by the Countryside Management Scheme (CMS).
- 3.2.11 The CMS, launched in 1999, was developed with the primary aim to maintain and enhance biodiversity and is open to all farmers and landowners outside ESAs. Where funding is limited, entry into the scheme is competitive, being based on who can offer the greatest environmental benefits. DARD can provide area-based payments on blocks of 'broad-leaved farm woodland/scrub' which are a minimum of 0.1 ha in area within the farm unit, where it meets clearly defined criteria. Woodland/scrub cover must be at least 50% and consist of at least 50% broad-leaved tree species to be eligible. There are currently 416 ha of woodland and 713 ha of scrub under CMS agreements, with <20% being oakwoods.
- 3.2.12 The CMS has a voluntary option to protect and enhance grass margins adjoining ASSIs, NNRs, SACs, watercourses, lakes, woodlands or field boundaries. Grass margins are at least 2m wide and of a length which DARD will decide. The option of creating grass margins promotes the protection of sensitive habitats from pesticide drift or nutrient enrichment. No grazing, and usually no mowing, is allowed within the buffer strip and funds are available for fencing.
- 3.2.13 DARD has developed the Entry Level Countryside Management Scheme (ELCMS) which is due to open mid 2005. ELCMS has been designed to be easily accessible and to deliver a range of basic agri-environment improvements. Participants in the scheme will be required to undertake a field boundary management module, one of 3 possible water quality modules and one of 5 further biodiversity modules. The scheme will complement the existing agri-environment programme.
- 3.2.14 The introduction of Good Farming Practice (GFP), which is applicable to all farmers receiving Less Favoured Area (LFA) compensatory payments and those who enter any of the agri-environment schemes, provides a level of protection for oakwood. Farmers must comply with a list of 8 verifiable standards in relation to GFP and retain a copy of Codes of Good Agricultural Practice for water, soil and air. These standards and codes apply to the whole farm and are compatible with the need to safeguard the environment and maintain the countryside by sustainable farming. Damaging operations and woodland clearance is prohibited without the necessary permissions. Over 70% of Northern Ireland is classified as LFA.
- 3.2.15 An 'Ancient Woodland Inventory' of Northern Ireland by the Woodland Trust, with funding from EHS and the Heritage Lottery Fund is due for completion in 2007. The aim of the project is to identify and classify ancient and long-established woodland in Northern Ireland. 'Ancient' woodland is classified as land continuously wooded since at least c1600AD. 'Long-established' woodland is classified as land continuously

wooded since the 1830s but which became wooded after 1600. This is the default category for surviving woodlands shown on the Ordnance Survey (OS) First Edition 6" to 1 mile maps. Physical features such as pollards, ancient trees, walls, banks, ditches, evidence of other land use, species and woodland type will be recorded. A similar survey has been undertaken in Great Britain. A Native Woodland Inventory is also being prepared in the Republic of Ireland by the Department of the Environment, Heritage and Local Government.

- 3.2.16 Information on woodland type and management is collected as part of the Forest Service's Woodland Grant Scheme and Farm woodland Premium Scheme. A biodiversity audit undertaken by Forest Service (2002-2005) should assist in identifying areas of oakwood within their estate. EHS also holds information from surveys of woodlands in Areas of Outstanding Natural Beauty (AONBs), statutory protected sites and SLNCIs.
- 3.2.17 A restoration programme of plantations on ancient and long-established oakwood sites is being undertaken by Forest Service and will yield valuable information on the regeneration of oakwood.
- 3.2.18 Other relevant information is gathered through specialist biological recording groups, Non-Governmental Organisations (NGOs), universities and other government bodies. Biological records are stored in the Museum and Galleries of Northern Ireland (MAGNI) at the Centre for Environmental Data and Recording (CEDaR). CEDaR was established in 1995 in partnership with EHS, MAGNI and the biological recording community. At 31st March 2004, over 1.4 million records were held by CEDaR and there are developments underway to make these records more accessible through the Internet. This will be achieved through the National Biodiversity Network, a union of organisations throughout the UK working together to create an information network of biological data providing an accessible data source for biodiversity information.
- 3.2.19 The Forestry Commission (FC) published a revised Forest Practice Guide for 'Upland Oakwood' in 2003 (Forestry Commission, 2003). Management should follow this guide.
- 3.2.20 Woodland management advice is available from forestry consultants and management companies and through Forest Service - Private Woodland Branch, EHS - Regional Operations staff and the MOSS team, DARD - CMB and NGOs such as the Woodland Trust, Conservation Volunteers for Northern Ireland (CVNI), the Ulster Wildlife Trust (UWT) and the National Trust (NT). The experience of woodland managers is also developed and promoted through organisations such as the Forestry and Timber Association, Society of Irish Foresters, Royal Forestry Society, the Institute of Chartered Foresters and the Royal Institution of Chartered Surveyors.
- 3.2.21 Research in Northern Ireland is undertaken by various bodies and individuals. For example the ongoing biodiversity audit by Forest Service, distribution of deer by EHS, ground flora and tree regeneration following conifer plantation, clearfell and habitat associations of the Red and Grey squirrels by university departments and monitoring of agri-environment schemes by DARD.

- 3.2.22 In 2003, a forum was established to ensure that the management of native woodlands is co-ordinated and appropriately supported. This forum is known as the Northern Ireland Native Woodland Group (NINWG). A programme to enhance and extend native woodland in Northern Ireland is currently being developed in partnership between EHS, Forest Service and the NINWG.
- 3.2.23 The Woodland Trust initiative ‘Woods on Your Doorstep’ funded by the Millenium Commission (1996-2001), has resulted in the creation and management of 51 new community woods covering 210 ha across Northern Ireland. The majority of these woodlands were created using local provenance native trees. Based on the experiences of this initiative, both in Northern Ireland and Britain, a series of guides on the creation and management of native woodlands in the urban environment was produced.
- 3.2.24 The current Woodland Trust initiative ‘Tree for All’ aims to plant 12 million trees throughout the UK between September 2004 and 2009.
- 3.2.25 Conservation Volunteers, Northern Ireland (CVNI) has been involved in planting trees using volunteers for over 20 years. In October 2002, they launched an importance initiative to help restore Northern Ireland’s woodland heritage entitled *Trees of Our Future*. Supported by the Heritage Lottery Fund and EHS, *Trees of Our Future* encourages planting local provenance native trees. The aim is to enhance biodiversity and provide people with an understanding of why planting native trees is important.
- 3.2.26 In the Republic of Ireland ‘The Peoples Millennium Forests Project’, funded by Allied Irish Banks, the National Millennium committee and the Forest Service, has resulted in the planting and management of 600 ha of native broad-leaved trees. The Native Woodland Scheme, funded by the National Parks & Wildlife Service, Department of the Environment, Heritage & Local Government, due for completion in 2006, aims to support the establishment of 15,000 ha of new woodland and target 15,000 ha of existing woodland for restoration.
- 3.2.27 Appointment of Local Biodiversity Officers by many District Councils in Northern Ireland will result in the development of Local Biodiversity Action Plans (LBAPs). These plans will encourage, co-ordinate and inform local biodiversity action.

4. Action Plan Targets

- 4.1 Maintain the total area of all oakwoods in Northern Ireland at 2,350 ha.
- 4.2 Maintain the current area of all ancient or long-established semi-natural oakwoods.
- 4.3 Maintain condition, where favourable, of the existing resource.
- 4.4 Achieve favourable condition of 1600 ha. of oakwoods by 2015.
- 4.5 Restore 60 ha of former oakwood which has been converted to non-native plantation on ancient and long-established woodland sites by 2010.
- 4.6 Restore a further 60 ha of former oakwood which has been converted to non-native plantation on ancient and long-established woodland sites by 2015.
- 4.7 Establish 120 ha of oakwood by 2010.
- 4.8 Establish a further 120 ha of oakwood by 2015.

5. Proposed Actions with Lead Agencies

5.1 Policy and legislation

- 5.1.1 Encourage the development of forestry/landscape strategies to provide a context for and to promote expansion and positive management of oakwood.
(ACTION: EHS, DARD, Forest Service, Planning Service, District Councils)
- 5.1.2 By 2006, develop a framework for the management of oakwood across the range of variation in Northern Ireland.
(ACTION: EHS, DARD, Forest Service)
- 5.1.3 By 2005, initiate discussions with other government departments to ensure appropriate consultation mechanisms exist for proposed changes in land-use.
(ACTION: DARD, EHS, Forest Service, Planning Service)
- 5.1.4 By 2007, review the effectiveness of agri-environment schemes, Woodland Grant Scheme, MOSS, GFP and other woodland grant scheme initiatives to ensure the delivery of the targets in this plan.
(ACTION: DARD, Forest Service, EHS)
- 5.1.5 By 2007, ensure that agri-environment scheme prescriptions relevant/appropriate to oakwoods are contributing to maintaining and enhancing the habitat across Northern Ireland.
(ACTION: DARD, EHS)

- 5.1.6 By 2006, review *Planning Policy Statement 2 (PPS2) – Planning and Nature Conservation*, to include policies relating to the conservation of priority habitat and species.
(ACTION: Planning Service, EHS)
- 5.1.7 By 2005, produce *Planning Policy Statement (PPS14) on Sustainable Development in the Countryside* which includes objectives to minimise the impact of housing development on the environmental resources of habitat, water quality and biodiversity of the rural area, thereby contributing to the conservation of biodiversity in Northern Ireland.
(ACTION: DRD, EHS, Planning Service)
- 5.1.8 Identify further examples of oakwoods as SLNCIs for consideration for adoption into appropriate Development Plans.
(ACTION: EHS, Planning Service)
- 5.1.9 Ensure that important oakwoods not already identified e.g. as SLNCIs, are recognised and, where appropriate, site protection policies are included in Development Plans and other strategic plans including Local Biodiversity Action Plans (LBAPs).
(ACTION: Planning Service, EHS, DARD, District Councils, Forest Service)
- 5.1.10 In the preparation of Planning Policy Statements, the promotion of biodiversity will be taken into account where appropriate.
(ACTION: Planning service, DRD, EHS)
- 5.1.11 By 2006, review and develop policies to ensure development activities, regulated activities and infrastructure maintenance work (including timing) is sensitive to the requirements of oakwood.
(ACTION: Roads Service, Rivers Agency, Water Service, Planning Service, Statutory Undertakers, District Councils, EHS, DETI)
- 5.1.12 By 2006, encourage planting of local provenance native trees and encourage their planting in the restoration and expansion of mixed ashwoods.
(ACTION: Forest Service, DARD, EHS)
- 5.1.13 By 2006, discourage planting of invasive, non-native species including Sycamore, Beech, Cherry Laurel and Western Hemlock *Tsuga heteraophulla* adjacent to, or in extant oakwoods.
(ACTION: Forest Service, DARD, EHS,)
- 5.1.14 By 2005, agree standards and definitions for the restoration of native oakwood and the establishment of new native oakwoods.
(ACTION: Forest Service, EHS, DARD)
- 5.1.15 Seek to encourage positive environmental change through the reformed Common Agricultural Policy (CAP), for example, by promoting sustainable agricultural management of oakwood.
(ACTION: DARD, EHS)

- 5.1.16 By 2007, ensure oakwood is adequately protected through the CAP.
(ACTION: DARD, EHS)
- 5.1.17 By 2006, ensure that all farmers receiving agri-environment scheme payments and LFA Compensatory Allowance Payments are complying with GFP.
(ACTION: DARD, EHS)
- 5.1.18 Ensure that the delivery of this action plan is fully compatible with relevant aspects of forest policy.
(ACTION: EHS, Forest Service)

5.2 Site safeguard and management

- 5.2.1 By 2008, produce conservation objectives for all statutory designated oakwoods including cSACs, ASSIs and NNRs.
(ACTION: EHS)
- 5.2.2 By 2010, review the coverage of oakwood within both the ASSI and NNR series, and notify further sites as necessary to fill significant gaps in the range of variation throughout Northern Ireland.
(ACTION: EHS)
- 5.2.3 By 2006, prioritise areas, timescales and targets, based on designation status to identify appropriate areas (i.e. avoiding other priority habitats) for restoration and expansion of oakwood, for example around small sites, to connect sites, to restore altitudinal zonation of woodland.
(ACTION: EHS, Forest Service, DARD)
- 5.2.4 By 2007, target positive management through MOSS, agri-environment schemes, restoration schemes, the LBAP process and grant aid for biodiversity to secure favourable management on oakwood sites (including SLNCIs) prioritised in 5.2.3 according to agreed timescales.
(ACTION: EHS, DARD, Forest Service)
- 5.2.5 By 2006, develop and promote the use of long-term management plans (20 years +) by oakwood owners aimed at achieving favourable condition of all important examples of this habitat.
(ACTION: Forest Service, EHS, DARD)
- 5.2.6 By 2006, promote and implement the management and restoration of oakwoods owned or part-funded by government.
(ACTION: Forest Service, DARD, EHS, District Councils)
- 5.2.7 By 2006, contribute to the implementation of relevant priority species action plans, through the integration of management requirements and advice, in conjunction with relevant steering groups such as Northern Ireland Native Woodland Group and Northern Ireland Red Squirrel Forum.
(ACTION: EHS, Forest Service, DARD)

- 5.2.8 Identify further examples of oakwood as SLNCIs for consideration for adoption into appropriate Development Plans.
(ACTION: EHS, Planning Service)
- 5.2.9 By 2010, designate as SACs those areas of oakwood approved by the EC under the Habitats Directive.
(ACTION: EHS)
- 5.3 Advisory**
- 5.3.1 By 2005, review all relevant guidelines and advisory material on woodland management and restoration practices, and the establishment of new native woodland.
(ACTION: DARD, Forest Service, EHS)
- 5.3.2 By 2006, provide information to landowners and occupiers on the status and conservation importance of oakwood through the production, promotion and dissemination of literature.
(ACTION: EHS, DARD, Forest Service)
- 5.3.3 By 2005, provide advice to landowners, government agencies and NGOs on the selection of suitable provenances and seed origins for planting.
(ACTION: EHS, Forest Service)
- 5.3.4 By 2005, promote awareness of the EIA Regulations by contacting representatives of farmers, land agents, the legal profession and other relevant organisations.
(ACTION: Forest Service, EHS, DARD, Planning Service)
- 5.3.5 By 2006, provide advice to land owners about suitable management regimes, including grazing regimes, appropriate to the geographical distribution and ecological variation found in oakwood.
(ACTION: DARD, Forest Service, EHS)
- 5.3.6 By 2006, encourage applications from potential partners to obtain funding to bring areas of oakwood into favourable management.
(ACTION: EHS, DARD, Forest Service, District Councils)
- 5.3.7 By 2010, develop demonstration sites including Correl Glen, Breen, Glenelly Valley and Rostrevor to reflect the range of ecological variation and applied management techniques throughout Northern Ireland.
(ACTION: EHS, Forest Service, DARD)
- 5.3.8 By 2008, inform all owners of land included in the Ancient Woodland Inventory of the nature conservation value of this habitat.
(ACTION: EHS, DARD, Forest Service)
- 5.3.9 By 2007, develop and promote training programmes on the conservation, management and restoration of oakwood.
(DARD, Forest Service, EHS)

5.4 International

- 5.4.1 Further develop links with the Republic of Ireland and other European and international organisations and programmes involved in developing the marine environment and promote the awareness of, and exchange of data and information relating to experience gained in research, management techniques, education and conservation strategies for the conservation of oakwoods.
(ACTION: EHS)

5.5 Monitoring and research

- 5.5.1 By 2006, set standards for assessing favourable condition of oakwoods throughout Northern Ireland.
(ACTION: EHS, DARD, Forest Service)
- 5.5.2 By 2008, initiate a programme to monitor the extent and condition of the oakwood resource.
(ACTION: EHS, DARD, Forest Service)
- 5.5.3 By 2007, complete an Ancient Woodland Inventory which will identify and provide baseline information on long-established oakwoods.
(ACTION: EHS)
- 5.5.4 By 2008, produce an inventory of oakwood restoration and extension projects in Northern Ireland.
(ACTION: EHS, Forest Service)
- 5.5.5 By 2006, initiate monitoring programmes to establish the effectiveness of government funded schemes and management methods in achieving the targets of this plan.
(ACTION: DARD, EHS, Forest Service)
- 5.5.6 By 2005, establish surveillance and monitoring programmes to assess the condition of the oakwood habitats within designated sites to aid site management.
(ACTION: EHS)
- 5.5.7 By 2007, review and undertake research on the effects of invasive, non-native plant species on the structure and condition of oakwood, and produce management recommendations.
(ACTION: EHS, Forest Service, DARD)
- 5.5.8 By 2006, commission applied research to help develop beneficial and practical management techniques for the enhancement, restoration and expansion of oakwood and populations of associated characteristic species.
(ACTION: DARD, EHS, Forest Service)
- 5.5.9 By 2006, commission further research on genetic variation within tree species across the island of Ireland.
(ACTION: EHS, DARD, Forest Service)

- 5.5.10 By 2006, encourage the dissemination and the use of existing research and commission new research where necessary, to improve the understanding of oakwood diversity particularly in relation to other priority habitats with which it commonly occurs (lowland and upland heathland, Purple Moor-grass and rush pasture, mixed ashwoods and wet woodland) and for a range of taxa for which little information currently exists.
(ACTION: EHS, DARD, Academic Partners)
- 5.5.11 By 2008, monitor oakwood restoration sites so that management resources can be focused on areas most likely to show a positive response.
(ACTION: EHS, Forest Service)
- 5.5.12 Encourage access throughout Britain and Ireland to the records held at CEDaR by contributing to the National Biodiversity Network www-based catalogue of survey information.
(ACTION: EHS)
- 5.5.13 By 2005, establish surveillance and monitoring programmes for recording the health of trees and the incidences of disease such as Sudden Oak death.
(ACTION: DARD, Forest Service, EHS)
- 5.5.14 By 2015, review the requirement for further research on the effects of pollution and climate changes on oakwoods, and promote research needs accordingly.
(ACTION: EHS)
- 5.5.15 By 2006, set in place a reporting and monitoring structure to encourage progress towards the delivery of the targets and the completion of actions identified in this plan.
(ACTION: EHS)

5.6 Communications and publicity

- 5.6.1 By 2005, devise a strategy for ensuring effective distribution of existing advisory material to woodland managers and if gaps are identified, produce and disseminate appropriate material to fill these.
(ACTION: EHS, Forest Service, DARD)
- 5.6.2 By 2006, promote the conservation of oakwood through the scientific press and popular media.
(ACTION: EHS, Forest Service, DARD)
- 5.6.3 By 2006, facilitate production of a simple web-page, an attractive booklet and CD-ROM for the public and schools which explains the conservation importance of native woodlands in Northern Ireland.
(ACTION: EHS, Department of Education, Forest Service)
- 5.6.4 By 2006, aim to achieve a minimum of 200 school groups attending woodland education programmes each academic year.
(ACTION: EHS, Forest Service)

- 5.6.5 By 2006, encourage appropriate access as well as interpretative and educational provisions on key oakwood sites to increase enjoyment and public awareness of the biodiversity of oakwood.
(ACTION: EHS, DARD, Forest Service, District Councils)

6. Costings

- 6.1 A table showing the global costs for this and other HAPs is available on the EHS/Biodiversity web page.

7. References

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List of Useful Acronyms

ASSI	Area of Special Scientific Interest
BAP	Biodiversity Action Plan
CEDaR	Centre for Environmental Data and Recording
CMD	Countryside Management Division
CMS	Countryside Management Scheme
DARD	Department of Agricultural and Rural Development
DCAL	Department of Culture, Arts and Leisure
DETI	Department of Enterprise, Trade and Industry
DOE	Department of the Environment
DRD	Department for Regional Development
EHS	Environment and Heritage Service
ESA	Environmentally Sensitive Area
ESCRs	Earth Science Conservation Review Site
HAP	Habitat Action Plan
JNCC	Joint Nature Conservation Committee
MAGNI	The National Museums and Galleries of Northern Ireland
NIBG	Northern Ireland Biodiversity Group
NICS	Northern Ireland Countryside Survey
NNR	National Nature Reserve
PPG	Planning Policy Guideline
PPS	Planning Policy Statement
RA	Rivers Agency
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAP	Species Action Plan
SLNCI	Sites of Local Nature Conservation Importance
SoCC	Species of Conservation Concern
SPA	Special Protection Area
WFD	Water Framework Directive
WWT	Wildfowl and Wetlands Trust