



COED CADW
WOODLAND
TRUST

Coed Dolifor

Management Plan 2013-2018

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THE WOODLAND TRUST

INTRODUCTION

The Trust's corporate aims and management approach guide the management of all the Trust's properties, and are described on Page 4. These determine basic management policies and methods, which apply to all sites unless specifically stated otherwise. Such policies include free public access; keeping local people informed of major proposed work; the retention of old trees and dead wood; and a desire for management to be as unobtrusive as possible. The Trust also has available Policy Statements covering a variety of woodland management issues.

The Trust's management plans are based on the identification of Key Features for the site and setting objectives for their management. A monitoring programme (not included in this plan) ensures that these objectives are met and any necessary management works are carried out.

Any legally confidential or sensitive species information about this site is not included in this version of the plan.

PLAN REVIEW AND UPDATING

The information presented in this Management plan is held in a database which is continuously being amended and updated on our website. Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations. Please either consult The Woodland Trust website www.woodlandtrust.org.uk or contact the Woodland Trust (wopsmail@woodlandtrust.org.uk) to confirm details of the current management programme.

There is a formal review of this plan every 5 years and a summary of monitoring results can be obtained on request.

WOODLAND MANAGEMENT APPROACH

The management of our woods is based on our charitable purposes, and is therefore focused on improving woodland biodiversity and increasing peoples' understanding and enjoyment of woodland. Our strategic aims are to:

- Protect native woods, trees and their wildlife for the future
- Work with others to create more native woodlands and places rich in trees
- Inspire everyone to enjoy and value woods and trees

All our sites have a management plan which is freely accessible via our website www.woodlandtrust.org.uk. Our woods are managed to the UK Woodland Assurance Standard (UKWAS) and are certified with the Forest Stewardship Council® (FSC®) under licence FSC-C009406 and through independent audit.

In addition to the guidelines below we have specific guidance and policies on issues of woodland management which we review and update from time to time.

We recognise that all woods are different and that the management of our sites should also reflect their local landscape and where appropriate support local projects and initiatives. Guidelines like these provide a necessary overarching framework to guide the management of our sites but such management also requires decisions based on local circumstances and our Site Manager's intimate knowledge of each site.

The following guidelines help to direct our woodland management:

1. Our woods are managed to maintain their intrinsic key features of value and to reflect those of the surrounding landscape. We intervene when there is evidence that it is necessary to maintain or improve biodiversity and to further the development of more resilient woods and landscapes.
2. We establish new native woodland using both natural regeneration and tree planting, but largely the latter, particularly when there are opportunities for involving people.
3. We provide free public access to woods for quiet, informal recreation and our woods are managed to make them accessible, welcoming and safe.
4. The long term vision for our non-native plantations on ancient woodland sites is to restore them to predominantly native species composition and semi-natural structure, a vision that equally applies to our secondary woods.
5. Existing semi-natural open-ground and freshwater habitats are restored and maintained wherever their management can be sustained and new open ground habitats created where appropriate.
6. The heritage and cultural value of sites is taken into account in our management and, in particular, our ancient trees are retained for as long as possible.
7. Woods can offer the potential to generate income both from the sustainable harvesting of wood products and the delivery of other services. We will therefore consider the potential to generate income from our estate to help support our aims.
8. We work with neighbours, local people, organisations and other stakeholders in developing the management of our woods. We recognise the benefits of local community woodland ownership and management. Where appropriate we allow our woods to be used to support local woodland, conservation, education and access initiatives.
9. We use and offer the estate where appropriate, for the purpose of demonstration, evidence gathering and research associated with the conservation, recreational and sustainable management of woodlands. In particular we will develop and maintain a network of long-term monitoring sites across the estate.
10. Any activities we undertake will conform to sustainable forest management principles, be appropriate for the site and will be balanced with our primary objectives of enhancing the biodiversity and recreational value of our woods and the wider landscapes.

SUMMARY

This public management plan briefly describes the site, specifically mentions information on public access, sets out the long term policy and lists the Key Features which drive management actions. The Key Features are specific to this site - their significance is outlined together with their long (50 year+) and short (5 year) term objectives. The short term objectives are complemented by a detailed Work Programme for the period of this management plan. Detailed compartment descriptions are listed in the appendices which include any major management constraints and designations. A short glossary of technical terms is at the end. The Key Features and general woodland condition of this site are subject to a formal monitoring programme which is maintained in a central database. A summary of monitoring results is available on request.

1.0 SITE DETAILS

Site name:	Coed Dolifor
Location:	Llanwrthwl, nr Rhayader
Grid reference:	SN960653, OS 1:50,000 Sheet No. 147
Area:	11.54 hectares (28.52 acres)
Designations:	Ancient Semi Natural Woodland, Environmentally Sensitive Area, Planted Ancient Woodland Site

2.0 SITE DESCRIPTION

2.1 Summary Description

Coed Dilofor has been allowed to develop towards an oak and birch woodland with coniferous blocks to the south. Individual exotic trees add special interest as well as ancient woodland ground flora that inspire conservation interest in the site.

2.2 Extended Description

A north-facing woodland on the hillside above the River Wye. Formerly boggy grazing land and oak, birch and alder pasture woodland. Fenced and planted in 1974 with a wide range of non-native species with the aim of creating an arboretum. The middle section of the wood is very wet with a line of springs feeding boggy ground dominated by purple moor grass, sphagnum, alder, birch and willow.

In 1970's the planting included a large number of small blocks of conifers as well as a wide range of individual exotic trees. Many of the latter have failed to survive because of the relatively wet and cold conditions but those that survive add to the interest of the wood. The key features of the site are secondary woodland (which appears to be on an old pasture woodland site), trees and stands of trees of special interest and informal public access. There are also large mossy rocks and some ancient woodland ground flora species which add conservation interest. There are spectacular views from the site and the wide variety of tree species make the wood an attractive landscape feature especially in Spring and Autumn.

The wood is surrounded by small hedged fields, scattered mature trees and areas of scrub. Fields to the west are mostly improved pasture but to the north and east is wet and unimproved grassland. On higher land to the south is the extensive upland common land of Corngafallt, including moorland, upland grassland and woodland habitats.

Since acquisition by the Woodland Trust in 1982 Coed Dolifor has been allowed to develop towards predominantly oak and birch woodland. Those individual non-native trees that have survived have been retained as arboreal specimens. Most conifer blocks have grown steadily and now dominate the upper southern part of the woodland. Most blocks were thinned to waste in 2002 and 2007 with more thinning of some of these blocks in 2013. A public footpath crosses the lower northern end of the wood and a permissive path is maintained through the wood linking the three entrances and providing a detour for walkers on the Wye Valley Walk which runs just outside the eastern boundary of the wood.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

General location:

The site is 1.7 miles from Llanwrthwl via a quiet flat single lane B road with passing places. There is a verge but no pavement. There is a local area map in the village. It is also 1.9 miles from Rhayader via the B4518 then a single track B road or along the Wye Valley Walk which runs adjacent to the wood (see www.wyevalleywalk.org for more information) . There is a public footpath that runs through the site and joins the public road. Dolifor is set within a much larger area of open access common land.

Overview of paths and entrances:

The site is on a hillside and is steep in some places but there is also a short circular route with gentler gradients.

Enter either via a public footpath which runs across the northern section of the Wood in an east to west direction, entering by means of a two step stile in the north-east corner of the site or via a farm gate on the management access route in the North West corner. There is also a route through the wood which offers an interesting diversion on the Wye Valley Walk entering via a stile or gate at the South East corner and there are various options within the wood for short circular walks.

The paths are unsurfaced and can be wet in places. The section along the Western boundary is not suitable for use in winter as it can get very boggy.

Parking:

There is no car park at the site but it is possible to park along a wide section of the public road below the site.

Public transport:

The nearest bus stop is by Llanwrthwl just off the main Rhayader to Llandrindod Wells road and there are twice daily buses from each direction. See www.traveline.org.uk or call 0870 608 2608 for more information.

Toilets:

The nearest public toilets are in Rhayader at the Dark Lane car park where there is a disabled toilet that requires a RADAR key. (Information from Powys County Council

3.2 Access / Walks

4.0 LONG TERM POLICY

To develop principally native woodland, predominantly oak, birch, willow and alder, but retaining non-native species as individuals and in small blocks, that are of cultural interest.

The management objective for the trees in the lower part of the wood (compartment 1a), that is mostly comprised of naturally-regenerated native broadleaves, is minimum intervention.

The small blocks of conifers scattered throughout the upper half of the wood (Compartment 2) will be thinned over their lifetime to retain the larger trees and allow them to continue contributing to the cultural value of the wood. The exception being the western hemlock which was removed due to its invasive habit.

The paths and entrances will be well maintained, allowing easy visitor access, and the viewpoint at the benches on top-most path will be kept open.

5.0 KEY FEATURES

The Key Features of the site are identified and described below. They encapsulate what is important about the site. The short and long-term objectives are stated and any management necessary to maintain and improve the Key Feature.

5.1 Secondary Woodland

Description

Upland oak wood: Oak - bracken - bramble woodland, NVC W10a. Oak, but with abundant birch and rowan dominating canopy in places, well developed understory including hawthorn, hazel, holly and willow. Groundflora includes bluebell, bramble and bracken. Scattered large boulders at the south western corner of the site, cmp 2c, noted as having an interesting moss and lichen flora, also with *Vaccinium myrtillus* and *Ceratocarpus claviculata*. This habitat is more extensive on adjoining land to the south.

Also Birch - Molinia woodland (Wb4): Birch dominated woodland on permanently wet spring fed ground, with willow, alder and oak. With Molinia, *Juncus effusus*, *Deschampsia caespitosa*, patches of *Sphagnum palustre*.

Extensive planting of wide range of non native trees in 1973 including unusual species, both in blocks and as small groups/individuals.

Some veteran native trees, rowan, birch and oak, are scattered throughout the site, including some open-grown, stream-side and old hedgerow boundary trees; these trees are relics from the land being previously farmed as open pasture.

Significance

Ungrazed semi natural woodland with some long established oak trees. It is an attractive landscape feature especially in spring and autumn. There are interesting moss communities. Badgers are present. On the boulders in Cpt 2c mosses (*Thuidium*, *Dicranium*) and lichen (*Cladonia*, *Sphaerophorus*).

Exotics add visual and cultural interest. Veteran trees of high conservation interest.

Opportunities & Constraints

Planted throughout with a wide variety of exotic species in 1972. Many non-natives unsuited to site conditions and seem susceptible to squirrel damage and therefore may not reach maturity.

However, those that remain contribute to the unique interest of the site.

The mossy boulders may be affected by over-shading of conifers or abrupt change of conditions if conifers are felled or blown over.

Factors Causing Change

Maturing of individual exotics, Natural regeneration of oak and birch, Squirrel damage, Possible regeneration of exotic species

Long term Objective (50 years+)

Predominantly oak and birch woodland, with some open glades, and with natural regeneration gradually thickening up the open canopy. Large mature specimen trees are scattered across the hillside, including a range of exotic species, these will integrate with the maturing naturally-regenerating woodland throughout.

Mossy boulders are in light shade allowing the mosses to thrive.

Short term management Objectives for the plan period (5 years)

Re-spacing exotic trees where applicable when occurring in blocks, halo-thin around native b/l.
Establish replanted area 2F.

5.2 Informal Public Access

Description

Public footpath crosses northern end of site (cmpt 1) and other paths and tracks lead through centre and southern end. There are three public entrances, two of which connect directly to the Wye Valley Walk where it runs outside the wood along the south eastern boundary.

Significance

The Wye Valley Walk is a popular waymarked long distance trail.

Opportunities & Constraints

A short detour from the Wye Valley Walk has been created through the wood but much of the site is very wet in winter and the link path would not withstand heavy use.

Factors Causing Change

Possible damage to paths due to increased use.

Long term Objective (50 years+)

Paths and entrances linking the wood to the Wye Valley Walk are well maintained, with most visitors approaching the site along this route.

Short term management Objectives for the plan period (5 years)

Improve the visibility of paths linking to the Wye Valley Walk. Improve drainage on paths in general. Maintain paths, stiles and benches as necessary. Keep viewpoint open.

6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By
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APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	5.56	Birch (downy/silver)	1970	Min-intervention	No/poor vehicular access to the site, Sensitive habitats/species on or adjacent to site	Informal Public Access	Environmentally Sensitive Area
<p>Gently to moderately sloping, north facing sub compartment with an open oak canopy, with birch and occasional conifers. The canopy is generally open with trees of varying ages, the broadleaves mostly derived from natural regeneration. A wide variety of exotic broadleaves and conifers were planted in 1974, some of which survive. Oak, birch and rowan appear to be regenerating well. Many small open areas are present, dominated by purple moor grass (Molinia) and bracken. Understory is well developed, including hawthorn, hazel, holly and willow. Ground flora is dominated by bramble and bracken, with wood sorrel and mosses. Upland oak woodland, NVC 10a. Most of the ground at the southern end of cmpt (middle of wood) is waterlogged, birch is dominant, with willow, and Molinia and sphagnum, birch-Molinia woodland, W4b. Squirrel damage has been severe in some areas.</p>							
2a	0.16	Japanese larch	1974	High forest	No/poor vehicular access to the site	Informal Public Access	Environmentally Sensitive Area
<p>Moderately sloping, north facing triangular shaped area of Japanese larch, thinned in 2002. The western end has wider spacing and the larger trees are interspersed with broadleaves.</p>							
2b	0.16	Douglas fir	1974	High forest	No/poor vehicular access to the site	Informal Public Access	Environmentally Sensitive Area
<p>Moderately sloping, north facing area of Douglas fir. Thinned in 2002 and very lightly in 2007. An understorey and ground flora are developing slowly due to the thickness of the former canopy which resulted in heavy brash cover on ground after thinning.</p>							
2c	0.52	Birch (downy/silver)	1970	Min-intervention	Mostly wet ground/exposed site	Informal Public Access	Environmentally Sensitive Area

Gently sloping, north facing area adjacent to upper, south west, boundary. Open woodland, principally birch with oak, rowan and various conifers. Scattered large moss and lichen covered boulders. Canopy consists of Japanese larch, Lodgepole pine, downy birch and oak. Several individual exotic trees are also present, including Grand fir and Norway spruce. Ground flora is generally abundant and species include bramble, moss, grasses and bluebell. Cpt was thinned in 2007 to release large oaks and birches with conifers around.							
2d	0.44	Birch (downy/silver)	1990	Min-intervention		Informal Public Access	Environmentally Sensitive Area
Moderately sloping, north facing area of open ground, which is being colonised by birch and rowan natural regeneration. Three mature Corsican pine trees are also present on the eastern boundary. Ground flora is abundant and species include bracken, bluebell and grasses.							
2e	0.05	Lodgepole pine	1974	High forest	No/poor vehicular access to the site	Informal Public Access	Environmentally Sensitive Area
Moderately sloping, north facing strip of lodgepole pine, thinned in 2002 and lightly in 2007.							
2f	0.08	other oak spp	2013	Wood establishment	No/poor vehicular access to the site	Informal Public Access	Environmentally Sensitive Area
Moderately sloping, north facing strip of western hemlock, thinned in 2002 and 2007. Thickness of the canopy has prevented the development of any understorey or ground flora. High concentrations of Hemlock regeneration. Hemlock clear-felled 2013 and replanted with 10% wild cherry, 10% aspen, 10% hazel, 30% oak, 20% rowan, 20% birch.							
2g	0.09	Western red cedar	1974	High forest	No/poor vehicular access to the site	Informal Public Access	Environmentally Sensitive Area
Small, moderately sloping, north facing block of western red cedar, thinned in 2002 and 2007.							
2h	0.21	Birch (downy/silver)	1974	Min-intervention		Informal Public Access	Environmentally Sensitive Area
Moderately sloping, north facing thin strip of birch dominated open broadleaf woodland of regeneration origin. A line of lodgepole pine was removed in 2002 from along each side of the path that forms the eastern boundary of the sub compartment. Remaining conifers removed in 2007. Ground flora is abundant and species include bramble, grasses, moss and bluebell.							
2i	1.62	Birch (downy/silver)	1990	Min-intervention		Informal Public Access	Environmentally Sensitive Area

<p>Large, moderately sloping, north facing area of open ground that is being colonised by birch and rowan regeneration. Several mature exotic trees are also present, along with a fairly large oak standard. A line of lodgepole pine was removed in 2002 from along the path that forms the western boundary of the sub compartment. The strip of land alongside the stream is mostly waterlogged. Ground flora is abundant and species include bracken, grasses and bluebell and fern. An old sunken path passes through this sub-compartment which was re-opened in 2002.</p>							
2j	0.10	Scots pine	1974	High forest	No/poor vehicular access to the site	Informal Public Access	Environmentally Sensitive Area
<p>Moderately sloping, north facing area of Scots pine on the northern boundary of the compartment. This was very lightly thinned in 2002 and more heavily in 2007.</p>							
2k	0.05	Mixed conifers	1974	High forest		Informal Public Access	Environmentally Sensitive Area
<p>Small, moderately sloping, north facing block of noble fir that has been lightly thinned in 2002 and again in 2007.</p>							
2l	0.05	Lodgepole pine	1990	High forest		Informal Public Access	Environmentally Sensitive Area
<p>Small, moderately sloping, north facing block of lodgepole pine. This was thinned in 2007.</p>							
2m	0.14	Norway spruce	1974	High forest		Informal Public Access	Environmentally Sensitive Area
<p>Moderately sloping, north facing block of birch, rowan and Norway spruce. This was not thinned in 2002 but was thinned in 2007 and there is one windthrown tree. At northern end most spruce has become suppressed with only a few trees reaching the canopy.</p>							
2n	0.10	Japanese larch	1974	High forest		Informal Public Access	Environmentally Sensitive Area
<p>Gently sloping, north facing sub compartment of Japanese larch alongside the stream. Thinned in 2002 and in 2007. An old field boundary bank appears to form the northern boundary of this sub compartment.</p>							
2o	0.13	Sitka spruce	1974	High forest		Informal Public Access	Environmentally Sensitive Area
<p>Gently sloping, north facing sub compartment of Norway spruce at the southern end of the site which was thinned in 2002 and 2007.</p>							
2p	2.08	Japanese larch	1974	High forest		Informal Public Access	Environmentally Sensitive Area

Large, moderately sloping, north facing sub compartment of Japanese larch on the eastern side of the site. Beech is also present in the canopy and two areas of fairly wet open ground are also present, dividing the larch into three blocks. The top one of these blocks was thinned in 2002 but not the lower two. The lower blocks were thinned in 2007. Ground flora is abundant in the open areas and species include fern, bracken, bramble and grasses. All larch lightly thinned in 2013 and lodgepole pine skirting most of east boundary felled to waste to allow more light into whole stand.

GLOSSARY

Ancient Woodland

Ancient woods are defined as those where there has been continuous woodland cover since at least 1600 AD. In Scotland ancient woods are defined strictly as sites shown as semi-natural woodland on the 'Roy' maps (a military survey carried out in 1750 AD, which is the best source of historical map evidence) and as woodland all subsequent maps. However, they have been combined with long-established woods of semi-natural origin (originating from between 1750 and 1860) into a single category of Ancient Semi-Natural Woodland to take account of uncertainties in their identification. Ancient woods include Ancient Semi-Natural Woodland and plantations on Ancient Woodland Sites (see below). May support many species that are only found in ancient woodland.

Ancient Semi - Natural Woodland

Stands in ancient woods defined as those consisting predominantly of native trees and shrubs that have not obviously been planted, which have arisen from natural regeneration or coppice regrowth.

Ancient Woodland Site

Stands in ancient woods that have been converted to plantations, of coniferous, broadleaved or mixed species, usually for timber production, including plantations of native species planted so closely together that any semi-natural elements of the understorey have been suppressed.

Beating Up

Replacing any newly planted trees that have died in the first few years after planting.

Broadleaf

A tree having broad leaves (such as oak) rather than needles found on conifers (such as Scots pine).

Canopy

The uppermost layer of vegetation in a woodland, or the upper foliage and branches of an individual tree.

Clearfell

Felling of all trees within a defined area.

Compartment

Permanent management division of a woodland, usually defined on site by permanent features such as roads. See Sub-compartments.

Conifer

A tree having needles, rather than broadleaves, and typically bearing cones.

Continuous Cover forestry

A term used for managing woods to ensure that there are groups or individual trees of different ages scattered over the whole wood and that some mature tree cover is always maintained. Management is by repeated thinning and no large areas are ever completely felled all at once.

Coppice

Trees which are cut back to ground levels at regular intervals (3-25 years).

Exotic (non-native) Species

Species originating from other countries (or other parts of the UK) that have been introduced by humans, deliberately or accidentally.

Field Layer

Layer of small, non-woody herbaceous plants such as bluebells.

Group Fell

The felling of a small group of trees, often to promote natural regeneration or allow planting.

Long Term Retention

Discrete groups of trees (or in some cases single trees) that are retained significantly past their economic felling age. Operations may still be carried out within them and thinning is often necessary to maintain stability.

Minimum Intervention

Areas where no operations (such as thinning) will take place other than to protect public safety or possibly to control invasive exotic species.

Mixed Woodland

Woodland made up of broadleaved and coniferous trees.

National vegetation classification (NVC)

A classification scheme that allows an area of vegetation to be assigned to the standardised type that best matches the combination of plant species that it contains. All woodlands in the UK can be described as being one of 18 main woodland types (W1 - W18), which principally reflect soil and climatic conditions. For example, Upland Oakwoods are type W11, and normally occur on well drained infertile soils in the cooler and wetter north and west of Britain. Each main type can be subdivided into numerous subtypes. Most real woods contain more than one type or sub-type and inevitably some woods are intermediate in character and can't be properly described by any sub type.

Native Species

Species that arrived in Britain without human assistance.

Natural Regeneration

Naturally grown trees from seeds falling from mature trees. Also regeneration from coppicing and suckering.

Origin & Provenance

The provenance of a tree or seed is the place where seed was collected to grow the tree or plant. The origin is the geographical location within the natural range of a species from where seeds/tree originally derives. Thus an acorn collected from a Turkey oak in Edinburgh would have an Edinburgh provenance and a southern European origin.

Re-Stocking

Re-planting an area of woodland, after it has been felled.

Shrub Layer

Formed by woody plants 1-10m tall.

Silviculture

The growing and care of trees in woodlands.

Stand

Trees of one type or species, grouped together within a woodland.

Sub-Compartment

Temporary management division of a compartment, which may change between management plan periods.

Thinning

The felling of a proportion of individual trees within a given area. The remaining trees grow to fill in the space created.

Tubex or Grow or Tuley Tubes

Tubes placed over newly planted trees or natural regeneration that promote growth and provide protection from animals such as rabbits and deer.

Weeding

The control of vegetation immediately around newly planted trees or natural regeneration to promote tree growth until they become established. Either by hand cutting or with carefully selected weed killers such as glyphosate.

Windblow/Windthrow

Trees or groups of trees blown over (usually uprooted) by strong winds and gales.