COED CADW
WOODLAND
TRUST

Coed Waldo

Management Plan
2018-2023

MANAGEMENT PLAN - CONTENTS PAGE

ITEM **Page No.**

MAPS

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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 Waldo
Location:	Penrhyndeudraeth
Grid reference:	SH626399, OS 1:50,000 Sheet No. 124
Area:	2.39 hectares (5.91 acres)
Designations:	Ancient Semi Natural Woodland, National Park

2.0 SITE DESCRIPTION

2.1 Summary Description

Coed Waldo is made up of two small blocks of oak woodland in the Vale of Ffestiniog. Although near the A487, the woods are not readily accessible, although they can be seen from an adjacent public path.

2.2 Extended Description

Located between the A487 (T) and the Afon Dwyryd, Coed Waldo is generally contiguous with woodland that extends down the Vale of Ffestiniog to Penrhyndeudraeth. Coed Waldo comprises 2.3 ha divided into two separate woodland blocks, both fenced to exclude livestock, and surrounded by semi-improved pasture. The woodland was grazed prior to acquisition (1986).

Situated at either end of a rocky knoll the woodland areas are on the steep sided flanks in a roughly semi-circular shape surrounding a flatter central 'plateau' of field pastures, which are associated with the farmhouse Hafod Talog. A track borders the north-west boundary of the larger western woodland block (compartment 1) and leads to Hafod Talog (situated between the two woodland blocks) and to Beudy Talog adjacent to the south-east corner. A single short footpath traverses part of the larger block but it is remote from a public footpath so is little used other than by the local residents. The eastern woodland block (compartment 2) is adjacent to a public footpath but is seldom visited. The woodland is visible from the road (A487).

The tree canopy comprises even-aged mature sessile oak. The oaks are fairly evenly spaced and may have been planted. There is frequent but uneven shrub cover, with holly being locally dominant, but birch, rowan and hazel are also present. There is some regeneration of site-native trees and shrubs. Vegetation is typical of woodland on shallow acid soils overlying shale rock: grass species include sweet vernal grass and wavy hair grass with a typical assemblage of mosses. Bilberry is scarce and bluebells are present in some areas. Open areas are dominated by bracken with bramble and gorse. A small open area was planted up in 1989 but establishment has been slow. Around two thirds of the woodland is mapped as ancient semi-natural woodland on the latest inventory.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Public access is from the A487 to a public footpath from which a stile allows access to compartment 2. Permissive access to compartment 1 is across green tracks on foot only. All internal access is permissive and very steep.

3.2 Access / Walks

The wood is located next to a public right of way leading south from the A487. Step stiles provide informal access although there are few maintained paths.

4.0 LONG TERM POLICY

Coed Waldo will continue as a predominantly upland oakwood habitat with its associated plant and animal communities, comprising locally native species, with sessile oak as the dominant canopy species. The woodland blocks will form part of a network of connected woodlands within the Vale of Ffestiniog.

Woodland structure will include a range of species and age classes, with a number of mature trees retained to senescence and left to develop veteran characteristics. The understorey will be typical of oak woodland, with a mix of hazel, rowan and holly, although holly should not dominate the shrub layer. Canopy gaps will occur through natural processes and provide niches for natural regeneration of site-native trees. Bracken in glades will continue to be a part of the mosaic of habitats, particularly at the woodland edge and in areas of regeneration. Open glades will remain along service lines (electricity, gas) through regular coppicing and pruning. Invasive species (rhododendron, conifer escapes from external sources) will be rare or absent. Dead wood habitats of standing or fallen timber will be retained in situ and (as public access is limited) trees with significant structural defects suitable as potential bat roosts and for nesting birds (pied flycatcher, woodpecker, tree creeper) will be present. Bats will also use the woodland as foraging habitat.

Public access facilities will remain limited and informal.

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 Ancient Semi Natural Woodland

Description

The latest Ancient Woodland Inventory has classified woodland in compartments 1d and 2a as ASNW, although woodland in the other compartments is likely to be secondary and small areas comprise recent planting (1989 onwards). The woodland is dominated by mature sessile oak; possibly planted in origin, as the trees are even aged and regularly spaced. Birch, rowan, hazel, holly, hawthorn, blackthorn, damson and a few ash also occur. Shrub cover is frequent, with holly the dominant species. Natural regeneration of rowan, birch, holly and oak is occurring. Bracken and bramble dominate open areas with patches of gorse. NVC W17b/c species are represented and field layer species include wavy hair grass, sweet vernal grass, a typical limited variety of mosses, bilberry, bluebell, cow wheat, golden rod, herb robert, wood sorrel and fern species. Young woodland of planted oak, rowan and birch has been dominated by bracken and bramble, but are slowly establishing. Ground flora in these areas includes moss and grass species., heath bedstraw, wood sorrel, golden rod, wood sage, ivy, foxglove and bluebell.

Significance

Upland oak wood is a HAP European woodland priority habitat, while ancient woodland is among the UK's most biodiverse habitats and one whose extent has severely declined in past decades. Locally native woodland species are represented. The woodland is adjacent to woods in the Coedydd Derw Meirion a Safloedd Ystlumod (Meirionnydd Oakwoods and Bat Sites) SAC/SSSI. It is likely to be important as a flight line/woodland link for foraging bats. Potential for bat roost sites. Contiguous with woodland in the Vale of Ffestiniog. Visible within the landscape and from the A487.

Opportunities & Constraints

Steep ground means limited access for management. The dense coarse vegetation and holly layer may make the site unattractive for grazing, which would depend on developing a relationship with a suitable local grazier. Part of the site comprises service corridors for overhead and underground services, therefore high forest cannot be established in these areas. There is scope for natural regeneration into some of the open ground areas, however, although dense bracken may inhibit this. Works are active badger setts may require a licence. Old walls and sheepfolds (HF1) occur in 1d/ 2a.

Windblown and storm damaged oaks provide opportunities for invertebrates and bats and create canopy gaps.

Factors Causing Change

Stock exclusion is likely to benefit ericaceous flora as well as coarse vegetation, and has allowed a locally dense holly understorey to develop: this may be shifting the ground flora balance away from bryophytes but may have allowed vascular plants such as bluebell to expand. It has also allowed some natural regeneration of site-native trees. Continued stock exclusion may permit holly cover to increase, shading out ground flora and outcompeting other native species.

The main engines of structural change are windblow and storm damage, which are likely to be beneficial in creating new habitat niches for bats and other species.

Invasive species such as rhododendron are also present and could expand.

Long term Objective (50 years+)

The woodland will remain an upland oak woodland in character, sessile oak being the dominant canopy species, with a diverse mix of locally native trees and shrubs. Structural diversity will increase, old/veteran trees being retained to senescence. Holly thickets will comprise no more than 40% of the woodland. Canopy gaps suitable for successful natural regeneration will be created by natural processes, while any grazing, if it occurs, will not be sufficient to inhibit tree regeneration, however, low level grazing that controls holly would be beneficial. Dead wood (both standing and fallen) will be abundant. AWI ground flora will be frequent and ground cover will exceed 50% of the woodland area. Invasive species will be absent.

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

Invasive species will be rare or absent, with rhododendron and conifer regeneration controlled as required by cutting/ pulling or herbicide treatment. There will be frequent natural regeneration in canopy gaps and open areas. Holly thickets will not comprise more than 40% of the understorey: if holly continues to expand in abundance and frequency during the current plan period, means of control such as mechanical cutting and/ or grazing will be explored. Standing and fallen deadwood will increase slowly. Ground flora will remain characteristic of upland oak woodland, with ground layer vegetation covering at least 50% of the wood. Coarse vegetation will be occasional.

5.2 Informal Public Access

Description

The eastern block of woodland is located adjacent to a public footpath, with two stiles providing access, although there are no maintained paths.

The western block is not connected to the rights of way network, although a steep permissive path occasional used by local residents bisects sub-compartment 1d. This is accessed by step stile from adjacent fields.

While the woods are open to the public, in practice this access is very infrequently exercised.

Significance

All Woodland Trust woods are open to the public where access is safe and practicable. A carved stone in cpt 1d commemorates Waldo Watkins, after whom the wood is named. The wood lies within Snowdonia National Park.

Opportunities & Constraints

Steep terrain and dense vegetation inhibit further access provision. This small wood has no parking and is poorly connected to the wider footpath network.

Low levels of public access may benefit species that prefer little disturbance.

Factors Causing Change

Usage is never likely to extend beyond that by very local people.

Long term Objective (50 years+)

No further infrastructure will be provided, however, the current pedestrian access points will be maintained in a safe condition to facilitate survey and management access. The wood will be part of the accessible Trust estate, although visits will remain very infrequent.

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

The wood will be identified by Trust signage and the current access points/ paths maintained in a safe condition.

6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By

APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	0.12	Oak (sessile)	1918	High forest	Mostly wet ground/exposed site, No/poor vehicular access within the site, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	National Park
Moderately steep sloping ground with a northerly aspect. Dominated by mature oak, all even aged and spaced an average of 6 m apart, although with some canopy gaps originating from windblow. A typical W17b community with ground flora dominated by moss species and wavy hair grass with a sparse covering of bracken and scattered patches of bramble. Regeneration of rowan is frequent with occasional hazel/ holly.							
1b	0.36	Oak (sessile)	1989	High forest	Mostly wet ground/exposed site, No/poor vehicular access within the site, Services & wayleaves, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	National Park
Sloping ground with a northerly aspect: a mosaic of open habitat with groups of trees of diverse age and species structure. An overhead 11Kv electricity line crosses the compartment from west to east, as does an underground gas pipe. The mature trees are predominantly at the top of the slope - oak, ash, hazel, birch and a thicket of damson. Open ground below the mature trees was planted with a mixture of oak, birch and rowan in 1989. The young trees have been slow to establish. Natural regeneration comprises frequent rowan with birch and some oak. The open areas are dominated by bracken with bramble. The field layer includes grass species, and moss species, bedstraw, wood sorrel, bluebell, ivy, golden rod, foxglove, wood sage and Juncus sp. Access for management purposes only is via a stile from the track at the bottom of the slope but there is no footpath. The boundary between compartments 1b and 1c is a remnant stone wall.							

1c	0.18	Oak (sessile)	1918	High forest	No/poor vehicular access within the site, Site structure, location, natural features & vegetation, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	National Park
A steep slope with a north-west aspect dominated by dense bracken with bramble. The only trees are in the south-west corner - a group of mature oak at the top of the slope and a few birch with gorse and bluebells adjacent to the boundary fence and track.							
1d	0.94	Oak (sessile)	1918	High forest	Mostly wet ground/exposed site, No/poor vehicular access within the site, Sensitive habitats/species on or adjacent to site, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, National Park

The compartment comprises of steep sloping ground with a southerly aspect. A short permissive footpath runs diagonally across the slope. The compartment was mapped as ASNW in the 2011 Inventory.

The woodland canopy is dominated by mature oak, even aged and spaced an average of 4-6 m apart. The oaks have many structural defects with cavities and holes suitable for bird species and bats. Vegetation is characterised by W17b typical sub-communities with moss species and wavy hair grass and by W17c where grass species, such as sweet vernal grass, are dominant particularly on the upper slopes to the west of the footpath. The western section of the compartment (behind the property Beudy Talog) is characterised by steep rocky crags overgrown with ivy and pennywort. The understorey comprises large holly bushes with occasional hazel. Above the crags at the top of the knoll oak seedlings are abundant. Ground flora includes wavy hair grass, sparse bilberry, hard fern and bluebell with bracken and bramble dominating the more open areas. Gaps in the oak canopy have been created by storm damage (including windblow October 2002). On the east side of the footpath the oaks form a closed canopy with a sparse understorey of predominantly holly saplings and the occasional hazel. Ground flora is sparse and characterised by moss species with some bluebell and other vascular AWIs. At the top of the slope adjacent to the field boundary there is a group of mature ash. The north-east corner of the woodland suffered extensive windblow in 1990: here the ground is very steep and covered in dense bramble and only one mature oak remains at the bottom of the slope. Canopy species are hazel, rowan, hawthorn and a coppiced oak. Natural regeneration includes oak, rowan and birch. At the eastern tip Coed Cadw ownership extends beyond the fence line and is dominated by bracken. To the east of the footpath, at the top of the slope is a stone carved with the name of the woodland, Coed Waldo, dedicated to Waldo Watkins (the donor's son). A small gate in the fence line at the western extremity allows eviction of stray sheep, which occasionally gain entry to the woodland.

2a	0.70	Oak (sessile)	1918	High forest	No/poor vehicular access within the site, Services & wayleaves	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, National Park

This compartment is a totally separate woodland block, roughly crescent in shape on sloping ground with a north and eastern aspect. Access to the woodland is via a stile from a public footpath. The canopy is generally closed and dominated by mature oak of even age (apart from a large old mature oak with a burred base near the western boundary). The bulk of the area was mapped as ASNW in the 2011 Inventory, although patches of planting are evident, probably dating back to acquisition c 1989.

In the north-west section dense holly thicket is the dominant understorey species. The central area is more open with tall oaks evenly spaced. Some windblow occurred (1990) and storm damage to the canopy (October 2002). Holly seedlings are frequent with the occasional hazel and oak. Occasional rhododendron and western hemlock seedlings (regeneration from forestry across the main road) are present. Vegetation comprises a typical W17b type with predominantly moss species, ferns on the cooler and damp north slope, wood sorrel, golden rod and sparse cow wheat.

A low voltage electricity service line to Hafod Talog crosses through the centre of the woodland; vegetation has been managed beneath the line and rowan regeneration is abundant. The east section of the compartment is divided by a stone retaining wall. Below the wall and a row of mature oak there is an open area dominated by bracken and gorse with birch.

Archaeological remnants in the north-west section include a sheep-fold and a semi-circular stone wall.

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.