



COED CADW  
WOODLAND  
TRUST

# Coed Elnion

## Management Plan 2018-2023

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## MANAGEMENT PLAN - CONTENTS PAGE

### ITEM Page No.

Introduction

Plan review and updating

Woodland Management Approach

Summary

1.0 Site details

2.0 Site description

2.1 Summary Description

2.2 Extended Description

3.0 Public access information

3.1 Getting there

3.2 Access / Walks

4.0 Long term policy

5.0 Key Features

5.1 Ancient Semi Natural Woodland

5.2 Open Ground Habitat

5.3 Informal Public Access

6.0 Work Programme

Appendix 1: Compartment descriptions

Glossary

## MAPS

Access

Conservation Features

Management

## 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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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](http://www.woodlandtrust.org.uk) or contact the Woodland Trust ([wopsmail@woodlandtrust.org.uk](mailto: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.

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## 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](http://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.

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## 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

|                        |  |
|------------------------|--|
| <b>Site name:</b>      | Coed Elernion  |
| <b>Location:</b>       | Trefor, Caernarfon   |
| <b>Grid reference:</b> | SH378460, OS 1:50,000 Sheet No. 123  |
| <b>Area:</b>           | 21.40 hectares (52.88 acres)   |
| <b>Designations:</b>   | Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Environmentally Sensitive Area, Site of Special Scientific Interest |

## 2.0 SITE DESCRIPTION

### 2.1 Summary Description

Visit Coed Elernion for a tranquil walk through woodlands and meadows, criss-crossed by gently bubbling streams. The wood is particularly spectacular in spring, when an array of bluebells and other woodland wildflowers carpet the ground, and in summer, when the meadows buzz with insects.

## 2.2 Extended Description

Coed Elernion comprises a diverse mixture of woodland, scrub, grassland and streams on gently sloping ground. It is located adjacent to the extensive semi-natural habitats of Yr Eifl SSSI and its prominence in the landscape within an AONB, being highly visible from the A449 and from the adjacent mountains of Yr Eifl.

The woodland is particularly varied including well-established mature stands and recently developed woodland, wet alder and willow-dominated woodland and drier oak, birch and ash-dominated woodland. Much of the wood is designated as a SSSI.

Within the woodland there are three long-established fields supporting moderately species-rich semi-improved neutral grassland and marshy grassland (rush-pasture). These fields were apparently 'reseeded' as recently as the 1970s but the species composition of the sward appears to have responded well to annual hay cuts undertaken by the Woodland Trust since the mid-1990s. Yellow rattle is very abundant and provides an attractive feature during the summer.

To the east there are additional areas of notably species-rich marshy grassland dominated by purple moor-grass and sharp-flowered rush with frequent giant horsetail. In the absence of grazing and with difficult access for mowing, young trees and shrubs are rapidly invading these areas.

Other habitats present include areas of gorse scrub, streams, shaded pools and drains.

Recreational use is relatively low due to the site's rather remote location, however the site provides a convenient resource for holidaymakers at the two adjacent campsites and footfall may be on the increase. Nonetheless, Coed Elernion offers an opportunity to enjoy an area of quiet, undisturbed woodland with abundant bluebells in spring and attractive grassland habitat during the summer. Paths are maintained through part of the site and bridges provided over the main stream.

Key features at the site are:

- the semi-natural broadleaved woodland (including areas of ancient semi-natural woodland) dominated by a variety of site-native species (sessile oak, ash, downy birch, alder, and grey willow). Several NVC woodland communities are present including significant areas of W7 and W10 and smaller areas of W1, W8 and W11. The majority of the woodland is designated SSSI;
- the grassland and scrub habitats, which support a high diversity of vascular plant species, add to the habitat diversity at the site and are likely to be of value to a number of fauna groups including invertebrates, birds and bats;
- informal public access; the site is of particular aesthetic appeal due to its largely natural and undisturbed nature and the presence of a variety of habitats.

## 3.0 PUBLIC ACCESS INFORMATION

### 3.1 Getting there

General location: Coed Elernion is near the village of Trefor on the north coast of the Llyn peninsula, 13 miles south of Caernarfon. Travelling from Caernarfon to Pwllheli on the A499, ignore the first road signposted to Trefor on the right and take the next in less than ½ mile instead. The entrance to the wood is on the left hand side 150m from the junction.

Parking is difficult: passengers may alight at the entrance to the wood, but vehicles are best parked on the verge at the junction with the A499 or in the village car park at Trefor. There is no pavement on the minor road past to the entrance.

The nearest train station is over 20 miles away at Bangor. Bus service 5/X5 travels between Bangor and Caernarfon; service 12 travels between Caernarfon and Pwllheli via Trefor and passes the entrance to Coed Elernion. For up to date and more detailed information about public transport, please see the Traveline website [www.traveline-cymru.org.uk](http://www.traveline-cymru.org.uk) or phone 0871 200 22 33.

The site could be visited as short detour from the Wales and Llyn Coastal Paths between Clynnog Fawr and Nefyn. Leaflets are available from local Tourist Information Centres and further information is available from [www.walescoastpath.gov.uk](http://www.walescoastpath.gov.uk).

### 3.2 Access / Walks

The main entrance to Coed Elernion is via squeeze posts directly off the minor road and is identified by a ladderboard sign.

Although the site is generally fairly level, the paths do descend and re-ascend with moderate slopes into a small river valley. All paths are unmade woodland paths with grassy and stony surfaces; roots frequently cross the paths and there may be small fallen trees to walk over. Sections of path can be extremely wet and muddy and the river/ streams are crossed in three places by timber footbridges (one handrail). A circular route may be followed around the wood from the main entrance: the total length is c1km, although this can be halved by not crossing the river at the footbridges and following a narrow riverside path to meet the returning path at the other footbridge. Walkers on the longer loop will discover open fields in the centre of the wood, with a bench well-placed for the enjoyment of the summer wild flowers.

## 4.0 LONG TERM POLICY

The main management objective at Coed Eiernion is to maintain and enhance the diverse semi-natural habitats present: woodland, grassland, scrub and streams.

The woodland will be maintained as high forest through minimum intervention. The lack of public access to much of the site provides opportunities to leave trees to die/fall in situ and natural regeneration will rapidly fill any naturally occurring gaps in the canopy. The canopy will be dominated by site-native trees, particularly alder, ash or willow in wetter areas, with sessile oak on drier ground. Japanese knotweed, which has occasionally spread along watercourses from adjacent land, and other invasive species, will be absent.

The species diversity and extent of the grassland sward will be maintained and enhanced, grading at the edges to scrub and into mature woodland, providing opportunities for foraging bats. Species-rich marshy grassland to the east of the site will be maintained through appropriate management.

The amenity value of the site including the permissive path network will be maintained to a standard appropriate to the moderate recreational and educational usage received. The appearance of the site in the landscape will be maintained through continuous cover woodland management and traditional management of non-woodland habitats.



## 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 majority of the woodland is likely to be of recent origin, comprising infill between old hedge banks and field trees, though parts have been confirmed as ancient woodland by the 2011 Ancient Woodland Inventory. The woodland is notably varied but comprises predominantly wet woodland and upland oakwood habitat types. Both W7 and W1 wet woodland NVC communities are present. W7 stands are dominated by alder (often relict coppice), ash and downy birch with a shrub layer comprising hazel, grey willow and young ash. The field layer comprises a mix of many species usually including meadowsweet, creeping buttercup, opposite-leaved golden saxifrage, bramble, hemlock water-dropwort, soft-rush, wild angelica, common marsh bedstraw with either frequent remote sedge (W7b) or tufted hair-grass (W7c). W1 stands comprise dense grey willow over a varied field layer. The oakwood mainly comprises the W10 NVC community. It is dominated by sessile oak and/or downy birch though ash can be locally frequent (especially to the north of the site). The shrub layer comprises mainly hazel, rowan, holly and hawthorn. The field layer is varied with wood sorrel, honeysuckle, bluebell, creeping soft-grass, broad buckler-fern, bramble, tufted hair-grass and ivy each locally abundant (W10c/e). Very locally the soils are more base rich and support more abundant ash with wych elm, herb Robert, sanicle, enchanter's nightshade, common nettle, wood avens, wood speedwell and wood false-brome (W8 NVC community). Other areas are notably acidic and support wavy hair-grass and abundant bryophytes (W11 NVC community).

#### Significance

The woodland comprises UK Biodiversity Action Plan (BAP) and European priority woodland habitats (mainly wet woodland and upland oakwood). The woodland habitat is also likely to be of value to a number of fauna groups eg: birds, invertebrates (a number of notable species recorded), bats (a number of roosts occur in the vicinity of the site) and badger (no active setts present but badgers very active within woodland). The wood is designated as a SSSI for its semi-natural broadleaved woodland habitat.

#### Opportunities & Constraints

The woodland has regenerated naturally (little evidence of planting), which provides an opportunity to continue to allow the habitat to develop naturally with minimum intervention. Although much of the woodland has been cut-over/coppiced in the past, there would not seem to be an over-riding need to continue this management, given the lack of continuity in the practice in the post-war period and the lack of records of coppice specialists at the site. A lack of disturbance is one of the most appealing features of the site and contributes to the value of the woodland in terms of deadwood and its value to certain invertebrate and bird species. Modest levels of public access allow trees to be retained to senescence in much of the wood.

The presence of streams, wet areas and a number of significant woodland banks could be considered a constraint to management access/extraction of timber though given the likely minimum intervention this may not be a practical concern. Similarly, the woodland is highly visible from some aspects but this is not likely to be a constraint given that intensive management is not being considered.

### **Factors Causing Change**

Natural processes such as windblow and senescence of old coppice stools should be sufficient to build structural diversity within the woodland. Natural regeneration is likely to be sufficient to maintain canopy cover.

The woodland is more or less stock-proof though there is some evidence that feral goats from the Yr Eifl population (and stray sheep) may visit the site infrequently. Grazing and browsing levels could change if populations fluctuate and boundaries deteriorate, although present levels are acceptable. Japanese knotweed may continue to reappear, especially along the streams, if it cannot be controlled on nearby land.

Ash dieback was first recorded in compartment 2b, affecting young regen in 2016, and rapidly spreading throughout the site. This may impact on long term species composition and is likely to lead to the loss of currently abundant ash regeneration at seedling, sapling and pole stage. Neophyte species are uncommon though sycamore is locally abundant to the north of the site and may spread into some of the niches left by ash.

### **Long term Objective (50 years+)**

Coed Elernion will remain a primarily semi-natural woodland (high forest) with a diversity of site-native trees, shrub and ground flora. Areas of wet woodland will remain frequent and locally extensive (eg: sub-compartments 1a and 1c). The quantity of deadwood, particularly standing deadwood, will increase naturally over time and there will be frequent natural regeneration. The woodland will be managed primarily through minimum intervention, with natural processes allowed to run where safe to do so. Intervention will be limited to the management of future threats such as invasive non-native species and over-browsing by herbivores.

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

The site will be regularly surveyed for invasive non-native species (eg: Japanese knotweed) during the coming plan period. Any such species recorded will be eradicated (or controlled where eradication is not possible). Otherwise natural processes will be left to take their course so far as safety considerations will allow, resulting in a gradual increase in standing and fallen deadwood. Grazing will not occur to a degree sufficient to inhibit abundant natural regeneration and damage ground flora. The impacts of ash dieback on structure and recruitment will be reassessed at the end of the plan period.

## 5.2 Open Ground Habitat

### Description

Three long-established fields within the woodland support areas of moderately species-rich semi-improved neutral grassland dominated by grasses (common bent, sweet vernal-grass, crested dog's tail) with abundant ribwort plantain, greater bird's-foot-trefoil, heath spotted orchid and yellow rattle. Many other species are occasional including selfheal, common knapweed, meadow buttercup, common sorrel, cat's-ear and lady's-mantle (MG5/6). Wetter parts of the fields (particularly the north-eastern field) support marshy grassland/rush-pasture dominated by sharp-flowered rush along with frequent soft-rush and compact-rush, hairy sedge, marsh bedstraw, greater bird's-foot-trefoil and Yorkshire-fog and occasional meadowsweet and wild angelica (M23).

Other areas of species-rich marshy grassland occur to the east of the site including further areas of rush-pasture (M23) dominated by sharp-flowered rush and giant horsetail and also areas dominated by purple moor-grass with cross-leaved heath, marsh pennywort, gorse, devil's-bit scabious and heath spotted-orchid (M25). Common twayblade, butterwort and bogbean, recorded in the past, may still be present. Scrub (mainly sessile oak, downy birch and bramble to the west and grey willow, gorse and downy birch to the east) is present at the margins of the grassland and is spreading into the grassland, particularly in cpt 2b, which has not been recently mown or grazed. Areas of tall leggy gorse dominated scrub (W23) occur at the south-eastern corner of the site.

### Significance

The areas of grassland and scrub add to the habitat and structural diversity of the site and to the site's aesthetic appeal, complementing the woodland habitat. The areas of marshy grassland and rush-pasture are a priority UK habitat (purple moor-grass and rush pastures) and the areas of dry neutral grassland have potential to become diverse enough to be considered lowland meadows, another UK priority habitat. These habitats are also likely to be of particular value to fauna including birds and invertebrates (12 species of butterfly recorded). The grassland supports a number of vascular plant species typical of unimproved/semi-improved and marshy grassland, adding considerably to the diversity of flora at the site. The open habitats and woodland edge are also likely to be of value to foraging bats.

### Opportunities & Constraints

All areas of grassland will require on-going management if they are to be retained including scrub control and grassland management (cutting and/or grazing). Therefore there are resource implications. The main eastern area of marshy grassland has already been fenced and the ditch here provides a water supply. However, a grazier has not yet been identified to assist with management of this grassland. Also, the current fence does not enclose other areas of marshy grassland and scrub which would also benefit from grazing/management.

Annual hay cutting is established within the three fields and, funding permitting, it should be possible to continue this management. The fields are already partly fenced but would require complete stockproofing if these fields were to also be grazed in the future. There may also be difficulty in finding an appropriate grazier. Care will be required in areas of marshy grassland to avoid poaching/disturbance during wet periods.

### Factors Causing Change

Scrub and bracken are developing naturally on the majority of the field margins and may encroach into the fields in the future if left unchecked. Lack of management could result in a loss of species-diversity and development of a tall rank sward into which scrub/bramble, bracken and woodland will gradually encroach. In the past the fields have been grazed and some grazing may still continue either by feral goats or straying stock. Current management is annual hay cutting which appears to be enhancing the species composition of the sward over time. Changes to agricultural subsidy and practice locally may impact on the ability to graze or otherwise manage the site.

### **Long term Objective (50 years+)**

Areas of species-rich neutral and marshy grassland will be retained and enhanced through traditional hay meadow management techniques, including grazing if this proves achievable.

Taller grassland, tall herb, bracken, scrub (including gorse and bramble) and scattered trees/woodland edge habitat will be present around the margins of the grassland but will not encroach into the species-rich grassland sward.

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

Grassland habitat will be maintained through regular hay management: flowering species indicative of neutral or marshy grassland will occur frequently, for instance orchids, knapweed, ragged robin, buttercups, yarrow and hay rattle. The grassland in the fields (compartment 3) will be managed through regular hay cutting (with cuttings removed), typically in late July/August (in at least 2 years out of 3). If required, management access to field C will be improved.

Scrub/bramble and bracken encroachment into the fields will be monitored and controlled as necessary. Selected field margins will be maintained free of scrub to allow adjacent mature trees to overhang grassland habitat, whereas a graduated margin will be allowed to develop in others. Any remaining tree guards will be removed from meadow-side trees by the end of the plan period.

Ideally, hay cutting would be complemented by aftermath grazing, however, this would require the renewal of the fencing and therefore rests on identifying both suitable graziers and suitable financial support. If grazing proved feasible, it may be worth considering extending this into remaining areas of marshy grassland in cpt 2b. However, manual scrub control as the only other option could be very labour intensive in the long term, and so will not be undertaken unless suitable support can be obtained (for the coming period, ash dieback may hold back some of the natural succession of this area, however, other species are likely to colonise in its place). Explore options for reinstatement of grazing during the current plan period.

## 5.3 Informal Public Access

### Description

Although rather isolated, the site is of high aesthetic appeal due to the diversity of habitats present, the seasonally abundant bluebells and attractive grassland areas. The wood is located within the Llyn AONB.

There are no public rights of way within the site (although a Coastal Communities route passes by the wood to the west) but access is possible from the adjacent road and is identified by a new (2017) ladderboard and wooden field gate. Permissive paths, surfaced in part, have been provided through much of the woodland with footbridges over the main stream. Other visitor infrastructure includes a bench and stiles (where the path crosses the internal fence around sub-compartment 2b). There are also two adjacent campsites, whose residents are likely to comprise a large proportion of summer visitors: informal access from the private campsite at Elernion to the west is obviously sometimes gained by campers through the management access gate. There is occasional educational usage, including a regular Forest School which operated in 2017. Evidence suggests a small core of local users who appreciate the recreational walking opportunities that the wood provides and the level of footfall and erosion evident in wet areas of the path suggests regular use even in winter.

### Significance

The diversity of habitats, seasonally attractive grassland areas and carpets of bluebell make the site particularly attractive to visitors. The aesthetic appeal is further increased by its undisturbed nature. The site provides a local walk for visitors and residents of the Trefor area. There is a relative dearth of accessible woodland on the Llyn peninsula, which is generally not well-wooded.

### Opportunities & Constraints

The wet woodland habitat and local climatic conditions means that un-surfaced routes can rapidly become poached and widened by footfall: while surfacing of paths in the ancient woodland stands is generally to be avoided, this should be balanced against the impact of paths widening as walkers avoid muddy sections and the short safe working life of timber boardwalk. Many stream crossings require infrastructure that would deteriorate without regular maintenance.

While there remain many areas of the woodland not currently accessible to visitors, this has an ecological value in providing undisturbed 'wild' spaces for wildlife, so further path creation is unlikely. The lack of parking or access via the public rights of way network is a constraint to any increase in visitor numbers.

A local forest school group visited the wood over a season during the last plan period and there is scope for further use by local schools or educational groups.

### Factors Causing Change

Increased heavy rainfall/ storm events and changes in usage may accelerate deterioration of paths and infrastructure. Funding for access work may be available through the AONB.

### Long term Objective (50 years+)

Existing permissive paths and access points will be maintained in good condition appropriate to the level of use. Local residents and seasonal visitors will value the site as providing an engaging walk location with much changing seasonal interest, within a landscape otherwise rather short on woods and trees. The wood will be available for appropriate educational usage.

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

Permissive paths will be maintained in good condition through strimming, surface repairs where required and upkeep of stiles and bridges. Erosional damage and safety of paths and infrastructure will be monitored and addressed if needed. Entrances will be maintained to the Trust's welcoming standard. Appropriate educational usage will be facilitated on request.

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## 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      | 4.20      | Oak (sessile) | 1920 | High forest       | Archaeological features, Gullies/Deep Valleys/Uneven/Rocky ground, Mostly wet ground/exposed site | Informal Public Access | Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Environmentally Sensitive Area, Site of Special Scientific Interest |

This sub-compartment, to the south of the site, supports mature woodland (some of which was included on the Ancient Woodland Inventory 2011), comprising areas of both wet woodland and drier sessile oak dominated woodland. The wet woodland, occurring mainly along the streams and to the west of the sub-compartment, is dominated by alder, ash and grey willow over a field layer typical of the W7b and W7c NVC sub-communities (see key feature description). The drier woodland is generally dominated by mature sessile oak and/or younger downy birch (the latter dominant to the south) with frequent hazel, rowan, holly, hawthorn and young ash. Sycamore is occasional. The field layer mainly comprises abundant bluebell, wood sorrel, broad buckler-fern, bramble, ivy, honeysuckle, bracken and creeping soft-grass (W10e/c) but with locally frequent wavy hair-grass, hard-fern and abundant bryophytes to the west (W11/W10). The sub-compartment is bound by the three fields and further areas of woodland (including woodland, outside Trust ownership, to the south-west).

|    |      |                      |      |             |   |                        |   |
|----|------|----------------------|------|-------------|---|------------------------|---|
| 1b | 5.50 | Birch (downy/silver) | 1975 | High forest | Archaeological features, Gullies/Deep Valleys/Uneven/Rocky ground, Mostly wet ground/exposed site | Informal Public Access | Area of Outstanding Natural Beauty, Environmentally Sensitive Area, Site of Special Scientific Interest |
|----|------|----------------------|------|-------------|---|------------------------|---|

This sub-compartment lies to the west of the site and supports varied secondary woodland. The majority is dominated by young downy birch (some previously coppiced) with scattered (locally frequent) sessile oak. Sycamore is occasional. Hazel, rowan, holly and grey willow occur throughout. The field layer is variable but characteristic of the W10 NVC community (see key feature description). Locally, especially to the west and along boundaries, there are more acidic patches with wavy hair-grass (W11), often with more mature oak. Along streams and within depressions throughout, there are patches of wet woodland (W7) (see key feature description). The sub-compartment is bound on three sides by banks and pasture.

|    |      |     |      |             |   |                        |  |
|----|------|-----|------|-------------|---|------------------------|--|
| 1c | 5.40 | Ash | 1940 | High forest | Archaeological features, Gullies/Deep Valleys/Uneven/Rocky ground, Mostly wet ground/exposed site | Informal Public Access | Ancient Semi Natural Woodland, Area of Outstanding Natural Beauty, Environmentally Sensitive Area, Site of Special Scientific Interest |
|----|------|-----|------|-------------|---|------------------------|--|

This sub-compartment lies to the north-east of the site and supports varied woodland which although apparently secondary, is included in the AWI 2011. Both sessile oak and ash are abundant (each locally dominant) along with downy birch and a shrub layer comprising hazel, rowan, holly and, locally, wych elm. The most frequent/abundant field layer species include bluebell, wood sorrel, broad buckler-fern, bramble, ivy, honeysuckle and male-fern (W10e/c). Base rich areas also occur (W8 - see key features description). Wetter areas (which can be quite extensive) support alder, ash and downy birch with goat and grey willows and hazel. Field layer species in these areas are typical of the W7 community (see key feature description). Sycamore is locally frequent in the canopy (mainly along the northern margins) and locally abundant as saplings. Japanese knotweed was formerly present along the stream but may have been successfully eradicated. The sub-compartment is bound to the south by further areas of woodland and to the north by pasture and a caravan site.

|    |      |                      |      |                  |  |                        |  |
|----|------|----------------------|------|------------------|--|------------------------|--|
| 2a | 2.90 | Birch (downy/silver) | 1980 | Min-intervention | Archaeological features, Gullies/Deep Valleys/Uneven/Rocky ground, Management factors (eg grazing etc), Mostly wet ground/exposed site | Informal Public Access | Area of Outstanding Natural Beauty, Environmentally Sensitive Area |
|----|------|----------------------|------|------------------|--|------------------------|--|

The sub-compartment lies to the east of the site and supports recently developed woodland and scrub with patches of open habitat. The majority is dominated by dense stands of previously coppiced/cut-over downy birch and occasional ash and sessile oak (mostly large trees along banks and ditches) with occasional to locally frequent grey willow, hazel, gorse and alder. The field/ground layer vegetation is mainly carpets of ivy but there are frequent to locally abundant bramble, bracken, male-fern, enchanter's nightshade and wood sorrel (W10c/e). Wetter areas support wild angelica, lady-fern, marsh horsetail and devil's-bit scabious (W7). The woodland to the north of the sub-compartment includes areas dominated by dense young grey willow (W1), alder and ash (W7b). To the south-east of the sub-compartment is an open area of marshy grassland (M25) and tall leggy gorse scrub (W23) - see key feature description.

|  |      |             |      |                  |   |                        |  |
|--|------|-------------|------|------------------|---|------------------------|--|
| 2b   | 1.00 | Grey willow | 1980 | Min-intervention | Management factors (eg grazing etc), Mostly wet ground/exposed site, No/poor vehicular access within the site | Informal Public Access | Area of Outstanding Natural Beauty, Environmentally Sensitive Area |
| <p>This sub-compartment, on the eastern boundary of the site, primarily supports marshy grassland, although this is rapidly being colonised by young trees, notably ash, grey willow and downy birch. To the north the grassland comprises species-rich rush-pasture (M23). To the south purple moor-grass is more abundant (M25) - see key feature description. A ditch bisects the sub-compartment. Ash dieback was confirmed here in 2016.</p>  |      |             |      |                  |   |                        |  |
| 3a   | 2.40 | NULL        | 1980 | Non-wood habitat | Management factors (eg grazing etc)   | Informal Public Access | Area of Outstanding Natural Beauty, Environmentally Sensitive Area |
| <p>This sub-compartment comprises three fields supporting areas of semi-improved neutral grassland and marshy grassland (rush-pasture) - see key feature description. The former occupies freely draining parts of the fields and the latter occurs in poorly drained areas. Shrubs and trees are regenerating at the margins of the fields (encouraged in the past by the Trust). Bracken and bramble are invading from the margins in the north-western and southern fields. The fields are known to be of particular value to invertebrates, (eg: 12 species of butterfly recorded) and are likely to be of value to foraging bats.</p> |      |             |      |                  |   |                        |  |

## 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.