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WOODLAND
TRUST

Llwyn

Management Plan 2017-2022

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Llwyn
Location:	Llanrhaeadr, nr Denbigh
Grid reference:	SJ084639, OS 1:50,000 Sheet No. 116
Area:	3.64 hectares (8.99 acres)
Designations:	Site of Special Scientific Interest, Special Area of Conservation, Special Landscape Area

2.0 SITE DESCRIPTION

2.1 Summary Description

Llwyn lies in the flood plain of the River Clywedog and forms the southern end of a larger Site of Special Scientific Interest. It is the most significant example of alder woodland in the lowland valleys of north-east Wales.

2.2 Extended Description

Llwyn is situated in the flood plain of the River Clywedog and forms the southern end of a larger 35 acre Site of Special Scientific Interest (SSSI), notified for its botanical interest as wet woodland. Such Alder woodland was once widespread in the lowland valleys of NE Wales, and this SSSI is the most significant remaining example. It has also recently been designated as a Special Area of Conservation (SAC) which reflects the site's importance in the European context. The area in Woodland Trust ownership has developed naturally into Ash/Alder woodland with some Sycamore, with little evidence of management other than the casual coppicing of Alder in the past. Natural processes have resulted in a woodland of diverse age range, structure and species composition with a large amount of dead wood habitat. It has a particularly rich shrub layer with Bird Cherry and Guelder Rose being common. The ground flora is diverse and includes Opposite-leaved Golden Saxifrage, Remote Sedge, Moschatel, Hemlock Water Dropwort with Yellow Iris and Marsh Marigold in wetter areas. A small open glade, dominated by herbaceous vegetation and which has considerably reduced in area over the years through scrub encroachment, adds to the site's biodiversity. An internal ditch, still functional, drains into the stream which forms part of the eastern boundary. Prior to acquisition by the Woodland Trust there was no formal access to Llwyn. A circular path has now been created around the site with boardwalks in particularly wet sections. The surrounding land use is predominately arable. Formal vehicular management access is limited to use of a private track which runs in close proximity to the site, access from this track into the wood is on foot only by right of way across neighbouring field.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Llwyn is situated to the north-east of the village of Llanrhaeadr. It has one entrance which has a kissing gate. This is accessed from a public footpath which runs past the northern boundary of the site. There is a circular path around the site and being wet woodland there are a number of boardwalks through particularly wet sections together with a footbridge. In winter the whole route is generally boggy underfoot.

Parking is available adjacent to the A525 in a lay-by created following the construction of the Llanrhaeadr bypass. Take the northern turning for the village and turn immediately right into lay-by. Cross the A525 and take the public footpath across farmland which passes the wood entrance. Along the length of this path (distance 0.4km) there are three stiles to cross.

Public transport: there is a bus stop on the A525 close to the public footpath which leads to the site. For further details visit the Traveline website at www.traveline.org.uk or call them on 0870 6082608. Nearest public toilets are in Denbigh (Factory Lane) (as at Mar 07) the disabled facilities require a RADAR key. For further details visit Denbighshire County Council's website at www.denbighshire.gov.uk

The public footpath used to access the site continues for a further 7km along the banks of the River Clwyd and joins the A541 Denbigh - Mold road barriers unknown.

3.2 Access / Walks

4.0 LONG TERM POLICY

The woodland will be managed with minimum intervention allowing it to continue its natural succession to damp ash woodland, where natural processes of windblow and natural regeneration will maintain the existing structural and species diversity. Sycamore is not a significant component of the woodland at present or in the surrounding landscape.

Open glade habitat to be managed to maintain tall herbaceous vegetation with a shrubby woodland edge so improving woodland biodiversity. The circular path around the site will be maintained in line with the level of usage.

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

Area of structurally diverse mature woodland There are four different woodland communities present (three being wet woodland) reflecting the changing topography and hydrology across the site. Comprised predominately of ash and alder with some sycamore and occasional Wild Cherry and Rowan. It has a particularly rich shrub layer: Bird Cherry and Guelder Rose being common together with Hawthorn, Hazel, Holly, Sallow and Elder. Good Ash regeneration present. Large amount of dead wood habitat. Diverse ground flora includes Opposite-leaved Golden Saxifrage, Moschatel, Remote Sedge and Hemlock Water Dropwort with Yellow Iris and Marsh Marigold in wetter areas. Open glade dominated by tall herbaceous vegetation

Significance

Forms part of Llwyn SSSI which extends to some 35 acres in total. Notified for its botanical interest: an area of Alder Woodland in the valley of the River Clywedog which represents a type of wetland habitat once widespread in the lowland valleys of the former county of Clwyd. This complex of woods is the most significant remaining example of the type. Areas of W5/W6/W7 wet woodland which is a priority habitat in both the UK and European context. European Designation as Special Area of Conservation (SAC) confirmed early 2005.

Opportunities & Constraints

Majority of the ground is permanently wet therefore internal vehicular access is not possible Himalayan Balsam and Japanese Knotweed are possible threats to the sites biodiversity. Although neither are present, Himalayan Balsam is present along watercourses in nearby fields. With no adjacent semi natural habitat acting as a buffer zone a lowering of natural water levels may occur through management of adjacent farmland/ water abstraction. This is therefore a threat to the overall biodiversity of the woodland. Opportunity to implement measures for water level management in consultation with NRW. Opportunity to maintain shrubby woodland edge habitat through periodically coppicing shrubs surrounding glade and to maintain floristic diversity of glade through annual cutting.

Factors Causing Change

Squirrel damage to sycamore, Glade closure through natural succession, Invasive Knotweed, Natural Succession To damp Ash woodland, Frequent Wind Damage, Invasive Himalayan Balsam, Changing hydrology of site. Ash dieback effects unknown.

Long term Objective (50 years+)

Maintain natural structure and species composition of the woodland through minimum intervention allowing the site to naturally succeed to damp Ash woodland where the natural process of wind blow and regeneration of canopy gaps to operate. Intervention will be restricted to control of invasive sycamore to maintain it at an acceptable level whereby it does not represent a threat to the future biodiversity of the site. Invasive non-native species should they colonise (e.g Himalayan Balsam) will be controlled with the aim of eradication. Maintain open glade as tall herbaceous vegetation with shrubby woodland edge which contributes to overall habitat diversity.

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

Continue to monitor for invasive plants viz. Himalayan balsam and Japanese knotweed and respond appropriately.

Continue to maintain the glade by an annual cut. Evaluate the importance of this operation during this plan period.

5.2 Informal Public Access

Description

Pedestrian access point in northern boundary to link in with Public Footpath No. 9 which runs outside of this boundary. A circular path has been created around the site avoiding areas of particular botanical interest, with boardwalks in the wettest areas and footbridge across stream. Present and historical levels of use are low.

Significance

New amenity created for village of Llanrhaeadr (0.5km from site). Public access to semi natural woodlands in the locality limited. Only example of wet woodland to which there is public access in the area.

Opportunities & Constraints

Some remaining sections of path are wet through winter months. Public Footpath from A525 to site is poorly maintained and restricts access to the site, particularly during summer months due to vegetation overgrowing path.

Factors Causing Change

Rotting of wooden features.

Long term Objective (50 years+)

Maintain circular path around site.

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

Provision for public access will be in keeping with Woodland Trust access guidelines and facilities appropriate to level of usage. All structures associated with public access will be maintained in a safe condition. Review maintaining boardwalks with level of use.

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	3.72	Alder species	1910	Min-intervention	Mostly wet ground/exposed site, No/poor vehicular access within the site, Sensitive habitats/species on or adjacent to site	Informal Public Access, Secondary Woodland	Site of Special Scientific Interest, Special Area of Conservation, Special Landscape Area

Ash/Alder woodland predominately NVC W6/W8 with diverse age range, structure and species composition. The northern end is dominated by Alder whilst the drier southern end is dominated by Ash with some impressively large trees (P1910).It has a particularly rich shrub layer with Bird Cherry and Guelder Rose being common together with Hazel, Hawthorn, Sallow and Elder. Alongside drains, wet depressions and small pools the ground flora is particularly diverse with vegetation typical of the wettest woodland conditions (NVC W5/W7) and includes Hemlock Water Dropwort, Yellow Flag, Marsh Marigold and Opposite-leaved Golden Saxifrage, Remote Sedge, Mochatel, Hemlock Water Dropwort with Yellow Iris in wetter areas. A glade supports tall herb vegetation where common nettle and meadowsweet abundant together with great willowherb, wild angelica, hogweed and bittersweet. Shrubs, mainly Willow and Blackthorn form the perimeter, some of which have been coppiced in the past.

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.