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WOODLAND
TRUST

Bron y Buckley

Management Plan 2015-2020

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Bron y Buckley
Location:	Welshpool
Grid reference:	SJ220079, OS 1:50,000 Sheet No. 126
Area:	4.91 hectares (12.13 acres)
Designations:	Ancient Semi Natural Woodland, Site of Special Scientific Interest, Tree Preservation Order

2.0 SITE DESCRIPTION

2.1 Summary Description

An ancient woodland site with oak, beech, ash and sycamore alongside diverse shrub species and public footpaths throughout. A stream running through forms a gully that is renowned among geologists for fossil interest.

2.2 Extended Description

Bron y Buckley is a 4.9ha ancient woodland occupying a south-facing hill slope immediately adjacent to Welshpool (a housing estate is present along the southern boundary). The woodland forms a highly visible backdrop to the town and is protected by a Tree Preservation Order (TPO). A stream (flowing north to south) bisects the site forming a deep incised gully known to geologists as 'Trilobite Dingle' on account of its fossil interest. This is the type site for Silurian Hibolite fossils and the gully is designated SSSI for its geological interest. The land to the south is a residential area, to the north it is pasture, there is a quarry adjacent to the west and a school to the east.

The eastern side of the site is dominated by planted oak and beech (planted around the 1950s and last thinned in the 1990s). Beech regeneration and holly are prolific and the field layer is species-poor and dominated by bramble.

The gully and western side of the site support woodland with a more semi-natural composition and structure. The canopy is co-dominated by ash, beech and sycamore with locally frequent wild cherry. Thinning in 1990 included the removal of many dead elms, resulting in a patchily open canopy. There is a dense shrub layer comprising a high diversity of shrub species and abundant regeneration of ash and sycamore, especially where there are large canopy gaps. The field layer is more diverse with bramble, ivy, soft shield-fern, dog's mercury and bluebell all frequent and locally abundant.

Fallen dead wood, including much of large diameter, is notably abundant (particularly in the western part of the site) due to the past death of elms and retention of whole felled trees on site following management.

A strip of woodland adjacent to houses and gardens along the western half of the southern boundary was felled in 1988 due to safety concerns. This strip is now dominated by dense re-growth of trees and shrubs planted in 1990. Good views across the town are obtained from the adjacent path.

A public footpath follows the stream through the site, passing along the eastern gully side. Other paths are present throughout and the woodland is well used by local residents.

Key features are:

- the broadleaved ancient woodland (semi-natural and replanted);
- public access.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Bron y Buckley is on the edge of a housing estate in Welshpool. The main path through the wood is a public footpath and is accessed off a residential road (Bron y Buckley) in the form of a ramp way with retaining wall. There are no barriers to access at this point but the path soon narrows and is not suitable for pushchairs/wheelchairs. The public footpath exits the northern-most point of the wood with a stile and links into the wider public rights of way network across farmland. A subsidiary path leaves the public footpath up a flight of steps and then rejoins it making a minor circular route. A second entrance off the same road has a squeeze gap. The path from this point is joined to an internal track which runs the length of the wood via a flight of wooden steps. There are no exit points from the wood along this track or stream crossing points to join the public footpath on the opposite side so the paths are effectively divided into two separate networks. All paths within the site are unsurfaced and may be slippery when wet.

Car parking is available at roadside on the housing estate.

Public transport: There are a number of bus stops in the town centre from which there will be a walk (approx 0.5km) to the wood via paved public roads, the walk being uphill through the housing estate. See www.traveline.org.uk or call them on 0870 6082608 for details of services.

Nearest public toilets: located at Church Street car park in Welshpool approx. 0.3km from site. The disabled toilet requires a RADAR key.

3.2 Access / Walks

4.0 LONG TERM POLICY

The main objectives at this site are to allow the mixed broadleaved woodland to continue to develop through natural processes, to protect the geological interest off the site and to provide public access on foot in the wood.

The volume of deadwood will be maintained through further retention of fallen and felled trees (away from the gully). Indeed, the poor management access necessitates the retention of felled timber. Other than the coppicing described below, trees will only be felled where they are a danger to the public or to neighbouring properties.

The south-western boundary strip will be managed as coppice, cut, in sections, on an approximately 10-15 year rotation. This will provide valuable scrubby woodland edge habitat at the site, whilst addressing safety and shading concerns adjacent to neighbouring gardens and houses and keeping the views over Welshpool open.

5.0 KEY FEATURES

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

5.1 Ancient Semi Natural Woodland

Description

All the woodland at the site is included in the Ancient Woodland Inventory. Much of the woodland can be considered ancient semi-natural woodland but parts have been replanted with broadleaved species, mainly beech, oak and sycamore.

To the east, the woodland is clearly of plantation origin, dominated by beech and oak with some sycamore. Here the shrub layer is dominated by young regenerating beech with frequent holly. The field layer is species-poor, dominated by bramble with frequent creeping soft-grass and ivy (W10/14).

In the central gully and to the west, the woodland composition and structure is more semi-natural with ash, beech and sycamore co-dominant. The shrub layer is well developed and locally (beneath gaps) dense comprising a variety of species and abundant ash and sycamore regeneration. The field layer is more species-rich with bramble, ivy, soft shield-fern, dog's mercury, lords-and-ladies, lesser celandine, false wood-brome, wood avens and bluebell all frequent and locally abundant (W8/W12). A narrow strip of woodland along the western part of the southern boundary was felled in 1988 and now comprises dense regeneration from cut stumps (ash, sycamore) and planted shrubs (hawthorn, hazel, field maple, holly, elder, dogwood).

Deadwood is abundant within the gully and to the west, including many whole trees (dead elms and felled trees retained following thinning).

Significance

The woodland is ancient, part ancient semi-natural and part replanted with broadleaves. The site supports areas of upland mixed ash wood and lowland mixed deciduous woodland habitats, priority habitat types in the UK Biodiversity Action Plan.

Opportunities & Constraints

The woodland is prominent in the landscape, clearly visible from much of Welshpool. Therefore any management should take into account the external appearance of the woodland and maintain continuous cover.

The abundant natural regeneration will ensure the continuity of woodland at the site. The lack of reasonable management access means that any felling will be to waste. To discourage fires, felled trees have been left whole on site in the past. This practice has resulted in an excellent provision of deadwood habitat but does present the risk of logs being rolled down into the gully. Also, much of the timber was removed from the eastern part of the wood (probably by a local firewood merchant).

Flash floods have occasionally lead to blockage of the culvert on southern boundary. Powys County Council is responsible for ensuring the culvert is kept open but the Trust has a duty to keep the watercourse free from obstruction. The effect of future flooding episodes can be reduced through appropriate woodland management (i.e. encouraging dense vegetation cover and stability within the gully).

CCW (now NRW) has varied in its views as to whether erosion caused by uncontrolled fossil collecting is damaging or beneficial to the geological interest. A monitoring programme set up by CCW in 1997 has not been repeated recently.

NRW consent is required for fossil collection.

Deposition of debris as a result of fossil collecting could contribute to the blockage of the culvert at the southern end of the stream and cause local flooding. Increasing the stability of trees in the gully by felling unstable trees may be necessary to avoid future risk of culvert blockage/local flooding.

Factors Causing Change

Abundant natural regeneration - beech, ash, sycamore, wild cherry each locally frequent., Mountain biking has caused local damage to flora., In the absence of management the scrubby strip to the south-west will redevelop into high forest., Felled timber retained in large sections in the past has resulted in abundant dead wood, although significant amounts were removed from the eastern part of the woodland (sub-compartment 1a)., Japanese knotweed has been recorded near the woodland entrance in the past and has been chemically controlled.

Long term Objective (50 years+)

A diverse mixed broadleaved woodland, with large mature trees and abundant regeneration and shrubs in the understorey and in canopy gaps. Wildflowers will be abundant in spring and early summer. There will be abundant deadwood, mainly fallen, although the stream will be free of significant debris (timber) to reduce risk of local flooding.

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

Most of the site will be under minimum intervention management except for Cpt. 1d which will be coppiced over a 12-15 year rotation in small blocks of about 25m by 10m every 4 years. There may also be a need in future to fell some trees in the gully to ensure that the stand is stable. The presence/spread of non-native species (particularly Japanese Knotweed) will be monitored annually and controlled if present.

5.2 Informal Public Access

Description

A public footpath runs through the site from the northern tip to the southern boundary along the eastern side of the gully. Other permissive paths are present on both sides of the woodland. There are two main points of access on the southern boundary from the adjacent housing estate. Additional informal access has been created from many of the adjacent gardens. Good views across Welshpool are obtained from the path to the south-west of the site.

Significance

The wood is well used by local residents.

Opportunities & Constraints

The woodland is located immediately adjacent to a housing estate and school. There have been some problems associated with inappropriate activities in the past including tipping/litter which results in blockage of the culvert (causing local flooding), removal of retained dead wood and mountain biking. However, these problems do not currently appear to be causing significant damage. Unregulated fossil collecting, including by commercial fossil collectors is still happening. Regeneration adjacent to the paths can cause obstruction and requires periodic cutting/coppicing. Due to the difficulty of constructing a suitable crossing point on the stream in the gully the wood is effectively divided into two separate areas in terms of public access. NRW consent is required for fossil collecting.

Factors Causing Change

Landslip has occurred in the past at the northern end of the public footpath., Some recreational activities may cause damage to paths, for example mountain biking., Regeneration of trees/shrubs adjacent to the paths (particularly in the south-west section of the woodland) is abundant and will need periodic cutting to maintain free and easy access along the paths., Many of the neighbouring residents have created access direct from their gardens.

Long term Objective (50 years+)

Low key public access will be maintained with a small range of footpaths around and through the site, a bench and view points. The wood will provide a valuable local green space for residents of Welshpool. The gully will continue to be valued as an imported and protected geological site within the woodland with only legitimate and controlled research, studies and removal of material being carried out.

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

Existing paths will be maintained in good condition and the view to the south-west will be kept clear through continued coppicing of shrubs and trees here. Litter clearance will be carried out as needed.

Path-side shrubs/regeneration will be cut back as necessary to remove obstruction to access. The site will be maintained free of litter/tipping through the Estates Maintenance Contract (EMC).

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	1.10	Oak (pedunculate)	1930	High forest	No/poor vehicular access to the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, Tree Preservation Order
<p>This sub-compartment comprises the eastern part of the site. The canopy clearly originates from planting and is dominated by relatively even-aged beech and pedunculate oak with occasional sycamore (last thinned in the 1990s). There is abundant beech regeneration in the shrub layer along with frequent holly. The field layer is relatively species-poor comprising mainly bramble, creeping soft-grass and ivy (W10/14).</p> <p>A public footpath forms the western boundary of the sub-compartment with pasture and a school to the east. The southern boundary has a tall retaining wall adjacent to the public road.</p>							
1b	1.30	Beech	1950	High forest	Housing/infrastructure, structures & water features on or adjacent to site, Legal issues, No/poor vehicular access to 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	Ancient Semi Natural Woodland, Site of Special Scientific Interest, Tree Preservation Order

This sub-compartment comprises the gully which runs through the centre of the site. The steep gully sides support woodland similar to that found in the western part of the site (ash, beech and sycamore dominated) - see sub-compartment 1c below. Ferns (for example, soft shield-fern and hart's-tongue fern) are particularly frequent here (W8e/W12).

Dead wood is frequent including many whole trees (retained after thinning).

The stream and lower parts of the gully sides are included in the geological SSSI. The gully is an important site for the study of fossil trilobites which are found in the Ordovician mudstones deposited some 425 million years ago and exposed along the stream section. Other fossils occurring with the trilobites are valuable in understanding conditions which prevailed in this area during late Ordovician times. There is usually a reasonable amount of exposed earth and rocks in the gulley due to erosion during heavy rainfall and the instability of the steep slopes. The site is of great historical and current scientific importance. 'Trilobite Dingle' has been known to geologists for nearly 150 years and was described by Murchison. It is the only mixed graptolitic and shelly assemblage in the Welsh Harnagian and is a type locality for certain trinucleid trilobites.

The sub-compartment is mainly bound on both east and west sides by paths/rides.

1c	2.30	Beech	1950	High forest	Legal issues, No/poor vehicular access to the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, Tree Preservation Order
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This sub-compartment comprises the western half of the site. The patchy canopy (last thinned in 1990) is dominated by ash, beech and sycamore with frequent wild cherry. The shrub layer is dense and well-developed, particularly beneath the larger canopy gaps, and includes hazel, hawthorn, wych elm, holly, elder, wild privet and locally abundant regeneration of ash and sycamore. The field layer is relatively species-rich, dominated by bramble but with locally frequent dog's mercury, bluebell, ivy, soft shield-fern, lords-and-ladies, lesser celandine, false wood-brome and wood avens. Other species present include gooseberry, primrose and hart's-tongue fern. (W8/W12).

Dead wood is abundant including many whole trees (dead elms and trees felled during previous thinnings).

A wide path/ride forms the eastern/southern boundary of the sub-compartment, with pasture to the west and north.

1d	0.20	Mixed broadleaves	1990	Coppice	Housing/infrastructure, structures & water features on or adjacent to site	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, Tree Preservation Order
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This sub-compartment is the strip of woodland along the western half of the southern boundary between a wide path/ride to the north and the site boundary to the south which backs onto a series of gardens. This section of woodland was felled in 1988 due to safety concerns. The vegetation now comprises dense and diverse scrub comprising regeneration from the cut stumps and planted shrubs. Bramble dominates beneath.

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2019	1d	Coppice	0.07	0	0
2022	1d	Coppice	0.07	0	0

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.