WOODLAND TRUST

Clanger Wood

Management Plan 2017-2022

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MAPS

THE WOODLAND TRUST

INTRODUCTION

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

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

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

PLAN REVIEW AND UPDATING

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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

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

WOODLAND MANAGEMENT APPROACH

The management of our woods is based on our charitable purposes, and is therefore focused on improving woodland biodiversity and increasing peoples' understanding and enjoyment of woodland.

Our strategic aims are to:

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

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

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

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

The following guidelines help to direct our woodland management:

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

SUMMARY

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

1.0 SITE DETAILS

Site name:	Clanger Wood
Location:	Westbury
Grid reference:	ST876542, OS 1:50,000 Sheet No. 183
Area:	59.61 hectares (147.30 acres)
Designations:	Ancient Semi Natural Woodland, Planted Ancient Woodland Site, Site of Special Scientific Interest, Tree Preservation Order

2.0 SITE DESCRIPTION

2.1 Summary Description

This attractive 59-hectare woodland is a popular walking spot for many local people. The Clanger & Picket Woods are designated a Site of Special Scientific Interest due to the varied plants and wildlife it supports with plant species including an excellent spring display of native bluebells. The surrounding landscape is characterised by farmland and the wood is home to a wide variety of wildlife including butterflies, bats and birds such as buzzards and woodpeckers.

2.2 Extended Description

Clanger, Picket and Round Woods are a collection of three woods totalling 59.63ha situated between Trowbridge and Westbury adjacent to the A350. On the eastern side of the A350 lies Picket Wood and Clanger Wood. Picket Wood lies to the north of Clanger Wood and the two are separated by an old, earthwall-sided track known locally as Green Lane. Round Wood is found on the western side of the A350.

The surrounding landscape is characterised by farmland with housing/gardens along part of the southern boundary of Clanger Wood. Picket Wood extends beyond the Trust's ownership on the northern boundary. There is a public footpath locally known as Picket Ride which separates the WT owned and non WT owned sections of Picket Wood. The Wood lies within the National Character Area Profile 117 Avon Vales and is typical of the woodland in this NCA.

The soil is a loam over Oxford clay. This does mean that combined with the flat gradient of the site, water can sit on paths and with high level of use, paths can become very muddy at times. There are other Ancient Semi Natural Woodlands nearby with Green Lane Wood and Biss Wood owned by Wiltshire Wildlife Trust located a few miles away to the north making Clanger, Picket and Round Woods an important part of a local woodland network.

Almost all of the woodland area is designated as an ancient woodland site (AWS). Previous management of the wood has included oak coppice as well as coniferous plantation. The latter involved the clearance of large areas of broadleaved woodland and replanted with conifers, mostly Norway spruce and larch – these areas are designated as Plantations on Ancient Woodland Sites (PAWS). The Woodland Trust has gradually thinned most of the areas planted with conifers to encourage a predominantly oak, ash broadleaved woodland composition, as well as continuing traditional hazel coppice management in selected areas.

Clanger and Picket Woods form part of the wider Picket and Clanger Wood SSSI (which also includes land to the north, outside of WT ownership) designated as a floristically-rich ancient woodland supporting an outstanding range of butterfly species. More recently the site has been found to be of national importance for Bechstein's bats, both for maternity roosting and foraging purposes, with close associations to other nearby woods supporting a wider, inter-connected Bechstein's bat population. The SSSI wood has also been noted to be important for the broad range of lichens associated with old hazel coppice stools

The main visitor access into the wood is via a car park on the eastern side of the A350 which allows various routes through Clanger and Picket Woods. Other access points are along public footpaths from the north into Picket Wood.

Hugely popular with the local community, this wood is frequented regularly by visitors enjoying quiet recreation, namely dog walking. Pedestrian access can be gained from the car park just off the A350 as well as via three entrances from public footpaths which enter the site along the northern boundary.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Car
1. From Trowbridge take the A350 south towards Westbury
2. At the Yarnbrook roundabout, continue south on the A350 towards Warminster
3. After approximately 0.7miles the wood is signposted on the left hand side.

Bus
The nearest bus stop is located 0.7miles away at the crossroads to the north of the site, on Westbury Road. There is a short section of pavement but for the majority of the route to the main entrance, there is no pavement, only a grass verge. The bus route is serviced by First Bus number 265 who can be contacted on or http://www.firstgroup.com/ukbus/ for further information.

Train
The train station is located on station road, Westbury approximately 2.5 miles from the main entrance to the woodland. Some of the route is along pavements, however after leaving Westbury there are only grass verges next to the busy main road.

3.2 Access / Walks

Access
There are a number of entrances to the woodland. The main entrance to Clanger Wood which also provides a car parking area for approximately 12 cars is located on the eastern side of the A350 between Trowbridge and Westbury.

There is an entrance (via a squeeze gap) into the north western corner of Picket Wood along a public footpath but there are no parking facilities in this location. Two further public footpaths enter Picket Wood from the north (currently stiles). The access into Round Wood is via a squeeze gap on the western side of the A350.

Paths
The main route leading from the car park and bisecting the woodland west-east is surfaced with compacted stone. This is undulating in places but overall is fairly flat. There are numerous permissive paths that lead from this main path around the woodland. They are un-surfaced and can be waterlogged, muddy and un-even in places with some small bridges in places across various watercourses.

4.0 LONG TERM POLICY

Ancient woodland at Clanger, Picket and Round Woods will be restored to a predominantly semi-natural broadleaved woodland composition, with a diverse range of species and structure. Restoration will be gradual, creating conditions in which surviving ancient woodland components can recover. This process will include thinning the remaining conifer stands and existing broadleaved trees, favouring any remnant features of the ancient semi natural woodland and encouraging natural regeneration of a wide range of broadleaved species throughout the wood. This gradual process is necessary in order to limit the growth of coarse ground vegetation, notably bramble, which could inhibit the regeneration of native broadleaves and the recovery of the ancient woodland ground flora. Some interspersed conifer trees (ideally 5% inline with NE guidelines) may be retained to senescence where their effect on surrounding broadleaved areas is negligible and/or intervention is not viable.

Rotational coppicing will continue to provide a varied structure and variety of important habitats for butterflies, invertebrates and birds. Important open space habitat will also be provided through the management of a network of permanent rides.

The majority of the wood will be managed as permanently irregular broad-leaved high forest with areas of coppice integrated with a well-managed and extensive ride network to provide a mosaic of early-stage woodland succession. The SSSI designation will be in favourable condition and will continue to be maintained in a way to ensure this status.

The site will be managed to produce a sustainable source of timber where this does not come into conflict with other biodiversity based objectives.

The wood will be welcoming for visitors, with a specific network of paths maintained in a good condition having regard to their locations and natural limitations. The Trust’s corporate objective is to inspire everyone to enjoy and value woods and trees and to protect native woodland, trees and their wildlife for the future.

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 Woodland Site

Description

The woodland comprises a mix of Ancient Semi Natural Woodland (ASNW) and Plantation on Ancient Woodland Site (PAWS). The official Ancient Woodland Inventory designation is rather inaccurate as it classifies conifer strips planted as a nurse crop as PAWS but not the adjacent planted Oak which is classified as ASNW, giving the impression of alternating strips of PAWS (conifer) and ASNW (oak). For the purposes of this management plan, these broadleaved strips have been treated as PAWS. The Wood falls within the National Character Area (NCA) Profile 117 Avon Vales.

The (undisputed) Ancient Semi Natural Woodland component (1a, 2a, 3a, 4a, and 6a) is a mixture of predominantly oak/ ash high-forest with a hazel understory and additional broadleaved species. Much of the area would have been managed as traditional coppice with standards but has now developed into high forest largely through lack of management. W8 to W10 is the nearest vegetation classification for this type of woodland and is characteristically Fraxinus excelsior – Acer campestre – Mercuralis perennis / Quercus robur - Pteridium aquilinum - Rubus fruticosus woodland. Ash, silver birch, sallow, aspen and field maple are also present. Hazel is abundant in the understorey along with other species such as hawthorn and privet. Bramble, bracken and honeysuckle either singly or in combination are common, alongside characteristic woodland flowers, such as wood anemone Anemone nemorosa, bugle Aguja reptans, primrose Primula vulgaris, early purple orchid Orchis mascula and the native British bluebell Hyacinthoides non-scripta. Various butterflies are associated with the site (SSSI citation) including silver washed fritillary, speckled wood, marbled white, meadow brown, ringlet, white admiral and peacock. The wood also has a rich woodland bird fauna. Nightingales are a species mentioned in the original SSSI citation.

A 2012 survey by a research group from the Botanic Garden of Edinburgh found a total of 44 species of lichens on hazel in Picket & Clanger, resulting in their conclusion that these woods are one of the best places for lichen diversity on Corylus avellana in England. Important characteristics include the significant size of Corylus avellana woodland, and a high number of old stems that had not been managed promoting increased diversity of lichens.

The Plantation on Ancient Woodland Site (1b, 2b, 3b, part of 4b and 5a) is made up of what was mostly even-aged Norway spruce and larch plantation with strips of mostly oak broadleaf. Over the last 15 years much has been either felled or thinned, with the aim of reducing the conifer component and restoring a predominantly native broadleaved composition. Following operations in 2015 a medium area of windthrow was created in cpt 3b. Outside of WT ownership to the north of 3b, some restoration works were instigated by the Woodland Trust in 2014/15 to help unite the WT's approach to management in adjacent woodland.

There are three areas managed as temporary open space (conservation feature CF1) that are

coppiced on a long term rotation (15 years approx). The first is within compartment 1b and was coppiced under a previous management plan period (2014-15). The second area is within 5a/1b and is scheduled for coppicing in 2017/18. The final area is within compartment 1b and is scheduled currently for 2020/2021. There is further temporary open space created by ride side coppicing along a number of paths on a shorter rotation basis (5-6 years).

Access for management purposes is good with a large lorry track extending W-E separating cpts 1 and 5 from 2 and 4 (permanent open space, conservation feature CF2) however other more informal routes require upgrading and culverting. There is also a twin earth walled bank (historic feature HF 1, and known locally as Green Lane) running SW to NE through the site between cpt 2 and cpt 3 dividing Picket and Clanger Woods; the west end is very wet and inaccessible in places. The earth banks on each side, which whilst not considered to be particularly old, are an interesting feature of the site and are a historic feature (HF1) and there are further earth banks (HF1) found throughout the wood.

Significance

Ancient semi natural woodlands have been in existence for many hundreds of years, taking centuries to evolve and are a limited resource. As well as being a traditional feature in the landscape this wood supports an abundance of plants, mammals, birds, insects and fungi. The wood contains specialist woodland flora, which are a key characteristic of ancient woods, as well as other important species such as, lichens, fungi and deadwood. These species are part of a complex ecological system and do not spread easily to new areas. The restoration and maintenance of Ancient Woodland is a key Woodland Trust policy.

The site is a Site of Special Scientific Interest due to the rich flora and associated butterfly, moth and bird species. Additionally, in 2012, the identification of 44 lichen species across the site meant it was declared one of the best hazel woods for lichens (in terms of diversity) in England, and the important characteristics being extent and age range of hazel, especially the presence of older hazel. More recently it has been suggested that the site is nationally important for its large population of Bechstein bats however further evidence need to be gathered to support this.

Only 4% of the National Character Area is designated land, meaning these woods are a significant component. The NCA contains 3,990 ha of woodland (6% of total area), of which 1,754ha is ancient woodland. Mixed woodland makes up 284ha (<1%) of the NCA with ASNW covering 1007ha (2%) of the NCA. Therefore, the wood contributes towards the national, regional and county BAP targets, including contributing significantly towards the woodland cover and type of woodland in the NCA.

Opportunities & Constraints

Opportunities:
Inclusion within the WT's sustainable timber production programme enabling long term strategic planning of how to manage the broadleaved component. The current strategy for the PAWS restoration presents an opportunity for softwood production in the short term, but in the medium to longer term production will likely shift to ash, oak, and birch firewood.

Opportunity to work with adjacent landowner to continue restoration of the non WT owned part of Picket Wood (also PAWS and part of the SSSI)

Opportunity to demonstrate management works to a wider audience (general public and other woodland landowners).

Opportunity to upgrade areas of track to facilitate management in tandem with upgrades outlined in Connecting People key feature

Constraints:
SSSI designation and approval process limits scope of works and timing of management decisions

Underlying heavy clay soils make the wood a wet site for parts of the year which restricts harvesting operations outside of the bird nesting season.

Presence of Bechsteins bats may have restrictions for harvesting/other site based operations.

Factors Causing Change

Deer/Squirrel damage to natural regeneration and/or coppice regrowth.
Wind/storm damage following restoration operations and de-stabilising of stands
Rapid growth of coarse vegetation following harvesting/coppicing/natural wind blow events.
Shading/regeneration of conifer species
Pests and Disease –such as ash die back and Phytophthora ramorum
Increase of non-native invasive species
Change in water table/flooding.

Long term Objective (50 years+)

Predominantly semi-natural broadleaved woodland composition, with a diverse range of species and structure, with rich understorey of native trees, shrubs and with successful natural regeneration. The ancient woodland (PAWS) components should be secure and improving in condition with the coniferous element comprising a maximum of approx. 20% of the composition of the woodland. A healthy ground flora and ancient woodland characteristics evident throughout the wood and the majority of the wood managed as permanently irregular broad-leaved high forest with areas of coppice integrated with a well-managed and extensive ride network to provide a mosaic of open areas and early-stage woodland succession. The site will be managed to produce a sustainable source of timber where this does not come into conflict with other biodiversity based objectives.

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

Management of a network of permanent rides to provide open space and temporary open space as edge and successional habitat supporting associated species notably butterflies and birds. This includes rotational coppicing on approximately a 5-year basis, cutting to create and maintain a two zone ride along the main track, Green Lane and Picket Ride achieved through mowing the central areas each year and coppicing adjacent woodland edges on rotation. Additionally there are three large areas on a longer rotation coppice cycle in compartment 1b.

As part of the objective to manage the site for sustainable source of timber in the long term, respacing of natural regeneration will occur across the site (in tandem with the creation of permanent extraction racks) to favour trees of the future and assist with diversifying the species of the stands in the wake of potential Ash dieback. Light thinning where necessary e.g. 1a, 1b, 4b, to reduce basal area promoting ground flora and natural regeneration: favouring non-ash broadleaved species (eg oak, birch) where suppressed, in light of potential impact from ash dieback – progress and severity of the disease will impact size, scale and location of works.

PAWS restoration works will continue to reduce the proportion of heavy shade bearing conifer species by:
1. Gradually manipulating the stands through thinning operations to enable natural broadleaf regeneration to occur (Cpts 2b, 3b, 4b), supplemented with direct planting if required to mitigate any significant loss of ash due to ash dieback, thereby creating and sustaining the conditions in which the remnant ancient woodland communities can be secured and enhanced.
2. Develop system of permanent but informal extraction racks to assist long-term PAWS restoration management operations, diversify stand structure and facilitate management for long term sustainable timber production (cpts 1,2,3).

A deer impact assessment will be carried out and appropriate levels of control implemented to ensure the success of the silivicultural strategy which may include a mix of direct control and/or temporary fencing.

Upgrade sections of track within cpts 2 and 3 to facilitate management in tandem with objectives in Connecting People Key feature

Standing and fallen deadwood will be retained where appropriate as an important part of the site ecology (unless remove is required for safety reasons).

Areas of old growth hazel will be retained for their lichen interest

A survey to investigate the presence and significance of Bechstein bats shall be commissioned during the life of the plan.

5.2 Connecting People with woods & trees

Description

A well-used wood easily accessible from Westbury and Trowbridge via the car park off the A350 and also via the public footpath network. Two entrances lead into the wood from the north, a squeeze gap entrance from the north west and a kissing gate entrance from the car park. Permissive paths and the right of way create a network of paths that provide good access to all parts of the Wood. There are areas of temporary open space created by coppicing (Conservation Feature CF1) and the wood is bisected by wide management track starting from the car park at the western end (Conservation Feature CF2). A network of rides runs throughout the woodland. Management of these rides is beneficial for wildlife but also of benefit for public access and enjoyment of the site. The site is on a flat gradient that can be muddy due to the underlying clay nature of the site. An information board in the car park highlights the permissive and public paths through the wood.

Clanger, Picket and Round Woods has been chosen as one of the top 250 sites owned by The Woodland Trust as part of the Welcoming Sites Project. The project will result in a programme of upgrades to access, interpretation and site furniture to ensure a high quality and more engaging visitor experience. An engagement plan will be developed during 2017/18 which will set out an appropriate programme of events and activities for the remaining period of the plan.

Significance

A relatively large area of publicly accessible woodland close to Trowbridge and Westbury means the site is important to a large number of people. Informal public access to Clanger, Picket and Round Woods, along with the use by volunteer and other organisations such as schools and colleges for field study visits as well as active management through coppicing, helps fulfil the Trust's corporate vision to inspire everyone to enjoy and value woods and trees.

Clanger, Picket and Round Woods are very easily accessible from a number of local towns and villages. The flat nature of the site, along with the hard surfaced main track means the wood is immensely popular within the local area. Therefore this site has huge potential to highlight the Woodland trust and its work to a wide range and number of people. Therefore it follows that the welcome to visitors to such a site is important and should form a key feature of the site.

Opportunities & Constraints

Opportunity to engage with a wide range of local people e.g. events/posters/demonstrations, schools/interest groups/ forest schools etc as opportunities arise
Opportunity to improve path network and promote circular walks more accessible to a wider range of visitors
Opportunity to work with Rights of Way team to improve surface and bridge on public right of way.

Constraints:
• Fly tipping and littering in and around the car park.
• Abandoned vehicles in car park/woods
• Lack of responsible dog ownership
• Poor quality access tracks with underlying heavy clay soils which make the wood a wet site for much of the year making access more difficult and unwelcoming in times of bad weather.
• Size of car park – limits capacity for visitors
• Potential threat to the woodland and its sensitive biodiversity/nationally important species due to increased recreational pressure resulting from nearby development e.g. Trowbridge and Westbury. There is an increasing need to manage access to avoid damage to the SSSI and associated species.

Factors Causing Change

Increase/decrease in level of use
Ground conditions and level of water table.
Increase in abuse/mis-use of wood/flytipping

Long term Objective (50 years+)

The woodland and path network will remain open to the public for informal recreation predominantly by locals from surrounding towns and villages. Good quality rides and path network will allow year-round use with a developed programme of engagement events and activities supporting and heightening the visitor experience.

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

• Continue work with volunteers/organisations/interest groups linked to the woods and in assisting with management and surveys to help engage with a wide variety of people.
• Upgrading of paths/tracks and entrance infrastructure/signage/interpretation where necessary , including to enable circular easier access route in cpt 2 and 3 to increase the quality of the welcome of the site and ensure high levels of visitor engagement
• Maintain the path network including ditches and site infrastructure to high standards representative of the Welcoming Sites Programme and an A1 category site and discourage new desire lines where these are damaging to the woodland flora and fauna.
• Development of a programme of events/activities and completion of an engagement plan as part of the Welcoming Sites Programme to raise the quality of the visitor experience
• On site interpretation/information should be available and maintained in good general condition
• Action any necessary works resulting from tree safety inspections.

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	3.32	Oak (pedunculate)		High forest	Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation	Ancient Woodland Site, Connecting People with woods & trees	Ancient Semi Natural Woodland, Site of Special Scientific Interest
Forms part of the Clanger Wood area. The A350 forms the western boundary of this compartment. The entrance to the car park runs along the northern boundary with the car park situated about half way along the northern boundary of this compartment. The car park is a hard surfaced area with space for approximately 12 cars. A culverted ditch runs under the southern boundary of the car park. A management and kissing gate are located at the eastern end of the car park which leads onto the main surfaced track. Therefore conservation feature CF2 can be found along the northern boundary of this compartment. A drier ditch runs along the northern boundary of the compartment. Management access is from the A350 - into Clanger Wood through the car park. The north eastern quarter and southern half of the compartment comprises mature oak, 1880 and ash. Understorey of ash, hazel, wych elm, holly, hawthorn, honeysuckle. Some hazel, blackthorn, field maple are also present. Ground flora of bluebell, ground ivy, primrose, lords and ladies, herb robert, early purple orchid and red campion. Southern boundary is adjacent to open fields. The north western quarter which surrounds the car park and a little to the east of the path that runs south through the compartment - ash is the main canopy species with understorey of hawthorn and honeysuckle with bramble in open areas on car park edge. Regeneration of ash also present. Ground flora includes lords and ladies, primrose.							
1b	18.49	Mixed native broadleaves		High forest	Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation	Ancient Woodland Site, Connecting People with woods & trees	Ancient Semi Natural Woodland, Planted Ancient Woodland Site

Forms part of the Clanger Wood area.
The main surfaced track runs along the northern boundary of this compartment (conservation feature CF2).
North western area: Oak, ash and birch, estimated planting year 1965. Well stocked and of average form. Prolific bramble in areas of increased light. Understorey of hazel, hawthorn, honeysuckle and field maple with ash natural regen of 5 - 15 years. Large amounts of bramble on northern edge next to track. Ground flora includes a few bluebell, mosses, primrose, and lords and ladies, barren strawberry, herb robert and elf cup fungi. 80-90% of this area is ash.

Southern area towards western half of compartment. Oak, ash, birch (80%). 1970. Poor quality Japanese larch (P70) dotted throughout. Considerable amount of hazel coppice in places along with wych elm and field maple. Boundary to south opens up into fields. Ground flora includes bluebell, primrose, violet and red Campion.

Throughout the eastern half of the compartment are stripes of mature oak coppice (1880). Understorey of hazel, holly, field maple, birch and ash (5 - 30 years). Rich ground flora including moschatel, early purple orchid, bluebell, grasses, pendulous sedge. Bramble in places, particularly near path edges.

Alternating with the mature oak stripes are stripes of Oak, ash, field maple, hazel, willow and birch coppice. 1993 - 2000. Oak, ash and birch standards. These re in several strips running NW - SE, separated by mature oak. Understorey of hazel and hawthorn with occasional elm and willow. The rides support typical damp grassland species such as devil's bit scabious, pendulous sedge and marsh thistle. Ground flora within compartment includes bluebell, primrose, lords and ladies and dogs mercury.

Also there are some stripes of Hazel, willow and birch coppice / scrub, originally established c. 1998 following clearfelling of conifers. These tend to be found starting in the middle of the compartment and running north to the main track. A few oak and ash standards of varying age. In several blocks of varying size adjacent to the main track and sandwiched between the strips of mature oak. Ground flora of bluebell and primrose.

Earth banks/woodbanks (historic feature HF1) can be found along the southern edge with an extension towards the centre of the compartment.

2a	2.59	Oak (pedunculate)		High forest	Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation	Ancient Woodland Site, Connecting People with woods & trees	Ancient Semi Natural Woodland, Site of Special Scientific Interest

Forms part of the Clanger Wood area.

Oak, mainly of coppice origin, approx P40. Some hazel, hawthorn, blackthorn, ash and field maple. Forms the majority of the roadside boundary on the eastern side of the A350. The area has oak as the main canopy species with understorey and ground
of hawthorn and honeysuckle with bramble in open areas on car park edge. Ground flora includes lords and ladies, primrose.
Car park and start of main surfaced track run along southern compartment boundary (conservation feature CF2).

2b	7.05	Mixed broadleaves		High forest	Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation	Ancient Woodland Site, Connecting People with woods & trees	Ancient Semi Natural Woodland, Planted Ancient Woodland Site, Site of Special Scientific Interest

Forms part of the Clanger Wood area.
A block on the western edge of the compartment of Norway spruce planted in 1960 (which is a PAWS zone) which has since had a couple of thinning operations working this area of the compartment. Good level of broadleaf regen, ie a few young oak, birch and ash and some hazel understorey. Developing ground flora following PAWS works including wood avens, greater Birds foot trefoil, violet, honeysuckle, tormantil, herb robert, moschatel, but bramble and grass dominate in more open areas. Many large, old, moss covered oak stumps still remain after the felling in 1960.

West of the conifer area there are several stripes running from the earth banks (historic feature HF1, known locally as Green lane) on the northern edge of the compartment to the main track on the southern edge of the compartment. These are comprised of patchy oak, birch, ash, hazel and sallow, - coppice and natural regeneration, 1 - 30 yrs old. Evidence of very young regeneration with understorey consisting of hawthorn. Ground flora includes some bluebell.

East of the conifer area there are several stripes running from the Green lane to the main track which consist of mixed broadleaf coppice with standards. Ash is the main canopy species. Oak, ash, hazel, field maple, birch and willow naturally regenerated after fellings from 1991 - 1997. Few oak, ash and birch approx 30 yrs. Understorey of hazel and willow.

Alternating with the younger broadleaved stripes are stripes of mature oak, both coppice origin and maidens. Estimated year of establishment 1880. Understorey species include hazel coppice, field maple, ash and spindle. In several thin strips throughout the compartment separated by younger broadleaves.

Ride margins contain important butterfly foodplants such as common dog violet and primrose. Ground flora also contains bluebell and lords and ladies.

An old earthwall-sided track (C2), which contains mixed broadleaf regeneration (10 - 35yrs) forms a thin strip within the northern boundary of this sub-compartment.

Some areas of temporary open space, particularly along paths or ridesides where regular coppicing is undertaken. Hazel is the main coppiced species with occasional willow, birch, oak and ash with some standards left within the areas Ground flora includes primrose and bluebell. Historically the coppice has been adjacent to the main track among the younger broadleaved stripes described above. Ground flora includes bramble, fern, rideside grasses with some bluebell, primrose and lords and ladies

Main surfaced track runs along compartment's southern boundary (conservation feature CF2)

3a	0.99	Oak (pedunculate)		High forest	Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation	Ancient Woodland Site, Connecting People with woods & trees	Ancient Semi Natural Woodland, Site of Special Scientific Interest

Forms part of Picket Wood area.
The A350 forms the western boundary of the compartment.
Picket Ride (Public Right of Way) forms the northern boundary of the compartment.
Business/property is present in the SW corner boundary area with a short section of an earth bank (historic feature HF1, known locally as Green Lane) making up the southern boundary of the compartment.
Management access is possible from the A350 into the NW corner of this compartment, and along Picket Ride,

Mixed broadleaves, two storied crop comprising mainly 1880 oak with estimated P60 broadleaf coppice. Also, some hazel, hawthorn and spindle. Western boundary runs alongside the A350. Part of this boundary runs openly into adjacent property. Ground flora consists of some bluebell, primrose, wood anemone, moschtel and violet. Also some bramble and grasses, mosses, Clevers and lords and ladies also present.

3b	9.46	Mixed broadleaves		High forest	Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation	Ancient Woodland Site, Connecting People with woods & trees	Ancient Semi Natural Woodland, Planted Ancient Woodland Site, Site of Special Scientific Interest

Forms part of Picket Wood area.

A large block on western edge of compartment is comprised of mixed conifer and broadleaf. Norway spruce and Japanese larch, P70, average form, 70%. Oak, ash and birch, P70, poor form. (30%). Mosses in ground flora. Understory of hawthorn on edges with some broadleaf regeneration such as birch.

There are a number of alternating stripes running from Picket Ride on northern boundary to the earth bank (historic feature HF1, known locally as Green lane) along the southern boundary of the compartment of mature oak, 1880. Some hazel coppice, ash and hawthorn in understorey. In strips running north to south separated by Norway spruce. Patches of ferns, particularly along edges of watercourses. Ground flora of primroses at ride edges and a few bluebell.

Alternating with the mature 1880 oak stripes are stripes of Norway spruce in strips running NW - SE. P73, spacing approx 2.0 m and of average form. Thinned late 2002 and a light work 2014/15. Very little ground flora. Some bluebell in more northern compartments. Bramble is main species. More open at north and south ends adjacent to footpath and ancient track.

4a	1.50	Oak (pedunculate)		High forest	Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation	Ancient Woodland Site, Connecting People with woods & trees	Ancient Semi Natural Woodland, Site of Special Scientific Interest
Forms part of the Clanger Wood area. On western side of the compartment there was an area of norway spruce P73, spacing approx 2.0 m and of average form which was thinned late 2002 and remains a small PAWS area. Therefore the conifer element is much reduced and mixed broadleaves are present. Bluebell present in ground flora. Bramble also present in more open areas. Two rights of way enter the compartment in the NW corner (public footpaths). The majority of the compartment is comprised of mature oak, both coppice origin and maidens. Estimated year of establishment 1880. Understorey species include hazel coppice, field maple, ash and spindle. Ground flora includes bramble, fern, with some bluebell, primrose and lords and ladies. Earth banks (historic feature HF1) run along the northern and southern boundaries of the compartment.							
4b	3.80	Mixed broadleaves		High forest	Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation	Ancient Woodland Site, Connecting People with woods & trees	Planted Ancient Woodland Site, Site of Special Scientific Interest

Forms part of the Clanger Wood area.

A block on the western edge of Norway spruce within mixed broadleaves. Norway Spruce planted in 1973, 2.0 m spacing, poor to average form which remains a PAWS zone Deep-sided stream runs through part of the sub compartment. Understorey of hazel and hawthorn with ground flora of bluebell, primrose and lords and ladies

There are a number of stripes from northern boundary to southern boundary of this compartment consisting of mixed broadleaf coppice with standards. Ash is the main canopy species. Oak, ash, hazel, field maple, birch and willow naturally regenerated after fellings from 1991 - 1997. Few oak, ash and birch approx 30 yrs. Understorey of hazel and willow. Ride margins historically contain important butterfly foodplants such as common dog violet and primrose. Ground flora also contains bluebell and lords and ladies.

Earth bank (historic feature HF1) runs along the northern boundary of the compartment.

Alternating with the younger broadleaved stripes are stripes of mature oak, both coppice origin and maidens. Estimated year of establishment 1880. Understorey species include hazel coppice, field maple, ash and spindle. In several thin strips throughout the compartment separated by younger broadleaves. Some small areas of open space, particularly along southern boundary with main track where regular coppicing is undertaken. Ground flora includes bramble, fern, rideside grasses with some bluebell, primrose and lords and ladies

Main surfaced track runs along compartment's southern boundary (conservation feature CF2)

5a	6.10	Oak (pedunculate)		High forest	Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation	Ancient Woodland Site, Connecting People with woods & trees	Ancient Semi Natural Woodland, Planted Ancient Woodland Site, Site of Special Scientific Interest

The main surfaced track runs along the northern boundary of this compartment (conservation feature CF2).
There is a dense area of ash regeneration within compartment 5 near the eastern boundary. Occasional larch. P65. Sparce understorey including hawthorn and hazel. Ground flora including bluebell, early purple orchid, primrose, lords and ladies and various grasses.

There are several stripes running from the main track to the southern boundary of the wood comprised of mature oak coppice (1880). Understorey of hazel, holly, field maple, birch and ash (5 - 30 years). Rich ground flora including moschatel, early purple orchid, bluebell, grasses, pendulous sedge. Bramble in places, particularly near path edges.

Alternating with the oak stripes are stripes of oak, ash, field maple, hazel, willow and birch coppice. 1993 - 2000. Oak, ash and birch standards. Running between main track and southern boudary of compartment and of wood. Understorey of hazel and hawthorn with occasional elm and willow. The rides support typical damp grassland species such as devil's bit scabious, pendulous sedge and marsh thistle. Ground flora within compartment includes bluebell, primrose, lords and ladies and dogs mercury.

There is an area in the NW corner of hazel, willow and birch coppice / scrub, originally established c. 1998 following clearfelling of conifers. A few oak and ash standards of varying age. Ground flora of bluebell and primrose.

An earthbank (historic feature HF1) runs along the eastern and southern boundaries of the compartment.

6a	6.30	Oak (pedunculate)		High forest	No/poor vehicular access to the site, Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation	Ancient Woodland Site, Connecting People with woods & trees	Ancient Semi Natural Woodland, Tree Preservation Order

This sub-compartment principally comprises mature oak coppice (1900) and ash coppice (1940). Generally very well stocked, the species occur in an intimate mixture as well as in noticeable patches, with a scattering of aging oak standards throughout. Occasional field maple and willow add to the mix. Prolific ash natural regen ranging from 1 - 15 years are found throughout the stand. Some oak and field maple regen in amongst frequent holly, hawthorn and hazel. Understory of hawthorn and regenerating ash. Ground flora includes bluebell, moschatel and primrose. An old ride runs in a circular route around the compartment but is not maintained. A small amount of woodland continues to the south of the compartment with some horse stables adjacent, separated only by a wire fence. A thorn hedge on the western edge leads out into open fields. A stream and earth bank (likely to be a continuation of that which separates Clanger and Picket Woods) can be found in the top part of the compartment.

In the northern quarter of this compartment there is mainly ash coppice (1940) with large amounts of horse chestnut coppice (1940) in the western end where there is very little shrub layer. Some oak coppice is dotted throughout with occasional sycamore and substantial amounts of ash regen, hazel, hawthorn and wych elm nearer the road. Spurge laurel is also evident. To the west continues a small patch of wood and a ditch (owned by third party) and a mixed thorn hedge on the northern boundary separates the woodland from open fields. Ground flora includes bluebell and early purple orchids.

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2020	1a	Thin	3.32	18	60
2020	1b	Thin	18.49	16	300
2020	2b	Thin	7.05	20	140
2020	3b	Thin	9.46	18	170
2020	4b	Thin	3.80	18	70
2021	5a	Thin	6.10	20	120
2023	2a	Thin	2.59	19	50
2023	3a	Thin	0.99	20	20
2023	4a	Thin	1.50	20	30
2023	6a	Thin	6.30	19	120
2024	1a	Thin	3.32	18	60
2024	1b	Thin	18.49	16	300
2024	2b	Thin	7.05	20	140
2024	3b	Thin	9.46	18	170
2024	4b	Thin	3.80	18	70
2028	1b	Thin	18.49	16	300
2028	2a	Thin	2.59	19	50
2028	3a	Thin	0.99	20	20
2028	4a	Thin	1.50	20	30
2028	5a	Thin	6.10	20	120
2028	6a	Thin	6.30	19	120
2029	1a	Thin	3.32	18	60
2029	3b	Thin	9.46	18	170
2029	4b	Thin	3.80	18	70
2033	1b	Thin	18.49	16	300
2033	2a	Thin	2.59	19	50
2033	3a	Thin	0.99	20	20
2033	4a	Thin	1.50	20	30
2033	5a	Thin	6.10	20	120
2033	6a	Thin	6.30	19	120
2034	1a	Thin	3.32	18	60

2034	3b	Thin	9.46	18	170
2034	4b	Thin	3.80	18	70

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.