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A CONTACTS

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B Broxbourne Wood Forestry Commission MP 2008-2028

Broxbourne Wood

Management Plan

Date:	July 2008	to	July 2028
Owner / tenant:	Hertfordshire County Council		
Agent / contact:	Fiona Underhill (Herts CMS)		

1. Context

- This Woodland Plan aims to provide the guidelines for the restoration and management of this valuable Ancient Semi-Natural Woodland over the next 20 years and as such builds on the 1995 management plan, the Broxbourne Woods NNR plan (1999 -2004) and the work carried out both by Hertfordshire County Council, Hertfordshire Countryside Management Services and the Wood Wardens. As such it differs very little as regards the objectives of both plans however, to be effective its principles must be followed and its practice adequately funded and these two points must be seen to be as important as the plan itself.

2. BACKGROUND INFORMATION

2.1 Location

Nearest town, village or feature	Brickendon
Grid reference	TL 327072
Total area (ha)	33.2

2.2 Description of the woodland in the landscape

Located only five miles from the edge of North London, Broxbourne Wood is part of a larger complex of oak hornbeam woods which form part of the largest area of oak hornbeam woodland of its type in the county and alongside Blean Woods in Kent are the largest of this type in Britain.

The Wood is actually a relatively small part of a much larger contiguous complex stretching to the north east, which includes: Cowheath, Highfield, Hoddesdonpark and Box Woods and also to the south west which comprises amongst others: Bencroft, Wormley, Northaw and Nyn Park Woods

Situated in a gently undulating topography, Broxbourne Wood is not a prominent feature in the surrounding countryside, nor is it situated adjacent to a major settlement or large road, however along with the other woods in this area it contributes to the dominance of woodland in the landscape and a feeling of rural remoteness in spite of its proximity to London.

It has also been seen as part of a “relict landscape” of pre medieval date which still exists in south east Hertfordshire.¹

¹ Bryant, Perry and Williamson: A “relict landscape” in south-east Hertfordshire: archeological and topographical investigations in the Wormley area. In Landscape History

2.3 History of Management

Broxbourne Wood is classified as an Ancient Semi Natural Woodland (ASNW) i.e. that a woodland has existed on this site since the last glaciation. Broxbourne Wood as with others in the area was formerly part of a large estate and records held in the Hertfordshire Record Office indicate that historically the Wood was managed as coppice with standards or pure coppice, although the English Nature Citation notes that "these woods have developed from ancient wood pasture and heaths". Good records exist for example, covering the period 1731 to 1788 when the Wood was part of Lord Monson's estate. Typically as with other woods at the time the wood was leased out in sections, with the resulting revenues being an important part of the estates' income.

The wood continued to be managed as hornbeam coppice with standards up till the **1960s**: when still privately owned it was, as with so many other ASNW at the time, heavily planted up with conifers which still dominate the wood.

In **1969** Just under one third designated as part of the Wormley and Hoddesdon Park Woods North SSSI. The area concerned lies to the north west of the main ride running from the west car park and is 9.1 hectares / 22.5 acres.

1974: Fire swept through the SSSI section. The area was replanted with conifers, about third of which died from drought the following year.

1975: Hertfordshire County Council bought the current area of Broxbourne Wood in order to maintain its amenity/conservation value, allow for informal recreation and to continue to pursue economic forestry.

Between **1988 and 1989**: some 5.75 hectares of clearings were created largely by the Wood Wardens within the SSSI to enhance habitat diversity in general and Nightjar habitat in particular (the Nightjar is extremely rare in Hertfordshire). Protective fringes retained to deflect / absorb visitor impact. Rides have been opened and two car parks created.

From **1992** onwards the process to revert the wood back to oak hornbeam commenced. This led to the thinning of much of the conifer together with the clear felling of some six ha. (a quarter) of the non SSSI wood. The felled areas were replanted with native broadleaves with a preponderance of oak and hornbeam. This was done so effectively that in 1994 the Forestry Authority presented Hertford County Council with a Centre of Excellence award in recognition of the improvements which have been made to provide the combined benefits of recreation, conservation and timber production. The woodland was also improved by providing parking facilities, opening up new permissive footpaths and a bridleways. The main ride was widened and improved for wildlife conservation and several glades have been created.

1995: SSSI area nominated as a candidate Special Area of Conservation under the European Habitats Directive.

1996: Broxbourne Woods National Nature Reserve designated (includes all woods in the SSSI area under the ownership of the County Council and the Woodland Trust i.e. Broxbourne, Bencroft, Wormley and Hoddesdon Park Woods).

2005: The NNR is designated as a Special Area of Conservation.

2005: Installation of a 1 km sculpture trail

Recent history: After a period of fairly intense activity, recent years have seen little forestry contracting with much work such as glade maintenance being carried out by volunteers organised by the Hertfordshire Countryside Management Service. The thinning/felling programme has been stopped as has much of the maintenance of new planting.

3. WOODLAND INFORMATION

3.1 Areas and features

2.1.1 Designated Areas	In Woodland	Adjacent to Woodland	Map
Special Areas for Conservation (SACs)	Yes	Yes	
Special Protection Areas (SPAs)			
Ramsar Sites (see note on Guidance)			
National Nature Reserves (NNRs)	Yes	Yes	
Sites of Special Scientific Interest (SSSIs)	Yes	Yes	
Other designations e.g.: National Parks (NPs), Areas of Outstanding Natural Beauty (AONBs), Local Nature Reserves (LNRs)			
County Wildlife Site (WS71/005)	yes		
<p>Details: The north western third of the wood only is a SSSI and part of the Broxbourne Woods NNR and SAC. Despite extensive clearing and replanting with conifers, the remaining semi-natural woodland is of national importance as an example of lowland south-eastern Sessile Oak/Hornbeam woodland with the Penduculate Oak/Hornbeam variant also present and it is the rarity, quality and geographical location of the habitat (at its northernmost range) which make it significant. In addition the SSSI notation (ref: WCS/467 17 WC) notes small ponds and streams and areas of neutral to acidic unimproved grassland</p> <p>Claypits Wood to the north of the Broxbourne Wood SSSI is also SSSI but not NNR</p>			
2.1.2 Rare and important species	In Woodland	Adjacent to Woodland	Map
Red Data Book or BAP species	yes		
Rare or threatened species	yes		

Butterflies:

Purple Emperor Herts BAP, Butterfly Conservation Regional Action Plan, Thames Region High Priority (Clarke& Bourn 2000)
 White Admiral. UK BAP
 Silver-washed Fritillary Locally Rare, lost from area in 1970's and now returning, recorded Broxbourne Wood NNR in recent years
 Grizzled Skipper UK BAP, not thought to be present any longer and not known from elsewhere in 10km grid square; no recolonisation potential

Beetles

Buprestid beetles
 Green tiger beetle
 Reptiles:

Bats:

Noctule
 Pipistelle
 Natterer's SAP

Birds:

Hawfinch breeds in the area –Roosts in mature conifers, breeds in hornbeam coppice/ coppice with standards
 Nightjar (summer migrant)
 Woodcock
 Firecrest - schedule one breeding species recorded in the HCC part of Broxbourne Woods and dependent on mature Douglas Fir or Norway Spruce.
 Bullfinch – RSPB red list
 Marsh Tit - RSPB red list

Amphibians:

Great Crested Newt SAP

Mammals

Badger

Wild service trees are present

2.1.3 Habitats	In Woodland	Adjacent to Woodland	Map
Ancient semi-natural woodland (ASNW)	yes	yes	
Other semi-natural woodland			
Plantations on ancient woodland sites (PAWS)	yes		
Semi-natural features in PAWS	yes		
Woodland margins and hedges	yes		
Veteran and other notable trees	yes		
Breeding sites	yes		
Habitats of notable species	yes		
Unimproved grassland	yes		
Rides and open ground	yes		
Valuable wildlife communities	yes		
Feeding areas	yes		
Lowland heath			
Peatlands			
Others			

Details: All wood and adjacent woods classified as ASNW

Much of the site is PAWs although some 6ha have been cleared

The site still contains many semi natural features within plantation areas (Oak –hornbeam woodland HAP)

Much of the boundary of the wood has a wood bank with good hornbeam stubs

Two large glades and a ride system. The western glade has unimproved grassland (Lowland Wood Pasture and parkland HAP and Heathland and Acid grassland HAP)

Good populations of purple emperor and white admiral as well as bat species

2.1.4 Water	In Woodland	Adjacent to Woodland	Map
Watercourses	Yes	Yes	
Lakes			
Ponds	Yes		
Wetland habitats	Yes		
Details: Two stream catchment areas Good pond between the glades in the SSSI area and also one in cmpt.2 The site is notable for significant areas of calcareous flushes within acidic soils (Wetland HAP)			
2.1.5 Landscape	In Woodland	Adjacent to Woodland	Map
Landscape designated areas			
Landscape features			
Rock exposures			
Historic landscapes	yes		
Areas of the woodland prominent from roads	yes		
Areas of the woodland prominent from settlements			
Details: Broxbourne is part of what has been described as a relict landscape ² The southern border of the wood runs along Pembridge Lane			
2.1.6 Cultural Features	In Woodland	Adjacent to Woodland	Map
Public rights of way			
Prominent viewing points			
Permissive footpaths	yes		
Areas managed with traditional management systems			
Details: The site has free access with a network of permissive paths and a sculpture trail			
2.1.7 Archaeological Features	In Woodland	Adjacent to Woodland	Map
Scheduled monument			
Historical features	yes		
Details: Wood bank on the southern edge of the wood			

3.2 Woodland resource characteristics

Amenity: Broxbourne has a high potential for both recreation and education by virtue of its location near urban settlements, structure and ASNW characteristics. This is already realised via permissive or access, car parks, notices and a sculpture trail.

Biodiversity: Broxbourne wood is an ASNW, partly SSSI, and part of a NNR and SAC, County Wildlife Site, and its diverse structure has a rich biodiversity linked to both its ASNW status and its more recent management.

Timber: Whilst the primary objectives of management are biodiversity and amenity, this wood has good timber potential during its restoration with some 15ha under a reasonable conifer crop (yield class

² Bryant, Perry & Williamson op.sit.

18 on the Corsican pine and YC 12 on the pine). However, consideration should also be given to growing quality broadleaves especially oak in the place of some of conifer as this will ensure future income streams as well as, if managed appropriately, a diverse woodland structure. This consideration should also be given to any future hornbeam coppice areas, which can provide a good firewood crop and it must be remembered that the original hornbeam oak structure of the wood was developed for its products. Consequently when managing contracts the best price should be sought for products.

The SSSI in general has little quality timber potential with generally poor quality softwoods remaining amongst regenerating broadleaves, however if put together as a sale with quality softwoods the cost of its removal may be reduced.

3.3 Site description

General

Broxbourne Wood is a gently undulating site on acid gravels over London Clay and it contains one of the headwaters of a tributary stream of the River Lea. It is likely that some of the wood developed from wood pasture but it has had a long period of being managed as hornbeam coppice with standards. Compared to many woods in the area little of this traditional cover remains intact after the coniferisation that occurred in the 1960s although a significant amount of this (6ha) has now been felled and much of the remainder thinned with the clear felled areas.

The site currently falls into three different sections with the northern third (cmpt.6) comprising the SSSI with its glades and recent scrub woodland, the bulk of the wood comprising good conifer plantation and restocked areas (cmpts. 2-5) and finally cmpt. 1 the southern edge of the wood which has retained more of an oak over hornbeam nature as well as a good wood bank with hornbeam stubs.

The wood has good access facilities with two car parks on its southern edge and a network of permissive paths (see map ...) including a rather good sculpture trail, with the consequence that it is widely used by the public.

By compartment

Compartment 1

Comprising a thin strip on the southern edge of the wood adjacent to the road (Pembridge Lane to the south) and extends to the north some 100 -200m over the footpath. This area is largely ancient semi-natural comprising an over storey of largely unthinned oak, old hornbeam coppice, beech, silver birch, some planted poplar and a few aspen and horse chestnut. There are however, very few old trees in this area with most of the standards being 50 years old or younger. The shrub layer is largely made up of hawthorn, hazel and blackthorn except in the flushed areas where alder and willow predominate. There are two patches of conifers (mainly norway spruce) and a small area of new planting near the east car park. It also contains good sections of the wood bank often with stubb hornbeam against the road. In the extreme south eastern corner is a small area of hornbeam and oak.

Compartment 2 This comprises the eastern section of the wood with a stream valley on its northern margins which is also fed by wet flushes. This large area contains a wide variety of conifers with the north east containing a mixture of douglas fir and scots pine along with scattered or pockets of mixed broadleaves. It is noticeable that there is some regeneration of douglas fir. The west of the block is characterised by purer stands of scots pine and moving east norway spruce becomes more noticeable with douglas fir. Lining rides and around at least one new planting block there are rows of lawsons cypress, this is also regenerating. The majority of these conifers are now some 50 years old.

In this area there are four areas of more recent broadleaved plantings some ten to fifteen years old three of which are still tubed (2a, b and c). In addition there is one larger planting (2d) where the new planting is being suppressed by sallow and birch regeneration.

As may be seen from the map around the streams are significant areas of wet flush with alder and sallow dominating along with some ash and some remaining poor norway spruce providing very dense scrub cover in these areas.

Access in this area is provided by a rather overgrown path which runs around the wood, with a wooden track way through the wet areas. There is also a broader north south ride which joins the main north south ride.

There are again good sections of the wood bank on the outside edge of this compartment.



Neglected new planting compartment 2

Compartment 3

A stand of pure Scots pine (yield class 12) planted in 1960/61. The sculpture trail runs through this compartment and with the thinned conifer it is visually very attractive. The trail is flanked on its eastern section by an avenue of lawsons cypress which again is seeding out. This stands ground layer is dominated by bracken.



Scots pine and sculpture trail compartment 3

The south of the stand consists of an older restock of oak and hornbeam where although many of the tubes have been removed the planting has been very suppressed by willow and birch, running north into the scots pine is another wet flush.

Compartment 4

A good attractive stand of Corsican pine planted 1960/1 (general yield class 18), with again bracken dominating the ground layer. An avenue of lawsons cypress lines the eastern boundary along the edge of the ride.



Corsican pine compartment 5

Compartment 5

Originally Lawson cypress planted in 1960. The central area has now been cleared and restocked with oak and a few hornbeams (in 1993) and the northern tip was cut in 2007. A partial strip of lawson cypress has been retained around the newly planted area and there is a row of lawson cypress beside the main track. As with the other older plantings natural regeneration is now suppressing the new planting which is very drawn up.

Compartment 6

This comprises the SSSI to the west of the main track. This area is characterised by two large clearings separated and surrounded by a belt of woodland. Clearing 6a to the west consists of grassland dropping to a valley in the middle formed by a stream. The grassland has groups of open grown oak of about 30 years old and there is coppiced (2007) hornbeam in the stream valley. This area forms a wonderful large wood pasture glade. It was noticeable that there was a lot of regeneration in the grass.

Glade 6b although larger is dominated by bracken and the belt of willow /birch regeneration following the wet flush in the centre of the glade appears to be encroaching. There are also scattered birch and scots pine in the glade. Interestingly the small patch of heather identified in earlier management plans has increased markedly in the east of this glade.

Between the glades is a belt of woodland which is a mix of scots pine, birch and willow. The scots pine is of poor form and again some thirty years old. In the north of this strip is a good pond which has been identified as having great crested newts. Woodland surrounding the glades is scrubby containing thirty

year old scots pine, birch and willow aside from the north western border with clay pits wood where there is better quality scots pine, norway spruce, some lawsons cypress and also mixed broadleaves.

3.4 Significant hazards, constraints and threats

Hazards:

- There are few significant hazards in this woodland although water courses and wet flushes should be noted as well as the occasional steep streamside.

Constraints:

- Informal public opinion in general appeared to like the conifer areas above broadleaves and care must be taken to avoid alienating people in the restoration of this wood.
- Free public access may constrain management activities

Threats:

- Lack of consistent management in the past has meant the neglect of new planting and the lapsing of the conifer removal programme.
- Lawsons cypress is seeding as is douglas fir both of these need to be managed
- Bracken is an issue in glade 6b and is a concern as regards natural regeneration and restocking in the conifer areas
- Regeneration of trees in the glades if unmanaged could result in the loss of glades.
- Public pressure and use including barbecues, camping, uncontrolled horse riding and the risk that these issues will worsen as more areas are opened up.

4. LONG TERM VISION, MANAGEMENT OBJECTIVES AND STRATEGY

4.1 Long term vision

A woodland with a diverse structure based on native species but also retaining elements (25%) of coniferisation from the woods more recent history. This structure to include wood pasture, lowland heath, glades, wet flushes, high forest and small areas of coppice. This woodland should support good populations of key species, allow good public access as well as continuing to provide a timber income.

4.2 Management Objectives

No	Objective
1	To systematically thin and fell the majority of the coniferous trees as they come to the end of their rotations as well as all poplars and turkey oak and replace them with sessile oak of local origin and a small percentage of other local, native tree and shrub species as well as where appropriate scots pine. Where regeneration is already occurring naturally, it will be encouraged, this includes both native species and douglas fir provided this is consistent with the other objectives for the wood.
2	To aim towards a more or less 'normal' forest structure with a full range of age classes
3	To maintain and increase populations of key species
4	To preserve all environmentally sensitive areas,
5	To maintain and improve the wood (where necessary) for public recreation
6	To secure external funding especially Forestry Commission Grant
7	To support and encourage volunteer groups
8	To maintain and enhance where necessary, the system of wide rides and glades
9	To increase the amount of over-mature trees and dead wood
10	To produce timber.

4.3 Strategy suggested combine strategy and strategy by compartment into one section GG

1a. To restore neglected new planting by:

- removing tubes
- gently releasing suppressed planting
- formatively prune young trees
- in planted wet flushes allow willow and alder to become dominant,

1b. Gradually thin and fell conifers as appropriate to reach final crop whilst retaining some individuals and groups as the conifer element of the wood does have biodiversity and landscape benefit..

- phased thinning to clearfell. It is anticipated that there should be two to three large thinnings each covering a third of site in the next five years
- cutting small glades (max. 0.25ha but never to small to prevent light reaching woodland floor) in the conifer blocks for natural regeneration/planting
- removing scots pine and other conifers completely from cmpt 6 (SSSI)
- removing lawsons cypress
- however, retain some stands/individuals as habitat and future veterans. This would include the retention of younger self seeded trees such as douglas fir.

2.

- Thin broadleaves to encourage good standards
- Recruit natural regeneration including douglas fir in selected areas, protect from browsing by the use of tree shelters
- Look to managing the forest by CCF³

3.

- Maintain and actively manage willow population for the purple emperor (ref. Butterfly Conservation – Notes for Broxbourne Wood 2007 Appendix one). See work plan for further details but in general willow to be retained throughout the wood, especially in and on glades and rides. Mature willow to be reinvigorated by coppicing and on rides selected specimens to be thinned around
- Open up rides to encourage larger bramble and nectaring areas for woodland specialists White Admiral and Silver-Washed Fritillary. Main ride a.b.to be as wide as the height of adjacent trees. Other rides to be managed by creating scallops along edges or enlarging/maintaining existing scallops/glades. Rides to be maintained by a three pat regime i.e. central area annually and scallops to be managed as coppice areas with consideration of maintaining a wide age range of willow
- Retain honeysuckle wherever found in wood
- Maintain ponds
- Maintain scrub areas over time
- Maintain coppice areas min area 0.5ha to avoid stool losses via shading of newly cut stools. in a rotation
- Retain some strategically located clumps of Scots Pine (20-30) to maturity and allow to die in areas away from public footpaths and disturbance (Nightjar, Tree Pipit)
- Maintain stubbs on woodbanks by clearing back at least 10m on each side and consider recutting in small sections
- All coppice and stubb work MUST have deer protection e.g. temporary fencing

³ Continuous Cover Forestry (CCF) is a term used to describe forest management methods which maintain continuous woodland conditions, rather than periodically removing whole crops of trees as clearfelling systems do. In other words, the next tree generation will already be established when the old one is harvested.

The aim of CCF is to maintain continuous woodland conditions. Primarily this is done by manipulating the over-storey through removal of individual trees or small groups, thus controlling the light regime allowing natural regeneration to occur, without detrimental weed growth. This gives rise to an uneven aged mixed woodland, where all age classes of tree co-exist within one forest stand. Implicit to this form of management is the favouring of native broadleaves and the reduction of exotic coniferous species. There may also be financial benefits such as savings on planting and pruning costs.

- Coppice some sallow areas

4.a Improve glades by:

- Maintain mowing regime in glades with the aim of grazed wood pasture with standard oaks in SSSI area supported by entering into Higher Level Stewardship
- Thin groups of young oak to encourage good open grown trees
- Consider pollarding trials young oak /hornbeam
- Open glade 6a to 6b
- Control bracken in glade 6b
- Fell any encroaching birch and control spread of sallow/birch around the wet flush (consider a coppice rotation.
- Control edges of glades to prevent encroachment and encourage habitat variety by a coppice regime.
- Remove regeneration/bracken from heather areas, extend heathland area
- Stock fence and install handling facilities for livestock once area sufficiently large to support grazing
- Protect existing streams and wet flushes
- Increase area by felling edge trees

4b. Thin areas to the north of the glades removing conifer and releasing any oak. Consider planting oak /hornbeam.

4c Maintain stubs on wood bank by coppicing and layering. Stubs should also be released from competing trees within the wood by creating a three metre gap behind them. Hornbeam in cmpts 1 &2 should be coppiced when of good size for firewood markets.

4d. Manage some of the wet flush areas by coppice to encourage a variety of age and habitat especially of sallow. Protect wet flushes from damage and associated alder stands to be allowed to mature

5. Maintain infrastructure such as car parks, seats and benches and open up rides where they are being encroached upon. However, measures such as lining newly cut areas with timber to protect from visitor pressure should be considered.

6. FC grant – Obtain grant funding via Woodland Improvement Grant for proposed works and HLS for work in the SSSI area.

7. Develop an agreed programme of works for the volunteer groups and include in a management committee

8. The general prescription for the rides is to widen by scalloping to take advantage of natural glades as well as opening up sections of the ride to a max of 15m. (Aside from main ride to be widened to the same distance as the height of neighbouring trees) Once established these can be managed on a rotation to provide bramble areas and coppiced sallow, the exception being the sculpture trail as it passes through cmpt. 3 this should be left for the time being aside for the removal of lawsons cypress. See also five and four as well as restore glades alongside streams

9. Amount of deadwood, lying and standing should be increased and ring barking of selected mature species considered). Retain small stands of conifer to over maturity and ensure that forestry operations leave some felled timber for deadwood. Retain birch to maturity and allow to die and keep as standing dead wood for cavity nesting species

10. Natural regeneration and planted trees should be encouraged to become potential quality timber by formative pruning, planting distances. Infrastructure in the form of stacking areas and improved road access (west car park) will be installed in association with the two car parks.

Strategy by compartment

Cmpt. 1

- Thin broadleaves to encourage good stems and quality high forest
- Fell norway spruce and other non natives (poplar, horse chestnut etc.)
- Open up ride 3m minimum plus larger scallops to a max of 15m unless a natural glade is present and then maximise that.
- Maintain wood bank remove shade from stubbs (cut back surrounding vegetation to reduce competition) and recut in short sections and consider when structurally compromised especially adjacent to roads.
- Coppice hornbeam block south east when of sufficient size for firewood as well as good hornbeam areas adjacent to Pembridge Lane. Temporary deer fencing to be used to prevent browsing

Cmpt 2

- Restore new planting areas bar in wet flushes where leave to current regeneration but consider coppicing sallow areas to support purple emperor
- Thin conifers including opening up small glades for natural regeneration, freeing any broadleaves as well as douglas fir regeneration as part of CCF management
- Retain some well thinned groups of conifer
- Maintain wood bank as at 1
- Restore glades by stream
- Remove all Lawsons Cypress including regeneration

Cmpt 3

- Restore new planting areas bar in wet flushes where leave to current regeneration but consider coppicing sallow areas to support purple emperor
- Thin scots pine opening up small glades for natural regeneration
- Retain to senescence some well thinned groups of conifer
- Remove lawsons cypress
- Restore glades especially along stream sides

Cmpt 4

- Thin corsican pine opening up small glades for natural regeneration
- Retain some well thinned groups of conifer
- Remove all Lawsons cypress

Cmpt 5

- Restore new planting areas bar in wet flushes where leave to current regeneration but consider coppicing sallow areas to support purple emperor
- Remove lawsons cypress

Cmpt 6

- In addition to 4a and 4b above remove Lawsons Cypress from this compartment
- Apply for HLS with a view to setting the area up for grazing
- Thin conifer from this compartment although retain groups and individual trees to maturity esp. norway spruce and scots pine.
- Maintain woodbank
- Open up around pond and stream
- Open up main ride separating SSSI from remainder of wood as detailed above retain sallow and coppice as well as honeysuckle.

5. MANAGEMENT PRESCRIPTIONS/OPERATIONS

5.1 Silvicultural systems

5.1.1 Harvesting

Harvesting of conifers should be largely by harvester unless too large or inaccessible as this tends to be much quicker, less damaging and more economic than motor manual.

Hardwood work will be motor manual

5.1.2 Phased felling and restructuring of plantations

Up to a third of the conifer has already been removed and much of the remainder thinned, however the original programme set out in the 1995 management plan has lapsed but the objective of thinning the plantations till the final crop is felled at financial maturity, (aside from selected wind firm groups to be maintained as veteran stands), should be reinstated.

This should see much of the remaining conifers outside the SSSI thinned in the next five years with the occasional small gap to encourage natural regeneration. This may occur in as many as four operations or less depending on contractor/market conditions. Final felling should be completed by the time the crop is about 60 – 65 years old i.e. from 2020 -25 although some areas could be felled earlier.

It may be possible to include some of the SSSI scots pine in a sale (chip markets) so long as the disruption would not be too great.

As detailed previously some 25% of existing conifer cover to be maintained into the future

5.1.3 Establishment, restocking and regeneration

Natural regeneration in existing cleared and planted areas has often suppressed the new plantings and should be considered as a good method of returning the wood to a more native condition in many areas. However, restocking should still be used in some areas to hasten the return to an oak /hornbeam mix using whips of local provenance. These should as before be planted in 1.2 m tubes with stakes so as to reduce deer damage but must be maintained.

5.2 New planting

No open space to be planted.

5.3 Other operations

No other operations other than those detailed will take place other than the maintenance of amenity infrastructure e.g. picnic tables and notices.

5.4 Protection and maintenance

4.4.1 Pest and disease management

Muntjac deer are present as are grey squirrel, however, as yet neither species are having a significant

effect on forestry management, although especially with coppicing hornbeam temporary deer netting will be required until successful regrowth is achieved.

5.4.2 Fire plan

Medium fire risk with recorded history in SSSI area – bracken and conifer areas present a higher risk than broadleaves.

Generic fire plan

FIRE PLAN.

The flammable material is classed as a 'Hazard' whilst the chances of the hazard being set on fire is classed as the 'Risk'. A high hazard may have a low risk and vice versa and will be dependent upon a number of criteria including the weather and public access.

FOREST OPERATIONS WITH POTENTIAL FIRE HAZARD.

1. FELLING.

During felling operations it is necessary to clear lop and top from the site to facilitate regeneration, ground flora and any subsequent planting and weeding. Burning is currently the most viable way, and from the start of operations lop and top is heaped up and burnt, but only if suitable weather and ground conditions prevail and permission to burn has been granted by the Council. All fire sites will be mapped on operational site assessments.

It is during felling operations that there is the greatest risk of fire, and felling and burning operations have strict control measures in place to limit this risk.

THE RISK.

1. THE PUBLIC

Any access by the general public represents a risk and arson is the most likely cause of fire in Broxbourne.

2. LITTER.

Bottles, broken glass, burnt out cars and illegal fly tipping all add to the risk that a fire can be started accidentally. Report any litter or remove immediately.

3. THE WEATHER.

Lightning strikes are a risk and dry weather enhances the hazard.

Logging personnel on and off site.

It is important during a woodland fire that all staff are logged on and off the site. In addition, individuals should work within sight of each other as part of a team to ensure mutual safety and eliminate the risk of becoming trapped amongst burning trees and cut off from a safe exit point.

Access to woodlands.

In general Broxbourne has reasonable access to most areas sufficient for fire brigade.

Water Sources.

There are relatively few watercourse and supplies within the woodlands suitable for fire fighting. Permanent water sources are marked on the attached map.

Rendezvous Points.

Rendezvous points for staff/contractors will be at the nearest entrance to the site of the fire, or if it is obvious, at the fire site.

In the event of the Fire Brigade being called out it must be borne in mind that they will not have a detailed knowledge of the wood and the various woodland areas so a well known location should be used. In addition, someone with up to date knowledge of the quickest, and best, route to the fire through the effected woodland should meet them

List of rendezvous points and water sources in the event of fire.

The rendezvous point to meet the fire services are: main woodland access points nearest the fires. (See Maps)

5.4.3 Waste disposal and pollution

Contractors represent the main pollution and waste disposal issue.

Contracts will state penalties for leaving waste and also require the use of biodegradable lubricants where practical and the carrying of spillage kits on all vehicles.

Planting tubes must be disposed of responsibly and not left on site.

5.4.4 Protection from unauthorised activities

Generally there is little serious unauthorised activity although there have been off road vehicles and bikes in the wood, generally existing barriers have reduced this risk.

5.5 Game management

The wood is not managed for game.

5.6 Protecting and enhancing biodiversity suggested use full text here not have to refer back to 4.3

5.6.1 Management of designated areas

See 4.3 for management of SSSI area

5.6.2 Measures to enhance biodiversity

See 4.3

5.6.3 Special measures for ASNW and SNW

See 4.3

5.6.4 Special measures for PAWS

See 4.3

5.7 Management of social and cultural values

5.7.1 Archaeology and sites of cultural interest

The wood banks are the main archaeological interest in this wood which otherwise does not appear to have many noticeable internal banks or features. Please note that all harvesting operations must take note not to damage any of these features.

5.7.2 Public access

Access is open to walkers, cyclists and horse riders (the latter two groups on certain tracks only). Guided walks, looking at a variety of aspects, take place on a number of occasions throughout the year and groups such as the Brownies use the woods for simple "orienteeing" and other outdoor events.

6. CONSULTATION

Organisation/individual	Comment	Response/action
Natural England		
Herts & Middlesex Wildlife Trust		
Butterfly Conservation		
Herts Biological Records Centre	Graham Goodall Nov 08 Numerous comment inc. greater retention of conifer more glades etc.	Comments incorporated in rev 2 of draft plan
Woodland Trust		
Wood Wardens		
Hertfordshire CMS		
Herts Bird Club kenandlinda.smith@ntlworld.com	30/10/08 Creation of increased open habitats retention of Douglas Fir and Norway Spruce for firecrest, coppice and conifers for hawfinch	Comments incorporated in rev 2 of draft plan

7. MONITORING PLAN SUMMARY

Objective number, issue or UKWAS Requirement	Indicator	Method of assessment	Monitoring period	Responsibility	How will information be used
1. To systematically thin and fell plantations	Areas felled ha	Contract Records	As work occurs		To ensure target of restoration of large part of the wood to native broadleaves is being met
2. To aim towards a more or less 'normal' forest structure with a full range of age classes	Thinning and selective felling ha	Contract Records/ Regeneration	Annual inspection		To record success of regeneration under CCF and to ensure appropriate species are being recruited successfully.
3. To maintain and increase populations of key species	Population numbers/ Amount of appropriate habitat	Population surveys Habitat surveys			To assess whether measures taken are effective
4. To preserve all environmentally sensitive areas	Glade condition cmpt 6 Removal of SP cmpt 6 + as 3	Habitat survey	Annual inspection		As above
5. To maintain and improve the wood (where necessary) for public recreation	Visitor survey	Formal and informal interviews	Survey every three years		To ensure that balance between biodiversity, amenity and timber income is being maintained
6. To obtain external funding especially from FC	Successful application				
6. To support and encourage volunteer groups	Group numbers / satisfaction	?	Annual feedback		To ensure continued link and interest of volunteers

7. To maintain and enhance where necessary, the system of wide rides and glades	Metres of ride opened a/ glades maintained	Survey	Annual survey		To maintain amenity and certain habitats
8. To increase the amount of over-mature trees and dead wood including conifers	Survey	Survey of specified area at specified intervals	Survey every five years		To ensure that volume of dead wood is increasing
9. To produce timber.	Production records	Contract records/ Quality of new planting/regeneration	As work occurs		To ensure a continued income stream for the wood.

8. WORK PROGRAMMES

8.1 Outline long-term work programme (200_ to 20__)

Compartment or area	Activity	Year		
		6-10	11-15	16-20
1,2 ,3 .4	Thin/Clearfell Conifer	*	*	*
1,2 ,3 .4,6	Restock selected areas	*	*	*
2	Selective felling to release regeneration	*	*	*
1-5	Thin new planting	*	*	*
1,2,5,6	Coppice willow areas	*	*	*
6	Coppice glade edges	*	*	*
3 & 2	Maintain glades	*	*	*
6	Maintain pond	*	*	*
All	Maintain rides	*	*	*
6	Remove scots pine	*		
2	Coppice hornbeam			*
2 & 3	Coppice willow/alder areas	*	*	*
6	Enter into Environmental Stewardship Higher Level Scheme	*		
n/a	Hold annual management monitoring meeting	*	*	*

8.2 Short-term work programme a) volunteers (2009 to 2014)

Compartment	Activity	Year
All bar 6	Remove tubes from all new planting areas and remove from wood	1
2,3,5	Halo suppressed new planting to free trees from competition. If new planting is very drawn up care to be taken to release gradually.	1
All bar 6	Formatively prune new plantings to give apical dominance and lift where needed	1
Main ride	Widen main ride to the height of neighbouring trees leave areas of willow to put in a coppice rotation. Retain honeysuckle, thin around selected edge willow.	1-3
6b	Remove regeneration and some of larger trees in 6b	1-2
6b	Control bracken 6b	1,2,3,4,5

6	Link glades 6a and 6b by creating a 20 m band between them	4
6b	Sallow work-Coppice sallow wet flush 6b. Using Butterfly Conservation's sallow map (see appendix 1 ⁴)	1
6a	Select 6 small areas of mature derelict sallow in 6a for thinning around and coppicing. Coppice mature sallow in wet flushes f2 and f3	3
4	Commence programme of restoring glades along streams. Complete area G4 - G3 in five years	1-5
6	Widen glades 6a and 6b taking trees back 10m	3 -5
6	Maintain pond between 6a and 6b removing further surrounding trees x 10	4

8.3 Short-term work programme b) contractors (2009 to 2014)

Compartment or area	Activity	Year				
		1	2	3	4	5
4	Fell corsican pine leaving occasional groups individuals to become veterans		*			
	Thin DF and other conifers in cmpt 2 allowing light in if necessary via small glades to commence CCF system		*	*		
	Thin Scots pine cutting occasional small glades for natural regeneration two thirds of SP in this period			*	*	*
	Fell lawson cypress			*		
	Remove SP in SSSI leaving occasional trees and groups of trees			*		*
	Thin broadleaves 2 ha pa	*	*	*	*	*
	Widen Rides equiv. 2ha pa both opening and scalloping	*	*	*	*	*
	Restore hornbeam wood bank initially 30m x 2 with larger areas in year five if successful.	*				*
	Coppice hornbeam block 1 east and deer fence		*			
	Install loading bays at both car parks as well as improving lorry access to the west car park	*				

⁴ Butterfly Conservation Notes for Broxbourne Wood NR Oct.2007

9. MAPS

List all maps here and append to plan.

Map No/Title	Description
	To be arranged with CMS

C Bencroft Wood Forestry Commission MP 2008-2028

Management Plan Bencroft Wood

Date:	July 2008		
Owner:	Hertfordshire County Council		
Agent / contact:	Fiona Underhill (Herts. CMS)		

1. BACKGROUND INFORMATION

1.1 Location

Nearest town, village or feature	Wormley West End
Grid reference	TL 333064
Total area (ha)	22.46

1.2 Description of the woodland(s) in the landscape

Bencroft Wood part of the Broxbourne Woods National Nature Reserve lies on the gently undulating Hertfordshire plateau some five miles from the outskirts of Greater London. It is the north east segment of a much larger complex including Wormley and Derry's Wood.

The wood itself runs west to east along a minor road and has no settlement adjacent. Although not visible from a distance due to topography it forms an important part of the wooded feel of this corner of south east Hertfordshire.

It has also been seen as part of a "relict landscape" of pre medieval date which still exists in south east Hertfordshire.¹

1.3 History of Management

Whilst Bencroft Wood is classified as an Ancient Semi Natural Woodland (ASNW) the Broxbourne Woods NNR plan notes that there are indications that the area comprises a Roman or pre-Roman that became afforested.

The oak over hornbeam coppice that is still very much a feature of this wood has been the long term management. The wood itself in 1600 was subdivided into three sections namely Bromes Spring, Bumsteyd Grove and Beane Croft at which time it was owned by the Cecil family who are likely to have leased the various sections. . The wood itself has some good internal and external woodbanks indicating old boundaries and of particular interest a trackway bounded by earthworks and hornbeam stubbs running south through the wood from white stubbs lane.

Certainly since World War 2 coppicing on a commercial scale ceased and it seems likely that many oaks were removed at this time.

More recent history had the wood divided into multiple occupancy with some occupants treating their block as "gardens" and others leaving their areas alone. Consequently, around the main pond there are a variety of large pines and there are the remains of some internal fences. It is believed that two blocks are still privately owned these are in the extreme north east of the wood and a small block to the east of

¹ Bryant, Perry and Williamson: A "relict landscape" in south-east Hertfordshire: archaeological and topographical investigations in the Wormley area. In Landscape History

the west car park.

When the majority of the wood was acquired by Hertfordshire County Council, a bridleway was cut west from Emanuel Pollards through much of the centre of the wood. Largely through a volunteer group the wood wardens large areas of the wood were recoppiced a practice which has continued at a small scale to the present day, rubbish has been cleared, paths opened and ponds restored. This work together with fires and the whims of the owners under multiple occupancy have also left areas ob birch and bracken as well as hornbeam coppice.

2. WOODLAND INFORMATION

2.1 Areas and features

2.1.1 Designated Areas	In Woodland	Adjacent to Woodland	Map
Special Areas for Conservation (SACs)	Yes	Yes	
Special Protection Areas (SPAs)			
Ramsar Sites (see note on Guidance)			
National Nature Reserves (NNRs)	Yes	Yes	
Sites of Special Scientific Interest (SSSIs)	Yes	Yes	
Other designations eg: National Parks (NPs), Areas of Outstanding Natural Beauty (AONBs), Local Nature Reserves (LNRs)	Yes	Yes	
<p>Details: Bencroft wood is an SSSI as is the adjacent Wormley Wood and it also is one of the four woods which make up the Broxbourne Woods NNR which in turn is also an SAC. The reason for this designation is principally due to the wood being part of one of the two outstanding localities for oak hornbeam wood, which is at its northern most extreme, in England.</p>			
2.1.2 Rare and important species	In Woodland	Adjacent to Woodland	Map
Red Data Book or BAP species	yes	yes	
Rare or threatened species	yes	yes	
<p>Details</p> <p>White Admiral ~ UK BAP species Bencroft Wood holds a colony of WA.</p> <p>Silver-washed Fritillary (SWF) ~ recorded annually over recent years in the Broxbourne Woods NNR (inc. the adjacent Wormley Wood)</p> <p>Purple Emperor ~ Adjacent Wormley Wood holds a strong colony of PE. Herts BAP, Butterfly Conservation Regional Action Plan, Thames Region High Priority (Clarke& Bourn 2000).</p> <p>Bencroft Wood contains many significant lower plants – “The western part of Bencroft, especially where the main paths cross Broom spring is arguably the most important part of the whole complex (Broxbourne NNR) for lower Plants”. A full list is given in <i>Wormley-Hoddesdonpark Wood A Lower Plant Survey of Woodland SACs July 1998 Simon Davey MA. EN.</i></p> <p>Hawfinch and Woodcock are present in the SAC and present in Bencroft Wood.</p> <p>Active Badger sett - .</p> <p>.</p> <p>Green Tiger Beetle present</p>			
2.1.3 Habitats	In Woodland	Adjacent to Woodland	Map
Ancient semi-natural woodland (ASNW)	Yes	yes	
Other semi-natural woodland			
Plantations on ancient woodland sites (PAWS)		yes	
Semi-natural features in PAWS			
Woodland margins and hedges	yes	yes	
Veteran and other notable trees	yes	yes	
Breeding sites	yes	yes	
Habitats of notable species	yes	yes	
Unimproved grassland			
Rides and open ground	yes	yes	
Valuable wildlife communities	yes	yes	
Feeding areas	yes	yes	
Lowland heath			
Peatlands			
Others			

Details: Site ASNW and all the wood is part of the Broxbourne NNR & SAC.

Hornbeam pollards especially on woodbanks are ancient and important features

The central part of the wood is seen as the most ancient part of the whole complex with an important indicator species of lichen *Thelotrema lepadinum* being present on seven oak trees to the west of the junction between the main path and Broom Spring.

2.1.4 Water	In Woodland	Adjacent to Woodland	Map
Watercourses	yes	yes	
Lakes			
Ponds	yes		
Wetland habitats	yes	yes	
<p>Details:</p> <p>Watercourses: The wood is crossed by 4 streams running north south which are fed from springs in the north of the wood.</p> <p>Ponds: Bencroft wood has three ponds including one in an old bomb crater. These have been maintained by the wood wardens</p> <p>Wetland habitats: The feeder are for the Broom Spring in the north-west of the wood comprises a good wet flush area</p>			
2.1.5 Landscape	In Woodland	Adjacent to Woodland	Map
Landscape designated areas			
Landscape features			
Rock exposures			
Historic landscapes	yes	yes	
Areas of the woodland prominent from roads	yes		
Areas of the woodland prominent from settlements			
<p>Details: Broxbourne is part of what has been described as a relict landscape²</p> <p>The northern border runs along White Stubbs Lane</p>			
2.1.6 Cultural Features	In Woodland	Adjacent to Woodland	Map
Public rights of way	Yes	yes	
Prominent viewing points			
Permissive footpaths	Yes	yes	
Areas managed with traditional management systems	yes	yes	
<p>Details: Details: Permissive footpaths and bridleways run through the wood and there are two car parks.</p> <p>A public right of way -footpath (Brickendon Liberty 17) runs south off White stubbs Lane from almost the centre of the wood. A public right of way – bridleway runs south from White Stubbs Lane just east of the west car park along the boundary with Wormley Wood</p> <p>The reserve is near the route of a major trail, the Hertfordshire Chain Walk, and in the centre of the Hertford Circular Ride, part of the Sustrans National Cycle Network</p> <p>Areas managed with traditional management systems: much of the area was and is hornbeam coppice with a variety of ages including areas of recent work.</p>			
2.1.7 Archaeological Features	In Woodland	Adjacent to Woodland	Map
Scheduled monument			
Historical features	yes	yes	

² Bryant, Perry & Williamson op.sit.

Details: Bencroft Wood has an extensive woodbanks which run along White Stubbs Lane. These define the southern half of what was one a wide driveway and is one of the principal east –west woodbank features in the area. There are other banks along the woods southern margin and some internal banks. Most significant of these runs south off White Stubbs Lane forming a hollow way. These features which are of great importance in the wood are topped by old hornbeam stubbs.

2.2 Woodland resource characteristics

Amenity: Bencroft has a high potential for both recreation and education by virtue of its location near urban settlements, structure and ASNW characteristics. This is already realised via permissive paths, on and off site interpretation and car parks.

Biodiversity: Bencroft Wood is an ASNW, SSSI, and part of a NNR and SAC and it has a rich biodiversity and is seen as one of the most important sites for ground flora in the NNR.

History: The woodbanks and hollow ways of this wood are an important historical resource.

Timber: Whilst the primary objectives of management are biodiversity and amenity, it is also important to consider timber potential as an important part of the sustainable management of the wood. Currently the wood has potential in the stored coppice being a good firewood resource; however, there are large areas of fairly young coppice and few standard trees. In addition areas which have ceased to be coppiced have generally produced birch and scrub with few oak coming through aside from the tongue of land extending south to the Wormley Brook which has more high forest characteristics dominated in place by oak.

2.3 Site description

The wood forms a shallow rectangle running east-west along White Stubbs Lane aside from a central square of woodland in the central area running south. Situated on predominantly on London Clay but with some overlay of pebble gravels, the wood slopes gently south and has four steam beds cutting shallow valleys running at regular intervals north south through the wood.

The wood itself is part of a larger complex and is bordered by Wormley Wood and Nut Wood to the south, across White Stubbs Lane, Stocking Wood and to the east Emmanuel Pollards.

Bencroft Wood shows clear signs of its former existence as a hornbeam coppice with standards (sessile oak with pedunculate oak) woodland as this is still the dominant wood type.

The wood can be divided into five general woodland types:

Older Coppice

Generally the older coppice lies to the west of the Broom Spring stream and along the northern edge bordering White Stubbs Lane together with occasional patches throughout the wood. This coppice whilst at the end of its rotation is not massively over stood. In amongst this coppice are very few oak standards although some areas e.g. that to the west of the wood have numerous oak coppice stools indicating that there were many more oak standards in the recent past. There is little ground flora in these areas as is typical under dense hornbeam coppice.



Typical mature coppice

Woodbanks and stubbs

Linked to the above Bencroft has an extensive woodbanks which run along White Stubbs Lane. These define the southern half of what was one a wide driveway and is one of the principal east –west woodbank features in the area. There are other banks along the woods southern margin and some internal banks. Most significant of these runs south off White Stubbs Lane forming a hollow way. These features are topped by old hornbeam stubbs



Hornbeam stubb on wood bank

Recent Coppice

Recent Coppice extends in patches throughout much of the wood with regeneration varying between excellent as in the south east of the wood around the most easterly steam bed to more scrubby with willow and birch as in the area east of the path from nut wood. Very recent coppice complete with deer protection baskets can be seen south of the west car park and alongside some rides.



Recent coppice work near west car park

Birch/Bracken areas

These are quite extensive and occur throughout the wood with particularly large blocks above and in the southern extension some areas are more dominated by bracken than others but there is little regeneration of oak or other broadleaves, which may well be a factor of high browsing levels.

High Forest

This is a small area in the south of the southern extension which is dominated by oak standards largely of some 60 years old.

In addition there is a good wet flush with willow and sedge in the north west of the wood at the start of the broom spring (much is in one of the privately owned areas), three ponds with around the central two ponds, groups of exotic conifer. The ponds have been well maintained by the Wood Wardens.

The wood has two car parks off White Stubbs Lane and a network of permissive paths, the most significant of which is a wide central ride running west from the Emmanuel Pollards car park three quarter of the way through the wood to the bridleway from the West Car Park. This is maintained as a wide ride as are parts of the two main north south rides.

2.4 Significant hazards, constraints and threats

- There are few significant hazards in this woodland although water courses, ponds and wet flushes should be noted as well as the occasional steep streamside.

Constraints:

- Woodbanks may restrain machine access to many compartments and must be respected when felling. .
- Free public access may constrain management activities

Threats:

- Lack of consistent management could prevent any long term programmes being achieved
- Bracken is an issue as regards natural regeneration
- Deer browsing requires coppiced stools to be protected and may be preventing oak regeneration.
- Public pressure is a potential threat especially where areas are opened up.

3. LONG TERM VISION, MANAGEMENT OBJECTIVES AND STRATEGY

3.1 Long term vision

A woodland with a diverse structure of native broadleaves principally hornbeam and oak. This should combine elements of coppice as well as moving towards high forest in many areas. Public access and specific biodiversity interests should be integral to this management.

3.2 Management Objectives

No	Objective
1.	To establish a hornbeam coppice rotation

2.	To manage woodbanks and stubbs
3.	To establish high forest in some of the birch/bracken areas
4.	To effectively manage stream sides
5.	To maintain and enhance a system of wide rides
6.	To maintain and enhance populations of significant species
7.	To maintain and improve the wood (where necessary) for public recreation
8.	To secure external funding especially Forestry Commission Grant
9.	To support and encourage volunteer groups
10.	To increase the amount of over-mature trees and dead wood
11.	To produce timber

3.3 Strategy

To restore all this woodland to in rotation coppice with standards is likely to be unsustainable both as a result of difficulties from massive deer populations and relatively high costs of harvesting a low value product. Therefore it is recommended that whilst some of the area is maintained as coppice with standards, much of the remainder is moved over to oak high forest.

Bencroft Wood is divided into numerous small areas which fit by enlarge into the four woodland types Described at 2.3. Rather than allocate each small area a compartment number, it is more practical to describe work prescriptions for the following types.

1. **Older coppice** areas largely along White Stubbs Lane and on the western border of the wood should be divided into a series of manageable coups to be cut on annual basis so as to provide a successional mosaic of light and shade. Coups should not be too small so as to reduce the effectiveness of letting light down to the woodland floor an acre would be ideal. Gaps between stools should be planted to replace losses and oak standards restocked by planting tight groups of five whips and over time thinning to one. Each coup should have its regeneration protected by the use of temporary deer fencing.
2. **Woodbanks and stubbs** these should be restored so as to give at least 7m of open canopy along their lengths. Stubbs should be cut on good cambium above the previous cut. Where laying is possible this should be undertaken burying and pegging pleachers. Restocking should also take place so as to provide one stool every metre. Again as with coppicing this should not take place in one go and short sections (50 yards) should be undertaken initially. Regeneration unless high enough should again be protected by temporary deer fencing.
3. **Oak High Forest** should begin to be established in some of the birch/bracken areas although some should be left as is. Birch should be thinned to allow in sufficient light and where the bracken is not too pervasive or can easily be controlled natural regeneration should be trailed in deer exclosures. Otherwise planting sessile oak whips in 1.2 tubes should be undertaken at 1.5 x 1.5m spacing. Maintenance especially to suppress competing weeds is essential and planting should not be undertaken unless this can be guaranteed. Recommended that one acre is planted every year for the first five years.
4. **Stream Side Management** letting light down to stream sides can improve their conservation value this should be done in conjunction with leaving some areas of intermittent light and shade. The Broom Spring provides an ideal example where this may be done in conjunction with coppicing. Care must be taken to establish that sensitive areas (e.g. those good for mosses, lichens etc. are not damaged).
5. **Ride Management** –the ride system should be maintained with the central ride at a minimum of six metres with scallops to increase width to up to 20m maintained on a seven year coppice cycle. One of the objects of this management should be to allow areas of dense bramble and also sallow to flourish. The sallow should also be managed to include mature as well as coppiced sallows. The western north south ride which has sallows in the south should also be opened up on a similar scale during the period of the plan although its aspect is not as favourable as the east west ride.
6. In addition to the other recommendations in this section, trees that are important for lichens etc. as identified by *Simon Davey* need to be identified.
7. **Younger recently coppiced areas**- good areas should be left until the end of their rotation, which for the older blocks could happen in ten years time. Where regeneration has been poor for hornbeam but birch and sallow has also come in again these areas should be left to evolve.

8. To support the above works it is essential to support them via **Forestry Commission Grant**. The grant application will also form part of a five year operational plan.
9. **Wood wardens**- much of the work in the wood has been undertaken by this group and it is important that the scale and type of the work described above is appropriate for them and their continued involvement.
10. Dead wood both standing and fallen will be retained where safe– consideration will be given to ring barking selected mature trees? Some birch to remain to maturity to provide standing dead wood. Selected trees should also be nominated to become future veterans, examples are the pines around the pond and some of the oak coppice stools.
11. **Local Provenance** – ideally the use of local tree stock as was practised in Herts CC woodlands in the 1990s should be reinstated, otherwise “local” tree stock only should be obtained from nurseries.
12. Trees that are planted should be established with the idea that they can provide a future timber resource. Hence 1.5 x1.5 spacing for the oak followed by maintenance, cleaning and formative pruning.

General points.

- Sallow should be retained throughout the wood during forestry work especially along rides with occasional specimens being cleared around. Mature sallow to be coppiced
- Honeysuckle to be retained

4. MANAGEMENT PRESCRIPTIONS/OPERATIONS

4.1 Silvicultural systems

4.1.1 Harvesting

Harvesting should be motor manual or with hand tools by volunteers. It is also possible that volunteer and contractors could work on the same blocks with contractors finishing off areas if the work load is too high. Timber where there are sufficient quantities should be cut to marketable length (min. 2metres) and stacked for collection.

4.1.3 Establishment, restocking and regeneration

Restocking for most of the period of the plan should be largely of oak in the high forest areas and oak and hornbeam in the older coppice areas.
Prescriptions as at 3.3

4.2 New planting

No new woodland areas will be established

4.3 Other operations

See 2.3 for operations

4.4 Protection and maintenance

4.4.1 Pest and disease management

Deer are a significant issue as regards regeneration in particular Muntjac and it is hoped Bencroft will be included in the new deer initiative scheme for the area. In addition coppice and stubb regeneration will be protected by temporary deer fencing.

Bracken is an issue when areas have been opened up and regeneration has failed. If controlled sufficiently during establishment for the trees to get away it is hoped that it will be shaded out.

4.4.2 Fire plan

Medium fire risk with recorded history– bracken areas present a higher risk than broadleaves.

Generic fire plan

FIRE PLAN.

The flammable material is classed as a 'Hazard' whilst the chances of the hazard being set on fire is classed as the 'Risk'. A high hazard may have a low risk and vice versa and will be dependent upon a number of criteria including the weather and public access.

FOREST OPERATIONS WITH POTENTIAL FIRE HAZARD.

1. FELLING.

During felling operations it is necessary to clear lop and top from the site to facilitate regeneration, ground flora and any subsequent planting and weeding. Burning is currently the most viable way, and from the start of operations lop and top is heaped up and burnt, but only if suitable weather and ground conditions prevail and permission to burn has been granted by the Council. All fire sites will be mapped on operational site assessments.

It is during felling operations that there is the greatest risk of fire, and felling and burning operations have strict control measures in place to limit this risk.

THE RISK.

1. THE PUBLIC

Any access by the general public represents a risk and arson is the most likely cause of fire in Broxbourne.

2. LITTER.

Bottles, broken glass, burnt out cars and illegal fly tipping all add to the risk that a fire can be started accidentally. Report any litter or remove immediately.

3. THE WEATHER.

Lightning strikes are a risk and dry weather enhances the hazard.

Logging personnel on and off site.

It is important during a woodland fire that all staff are logged on and off the site. In addition, individuals should work within sight of each other as part of a team to ensure mutual safety and eliminate the risk of becoming trapped amongst burning trees and cut off from a safe exit point.

Access to woodlands.

In general Broxbourne has reasonable access to most areas sufficient for fire brigade.

Water Sources.

There are relatively few watercourse and supplies within the woodlands suitable for fire fighting. Permanent water sources are marked on the attached map.

Rendezvous Points.

Rendezvous points for staff/contractors will be at the nearest entrance to the site of the fire, or if it is obvious, at the fire site.

In the event of the Fire Brigade being called out it must be borne in mind that they will not have a detailed knowledge of the wood and the various woodland areas so a well known location should be used. In addition, someone with up to date knowledge of the quickest, and best, route to the fire through the effected woodland should meet them

List of rendezvous points and water sources in the event of fire.

The rendezvous point to meet the fire services are: main woodland access points nearest the fires. (See Maps)

4.4.3 Waste disposal and pollution

Contractors represent the main pollution and waste disposal issue.

Contracts will state penalties for leaving waste and also require the use of biodegradable lubricants

where practical and the carrying of spillage kits on all vehicles.

Planting tubes must be disposed of responsibly and not left on site.

4.4.4 Protection from unauthorised activities

Generally there is little serious unauthorised activity, however there is some fly tipping in the car parks

4.5 Game management

The site is not managed for game

4.6 Protecting and enhancing biodiversity

4.6.1 Management of designated areas

The whole site is SSSI, NNR and SAC see 2.3 for prescriptions

4.6.2 Measures to enhance biodiversity

See 2.3

4.6.3 Special measures for ASNW and SNW

See 2.3

4.6.4 Special measures for PAWS

N/A

4.7 Management of social and cultural values

4.7.1 Archaeology and sites of cultural interest

See 2.3 -2 Woodbanks and Stubbs are significant and important features and need to be protected both from any works but also public pressure.

4.7.2 Public access

Free public access is allowed to the whole site and rides and car parks are managed to support this.

5. CONSULTATION

Organisation/individual	Comment	Response/action
Natural England		
Herts & Middlesex Wildlife Trust		
Butterfly Conservation		
Woodland Trust		
Wood Wardens		
Hertfordshire CMS		
Herts Biological Records Centre HBRC		

6. MONITORING PLAN SUMMARY

Objective number, issue or UKWAS Requirement	Indicator	Method of assessment	Monitoring period	Responsibility	How will information be used
To establish a hornbeam coppice restoration	A) Programme established B) Good regeneration	Annual regeneration monitoring for first five years	Annual		To ensure that coppice is maintaining its vigour
To manage woodbanks and stubbs	Good regeneration	Annual regeneration monitoring for first five years	Annual		To ensure that regeneration is successful
To establish high forest in some of the birch/bracken areas	Area planted – maintained, % established	Records and ground inspection	Annual		To beat up areas, to indicate when cleaning/formative pruning is required
To effectively manage stream sides	Restoration. Ecologists Report	Ecological survey	Before and a year after work has been carried out.		To ensure that programme is effective in improving biodiversity
To maintain and enhance a system of wide rides	Area restored	Contract monitoring Ecological survey	Annual		To ensure programme is being carried out and that it is bringing benefits
To maintain and enhance populations of significant species	Numbers and types of species found	Ecological survey	Every five years		To ensure that work programme is bringing benefits
To maintain and improve the wood (where necessary) for public recreation	Ride /Car Park maintenance.	On site inspection Visitor survey	Annual Every five years.		To maintain visitor satisfaction.

To secure external funding especially Forestry Commission Grant	Receipt of Wig grants	N/A	Every five years		To ensure continued cash flow.
To support and encourage volunteer groups	Volunteer numbers	Feedback from CMS	Annual		To ensure a vigorous volunteer group
To increase the amount of over-mature trees and dead wood	Designation of Long term retention trees	Mapped trees			To ensure future veterans
To produce timber	Maintained new planting	Site inspection			To ensure quality crop.

7. WORK PROGRAMMES

7.1 Outline long-term work programme (200_ to 20__)

Compartment or area	Activity	Year		
		6-10	11-15	16-20
All	Obtain FC funding	*	*	*
Old coppice	Coppice Restoration	*	*	*
New coppice	Next cut		*	*
Woodbanks & stubbs	Restore / cut			*
Birch/Bracken areas	Plant oak plus trial deer exclusion for natural regen.		*	*
	Formatively prune/thin	*	*	*
Stream sides	Open up sections of stream side	*	*	*
Ride work	Programme of opening up and scalloping rides	*	*	*
All	Ecological survey	*		*

7.2 Short-term work programme (2009_ to 2014_)

Compartment or area	Activity	Year				
		1	2	3	4	5
All	Obtain FC funding (WIG fund all appropriate works)	*				
Old coppice	Coppice 0.5ha per annum to establish contiguous coppice blocks. Start to west of western car park working along white stubbs lane towards Broom Spring. Restock where required to establish good stocking of hornbeam as well as establishing new oak standards, to be planted in groups of six to be thinned to one over time. Erect temporary deer fencing around newly cut blocks	*	*	*	*	*
Woodbanks & stubbs	Restore 150 metres over years one, three and five clearing back competitive trees and re-cutting overstood stubbs care being taken to cut only at a level where there is good cambium.	*		*		*
Birch/Bracken areas	Thin/Plant oak plus trial deer exclusion for natural regen. 0.5 ha per annum	*		*		*
Stream sides	Open up sections of stream side cutting back between 10 & 20m starting on north-south stream to the woods east	*	*	*	*	*
Ride work	Programme of opening up and scalloping rides commencing with main ride to be opened up to a minimum of 6m and a maximum of 20m taking advantage of natural openings. Sallow to be retained	*	*	*	*	*
All	Ecological survey	*				
All	Ensure that there are usable facilities for the collection of timber.	*				

8. MAPS

List all maps here and append to plan.

Map No/Title	Description

D Countryside Stewardship agreement (extract)

**COUNTRYSIDE STEWARDSHIP
HIGHER TIER WOODLAND IMPROVEMENT
OPTIONS MAP - BROXBOURNE WOOD**

Agreement title: Broxbourne and Bencroft Woods
Business name: Hertfordshire County Council
SBI: 114467959



P2018 - Reducing Conifer Species
1.47ha area identified for conifer reduction through thinning, achieving PAWS restoration objectives

P2011 - Thinning/Selective Felling
11.38ha over 5 year period
in Broxbourne Wood

P2000 - managed open space
1.43ha along river corridor

P2006 - 3 zone ride management
990m of ride in Broxbourne Wood

Field Parcel boundary

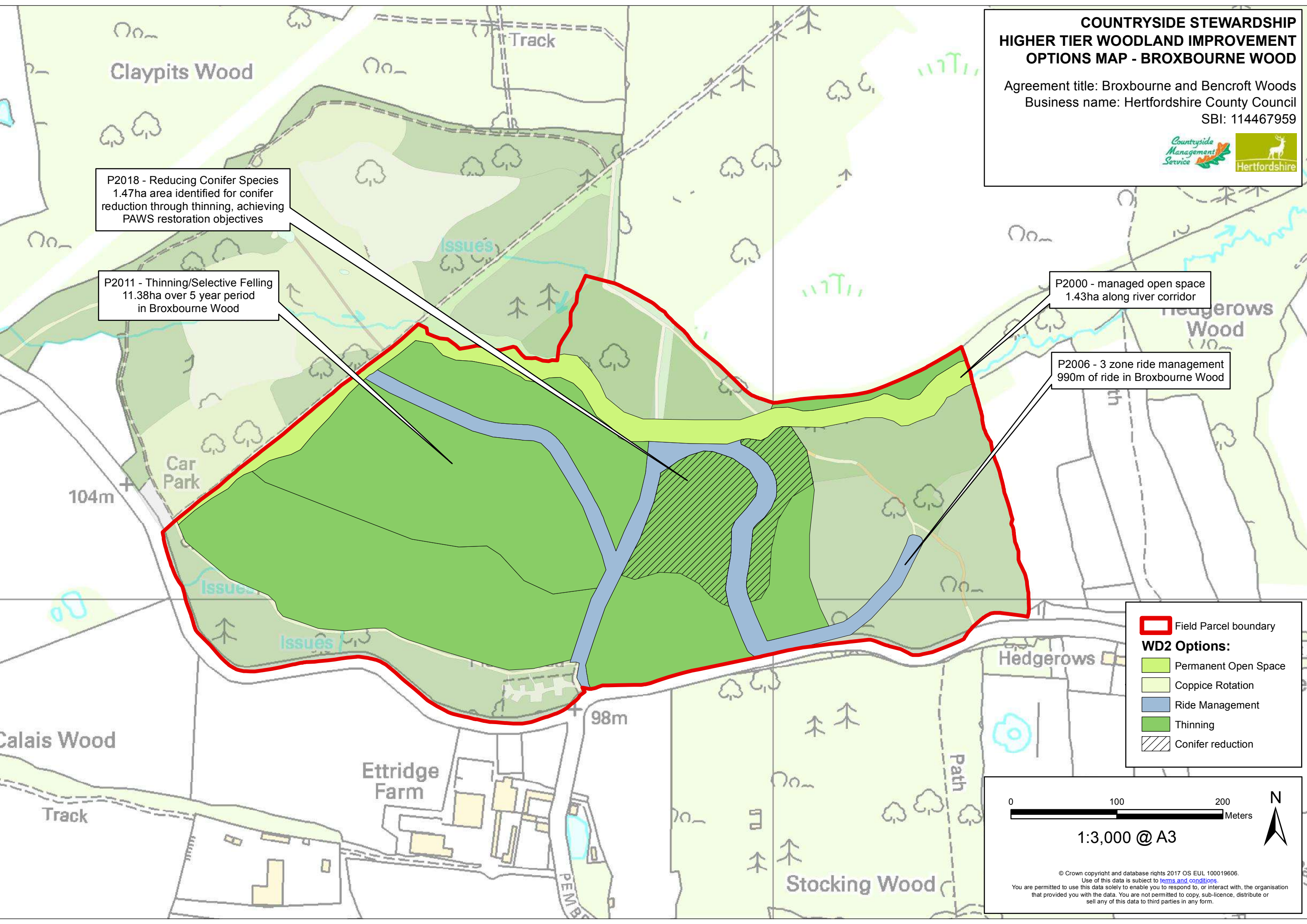
WD2 Options:

- Permanent Open Space
- Coppice Rotation
- Ride Management
- Thinning
- Conifer reduction

0 100 200 Meters

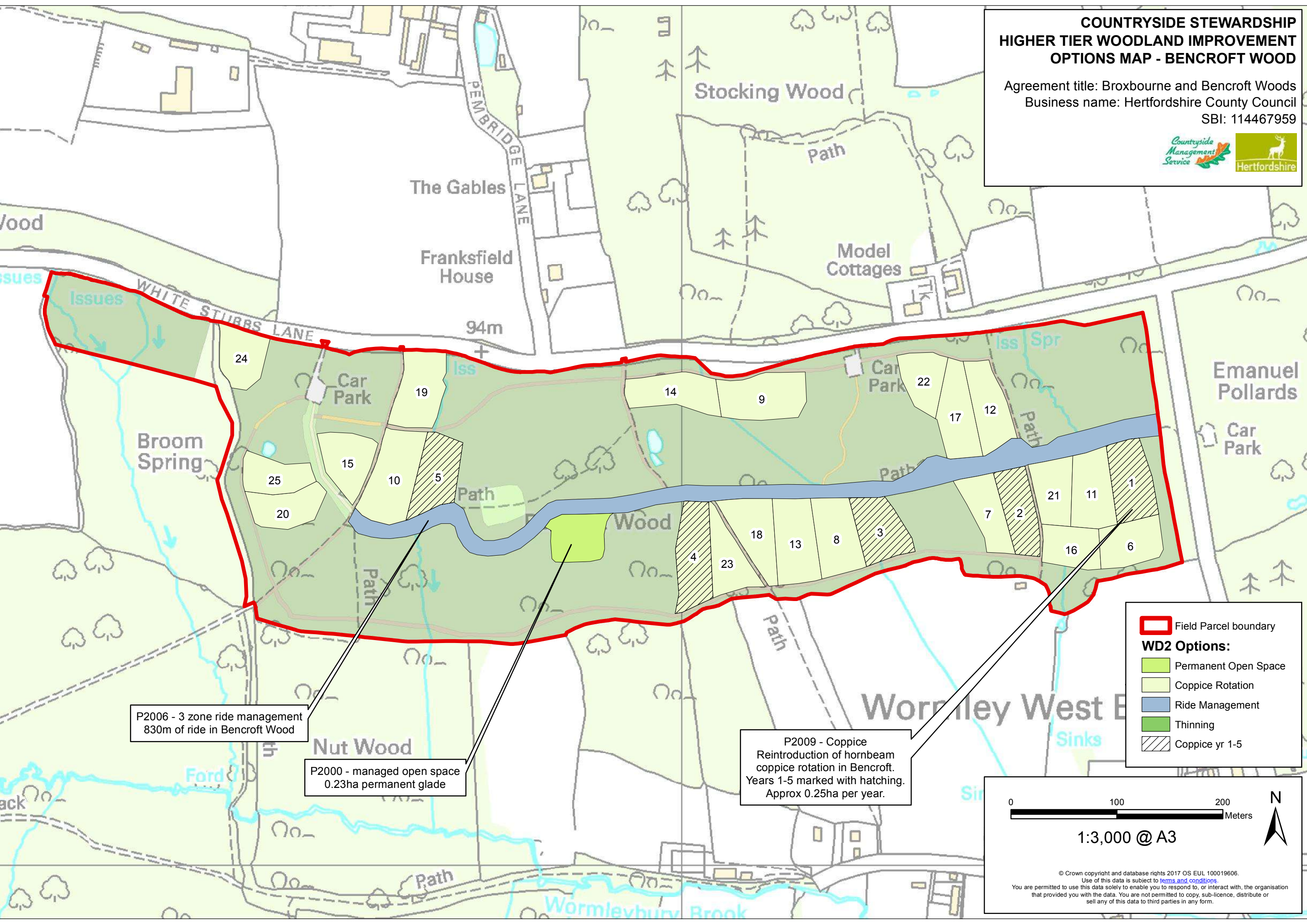
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**COUNTRYSIDE STEWARDSHIP
HIGHER TIER WOODLAND IMPROVEMENT
OPTIONS MAP - BENCROFT WOOD**

Agreement title: Broxbourne and Bencroft Woods
Business name: Hertfordshire County Council
SBI: 114467959



P2006 - 3 zone ride management
830m of ride in Bencroft Wood

P2000 - managed open space
0.23ha permanent glade

P2009 - Coppice
Reintroduction of hornbeam
coppice rotation in Bencroft.
Years 1-5 marked with hatching.
Approx 0.25ha per year.

Field Parcel boundary

WD2 Options:

- Permanent Open Space
- Coppice Rotation
- Ride Management
- Thinning
- Coppice yr 1-5

0 100 200 Meters

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**COUNTRYSIDE STEWARDSHIP
HIGHER TIER WOODLAND IMPROVEMENT
AGREEMENT MAP**

Agreement title: Broxbourne and Bencroft Woods
Business name: Hertfordshire County Council
SBI: 114467959



RP32 Leaky Woody Dams
Set of three along watercourse

FG11 Deer Exclosure Plots (x5)
Exact locations to be determined,
dependant upon thinning prescriptions

FG11 Deer Exclosure Plots (x5)
Exact locations to be determined,
dependant upon thinning prescriptions

WD2 for field 8510. To include:
Permanent open space
3 zone ride management
Deadwood management
Thinning/regeneration felling
PAWS restoration
As outlined in management plan

FG10 Temporary Deer Fencing (1000m)
To protect coppice coupes (0.25ha each)
over 5 year period.
Exact locations to be determined.

WD2 for field 9936. To include:
Permanent open space
3 zone ride management
Deadwood management
Hornbeam re-coppicing
Thinning/regeneration felling
As outlined in management plan

Legend:

- ▬▬▬ FY2 Woodland Infrastructure
- ▬▬▬ RP32 Leaky Woody Dam
- ▭ Field Parcel boundary
- ▭ WN5 Pond Management
- ▭ WD2

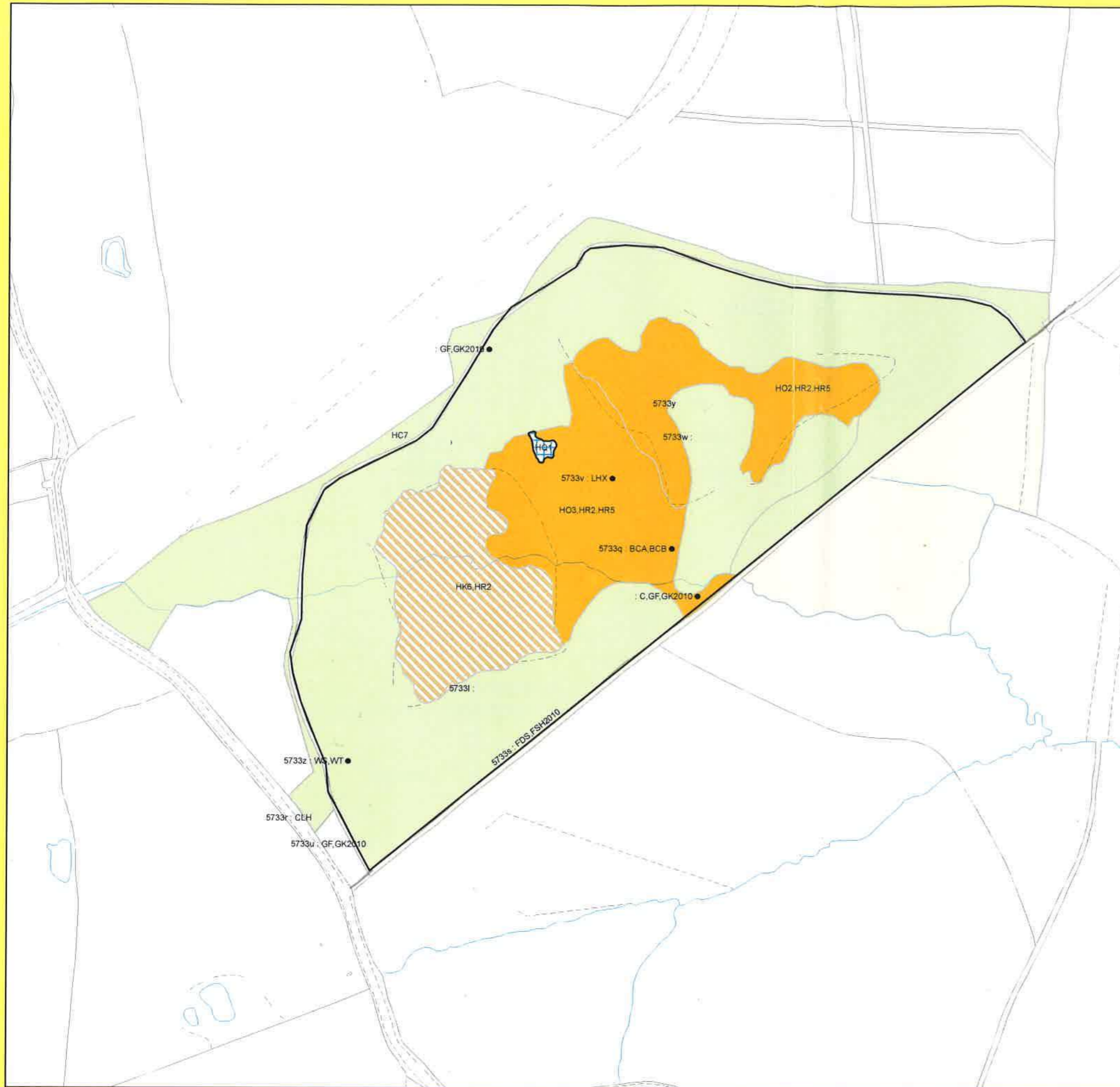
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Grid reference at centre of map: TL 330 067

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E HLS agreement (extract)



F SSSI restoration project – 2017/18 specification

Broxbourne Wood SSSI restoration project Specification for timber removal and ground preparation: winter 2017/18

PREAMBLES TO SPECIFICATION

- 1 A method statement is to be provided by the contractor with the quote, to detail the phasing and direction of the works e.g. machinery to be used, disposal of arisings, protection of the car park etc
- 2 Prior to commencement of the works, a site meeting will be held between the Supervising Officer and the Contractor's foreman to confirm the key elements of the specification and mark up any trees. Accompanying map shows approximate area of works.
- 3 All timber should be stacked safely as directed by the Supervising Officer. The timber should be stacked to a maximum of two (2) metres height, on level ground, with the cut ends flush to each other. Where at the edge of a track access should be maintained to facilitate removal of the timber.
- 4 No brash/lop and top should be left hung up in trees.
- 5 Paths used for extraction must be signed and closed where appropriate with prominent information sign displayed.
- 6 Specific trees within the work area to be retained will be marked in advance with red and white hazard tape.
- 7 Contractors should ensure that all machinery/equipment/plant/vehicles entering the work site be clean of all soil and plant material that may have accumulated from work on other sites. This is in order to prevent invasive plant species or other contaminant from being brought onto and introduced to the site, in line with government guidance in the light of the Chalara fraxinea (ash dieback) outbreak.
- 8 All refuelling, including chainsaw, to be carried out away from the grazing compartment on spill mats. Fuel spillage kits must be kept on site at all times. Double-bunded fuel bowsers to be used on site.
- 9 Works will be carried out during the winter months which could be wet. The route is surfaced making access in poor conditions possible; care must be taken around access/egress points to avoid damage to the grass and paths.
- 10 All of the cut material (timber and brash) to be removed from site by the end of the contract.
- 11 Chip/wood storage area needs to have some form of continuous barrier to prevent spillage into the surrounding area.
- 12 Any damage to car park areas or footpaths to be reinstated as per original specification at the contractors own expense.
- 13 The nearby pond supports an important colony of Great Crested Newts (a protected species). Although none of the work area falls within 100m of the pond, operators should be aware of the possibility of their presence. Work should stop immediately if a newt is seen, and the GCN

License Holder should be contacted to come and move it. Further guidance will be provided prior to commencement.

- 14 To gain access into the work area, a section of stock fencing may be removed. This should be reinstated on completion of both phases.
- 15 Do not drive over existing grassland/open areas within the SSSI compartment; all movements to on designated access route, and within the work area only.
- 16 The felling phase should commence on, or as soon as possible after, 16th October 2017.
- 17 The mulching phase should be carried out between 1st April and 31st May 2018.

SPECIFICATION

Task 1:

Clear fell the specified area:

- Approximately 0.9ha. Consists of 1970s Scots pine and naturally regenerated mixed broadleaves. Largely un-thinned.
- Selected pre-marked sawallow, oak and hornbeam must be retained, and care taken not to damage them.
- Chip all lop & top and brash directly into transport and remove from site.
- Extract all timber & chip along route shown on accompanying map. Roundwood to be stacked in designated timber stacking area along main ride.
- No damage should be caused to soils in the vicinity of wet flushes. The contractor should avoid driving machinery over these areas or use mats to reduce compaction. Such areas will be identified prior to commencement.

Task 2:

Between 1st April and 31st May 2018, return to site to mulch the specified area:

- Carry out using a tracked mulcher (Ahwi or similar)
- Mulch all stumps and ground layer to a minimum depth of 50mm, so that there is no regrowth from stumps or roots
- Area to be rolled after mulching to leave flat with no obstacles for future management such as ruts or stumps.
- Do not mulch a 3m buffer strip along stock fence
- To avoid causing damage to retained individual trees or groups, no mulching to be done within a 3m radius of tree or tree group.
- Where wet flushes occur, mulching is not required.

Broxbourne and Bencroft Wood
Management Plan 2019-24
Broxbourne Wood SSSI restoration

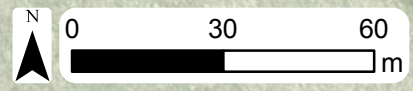


2023/24 - 1.0ha

2021/22 - 0.59ha

2019/20 - 1.02ha

2021/22 - 0.31ha



Scale @ A3
1:1,500
Date
October 2018
Drawing Number
Rev
00



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G Tree Risk Management Strategy

Broxbourne and Bencroft Woods Tree risk management strategy 2014 -

Introduction

The Broxbourne Woods National Nature Reserve (NNR) is a 237ha complex of nationally significant, predominantly Oak/Hornbeam woodland 5 miles south of Hertford. The NNR comprises four woods: Broxbourne, Bencroft, Hoddesdonpark and Wormley. Hertfordshire County Council (HCC) owns and manages through its Countryside Management Service: Broxbourne Wood & Bencroft Wood, whilst the Woodland Trust owns and manages Hoddesdonpark Wood and Wormley Wood.

The NNR serves a large number of residents of Hertfordshire, north London and beyond. It provides extensive, accessible woodland with a range of informal uses including off-road cycling, horse riding and walking along promoted recreational routes ranging from the 1km easy-access, family-friendly Sculpture Trail to the more challenging 17.5km NNR Trail. Access to the NNR is largely enabled by HCC through the provision of 4 car parking areas, 2 in each of its woodlands. As a consequence much of the visitor use focuses on these two woodlands.

Why a tree risk management strategy?

Each year between 5 and 6 people in the UK are killed when trees fall on them. Thus the risk of being struck and killed by a tree falling is extremely low. Around 3 people are killed each year by trees in public spaces; but as almost the entire population of the UK is exposed, the risk per person is about one in 20 million. The risk, per tree, of causing fatality is of the order of one in 150 million for all trees in Britain or one in 10 million for those trees in, or adjacent to areas of high public use. However the low level of overall risk may not be perceived in this way by the public, particularly following an incident.

The Health and Safety Executive (HSE) believes that public safety aspects can be addressed as part of the approach to managing tree health and tree owners should be encouraged to consider public safety as part of their overall approach to tree management. A sensible approach will ensure the maintenance of a healthy tree stock, the sound management of the environment and will usually satisfy health and safety requirements.

(Management of the risk from falling trees HSE SIM 01/2007/05)

Relevant Legislation

Occupiers' Liability Act 1957 – provides for the liability of an occupier of land when an incident occurs on the land to a person who is a visitor. The occupier owes a duty to the visitor to "take such care as in all the circumstances of the case is reasonable to see that the visitor will be reasonably safe in using the premises for which he/she is invited or permitted by the occupier to be there".

Occupiers' Liability Act 1984 – provides for the occupier's liability to people other than visitors, in particular trespassers, in circumstances where the occupier knows of the potential presence of such people on their land and of the risk posed to them by features of the land such as trees. Where the occupier may reasonably be expected to offer them some protection.

The Health and Safety at Work etc Act 1974 – places a duty on employers to ensure, so far as is reasonably practicable, that in the course of conducting their undertaking, employees and members of the public are not put at risk.

The sites

Broxbourne Wood

Broxbourne Wood is a 33.2 ha planted ancient woodland site. The wood is a County Wildlife Site (WS 71/005) having been managed as Hornbeam coppice with standards until the 1960's when it was

heavily planted with conifers. HCC took ownership in the mid 1970's and made the wood accessible to the public. The area has since become popular with horse riders, cyclists and walkers and in 2005 a 1km surfaced easy access Sculpture Trail was installed.

The north western third of the wood (9 ha) is designated a Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC), it is considerably more open in structure and exhibits heathland/wood pasture vegetation characteristics.

Bencroft Wood

Bencroft Wood is a 22.6 ha ancient semi-natural woodland. The wood consists of Sessile and Pedunculate Oak over Hornbeam coppice with areas of developing secondary Birch woodland in previously opened areas. The wood is a County Wildlife Site (WS 71/007) and designated a SSSI and SAC. The wood has a long history of commercial Hornbeam coppicing which lapsed following World War II and has only recently been reinstated.

Risk management

There are several approaches to managing the risks from trees that involve 'zoning' trees according to the risk of them falling and causing serious injury or death. Zoning approaches have been adopted by a number of owners of large tracts of publically accessible land and can be an effective approach.

For trees in a frequently visited zone, a system for periodic, proactive checks is appropriate. This should involve a quick visual check for obvious signs that a tree is likely to be unstable and can be carried out by a person with a working knowledge of trees and their defects, but who need not be an arboriculture specialist. Informing staff who work in parks or highways of what to look for would normally suffice. Duty holders should ensure that any system that is put in place for managing tree safety is properly applied, recorded and monitored.

(Management of the risk from falling trees HSE SIM 01/2007/05)

Trees within these woods will be managed either through programmed operations intended to ensure the long term health of the woodland asset or through specific, reactive activity in response to risks identified through the inspection regime.

Zoning conventions

Zone 1 – Boundaries and woodland within striking distance of highways, easy access Sculpture Trail and car parks.

Zone 2 – Other surfaced (and/or) promoted routes.

Zone 3 - all other areas.

Generic Risks

Zone 1

Proximity to roads, level of use and speed of vehicular travel.

Age of boundary trees and lack of recent management.

Species.

Size, length and shape of limbs.

Multiple user types: families with small children, the elderly and infirm, wheelchair users, pedestrians of varied ability, cyclist, equestrian.

Static targets of high monetary value.

Zone 2

Well used, promoted routes within an NNR setting.

Multiple user types: pedestrian, cyclist, equestrian.

All weather surface enabling use in poor weather conditions.

Zone 3

Lower level of use, limited pedestrian access, not promoted, informal access routes.

Risk prevention

Standard operations for planned woodland management

This activity is directed through an agreed management plan and vision. This activity aims to deliver conservation and recreation benefits that maximise the potential of the woodlands asset.

Conifer – regular commercial thinning/harvesting to promote best specimens and with good form/health towards final crop. Standing dead wood to be promoted only in zone 3 and remote from promoted access.

Native broadleaf species standards – periodic commercial thinning to promote best specimens and with good form/health. Standing dead wood to be promoted only in zone 3 and remote from promoted access.

Native broadleaf species coppice – rotational commercial coppice blocks of ½ hectare to promote regeneration of retained stools and from the seed bank.

Native broadleaf species boundary stubs – rotational re-cutting of veteran stubs to reduce probability of limb failure and promote healthy regeneration.

Surfaced promoted routes – all have been widened (2008-11) to a minimum width of 8m. Further rotational scalloping undertaken by supervised volunteers of the newly created woodland edge to promote healthy, vigorous, low level growth of all native spp.

Un promoted minor routes – rotational coppicing undertaken by supervised volunteers of path side routes to maintain access and promote healthy vigorous low level regrowth.

Risk reduction

Standard operations for reactive management

Where a risk is identified through the inspection regime, or reported, a number of responses are to be considered and employed as appropriate. These actions are to be considered in the context of the woodlands' status not only as a popular destination for visitors but as an NNR, SAC and in part SSSI. Where possible, reactive works should be undertaken employing methods which support agreed proactive woodland management regimes and contribute towards the long term vision for the woods.

Conifer

Fell and treat stump where necessary to prevent regrowth/regeneration.

Non-native broadleaf species

Fell and treat stump to prevent regrowth, consider additional works to promote natural regeneration/re-planting of more locally appropriate species.

Native broadleaf species

Individually significant/veteran standards – seek professional advice from suitably qualified arborist and employ minimum necessary intervention to make safe in line with ATF veteran tree guidance.

Individually significant/veteran coppice stools/boundary stubs – re-cut all limbs to live cambium in a manner sensitive to previous management techniques to promote regeneration. Consider additional works to adjacent stools to ensure light levels are suitable to promote effective regeneration. Employ suitable protection to prevent damage from grazing animals.

Individually insignificant standards – fell/coppice as appropriate and consider additional works to encourage natural regeneration/re-stock with locally appropriate species.

Individually insignificant coppice stools - re-cut to live cambium in a manner sensitive to previous management. Employ suitable protection to prevent damage from grazing animals.

Exclusion of the public – where reactive management works cannot be undertaken within a reasonable timescale, or further *Detailed Inspection* is required, action to limit public access to the area of risk should be employed. This might entail cordoning off, re-routing walkways or closing a car park until necessary work can be completed.

Risk Identification Inspections

Zone 1

- Pre-programmed annual *Formal Inspection* by suitably trained and experienced staff member. Referral of instances of poor health in significant trees, where no visual fault identification is possible, to qualified arboriculture contractor for *Detailed Inspection*.
- *Informal Inspection* by staff when carrying out other duties on site.
- *Formal Inspection* by suitably trained and experienced volunteer “Wood Wardens” whilst undertaking regular wardening patrols as part of agreed annual work programme.
- *Informal Inspection* by Wood Wardens when carrying out other duties on site.

Zone 2

- Pre-programmed biennial (every second year) *Formal Inspection* by suitably experienced staff member undertaken on rotation. Referral of instances of poor health in significant trees, where no visual fault identification is possible, to qualified arboriculture contractor for *Detailed Inspection*.
- *Informal Inspection* by staff when carrying out other duties on site.
- *Formal Inspection* by suitably trained and experienced volunteer “Wood Wardens” whilst undertaking regular wardening patrols as part of annual work programme.
- *Informal Inspection* by Wood Wardens when carrying out other duties on site.

Zone 3

- *Informal Inspection* by staff when carrying out other duties on site.
- *Informal Inspection* by Wood Wardens when carrying out other duties on site.

Definitions

Informal Inspection – to be undertaken as incidental to other on-site activities such as volunteer work parties, contract monitoring visits, work planning/site inspection visits. Regular ground level inspection to be undertaken to identify structural weakness/actual failure that poses a direct and imminent threat to public safety.

Informal inspection will include reports of tree related safety issues identified by visiting members of the public. Where these occur a formal inspection will be undertaken to assess the risk and necessary response.

All identified actions to be recorded and acted upon appropriately.

Formal Inspection – pre-programmed and carried out whilst visiting the zone for the specific purpose of performing an inspection, not incidental to other activities. Simple ground level inspection to be undertaken as part of a walk over survey to identify signs of immediate instability where action is necessary, to include the need for further *Detailed Inspection*.

All identified actions to be recorded and acted upon appropriately.

Detailed Inspection – to be employed where individual trees of high value have been identified as posing unacceptable risk through *Formal/Informal Inspection* regimes. To be undertaken by a suitably qualified, competent and insured specialist contractor.
All actions to be recorded and acted upon appropriately. A further regular regime of *Detailed Inspection* may be required.

Reporting/recording

Maps – detailed maps of the woodlands and the agreed zoning are to be produced and maintained. Annual copies detailing pre-programmed inspection regimes are to be produced, agreed and maintained. Inspection activities and any resultant corrective actions are to be recorded geographically, by date and attributed to the inspector.

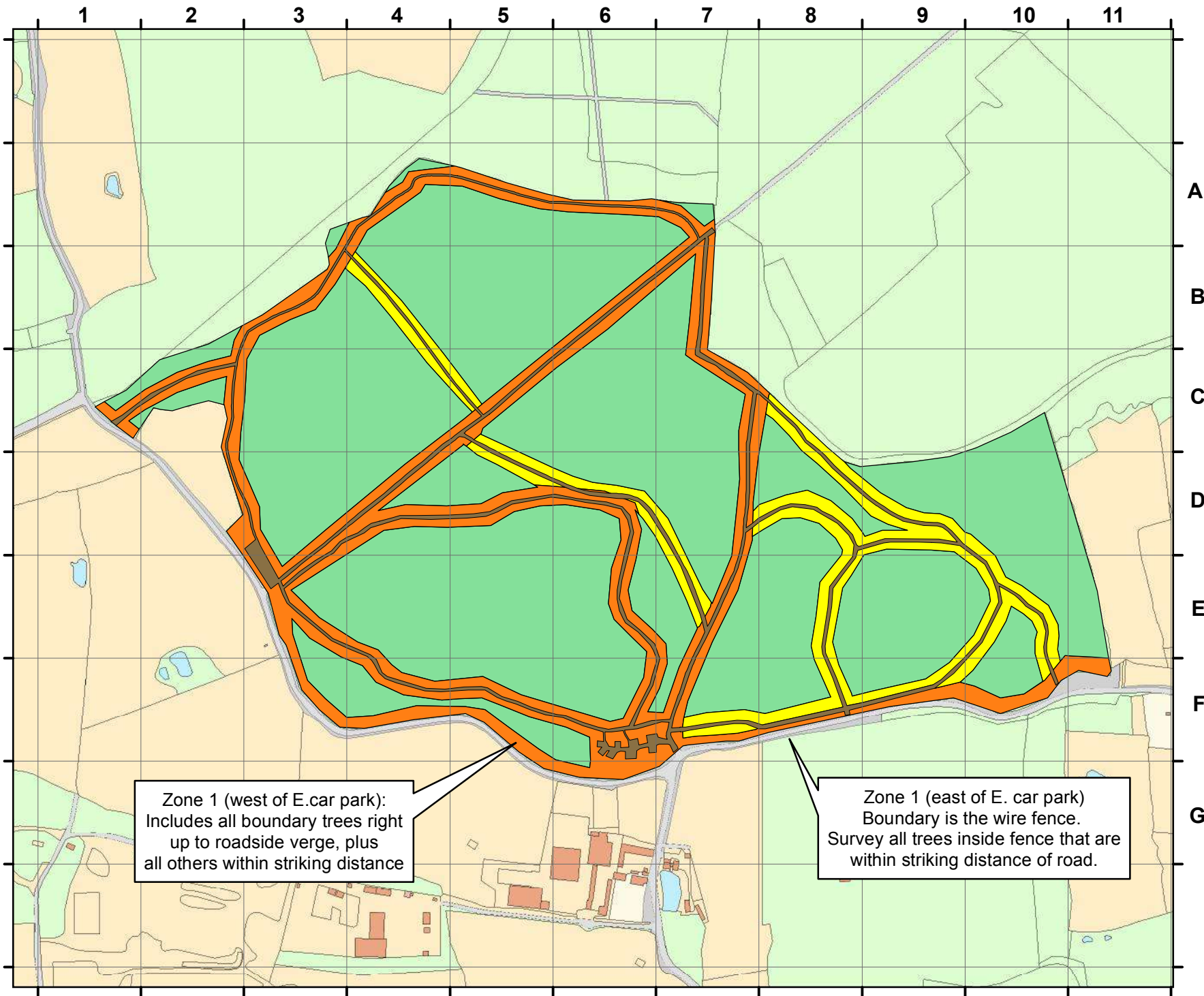
Table – a simple table corresponding to the site maps is to be devised, agreed and maintained. Further details of inspections undertaken and any corrective actions undertaken/outstanding are to be recorded for future reference.

Training

All staff and volunteer Wood Wardens undertaking tree safety survey activities will be required to attend a 1 day LANTRA approved Basic Tree Survey & Inspection training course. The course content should cover:

- Awareness of legal and safety implications of hazardous trees
- Maintenance of surveyors health and safety while carrying out Basic Tree Survey and Inspection
- Recognition of hazardous trees
- Determination of level of risk
- Identification of an appropriate course of action
- Collection and maintenance of adequate information
- Recognition of surveyors limitations

**Broxbourne Wood
Tree Risk Management
Inspection Zones**



Zone 1 (west of E. car park):
Includes all boundary trees right
up to roadside verge, plus
all others within striking distance

Zone 1 (east of E. car park)
Boundary is the wire fence.
Survey all trees inside fence that are
within striking distance of road.

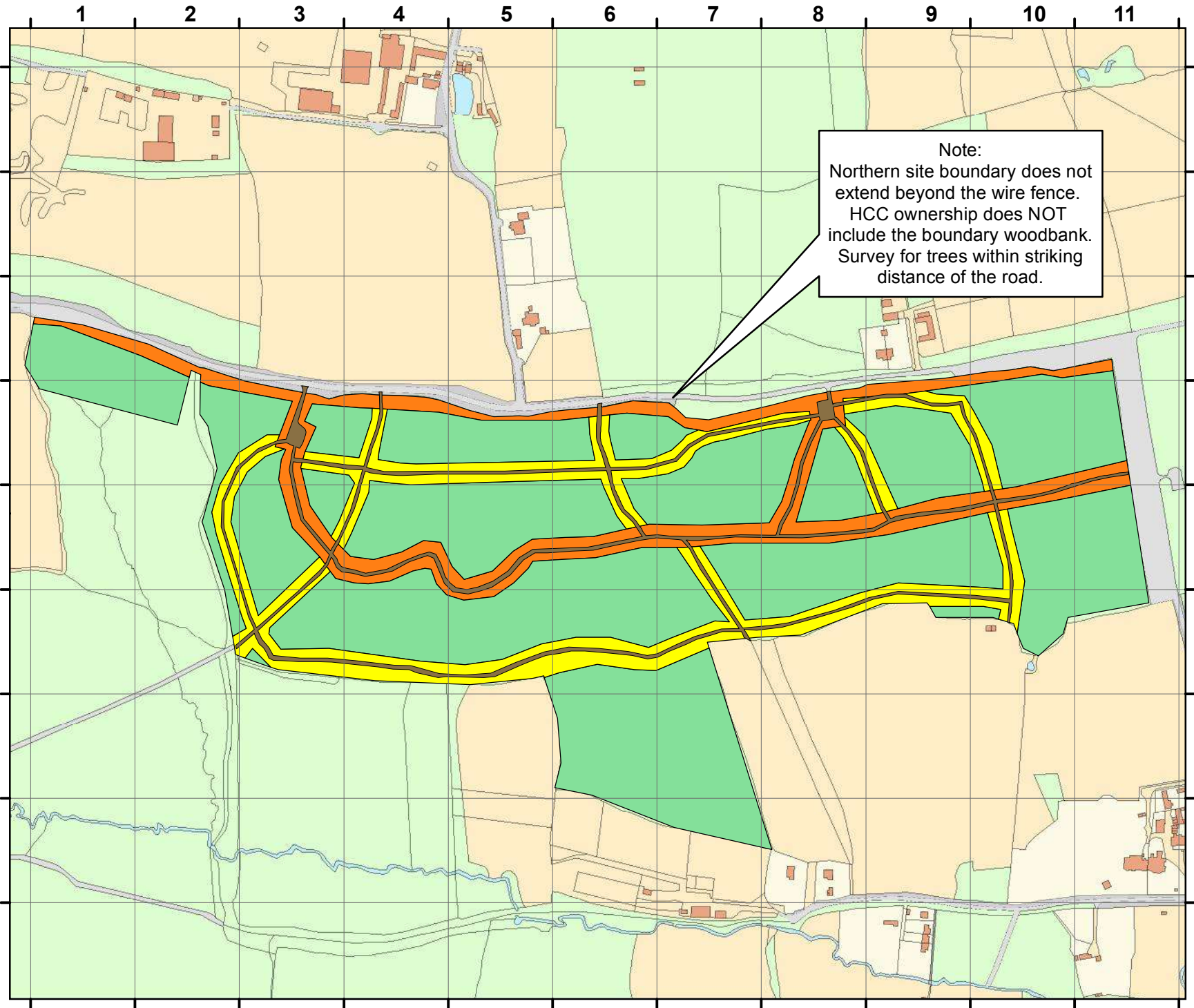
Survey Zones

- Zone 1
- Zone 2
- Zone 3

*Countryside
Management
Service*

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Bencroft Wood Tree Risk Management Inspection Zones



Note:
Northern site boundary does not extend beyond the wire fence.
HCC ownership does NOT include the boundary woodbank.
Survey for trees within striking distance of the road.

Survey Zones

- Zone 1
- Zone 2
- Zone 3

Countryside Management Service

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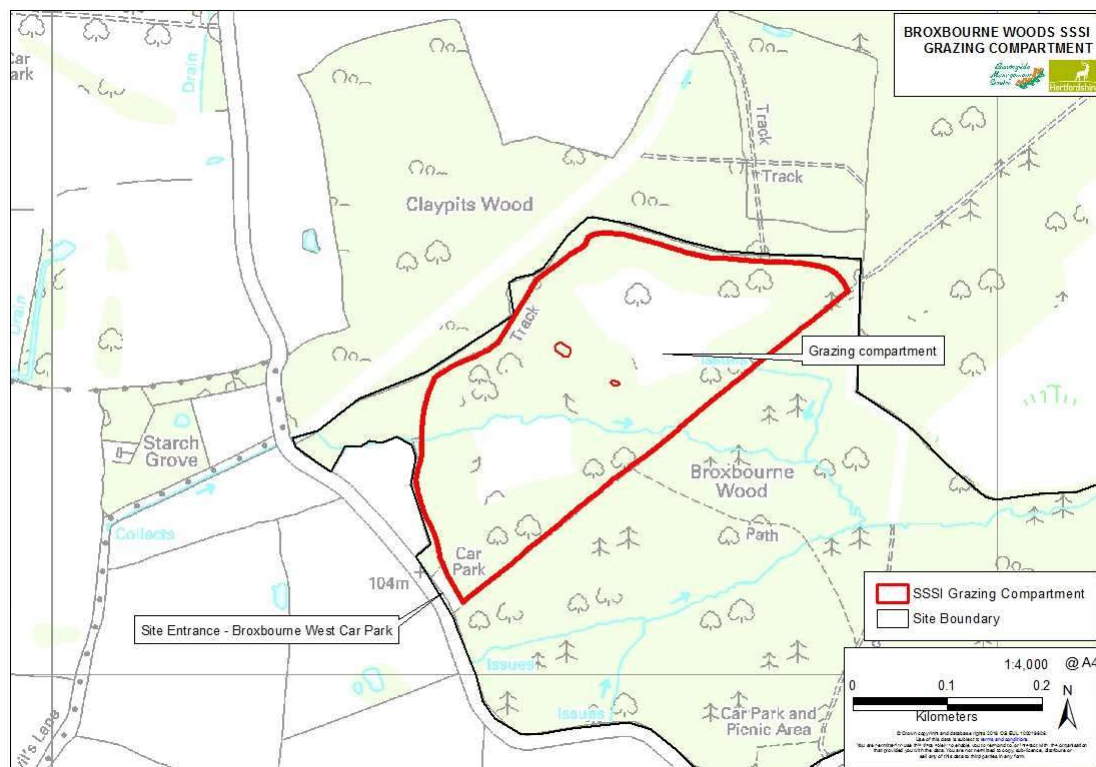
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H Outline grazing agreement

THIS LICENCE is made the First day of August Two thousand and Thirteen BETWEEN HERTFORDSHIRE COUNTY COUNCIL of County Hall, Pegs Lane, Hertford, SG13 8DN acting by John Edward Hunt its authorised signatory (hereinafter called “the Council”) of the one part and _____ acting by _____ its authorised signatory of _____ (hereinafter called “the Licensee”) of the other part

WHEREBY IT IS AGREED as follows:-

1. The Licensee shall be entitled during the season or period beginning on the First day of August Two thousand and Thirteen and ending on the Thirtieth day of October Two thousand and Thirteen to graze the piece of land at Broxbourne Wood, off Pembridge Lane near Brickendon, Hertfordshire aforesaid and which for the purpose of identification only is shown edged red on the plan annexed hereto (hereinafter called “the Land”) subject to the right of access to the Land by members of the public at all times for the purposes of recreation and pleasure.



2. The Licensee shall not carry out any operations likely to damage the special nature of the Land or its status as a Site of Special Scientific Interest and is specifically prohibited from undertaking any activities set out in the Schedule below
3. The Licensee shall be responsible where it is necessary to take immediate action to prevent stock from straying or being injured for carrying out all emergency temporary repairs required to fences and gates on or bordering the Land with the Council providing materials or reimbursing the Licensee the cost of the materials used or purchased
4. The Licensee shall regulate grazing to ensure vegetation is consumed without poaching or under or over grazing
5. The Licensee in accordance with advice provided by the Department of the Environment, Food and Rural Affairs and the Health and Safety Executive in relation to cattle in publicly accessible spaces must assess and record types of risks that are associated with grazing animals and take such steps as are reasonably practicable to reduce those risks to an acceptable level
6. The Licensee shall not keep a bull or bulls (uncastrated males) on the Land and shall graze only cattle and no less than four and no more than six cattle at any one time on the Land
7. The Licensee shall not allow the Land to be entered or in any way used by horses, ponies, donkeys, asses, goats, pigs, poultry or any vicious unruly destructive infected or diseased animal. In the event of the Licensee admitting any animal on the Land in contravention of this clause the Council shall be at liberty to treat the animal as a trespasser and impound the same at the expense of the Licensee and the Licensee shall be liable for all loss or damage occasioned by any such animal either by straying or in any other way.
8. The Licensee shall not graze pregnant animals those that are calving or those that are protecting their young on the Land
9. The Licensee must handle all their animals routinely before they are brought onto the Land and verify their full history and be confident that all the animals chosen to graze on the Land have a suitable temperament
10. The Licensee shall comply with all obligations under the Animals Act 1971 and shall maintain open communication with local officers within the Royal Society for the Prevention of Cruelty to Animals (RSPCA) over any concerns that may be reported and shall check livestock for illness (or other possible

- causes of changes in temperament) on a regular basis and in any event not less than twice a week
11. The Licensee shall ensure his livestock have access to sufficient water at all times and reimburse the Council any costs or measured charges arising from the use of such water supplied
 12. The Licensee shall not allow any motor vehicles, caravans or tents on the Land save for motor vehicles necessarily used by the Licensee for the loading or unloading of stock nor erect any building or other structures nor place any obstruction on the Land
 13. No guns shall be taken on to or allowed on the Land for the purpose of sport or for any other purpose
 14. The Licensee shall hold full public liability insurance and shall indemnify the Council from and against all claims and actions of any kind whatsoever occurring by reason of the Licensee's occupation of the Land and their use of the access way
 15. The Council will not be liable in respect of any loss or damage to the Licensee's cattle howsoever caused.
 16. The Licensee shall remove all stock on the Land immediately on the termination of the Licence period
 17. If there shall be a breach or non-observance of any of the Licensee's agreements herein contained the Council may terminate this Licence forthwith without notice and without prejudice to the remedies and rights of the Council in respect of anything previously done or suffered
 18. This Licence shall at all times be construed as a personal agreement with the Licensee for the grazing of animals owned by them and shall not be assigned or underlet by the Licensee. Any use of the Land or any part thereof by the Licensee otherwise than for grazing animals owned by them shall be a breach of this Licence
 19. The Council reserves the right to carry out any necessary works to the Land.
 20. No fee shall be paid in respect of the grant of this Licence
 21. The Council shall carry out all works of replacement or permanent repair to all fences and gates on or bordering the Land where it is necessary to prevent stock from straying or being injured

AS WITNESS the hand of the parties hereto as set out below the day and year first before written

SIGNED on behalf of HERTFORDSHIRE COUNTY COUNCIL

Acting by its authorised signatory

_____

in the presence of:

.....

.....

SIGNED on behalf of _____

Acting by its authorised signatory

_____

in the presence of:

.....

.....

The Schedule hereinbefore referred to:-

Operations likely to damage the Land

Site name: Wormley/Hoddesdonpark Woods North, SSSI, Hertfordshire

OLD1002304

Ref. No. Type of Operation

- 1 Cultivation, including ploughing, rotovating, harrowing, and re-seeding.
- 2 Grazing and changes in the grazing regime (including type of stock or intensity or seasonal pattern of grazing and cessation of grazing).
- 3 Stock feeding and changes in stock feeding practice.
- 4 Mowing or other methods of cutting vegetation and changes in the mowing or cutting regime (including hay making to silage and cessation).
- 5 Application of manure, fertilisers and lime.
- 6 Application of pesticides, including herbicides (weedkillers).
- 7 Dumping, spreading or discharge of any materials.
- 8 Burning.

- 9 The release into the site of any wild, feral or domestic animal*, plant or seed.
- 10 The killing or removal of any wild animal*, including pest control.
- 11 The destruction, displacement, removal or cutting of any plant or plant remains, including tree, shrub, herb, hedge, dead or decaying wood, moss, lichen, fungus, leaf-mould, turf.
- 12 Tree and/or woodland management+ and changes in tree and/or woodland management+.
- 13a Drainage including the use of mole, tile, tunnel or artificial drains.
- 13b Modification of the structure of watercourses (eg rivers, streams, springs, ditches), including their banks and beds, as by re-alignment, re-grading and dredging.
- 13c Management of aquatic and bank vegetation for drainage purposes.
- 14 The changing of water levels and tables and water utilisation (including irrigation, storage and abstraction from existing water bodies and through boreholes).
- 15 Infilling of ditches, ponds, pools, marshes or pits.
- 16a The introduction of freshwater fishery production and/or management and changes in freshwater fishery production and/or management including sporting fishing and angling.
- 20 Extraction of minerals, including peat, sand and gravel, topsoil, subsoil, chalk, lime and spoil.
- 21 Construction, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.
- 22 Storage of materials.
- 23 Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.
- 26 Use of vehicles or craft likely to damage or disturb features of interest.
- 27 Recreational or other activities likely to damage features of interest.
- 28 Game and waterfowl management and hunting practices and changes in game and waterfowl management and hunting practices.
- * 'animal' includes any mammal, reptile, amphibian, bird, fish or invertebrate.
- + including afforestation, planting, clear and selective felling, thinning, coppicing, modification of the stand or underwood, changes in species composition, cessation of management.

I Historic Environment Record

HER DATA FOR BROXBOURNE & BENCROFT WOODS

Hertfordshire County Council

16/04/2014

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Record Index

Click on the ID to view full details for each record

ID	Name
9463	LINEAR EARTHWORK BANK, BENCROFT WOOD, BRICKENDON LIBERTY
11241	WEST-EAST CO-AXIAL BOUNDARY, WORMLEY WOOD, BENCROFT WOOD, EMANUEL POLLARDS, BRICKENDON
12512	PEMBRIDGE LANE, BRICKENDON
16120	ETTERIDGE FARM, PEMBRIDGE LANE, BRICKENDON LIBERTY
16121	SITE OF POST-MEDIEVAL CHAPEL, PEMBRIDGE LANE, BRICKENDON LIBERTY
16122	SITE OF FOWLWELLS, WHITE STUBBS LANE, BRICKENDON LIBERTY
30330	PEMBRIDGE LANE FARM, PEMBRIDGE LANE, BRICKENDON LIBERTY

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Full Record Information

Record Details

ID (Preferred Ref.):	9463
Name:	LINEAR EARTHWORK BANK, BENCROFT WOOD, BRICKENDON LIBERTY
Map Sheet:	TL30NW
Grid Reference:	TL 32866 06394 (point)
Summary:	
Description:	Linear bank approx. 80m long by 9m wide, within Bencroft Wood. It runs north/south with a quarry ditch to the east and aligns with the north/south section of Pembridge Lane. Hornbeam coppice stools stand on the bank <1>. See <2> for map work on this area, and earlier fields and tracks which existed here until the later 19th century. The hollow way surviving as a path was a public road called Gravel Lane until after 1851.

Sources

Number	Reference
<1>	Verbal communication: Stewart Bryant (HCC). Information. Site visit 20.7.1998
<2>	Unpublished document: Williamson, Tom. 1999. The Wormley/Broxbourne Woods. An assessment of the documentary evidence with some preliminary

interpretations. RNO 1835

Location - Administrative Areas

Civil Parish Broxbourne (Non Civil Parish), Broxbourne, Hertfordshire
District East Hertfordshire, Hertfordshire

Monument/Component Types

- BANK (EARTHWORK) (Historic: period uncertain - 410 AD to 1900 AD)

Find Types

Designations

Type/Grade	Reference/Title
SHINE	Landscape of co-axial fields and droveways, Wormley Wood

Other Statuses and References

Type/Grade	Reference/Title
HCC Map No.	71/728
HCC Sites and Monuments Record Number	9463
SHINE Candidate (Yes)	

Associated Activities/Events

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Record Details

ID (Preferred Ref.): 11241
Name: WEST-EAST CO-AXIAL BOUNDARY, WORMLEY WOOD, BENCROFT WOOD, EMANUEL POLLARDS, BRICKENDON
Map Sheet: TL30NW
Grid Reference: TL 3300 0623 (point)
Summary:
Description: Historic field and woodland boundary, traceable from at least TL 3198 0628 on the west side of Wormley Wood to at least TL 3487 0628, Carneles Green. White Stubbs Lane to the north and West End Road (and its continuation alongside Firs Wood and between Wormley Wood and Westfield Grove) are similarly aligned elements of a very extensive landscape of co-axial trackways and field boundaries [9224], at least part of which is prehistoric (probably Bronze Age) in origin.

Sources

Number	Reference
	Verbal communication: Stewart Bryant (HCC). Information. Survey, 1999
	Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20319
	Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20320
	Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20321
	Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary,

- Wormley Woods. PNO 20322
 Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20323
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 Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20326
 Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20357
 Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20358
 Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20359
 Photograph: HCC (General/Archaeology). Co-axial field boundary, Wormley Woods. PNO 20360
 Photograph: HCC (General/Archaeology). Co-axial field boundary, Wormley Woods. PNO 20361
 Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20362
 Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, White Stubbs Lane, Wormley Woods. PNO 20363
 Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20364
- <1> Cartographic material: OS 25 inch plan, 1st edition. - etc
- <3> Unpublished document: Williamson, Tom. 1999. The Wormley/Broxbourne Woods. An assessment of the documentary evidence with some preliminary interpretations. RNO 1835
- <2> Article in serial: Bryant, Stewart, Perry, Brian, & Williamson, Tom. 2005. A 'relict landscape' in south-east Hertfordshire: archaeological and topographic investigations in the Wormley area; Landscape History 27, 5-16.

Location - Administrative Areas

Civil Parish Brickendon Liberty, East Hertfordshire, Hertfordshire
District East Hertfordshire, Hertfordshire

Monument/Component Types

- FIELD BOUNDARY (Historic: period uncertain - 410 AD to 1900 AD)

Find Types

Designations

Type/Grade	Reference/Title
SHINE	Landscape of co-axial fields and droveways, Wormley Wood

Other Statuses and References

Type/Grade	Reference/Title
HCC Map No.	71/728 etc.
HCC Sites and Monuments Record Number	11241
SHINE Candidate (Yes)	

Associated Activities/Events

[Top](#)

Record Details

ID (Preferred Ref.): 12512
Name: PEMBRIDGE LANE, BRICKENDON
Map Sheet: TL30NW
Grid Reference: TL 3378 0697 (point)
Summary:
Description: Registered common land, in two parts. NGR = approximate centre.

Sources

Number	Reference
	Digital archive: Commons Register. CL179

Location - Administrative Areas

Civil Parish	Brickendon Liberty, East Hertfordshire, Hertfordshire
District	East Hertfordshire, Hertfordshire

Monument/Component Types

- COMMON LAND (Historic: period uncertain - 410 AD to 1900 AD)

Find Types

Designations

Other Statuses and References

Type/Grade	Reference/Title
HCC Sites and Monuments Record Number	12512
SHINE Candidate (Yes)	

Associated Activities/Events

[Top](#)

Record Details

ID (Preferred Ref.): 16120
Name: ETTERIDGE FARM, PEMBRIDGE LANE, BRICKENDON LIBERTY
Map Sheet: TL30NW
Grid Reference: TL 3278 0680 (point)
Summary: Post-medieval farmstead
Description: The farmhouse at Etteridge (Ettridge) Farm is a timber-framed and weatherboarded house built in the 17th century. It stands on a projecting sill, and has two storeys and attics, with a symmetrical front facing south; internal chimney, lobby-entry two-cell plan with a catslide roof extending over a continuous rear outshut. The house was altered in the late 18th century <1>. In the 19th century <2> the farmstead was a compact

group with barns around a rectangular yard north of the house; these farm buildings appear to survive, with the addition of large 20th century buildings to the west.

On the other side of the lane is another building, north of the pond. It is an 18th century timber-framed and weatherboarded shed, thatched, a single-storey open-fronted two bay cartshed with rear aisle <1>. This building, in a derelict state, was examined as part of a proposal to convert it to residential use. It was found to have been built in the late 18th or early 19th century, and was then enclosed on all sides. During the 19th century the aisle was added on the east side and the west opened up, for use as a cart shed <3>.

The shed was restored in 2010; <4> has photos taken before and after the work.

Sources

Number	Reference
<4>	Serial: Hertfordshire Building Preservation Trust Newsletter. Winter 2010/11, p3
<1>	Digital archive: Listed Buildings description.
<3>	Report: Goldsmith, Amy, & Gibson, Adrian. 2006. Cart shed at Etteridge Farm, Pembridge Lane, Broxbourne, Herts: historic building appraisal. RNO 2395
<2>	Cartographic material: OS 25 inch plan, 1st edition. 1880

Location - Administrative Areas

Civil Parish	Brickendon Liberty, East Hertfordshire, Hertfordshire
District	East Hertfordshire, Hertfordshire

Monument/Component Types

- CART SHED (Post Medieval - 1501 AD to 1900 AD)
- FARMHOUSE (Post Medieval - 1501 AD to 1900 AD)
- FARMSTEAD (Post Medieval - 1501 AD to 1900 AD)
- LOBBY ENTRY HOUSE (Post Medieval - 1501 AD to 1900 AD)
- TIMBER FRAMED HOUSE (Post Medieval - 1501 AD to 1900 AD)

Find Types

Designations

Type/Grade	Reference/Title
Listed Building (II)	160665 ETTRIDGE FARMHOUSE
Listed Building (II)	160666 SHED ON ROADSIDE OPPOSITE ETTRIDGE FARMHOUSE

Other Statuses and References

Type/Grade	Reference/Title
SHINE Candidate (Unlikely)	
HCC Sites and Monuments Record Number	16120

Associated Activities/Events

Event ID	Name/RefOrganisation	Description
EHT1449	Building Archaeological Solutions Ltd	

appraisal
of cart
shed at
Etteridge
Farm,
Brickendon
Liberty,
2006

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Record Details

ID (Preferred Ref.): 16121
Name: SITE OF POST-MEDIEVAL CHAPEL, PEMBRIDGE LANE, BRICKENDON LIBERTY
Map Sheet: TL30NW
Grid Reference: TL 32788 06749 (point)
Summary: Wayside chapel shown on 19th century maps
Description: A building shown here on the 1880 OS map <1> is marked Chapel. It was a rectangular building within a small yard, facing north-south along Pembridge Lane and immediately south of Etteridge Farm [16120]. It is shown on <2>, but by 1924 had disappeared <3> and the site left empty. No building is shown here on the 1839 OS map, so this was presumably a mid 19th century chapel.

Sources

Number	Reference
<4>	Cartographic material: Tithe map and award. Broxbourne, 1839 (map)
<1>	Cartographic material: OS 25 inch plan, 1st edition. 1880
<2>	Cartographic material: OS 25 inch plan, 2nd edition (1897-1901). 1898
<3>	Cartographic material: OS 25 inch plan, 3rd edition (1913-1925). 1924

Location - Administrative Areas

Civil Parish Brickendon Liberty, East Hertfordshire, Hertfordshire
District East Hertfordshire, Hertfordshire

Monument/Component Types

- CHAPEL (Post Medieval - 1501 AD to 1900 AD)

Find Types

Designations

Other Statuses and References

Type/Grade	Reference/Title
SHINE Candidate (Possible)	
HCC Sites and Monuments Record Number	16121

Associated Activities/Events

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Record Details

ID (Preferred Ref.): 16122
Name: SITE OF FOWLWELLS, WHITE STUBBS LANE, BRICKENDON LIBERTY
Map Sheet: TL30NW
Grid Reference: TL 32172 06506 (point)
Summary: Post-medieval farmstead or smallholding
Description: In 1880 there were buildings, apparently a house with a range of outbuildings and a pond, here in the corner of a field. A track led south from White Stubbs Lane, and the house is marked Fowlwells. By 1898 all that remained was a small structure by the pond, and this too had disappeared by 1924 <3>. The track survives, giving access to the fields. The 1839 tithe map <4> shows Fowlwells as a small farmstead in the centre of a block of fields surrounded by woods.

Sources

Number	Reference
<4>	Cartographic material: Tithe map and award. Broxbourne, 1839 (map)
<1>	Cartographic material: OS 25 inch plan, 1st edition. 1880
<2>	Cartographic material: OS 25 inch plan, 2nd edition (1897-1901). 1898
<3>	Cartographic material: OS 25 inch plan, 3rd edition (1913-1925). 1924

Location - Administrative Areas

Civil Parish Brickendon Liberty, East Hertfordshire, Hertfordshire
District East Hertfordshire, Hertfordshire

Monument/Component Types

- FARMHOUSE (Post Medieval - 1501 AD to 1900 AD)
- FARMSTEAD (Post Medieval - 1501 AD to 1900 AD)
- SMALLHOLDING (Post Medieval - 1501 AD to 1900 AD)

Find Types

Designations

Other Statuses and References

Type/Grade	Reference/Title
SHINE Candidate (Yes)	
HCC Sites and Monuments Record Number	16122

Associated Activities/Events

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Record Details

ID (Preferred Ref.): 30330
Name: PEMBRIDGE LANE FARM, PEMBRIDGE LANE, BRICKENDON LIBERTY
Map Sheet: TL30NW

Grid Reference: TL 33350 06937 (point)

Summary: Post-medieval farmstead with 17th century or earlier farmhouse, the farm buildings gone by 1924

Description: The farmhouse at Pembridge Lane Farm is a timber-framed and weatherboarded house on a brick sill, set back on the south side of the lane. It dates to the 17th century or earlier, a 3-cell, 1½-storey, internal-chimney lobby-entry plan house with a gabled timber porch. There are low lean-to extensions at each end and at the back, and an added external chimney on the west gable. At the ridge is a large T-shaped chimney <1>.

The farm is shown on the 1839 tithe map <2> with the house at the west, an outbuilding attached to its east end, and three free-standing barns to the east. Beyond these was another building, apparently a larger house but with the plan of a large barn with wagon porch. By 1880 <3> this eastern building and the one on the south side of the yard had been demolished, and by 1898 <4> only the house, the north barn and a few small structures survived. By 1924 <5> the north barn had also gone and the house had been extended.

The house has been enlarged and is no longer a farmhouse.

Sources

Number	Reference
<1>	Digital archive: Listed Buildings description.
<2>	Cartographic material: Tithe map and award. Broxbourne, 1839 (map)
<3>	Cartographic material: OS 25 inch plan, 1st edition. 1880
<4>	Cartographic material: OS 25 inch plan, 2nd edition (1897-1901). 1898
<5>	Cartographic material: OS 25 inch plan, 3rd edition (1913-1925). 1924

Location - Administrative Areas

Civil Parish	Brickendon Liberty, East Hertfordshire, Hertfordshire
District	East Hertfordshire, Hertfordshire

Monument/Component Types

- FARMHOUSE (Post Medieval - 1501 AD to 1900 AD)
- FARMSTEAD (Post Medieval - 1501 AD to 1900 AD)
- LOBBY ENTRY HOUSE (Post Medieval - 1501 AD to 1900 AD)
- TIMBER FRAMED HOUSE (Post Medieval - 1501 AD to 1900 AD)

Find Types

Designations

Other Statuses and References

Type/Grade	Reference/Title
HCC Sites and Monuments Record Number	30330

Associated Activities/Events

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Metadata

Title:

HER DATA FOR BROXBOURNE & BENCROFT WOODS

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Dr Isobel Thompson

(isobel.thompson@hertfordshire.gov.uk)

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Admin area:**Country:**

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Min X:

532172

Min Y:

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Max X:

533780

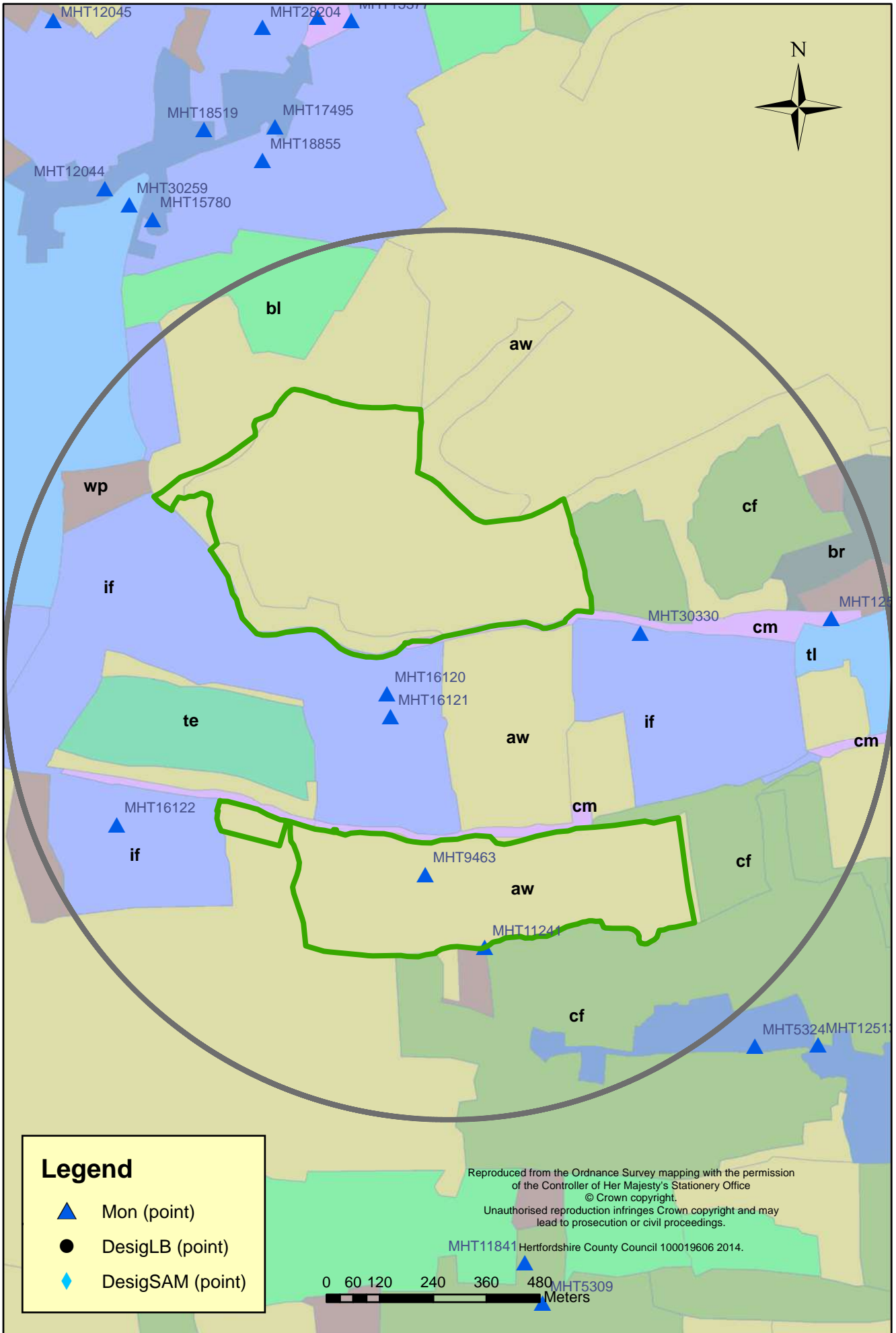
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BROXBOURNE & BENCROFT WOODS



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HER DATA FOR CO-AXIAL BOUNDARIES

Hertfordshire County Council

16/04/2014

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Record Index

Click on the ID to view full details for each record

ID	Name
9224	LANDSCAPE OF CO-AXIAL BOUNDARIES, SOUTH EAST HERTFORDSHIRE

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Full Record Information

Record Details

ID (Preferred Ref.): 9224

Name: LANDSCAPE OF CO-AXIAL BOUNDARIES, SOUTH EAST
HERTFORDSHIRE

Map Sheet: TL30NE

Grid Reference: TL 3545 0739 (point)

Summary:

Description: Extensive landscape of co-axial (brickwork pattern) boundaries, covering several parishes, and with a total area of c.20 square km. Many of the boundaries survive as field boundaries and roads, and some survive within the ancient woodland complex at Wormley Wood and Bencroft Wood. The boundaries were probably constructed as a single operation. The western boundary coincides for part of its length with the Hundred boundary between Hertford and Broadwater Hundreds. Some of the system has also been removed by the creation of Cheshunt Park. This, together with the survival of boundaries within ancient woodland suggests that the landscape is pre-medieval in date. Roman Ermine Street also appears to divert to take account of some of the boundaries at TL 34657 06843, which could suggest a prehistoric date for the landscape <1>. A field system in Cheshunt Park appears to be aligned with this landscape, and was earlier than the Roman settlement in the Park [2038] and the laying-out of Ermine Street <2>. See also [11385].

Sources

Number	Reference
	Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20319
	Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20320

- Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20321
- Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20322
- Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20323
- Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20324
- Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20325
- Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20326
- Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20357
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- Photograph: HCC (General/Archaeology). Co-axial field boundary, Wormley Woods. PNO 20360
- Photograph: HCC (General/Archaeology). Co-axial field boundary, Wormley Woods. PNO 20361
- Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20362
- Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, White Stubbs Lane, Wormley Woods. PNO 20363
- Photograph: HCC (General/Archaeology). 1998. Co-axial field boundary, Wormley Woods. PNO 20364
- <3> Article in serial: Bryant, Stewart, Perry, Brian, & Williamson, Tom. 2005. A 'relict landscape' in south-east Hertfordshire: archaeological and topographic investigations in the Wormley area; Landscape History 27, 5-16.
- <4> Unpublished document: Wiltshire, Patricia E J. 1999. Wormley Wood, Herts: palynological assessment of sediments and buried soil profiles associated with a linear earthwork.
- <1> Cartographic material: Evidence from 19th century maps, modern OS maps and HCC Survey SRB (HCC) interpretation 17.12.99.
- <2> Report: Ely, K D, & Edwards, K. 2003. Cheshunt Park, Hertfordshire. An archaeological evaluation by the Time Team. RNO 1600

Location - Administrative Areas

Civil Parish	Brickendon Liberty, East Hertfordshire, Hertfordshire
Civil Parish	Broxbourne (Non Civil Parish), Broxbourne, Hertfordshire
Civil Parish	Broxbourne (Non Civil Parish), Broxbourne, Hertfordshire
District	East Hertfordshire, Hertfordshire
District	Broxbourne, Hertfordshire

Monument/Component Types

- COAXIAL FIELD SYSTEM (Prehistoric - 8500 BC to 101 BC)

Find Types

Designations

Other Statuses and References

Type/Grade	Reference/Title
HCC Map No.	71-72/
HCC Sites and Monuments Record Number	9224
SHINE Candidate (Possible)	

Associated Activities/Events

Event ID	Name/RefOrganisation	Description
EHT5383	Evaluation Time Team in Cheshunt Park, Cheshunt, 2001	

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Metadata

Title:

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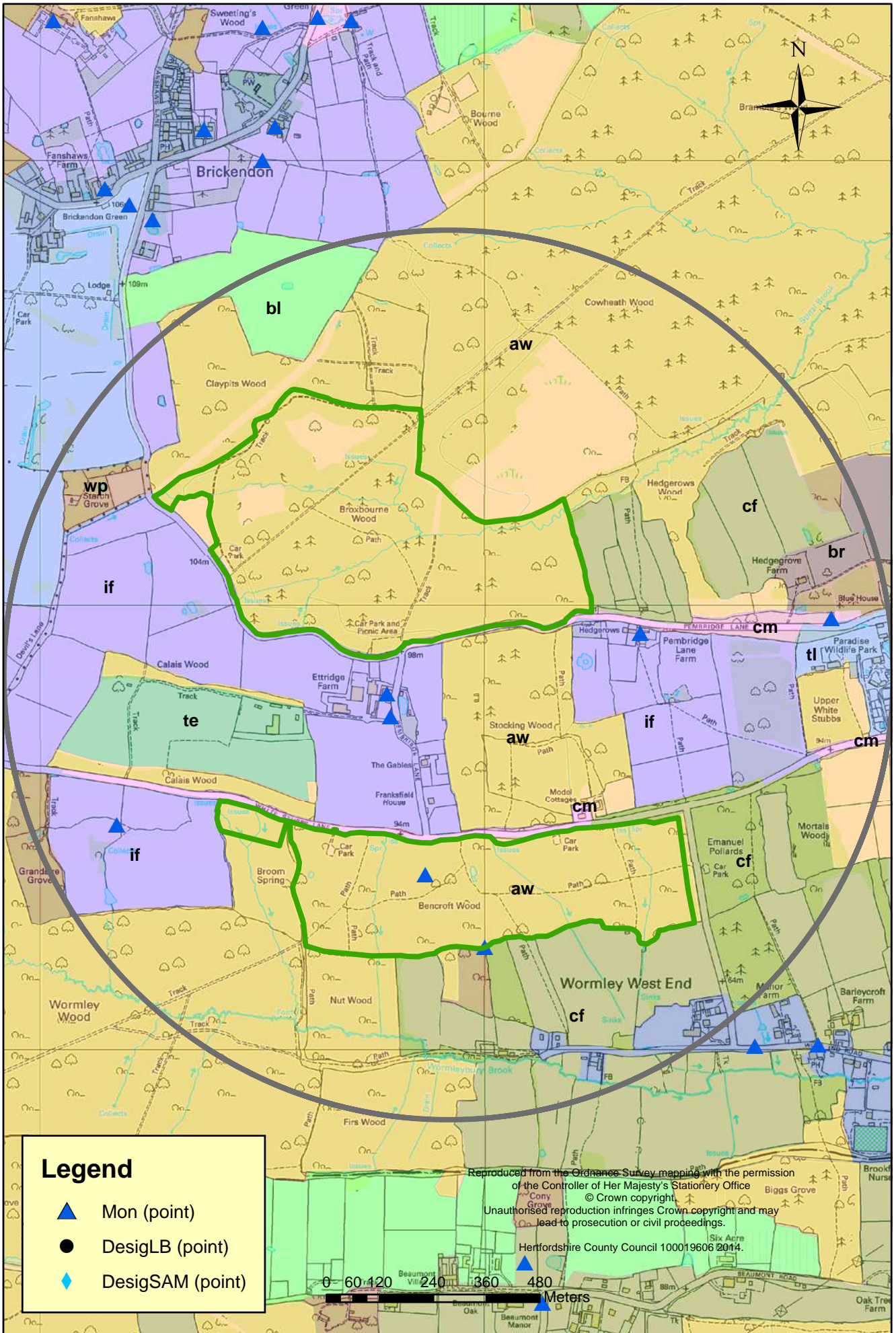
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Date created:	2014-04-16T00:00:00
Spatial coverage	
Admin area:	
Country:	United Kingdom
Min X:	535452
Min Y:	207392
Max X:	535452
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BROXBOURNE & BENCROFT WOODS



J Species records

Table 1. Significant species recorded at Broxbourne Wood – data provided by Herts Environmental Records Centre, June 2018. Note that only records which can be confidently attributed to Broxbourne Wood itself have been included; there are many further records from the TL30I tetrad which includes Broxbourne & Bencroft Wood.

Common Name	Scientific Name	Taxon Group	Status designations
Great Crested Newt	<i>Triturus cristatus</i>	amphibian	HSD2p;HSD4; WCA59.4b; Sect.41; LBAP;UKBAP; Bern2
Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	HSD4; WCA59.4b; Bern2;CMS_A2
Hobby	<i>Falco subbuteo</i>	bird	WCA1i; Bern2;CMS_A2
Brambling	<i>Fringilla montifringilla</i>	bird	WCA1i
Common Crossbill	<i>Loxia curvirostra</i>	bird	WCA1i; Bern2
Red Kite	<i>Milvus milvus</i>	bird	WCA1i; BD1;CMS_A2
Redwing	<i>Turdus iliacus</i>	bird	WCA1i; BRed
Fieldfare	<i>Turdus pilaris</i>	bird	WCA1i; BRed
Slow-worm	<i>Anguis fragilis</i>	reptile	WCA59.1ki; Sect.41; UKBAP
Grass Snake	<i>Natrix helvetica</i>	reptile	WCA59.1ki; Sect.41; UKBAP
Common Lizard	<i>Zootoca vivipara</i>	reptile	WCA59.1ki; Sect.41; UKBAP
Hawfinch	<i>Coccothraustes coccothraustes</i>	bird	Sect.41; UKBAP; BRed; Bern2; Herts LD3
Small Heath	<i>Coenonympha pamphilus pamphilus</i>	insect - butterfly	Sect.41; UKBAP; RLGB.Lr(NT)
White Admiral	<i>Limenitis camilla</i>	insect - butterfly	Sect.41; UKBAP; RLGB.VU; Herts Rare (B)
Grizzled Skipper	<i>Pyrgus malvae</i>	insect - butterfly	Sect.41; LBAP;UKBAP; RLGB.VU; Herts Rare (B)
White-letter Hairstreak	<i>Satyrrium w-album</i>	insect - butterfly	Sect.41; UKBAP; RLGB.EN; Herts Rare (B)
Grey Dagger	<i>Acronicta psi</i>	insect - moth	Sect.41; UKBAP
Knot Grass	<i>Acronicta rumicis</i>	insect - moth	Sect.41; UKBAP
Flounced Chestnut	<i>Agrochola helvola</i>	insect - moth	Sect.41; UKBAP; Herts End 3 (M)
Brown-spot Pinion	<i>Agrochola litura</i>	insect - moth	Sect.41; UKBAP; Herts Threat 3 (M)
Beaded Chestnut	<i>Agrochola lychnidis</i>	insect - moth	Sect.41; UKBAP
Green-brindled Crescent	<i>Allophyes oxyacanthae</i>	insect - moth	Sect.41; UKBAP
Mouse Moth	<i>Amphipyra tragopoginis</i>	insect - moth	Sect.41; UKBAP
Large Nutmeg	<i>Apamea anceps</i>	insect - moth	Sect.41; UKBAP
Dusky Brocade	<i>Apamea remissa</i>	insect - moth	Sect.41; UKBAP
Garden Tiger	<i>Arctia caja</i>	insect - moth	Sect.41; UKBAP; Herts End 2 (M)
Sprawler	<i>Asteroscopus sphinx</i>	insect - moth	Sect.41; UKBAP
Centre-barred Sallow	<i>Aethmia centrargo</i>	insect - moth	Sect.41; UKBAP
Minor Shoulder-knot	<i>Brachylochia viminalis</i>	insect - moth	Sect.41; UKBAP
Mottled Rustic	<i>Caradrina morpheus</i>	insect - moth	Sect.41; UKBAP
Broom Moth	<i>Ceramica pisi</i>	insect - moth	Sect.41; UKBAP; Herts Threat 3 (M)
Streak	<i>Chesias legatella</i>	insect - moth	Sect.41; UKBAP; Herts Vul 2 (M)
Latticed Heath	<i>Chiasmia clathrata</i>	insect - moth	Sect.41; UKBAP; Herts Threat 3 (M)
Dusky-lemon Sallow	<i>Cirrhia gilvago</i>	insect - moth	Sect.41; UKBAP; Herts End 3 (M)
Sallow	<i>Cirrhia icteritia</i>	insect - moth	Sect.41; UKBAP
White-spotted Pinion	<i>Cosmia diffinis</i>	insect - moth	Sect.41; UKBAP; Herts Extinct (M)
Oak Lutestring	<i>Cymatophorina diluta</i>	insect - moth	Sect.41; UKBAP
Heart Moth	<i>Dicycla oo</i>	insect - moth	Sect.41; UKBAP; Herts Extinct (M)
Figure of Eight	<i>Diloba caeruleocephala</i>	insect - moth	Sect.41; UKBAP; Herts Vul 2 (M)
Small Phoenix	<i>Ecliptopera silaceata</i>	insect - moth	Sect.41; UKBAP
September Thorn	<i>Ennomos erosaria</i>	insect - moth	Sect.41; UKBAP; Herts Threat 1 (M)
Dusky Thorn	<i>Ennomos fuscantaria</i>	insect - moth	Sect.41; UKBAP
Garden Dart	<i>Euxoa nigricans</i>	insect - moth	Sect.41; UKBAP; Herts End 2 (M)
Dusky Dart	<i>Euxoa tritici</i>	insect - moth	Sect.41; UKBAP; Herts End 1 (M)
Double Dart	<i>Graphiphora augur</i>	insect - moth	Sect.41; UKBAP; Herts End 3 (M)
Ghost Moth	<i>Hepialus humuli</i>	insect - moth	Sect.41; UKBAP
Shoulder-striped Wainscot	<i>Leucania comma</i>	insect - moth	Sect.41; UKBAP
Brindled Beauty	<i>Lycia hirtaria</i>	insect - moth	Sect.41; UKBAP; Herts Threat 3 (M)
V-Moth	<i>Macaria wauaria</i>	insect - moth	Sect.41; UKBAP; Herts End 2 (M)
Lackey	<i>Malacosoma neustria</i>	insect - moth	Sect.41; UKBAP; Herts Threat 3 (M)

Dot Moth	<i>Melanchra persicariae</i>	insect - moth	Sect.41; UKBAP
Oblique Carpet	<i>Orthonama vittata</i>	insect - moth	Sect.41; UKBAP; Herts Extinct (M)
Powdered Quaker	<i>Orthosia gracilis</i>	insect - moth	Sect.41; UKBAP
Argent & Sable	<i>Rheumaptera hastata</i>	insect - moth	Sect.41; UKBAP; Herts Extinct (M)
Shaded Broad-bar	<i>Scotopteryx chenopodiata</i>	insect - moth	Sect.41; UKBAP; Herts Threat 3 (M)
White Ermine	<i>Spilosoma lubricipeda</i>	insect - moth	Sect.41; UKBAP
Buff Ermine	<i>Spilosoma lutea</i>	insect - moth	Sect.41; UKBAP
Feathered Gothic	<i>Tholera decimalis</i>	insect - moth	Sect.41; UKBAP
Blood-vein	<i>Timandra comae</i>	insect - moth	Sect.41; UKBAP
Pale Eggar	<i>Trichiura crataegi</i>	insect - moth	Sect.41; UKBAP; Herts End 2 (M)
Cinnabar	<i>Tyria jacobaeae</i>	insect - moth	Sect.41; UKBAP
Oak Hook-tip	<i>Watsonalla binaria</i>	insect - moth	Sect.41; UKBAP
Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>	insect - moth	Sect.41; UKBAP; Herts Threat 3 (M)
Chalk Hill Blue	<i>Polyommatus coridon</i>	insect - butterfly	LBAP; RLGB.Lr(NT); Herts Rare (B)
Kestrel	<i>Falco tinnunculus</i>	bird	BAmb; Bern2; CMS_A2
Grey Wagtail	<i>Motacilla cinerea</i>	bird	BRed; Bern2
Marsh Tit	<i>Poecile palustris</i>	bird	BRed; Bern2
Dunnock	<i>Prunella modularis</i>	bird	BAmb; Bern2
Woodcock	<i>Scolopax rusticola</i>	bird	BRed; CMS_A2; Herts LD3
Heather	<i>Calluna vulgaris</i>	flowering plant	RLENG.Lr(NT)
Wild Strawberry	<i>Fragaria vesca</i>	flowering plant	RLENG.Lr(NT)
Common Cow-wheat	<i>Melampyrum pratense</i>	flowering plant	RLENG.Lr(NT)
Corn Mint	<i>Mentha arvensis</i>	flowering plant	RLENG.Lr(NT)
Lousewort	<i>Pedicularis sylvatica</i>	flowering plant	RLENG.VU; Herts Rare
Tormentil	<i>Potentilla erecta</i>	flowering plant	RLENG.Lr(NT)
Lesser Spearwort	<i>Ranunculus flammula</i>	flowering plant	RLENG.VU
Bramble	<i>Rubus britannicus</i>	flowering plant	NR-excludes
Ragged-Robin	<i>Silene flos-cuculi</i>	flowering plant	RLENG.Lr(NT)
Goldenrod	<i>Solidago virgaurea</i>	flowering plant	RLENG.Lr(NT); Herts Rare
Devil's-bit Scabious	<i>Succisa pratensis</i>	flowering plant	RLENG.Lr(NT)
Heath Speedwell	<i>Veronica officinalis</i>	flowering plant	RLENG.Lr(NT)
Heath Dog-violet	<i>Viola canina</i>	flowering plant	RLENG.VU; RLGB.Lr(NT)
Purple Emperor	<i>Apatura iris</i>	insect - butterfly	RLGB.Lr(NT); Herts Rare (B)
Tomoxia bucephala	<i>Tomoxia bucephala</i>	insect - beetle (Coleoptera)	Na
White-barred Knot-horn	<i>Elegia similella</i>	insect - moth	Nb
Sparrowhawk	<i>Accipiter nisus</i>	bird	CMS_A2
Little Owl	<i>Athene noctua</i>	bird	Bern2
Buzzard	<i>Buteo buteo</i>	bird	CMS_A2
Blue Tit	<i>Cyanistes caeruleus</i>	bird	Bern2
Great Spotted Woodpecker	<i>Dendrocopos major</i>	bird	Bern2
Robin	<i>Erithacus rubecula</i>	bird	Bern2
Great Tit	<i>Parus major</i>	bird	Bern2
Green Woodpecker	<i>Picus viridis</i>	bird	Bern2
Goldcrest	<i>Regulus regulus</i>	bird	Bern2
Nuthatch	<i>Sitta europaea</i>	bird	Bern2
Rhagium (Megarhagium) mordax	<i>Rhagium (Megarhagium) mordax</i>	insect - beetle (Coleoptera)	HertsLocal
Dark Green Fritillary	<i>Argynnis aglaja</i>	insect - butterfly	Herts Rare (B)
Essex Skipper	<i>Thymelicus lineola</i>	insect - butterfly	Herts Wide Decl (B)
Small Skipper	<i>Thymelicus sylvestris</i>	insect - butterfly	Herts Wide Decl (B)
Yellow-headed Tubic	<i>Agnoea flavifrontella</i>	insect - moth	Herts Rare (M)
Common Tubic	<i>Alabonia geoffrella</i>	insect - moth	Herts Vul 1 (M)
Ochreous Pearl	<i>Anania crocealis</i>	insect - moth	Herts End 4 (M)
Sallow Marble	<i>Apotomis capreana</i>	insect - moth	Herts Rare (M)
Sallow Argent	<i>Argyresthia pygmaeella</i>	insect - moth	Herts Rare (M)
Plain Golden Y	<i>Autographa jota</i>	insect - moth	Herts Threat 3 (M)
Wood Sage Plume	<i>Capperia britanniodactylus</i>	insect - moth	Herts Rare (M)
Brown Pine Ermel	<i>Cedestis subfasciella</i>	insect - moth	Herts Rare (M)
Puss Moth	<i>Cerura vinula</i>	insect - moth	Herts Vul 3 (M)
Autumn Green Carpet	<i>Chloroclysta miata</i>	insect - moth	Herts Extinct (M)
Brussels Lace	<i>Cleorodes lichenaria</i>	insect - moth	Herts Extinct (M)
Rose Plume	<i>Cnaemidophorus rhododactyla</i>	insect - moth	Herts End 4 (M)

Lotus Case-bearer	<i>Coleophora discordella</i>	insect - moth	Herts Rare (M)
Mottled Grey	<i>Colostygia multistrigaria</i>	insect - moth	Herts End 3 (M)
Rose Carl	<i>Coptotriche angusticollella</i>	insect - moth	Herts Rare (M)
Pale Water-veneer	<i>Donacula forficella</i>	insect - moth	Herts Threat 1 (M)
Common Heath	<i>Ematurga atomaria</i>	insect - moth	Herts Extinct (M)
Bordered Beauty	<i>Epione repandaria</i>	insect - moth	Herts Vul 2 (M)
Wood Carpet	<i>Epirrhoe rivata</i>	insect - moth	Herts Rare (M)
Dingy Shell	<i>Euchoeca nebulata</i>	insect - moth	Herts Threat 1 (M)
Triple-spotted Pug	<i>Eupithecia trisignaria</i>	insect - moth	Herts Extinct (M)
Speckled Fanner	<i>Glyphipterix thrasonella</i>	insect - moth	Herts Rare (M)
Birch Lift	<i>Heliozela hammoniella</i>	insect - moth	Herts Rare (M)
Oak Satin Lift	<i>Heliozela sericiella</i>	insect - moth	Herts Rare (M)
Broad-bordered Bee Hawk-moth	<i>Hemaris fuciformis</i>	insect - moth	Herts Extinct (M)
Scarce Tissue	<i>Hydria cervicalis</i>	insect - moth	Herts Threat 1 (M)
Little Emerald	<i>Jodis lactearia</i>	insect - moth	Herts Threat 3 (M)
Red-barred Gold	<i>Micropterix tunbergella</i>	insect - moth	Herts Rare (M)
Gorse Groundling	<i>Mirificarma mulinella</i>	insect - moth	Herts End 4 (M)
Striped Wainscot	<i>Mythimna pudorina</i>	insect - moth	Herts End 3 (M)
Double Line	<i>Mythimna turca</i>	insect - moth	Herts Extinct (M)
Gothic	<i>Naenia typica</i>	insect - moth	Herts Vul 2 (M)
Heather Groundling	<i>Neofaculta ericetella</i>	insect - moth	Herts Vul 3 (M)
Northern Drab	<i>Orthosia opima</i>	insect - moth	Herts Extinct (M)
Pigmy Y Piercer	<i>Pammene populana</i>	insect - moth	Herts Extinct (M)
Striped Bright	<i>Phylloporia bistrigella</i>	insect - moth	Herts Rare (M)
Barred Umber	<i>Plagodis pulveraria</i>	insect - moth	Herts Rare (M)
Birch Sweep	<i>Proutia betulina</i>	insect - moth	Herts Rare (M)
Black-spotted Groundling	<i>Pseudotelphusa scalella</i>	insect - moth	Herts End 4 (M)
Lunar Thorn	<i>Selenia lunularia</i>	insect - moth	Herts Threat 1 (M)
Small Purple Button	<i>Spatalistis bifasciana</i>	insect - moth	Herts Rare (M)
Purple-shot Pigmy	<i>Stigmella regiella</i>	insect - moth	Herts Rare (M)
Large Red-belted Clearwing	<i>Synanthedon culiciformis</i>	insect - moth	Herts End 2 (M)
Yellow-legged Clearwing	<i>Synanthedon vespiformis</i>	insect - moth	Herts Vul 2 (M)
Dotted Clay	<i>Xestia baja</i>	insect - moth	Herts End 4 (M)
Ring-necked Parakeet	<i>Psittacula krameri</i>	bird	WCA9i
Chinese Muntjac	<i>Muntiacus reevesi</i>	terrestrial mammal	WCA9i

Table 2. Significant species recorded at Bencroft Wood – data provided by Herts Environmental Records Centre, June 2018. Note that only records which can be confidently attributed to Bencroft Wood itself have been included; there are many further records from the TL30I tetrad which includes Broxbourne & Bencroft Wood.

Common Name	Scientific Name	Taxon Group	Status designations
Great Crested Newt	<i>Triturus cristatus</i>	amphibian	HSD2p;HSD4; WCA59.4b; Sect.41; LBAP;UKBAP; Bern2
Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	HSD4; WCA59.4b; Bern2;CMS_A2
Brown Long-eared Bat	<i>Plecotus auritus</i>	terrestrial mammal	HSD4; WCA59.4b; Sect.41; UKBAP; Bern2;CMS_A2
Common Crossbill	<i>Loxia curvirostra</i>	bird	WCA1i; Bern2
Red Kite	<i>Milvus milvus</i>	bird	WCA1i; BD1;CMS_A2
Firecrest	<i>Regulus ignicapilla</i>	bird	WCA1i; Bern2
Redwing	<i>Turdus iliacus</i>	bird	WCA1i; BRed
Grass Snake	<i>Natrix helvetica</i>	reptile	WCA59.1kl; Sect.41; UKBAP
Eurasian Badger	<i>Meles meles</i>	terrestrial mammal	PBA
Common Toad	<i>Bufo bufo</i>	amphibian	Sect.41; UKBAP
Hawfinch	<i>Coccothraustes coccothraustes</i>	bird	Sect.41; UKBAP; BRed; Bern2; Herts LD3
Small Heath	<i>Coenonympha pamphilus</i>	insect - butterfly	Sect.41; UKBAP; RLGB.Lr(NT)
White Admiral	<i>Limenitis camilla</i>	insect - butterfly	Sect.41; UKBAP; RLGB.VU; Herts Rare (B)
Large Nutmeg	<i>Apamea anceps</i>	insect - moth	Sect.41; UKBAP

Broom Moth	<i>Ceramica pisi</i>	insect - moth	Sect.41; UKBAP
Galium Carpet	<i>Epirrhoe galiata</i>	insect - moth	Sect.41; UKBAP
Shoulder-striped Wainscot	<i>Leucania comma</i>	insect - moth	Sect.41; UKBAP
Powdered Quaker	<i>Orthosia gracilis</i>	insect - moth	Sect.41; UKBAP
Dark Spinach	<i>Pelurga comitata</i>	insect - moth	Sect.41; UKBAP
Lesser Spotted Woodpecker	<i>Dendrocopos minor</i>	bird	BRed; Bern2; Herts LD3
Grey Plover	<i>Pluvialis squatarola</i>	bird	BAmb; CMS_A2
Marsh Tit	<i>Poecile palustris</i>	bird	BRed; Bern2
Bullfinch	<i>Pyrrhula pyrrhula</i>	bird	BAmb
Woodcock	<i>Scolopax rusticola</i>	bird	BRed; CMS_A2; Herts LD3
Cornish Heath	<i>Erica vagans</i>	flowering plant	NR-excludes;RLENG.Lr(NT)
Tormentil	<i>Potentilla erecta</i>	flowering plant	RLENG.Lr(NT)
Heath Speedwell	<i>Veronica officinalis</i>	flowering plant	RLENG.Lr(NT)
Purple Emperor	<i>Apatura iris</i>	insect - butterfly	RLGB.Lr(NT); Herts Rare (B)
Great Spotted Woodpecker	<i>Dendrocopos major</i>	bird	Bern2
Robin	<i>Erithacus rubecula</i>	bird	Bern2
Great Tit	<i>Parus major</i>	bird	Bern2
Green Woodpecker	<i>Picus viridis</i>	bird	Bern2
Nuthatch	<i>Sitta europaea</i>	bird	Bern2
Essex Skipper	<i>Thymelicus lineola</i>	insect - butterfly	Herts Wide Decl (B)
Small Skipper	<i>Thymelicus sylvestris</i>	insect - butterfly	Herts Wide Decl (B)
Fragile Fork-moss	<i>Dicranum tauricum</i>	moss	HertsUncommon
Many-fruited Thyme-moss	<i>Plagiomnium affine</i>	moss	HertsRare
Red-stemmed Feather-moss	<i>Pleurozium schreberi</i>	moss	HertsLocal
Budgerigar	<i>Melopsittacus undulatus</i>	bird	WCA9i
Ring-necked Parakeet	<i>Psittacula krameri</i>	bird	WCA9i

Table 3. Status descriptions – provided by Herts Environmental Records Centre, June 2018.

European	
HSD2p	Habitats and species directive Annex 2 - priority species Species which are endangered, the conservation of which the Community has a particular responsibility in view of the proportion of their natural range which falls within the territory of the Community. They require the designation of special areas of conservation.
HSD4	Habitats and species directive Annex 4 Animal and plant species of Community interest (i.e. endangered, vulnerable, rare or endemic in the European Community) in need of strict protection. They are protected from killing, disturbance or the destruction of them or their habitat. Note that the contents of this annex have been updated in April 2003 following the Treaty of Accession.
HSD5	Habitats and species directive Annex 5 Animal and plant species of Community interest whose taking in the wild and exploitation may be subject to management measures
Berne/Bonn	
BD1	Bird Directive Annex I lists species that shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.
Bern2	The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) was adopted in Bern, Switzerland in 1979, and came into force in 1982. The principal aims of the Convention are to ensure conservation and protection of all wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to regulate the exploitation of those species (including migratory species) listed in Appendix III. To this end the Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1000 wild animal species. Appendix 2 Special protection ('appropriate and necessary legislative and administrative measures') for the animal taxa listed, including: - all forms of deliberate capture and keeping and deliberate killing;

	<ul style="list-style-type: none"> - the deliberate damage to or destruction of breeding or resting sites; - the deliberate disturbance of wild fauna, particularly during the period of breeding, - - rearing and hibernation, insofar as disturbance would be significant in relation to the objectives of this Convention; - the deliberate destruction or taking of eggs from the wild or keeping these eggs even if empty; - the possession of and internal trade in these animals, alive or dead, including stuffed animals and any readily recognisable part or derivative thereof, where this would contribute to the effectiveness of the provisions of this article.
CMS_A1	<p>The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention or CMS) was adopted in Bonn, Germany in 1979 and came into force in 1985. Contracting Parties work together to conserve migratory species and their habitats by providing strict protection for endangered migratory species (listed in Appendix 1 of the Convention), concluding multilateral Agreements for the conservation and management of migratory species which require or would benefit from international cooperation (listed in Appendix 2), and by undertaking co-operative research activities.</p> <p>Appendix 1 Endangered migratory species in danger of extinction throughout all or a significant portion of their range, and for which Range States are obliged to prohibit taking and to take protective measures to conserve. (Note that taking may be permitted in some circumstances as outlined in Article III.5.)</p>
CMS_A2	<p>Appendix 2 Migratory species having an unfavourable conservation status for which Range States are encouraged to conclude international agreements for their benefit.</p>
UK Legal	
PBA	<p>Badgers and their setts are protected under the Protection of Badgers Act 1992 which makes it illegal to kill, injure or take badgers or to interfere with a badger sett. Interference with a sett includes blocking tunnels or damaging the sett in any way. Activities affecting badgers or their setts which would otherwise be illegal can be carried out under licence where there is suitable justification and the problem cannot be resolved by alternative means.</p>
WCA1i	<p>Protected Birds, Animals and Plants are listed in Schedules 1, 5 and 8 respectively of the Wildlife and Countryside Act.</p> <p>Schedule1: The Act makes it an offence (with exception to species listed in Schedule 2) to intentionally kill, injure, or take any wild bird or their eggs or nests. Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young. The Secretary of State may also designate Areas of Special Protection (subject to exceptions) to provide further protection to birds. The Act also prohibits certain methods of killing, injuring, or taking birds, restricts the sale and possession of captive bred birds, and sets standards for keeping birds in captivity.</p>
WCA1ii	<p>Schedule 1 Part II Applies during the close season</p>
WCA5/9.1k/l	<p>Schedule 5: The Act makes it an offence (subject to exceptions) to intentionally kill, injure, or take, possess, or trade in any wild animal listed in Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. The Act also prohibits certain methods of killing, injuring, or taking wild animals. Section 9.1. Animals which are protected from intentional killing or injuring.</p>
WCA5/9.4a	<p>Section 9.4a Animals which are protected from intentional disturbance while occupying a structure or place used for shelter or protection.</p>
WCA5/9.4b	<p>Section 9.4b Animals which are protected from intentional disturbance while occupying a structure or place used for shelter or protection. Section 9.4c Animals which are protected from their access to any structure or place which they use for shelter or protection being obstructed.</p>
WCA8	<p>Schedule 8: The Act makes it an offence (subject to exceptions) to pick, uproot, trade in, or possess (for the purposes of trade) any wild plant listed in Schedule 8, and prohibits the unauthorised intentional uprooting of such plants.</p>
WCA9	
WCA9	<p>Wildlife and Countryside Act Schedule 9 Animals which are not ordinarily resident in and are not a regular visitor to Great Britain in a wild state may not be released or allowed to escape into the wild. Plants included in Schedule 9, or hybrids thereof, may not be planted or otherwise grown in the wild.</p>
NERC	
Sect.41	<p>Section 40 of the NERC Act states that: 'Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'. Section 40(3) also states that 'conserving biodiversity</p>

	includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat'. Section 41 of the NERC Act states that the Secretary of State will produce a list of living organisms and types of habitat which are of principal importance for the purpose of conserving biodiversity.
BAP2007	
BAP-2007	The UK Biodiversity Action Plan (UK BAP), published in 1994 sets out a programme for conserving biodiversity in the UK. The UK BAP has published lists of species and habitats that are conservation priorities which are under threat because of their rarity and rate of decline.
LBAP	Local BAP species
IUCN	
BAmb	Bird Population Status – amber Amber list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.
BRed	Bird Population Status - red Red list species are those that are Globally Threatened according to IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and not shown a substantial recent recovery.
NR(vp)	Occurring in 15 or fewer hectads in Great Britain. Includes rare species qualifying under the main IUCN criteria.
RLGB.CR	IUCN - Critically endangered A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as defined by any of the criteria A to E.
RLGB.DD	IUCN - Data Deficient A taxon is Data Deficient when there is inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat or Lower Risk. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that a threatened category is appropriate.
RLGB.EN	IUCN - Endangered A taxon is Endangered when it is not Critically endangered but is facing a very high risk of extinction in the wild in the near future.
RLGB.Lr(NT)	IUCN - Lower risk - near threatened Taxa which do not qualify for Lower Risk (conservation dependent), but which are close to qualifying for Vulnerable. In Britain, this category includes species which occur in 15 or fewer hectads but do not qualify as Critically Endangered, Endangered or Vulnerable.
RLGB.VU	IUCN - Vulnerable A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium term future.
RLGLB.CR	IUCN - Critically endangered A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered (see Section V), and it is therefore considered to be facing an extremely high risk of extinction in the wild.
RLGLB.EN	IUCN - Endangered A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered (see Section V), and it is therefore considered to be facing a very high risk of extinction in the wild.
RDBEN.EX	Status from A Vascular Plant Red List for England BSBI 2014 (update). Believed Extinct in England
RDBEN.EN	Status from A Vascular Plant Red List for England BSBI 2014 (update). A taxon is Endangered when the best available evidence indicates that it meets any of the criteria A to E for Endangered (see Section V), and it is therefore considered to be facing a very high risk of extinction in the wild.
RDBEN.CR	Status from A Vascular Plant Red List for England BSBI 2014 (update). A taxon is Critically Endangered when the best available evidence indicates that it meets any of the criteria A to E for Critically Endangered (see Section V), and it is therefore considered to be facing an extremely high risk of extinction in the wild.
RDBEN.VU	Status from A Vascular Plant Red List for England BSBI 2014 (update). A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium term future.
RDBEN.NT	Status from A Vascular Plant Red List for England BSBI 2014 (update). Taxa which do not qualify for Lower Risk (conservation dependent), but which are close to qualifying for Vulnerable. In Britain, this category includes species which occur in 15 or fewer hectads but do not qualify as Critically Endangered, Endangered or Vulnerable.
RDBEN.EW	Status from A Vascular Plant Red List for England BSBI 2014 (update). Believed Extinct in the wild England

RDBEN.RE	Status from A Vascular Plant Red List for England BSBI 2014 (update). Believed Regionally Extinct
Scarce Rare	
N	Species which are estimated to occur within the range of 16 to 100 10km squares. (subdivision into Notable A and Notable B is not always possible because there may be insufficient information available). Superseded by Nationally Scarce, and therefore no longer in use.
Na	Taxa which do not fall within RDB categories but which are none-the-less uncommon in Great Britain and thought to occur in 30 or fewer 10km squares of the National Grid or, for less well-recorded groups, within seven or fewer vice-counties. Superseded by Nationally Scarce, and therefore no longer in use.
Nb	Taxa which do not fall within RDB categories but which are none-the-less uncommon in Great Britain and thought to occur in between 31 and 100 10km squares of the National Grid or, for less-well recorded groups between eight and twenty vice-counties. Superseded by Nationally Scarce, and therefore no longer in use.
NS	Occurring in 16-100 hectads in Great Britain. Excludes rare species qualifying under the main IUCN criteria.
Local	
Herts Extinct (B)	Butterflies: Herts Extinct. Formerly resident species that have not been reliably recorded in the county since at least the mid 1980s. Published in <i>Butterflies of Hertfordshire and Middlesex, 2016</i> .
Herts Absent (B)	Butterflies: Herts potentially extinct. Formerly resident species that have not been reliably recorded in the county in the period 2011-2015. Published in <i>Butterflies of Hertfordshire and Middlesex, 2016</i> .
Herts Rare (B)	Butterflies: Herts Rare. Species with restricted distributions, and in some cases recorded infrequently and/or in low abundances. Published in <i>Butterflies of Hertfordshire and Middlesex, 2016</i> .
Herts Wide Decl (B)	Butterflies: Herts Widespread Declining. Species that have significant coverage of the county by tetrad, but show marked declines in abundance and/or number of occupied tetrads over the recording periods 1980-86 to 1996-2000 to 2011-2015. Published in <i>Butterflies of Hertfordshire and Middlesex, 2016</i> .
Herts Extinct (M)	Moths: Herts Extinct. Moths considered to be extinct as breeding species in Hertfordshire at 31st December 2006. Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts End 1 (M)	Moths: Herts Endangered (Highest threat category). 1. 'Priority Species' within the UK Biodiversity Action Plan. Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts End 2 (M)	Moths: Herts Endangered (Highest threat category). 2. Species categorised as 'Herts Rare' and believed to be declining in Hertfordshire and where none of these sites has a long term management plan that includes specifically identified proposals for this moth species. Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts End 3 (M)	Moths: Herts Endangered (Highest threat category). 3. Species that would otherwise be categorised as Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts End 4 (M)	Moths: Herts Endangered (Highest threat category). 4. Species that may be extinct in the county, but for which exists the possibility that they are overlooked rather than absent. Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts Vul 1 (M)	Moths: Herts Vulnerable (Middle threat category). 1. Species categorised as 'Herts Rare' and believed to be declining in Hertfordshire but present on sites that either have a long term management plan that includes specifically identified proposals for this moth species or which are not under any specific threat. Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts Vul 2 (M)	Moths: Herts Vulnerable (Middle threat category). 2. Species categorised as 'Herts Scarce' and believed to be declining in Hertfordshire and where none of these sites has a long term management plan that includes specifically identified proposals for this moth species. Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts Vul 3 (M)	Moths: Herts Vulnerable (Middle threat category). 3. 'Herts Rare' species associated with a rare and threatened habitat, microhabitat or foodplant even if the moth itself does not appear to be declining. Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts Vul 4 (M)	Moths: Herts Vulnerable (Middle threat category). 4. Nationally Rare (Red Data Book category 3) and Nationally Scarce (Nationally Notable) species not included elsewhere. Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts Threat 1 (M)	Moths: Herts Threatened (Lower threat category). 1. Species categorised as 'Herts Scarce' and believed to be declining in Hertfordshire but present on at least one site that has a long term management plan that includes specifically identified proposals that will benefit this moth species. Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts Threat 2 (M)	Moths: Herts Threatened (Lower threat category). 2. Species categorised as 'Herts Scarce' for which suitable habitat is in very short supply in the county even if there are no immediate threats to the habitat the balance could easily be tipped. Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts Threat 3 (M)	Moths: Herts Threatened (Lower threat category). 3. Species not yet 'Herts Scarce' where these have undergone a significant decline in Hertfordshire. Published in <i>The Moths of Hertfordshire, 2008</i> .
Herts Rare (M)	Moths: Herts Rare. Published in <i>The Moths of Hertfordshire, 2008</i> .

Herts Extinct	Plants: Herts Extinct. Plants thought to be extinct having not been recorded since at least before 1950, or whose habitat is known to have been degraded. Other probably extinct species are also listed. Published in <i>Flora of Hertfordshire, 2010</i> .
Herts Extinct as Native	Plants: Herts Extinct, as native. Plants thought to be extinct having not been recorded since at least before 1950, or whose habitat is known to have been degraded. Other probably extinct species are also listed. Published in <i>Flora of Hertfordshire, 2010</i> .
Herts ExtinctQ	Plants: Herts Extinct, status queried. Plants thought to be extinct having not been recorded since at least before 1950, or whose habitat is known to have been degraded. Other probably extinct species are also listed. Published in <i>Flora of Hertfordshire, 2010</i> .
Herts Rare	Plants: Herts Rare. Five or fewer current localities. Published in <i>Flora of Hertfordshire, 2010</i> .
Herts Rare as Native	Plants: Herts Rare, as native. Five or fewer current localities. Published in <i>Flora of Hertfordshire, 2010</i> .
Herts RareQ	Plants: Herts Rare, status queried. Five or fewer current localities. Published in <i>Flora of Hertfordshire, 2010</i> .
Herts Vulnerable	Plants: Herts Vulnerable. Species not otherwise Herts Rare or nationally under threat at any level, considered to have declined 50% or more in the County since 1967, from the findings of the most recent Hertfordshire Flora Survey. Plants that may merit the 'Herts Rare' status, but whose current occurrence is uncertain, have also been listed. Published in <i>Flora of Hertfordshire, 2010</i> .
Herts VulnerableQ	Plants: Herts Vulnerable, status queried. Species not otherwise Herts Rare or nationally under threat at any level, considered to have declined 50% or more in the County since 1967, from the findings of the most recent Hertfordshire Flora Survey. Plants that may merit the 'Herts Rare' status, but whose current occurrence is uncertain, have also been listed. Published in <i>Flora of Hertfordshire, 2010</i> .

K UK Butterfly Monitoring Scheme transect results 2014-18

BROXBOURNE WOOD		2014	2015	2016	2017	2018
Small Skipper	<i>Thymelicus sylvestris</i>	18	24	25	49	20
Essex Skipper	<i>Thymelicus lineola</i>	7	12	5	5	2
Small/Essex Skipper	Small/Essex Skipper	6	7	14	23	10
Large Skipper	<i>Ochlodes sylvanus</i>	28	101	26	40	8
Brimstone	<i>Gonepteryx rhamni</i>	2	11	5	5	2
Large White	<i>Pieris brassicae</i>	20	67	7	6	30
Small White	<i>Pieris rapae</i>	16	36	40	17	32
Green-veined White	<i>Pieris napi</i>	14	16	35	34	49
Orange Tip	<i>Anthocharis cardamines</i>	39	22	20	19	12
Purple Hairstreak	<i>Neozephyrus quercus</i>	0	0	0	10	11
Small Copper	<i>Lycaena phlaeas</i>	1	3	9	13	10
Brown Argus	<i>Aricia agestis</i>	0	0	0	0	18
Common Blue	<i>Polyommatus icarus</i>	19	17	7	37	89
Holly Blue	<i>Celastrina argiolus</i>	10	2	1	2	2
White Admiral	<i>Limenitis camilla</i>	5	8	1	2	0
Purple Emperor	<i>Apatura iris</i>	0	0	0	0	1
Red Admiral	<i>Vanessa atalanta</i>	3	2	3	12	1
Painted Lady	<i>Vanessa (Cynthia) cardui</i>	16	2	8	1	0
Small Tortoiseshell	<i>Aglais urticae</i>	3	6	1	2	0
Peacock	<i>Inachis io</i>	82	72	21	17	8
Comma	<i>Polygonia c-album</i>	27	19	16	30	13
Silver-washed Fritillary	<i>Argynnis paphia</i>	48	89	46	86	41
Speckled Wood	<i>Pararge aegeria</i>	114	68	45	28	33
Marbled White	<i>Melanargia galathea</i>	1	3	2	23	15
Gatekeeper / Hedge Brown	<i>Pyronia tithonus</i>	77	111	105	183	78
Meadow Brown	<i>Maniola jurtina</i>	118	202	321	481	221
Small Heath	<i>Coenonympha pamphilus</i>	2	16	2	33	54
Ringlet	<i>Aphantopus hyperantus</i>	213	382	283	324	216
Total		889	1298	1048	1482	976

BENCROFT WOOD		2014	2015	2016	2017	2018
Small Skipper	<i>Thymelicus sylvestris</i>	0	1	1	2	1
Essex Skipper	<i>Thymelicus lineola</i>	0	0	0	2	3
Small/Essex Skipper	Small/Essex Skipper	0	0	0	8	5
Large Skipper	<i>Ochlodes sylvanus</i>	10	9	16	2	7
Brimstone	<i>Gonepteryx rhamni</i>	2	3	1	2	5
Large White	<i>Pieris brassicae</i>	5	12	4	8	26
Small White	<i>Pieris rapae</i>	4	8	16	12	15
Green-veined White	<i>Pieris napi</i>	36	18	23	12	38
Orange Tip	<i>Anthocharis cardamines</i>	14	23	2	8	6
Purple Hairstreak	<i>Neozephyrus quercus</i>	15	28	38	54	57
Common Blue	<i>Polyommatus icarus</i>	0	0	0	1	3
Holly Blue	<i>Celastrina argiolus</i>	0	4	2	0	1
White Admiral	<i>Limenitis camilla</i>	3	1	2	1	0
Red Admiral	<i>Vanessa atalanta</i>	15	6	6	17	0
Small Tortoiseshell	<i>Aglais urticae</i>	1	1	0	0	0
Peacock	<i>Inachis io</i>	100	52	15	21	10
Comma	<i>Polygonia c-album</i>	31	15	21	24	5
Silver-washed Fritillary	<i>Argynnis paphia</i>	4	1	1	9	0
Speckled Wood	<i>Pararge aegeria</i>	33	28	31	37	28
Marbled White	<i>Melanargia galathea</i>	1	0	0	37	5
Gatekeeper / Hedge Brown	<i>Pyronia tithonus</i>	30	35	21	202	15
Meadow Brown	<i>Maniola jurtina</i>	75	86	35	1	43
Ringlet	<i>Aphantopus hyperantus</i>	63	41	25	61	48
Total		442	372	260	509	321

L Fixed Point Photography

Viewpoints	Apr 2019	Jul 2020	Oct 2021	Jan 2023
Brox 1				
Brox 2				
Brox 3				
Brox 4				
Brox 5				
Brox 6				
Brox 7 north				
Brox 7 south				
Brox 8				
Brox 9				
Ben 1				
Ben 2				
Ben 3				
Ben 4				
Ben 5				
Ben 6 east				
Ben 6 west				
Ben 7				

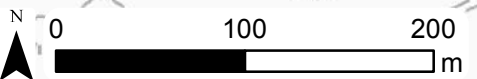
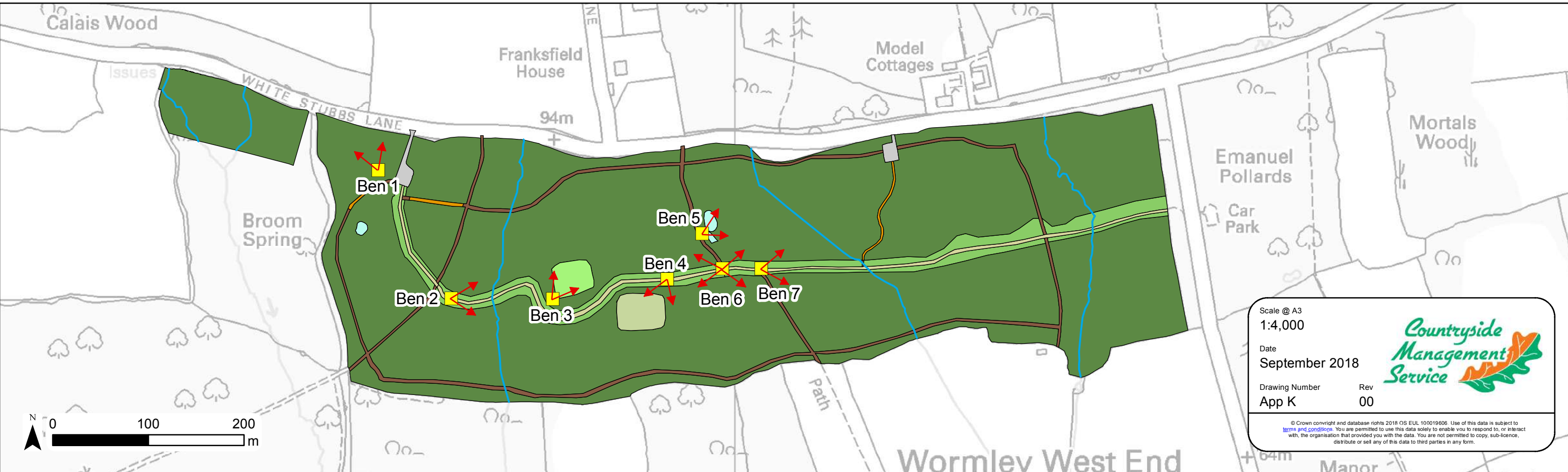
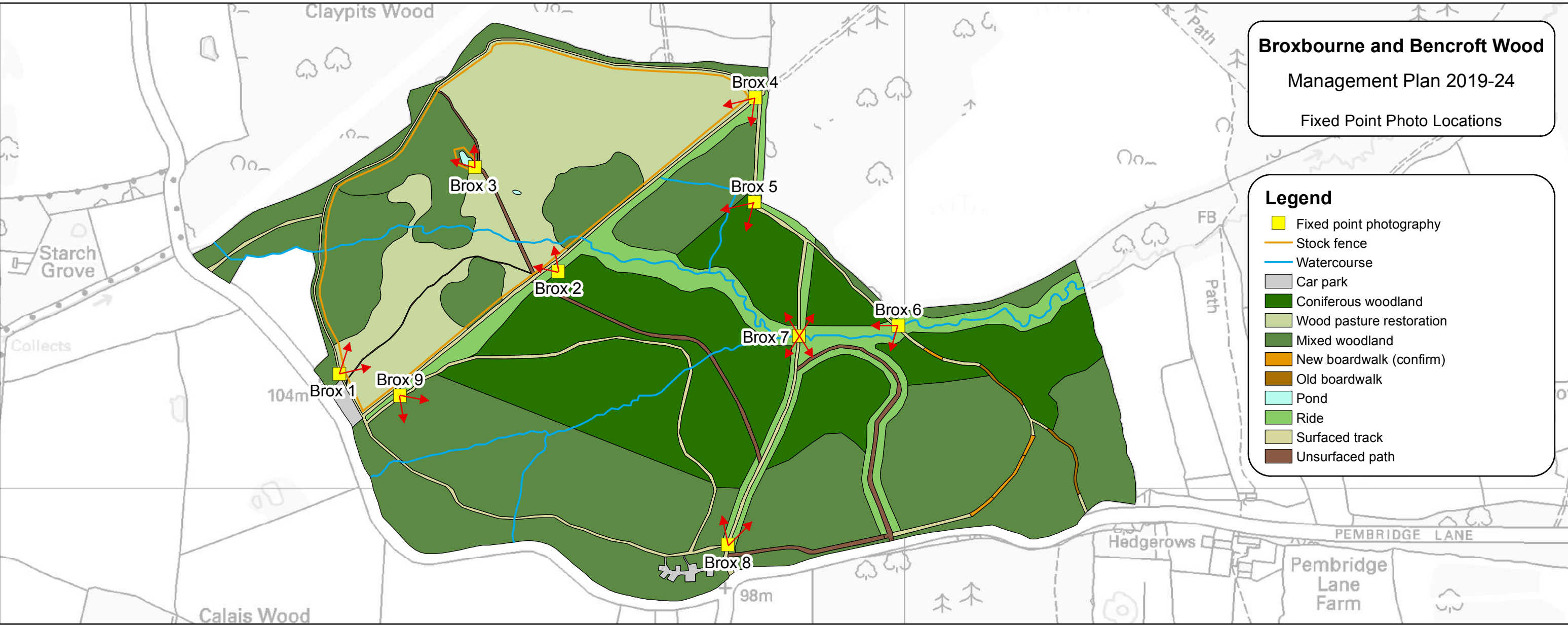
Broxbourne and Bencroft Wood

Management Plan 2019-24

Fixed Point Photo Locations

Legend

- Fixed point photography
- Stock fence
- Watercourse
- Car park
- Coniferous woodland
- Wood pasture restoration
- Mixed woodland
- New boardwalk (confirm)
- Old boardwalk
- Pond
- Ride
- Surfaced track
- Unsurfaced path



Scale @ A3
1:4,000

Date
September 2018

Drawing Number
App K

Rev
00



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