BROXBOURNE & BENCROFT WOOD

GREENSPACE ACTION PLAN

2024 - 2029

Countryside Management Service

Hertfordshire

OVERVIEW

Greenspace Action Plans

Greenspace Actions Plans (GAPs) are map-based management plans which specify activities that should take place on a site over a stated period of time; these activities will help to deliver the agreed aspirations which the site managers and stakeholders have identified for that site.

Public Engagement

Engagement with stakeholders is at the centre of effective management planning on any site. An initial engagement period was held for 4 weeks in August and September 2022, to establish core aims and objectives for the site; these are reflected in Section 3. A second stage of engagement was completed in November/December 2023, to enable stakeholders to comment on the proposed management actions for the site. An associated engagement response document will be published online as an appendix to the plan, to summarise comments received, and any amendments made to the plan as a result.

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1.0 SUMMARY

1.1 Site Summary

Site Name:	Broxbourne and Bencroft Wood
Site Address:	Broxbourne Wood: Pembridge Lane, Broxbourne, EN10 7QR
	Bencroft Wood: White Stubbs Lane, Broxbourne, EN10 7QN
Grid Reference:	TL 328 069 (Broxbourne Wood east car park), TL 331 064 (Bencroft Wood east car park)
Size:	33.47 ha (Broxbourne Wood), 22.48 ha (Bencroft Wood)
Designations:	National Nature Reserve (NNR)
	Special Area of Conservation (SAC)
	Site of Special Scientific Interest (SSSI)
	Ancient Semi-Natural Woodland (ASNW)
	Plantations on Ancient Woodland Sites (PAWS)
	Local Wildlife Site
Owner:	Hertfordshire County Council (HCC)

1.2 Vision Statement

This plan will build on the successes of the of previous management plans, which have made good strides in improving the habitats on site whilst providing good visitor facilities. Our aspiration is to improve the quality of habitats on site and to provide a safe, enjoyable place for people to visit. Alongside this, the site should be promoted as an example of good management.

1.3 Broxbourne and Bencroft Wood Management Plan 2024-2029

The Greenspace Action Plan (GAP) for Broxbourne & Bencroft Wood sets out the management, maintenance and development framework for the site over five years. The GAP is reviewed annually, so that any outstanding tasks can be rescheduled as necessary.

This document is an updated version of the previous plans and will cover the five-year period between 2024 and 2029. It will continue to strive towards the same core aspirations while also considering lessons learned over the last ten years and new challenges faced.

This management plan is a simple, map-based document intended for use by CMS officers, for the reference of stakeholders and members of the public, and to guide the work of volunteers on site. It is designed to be easy to read and understand, with a structure that aims to show the decision-making process behind activities that will be taking place on the ground.

Although Broxbourne Wood and Bencroft Wood are not physically joined, each require a similar management approach which warrants their inclusion in the same management plan document. Site specific information has been included where required, and section 5 sets out separate action plans for each of the woodlands.

The management plan is restricted to the area under the ownership and management of Hertfordshire County Council; however, the wider context has been considered and reference is made to areas beyond the sites' boundaries where relevant. All supporting documents and reference materials in this plan are included as appendices or through links to external resources.

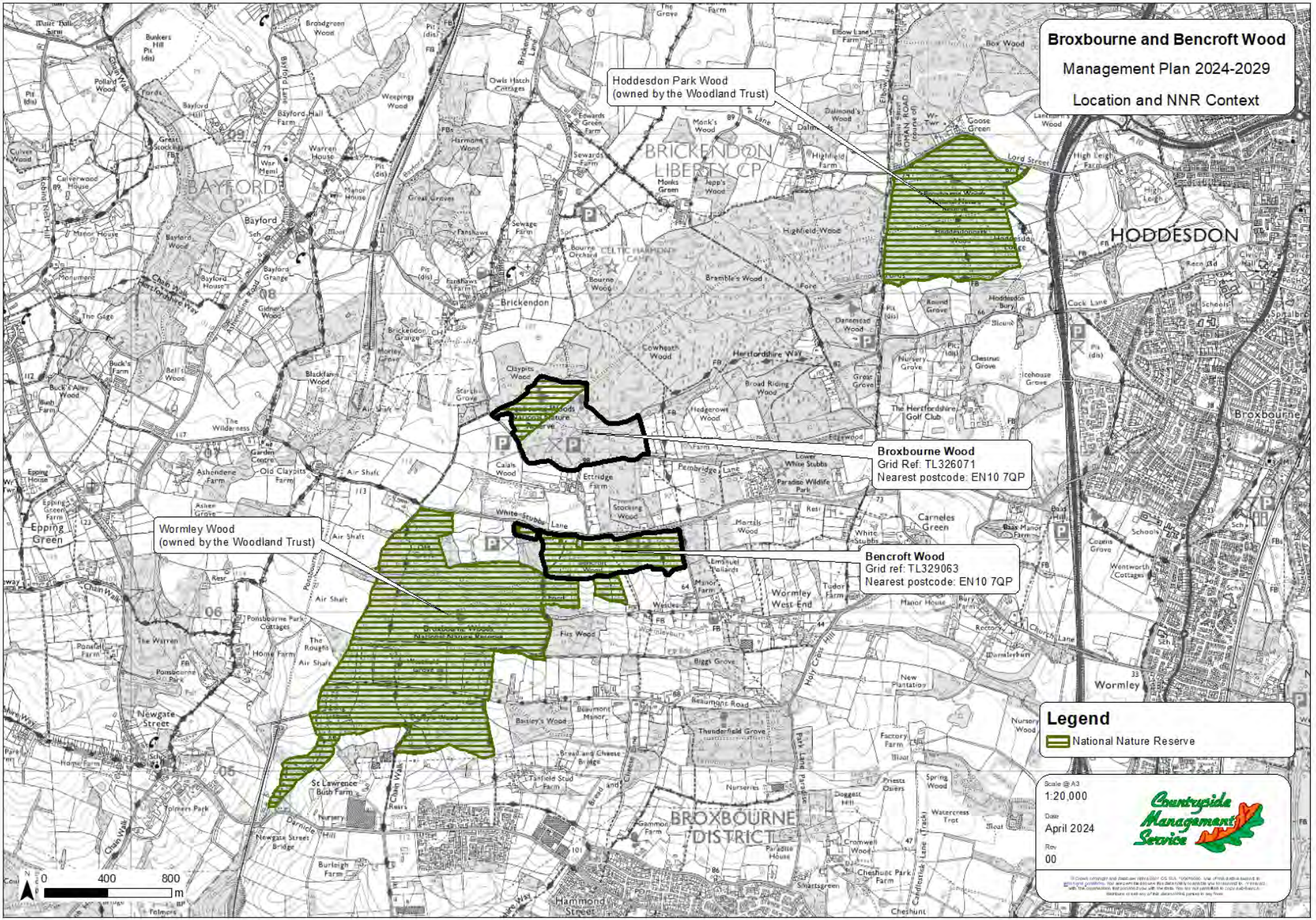
2.0 SITE DESCRIPTION

2.1 Introduction

Broxbourne & Bencroft Wood are part of an extensive complex of publicly and privately owned woodlands in the south of Hertfordshire. Together with Hoddesdon Park and Wormley Woods they form the Broxbourne Woods National Nature Reserve (NNR), Hertfordshire's only NNR. The entire NNR comprises approximately 236 ha of woodland.

In early 2009, the Countryside Management Service (CMS), part of Hertfordshire County Council's Countryside and Rights of Way Service, assumed day to day management responsibility for Broxbourne & Bencroft Wood. At this time, the woodland had been undermanaged for a significant period. CMS were asked to prepare and begin implementing a new management plan for the sites. This document was produced in consultation with key stakeholders, including Natural England and the Forestry Commission, and written in the context of the wider NNR. Subsequent management plans have covered the period until 2024.

The management plans have proved to be vital tools, guiding working practices over the last fifteen years and promoting a structured and closely monitored approach to woodland management. With pressures on the ecological integrity of the NNR ever increasing, and the population of Hertfordshire ever expanding, there continues to be a great need for an effective plan. This plan is underpinned by a standard Forestry Commission Woodland Management Plan.


Broxbourne and Bencroft Wood
Management Plan 2024-2029
Location and NNR Context
Hoddesdon Park Wood
(owned by the Woodland Trust)
Broxbourne Wood
Grid Ref: TL326071
Nearest postcode: EN10 7QP
Bencroft Wood
Grid ref: TL329063
Nearest postcode: EN10 7QP
Wormley Wood
(owned by the Woodland Trust)
BRICKENDON LIBERTY CP
BAYFORD CP
HODDESDON
BROXBOURNE DISTRICT
Broxbourne
Wormley
Epping Green
Newgate Street
Hammond Street
Cheshunt
Legend
National Nature Reserve
Scale @ A3
1:20,000
Date
April 2024
Rev
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Countryside Management Service
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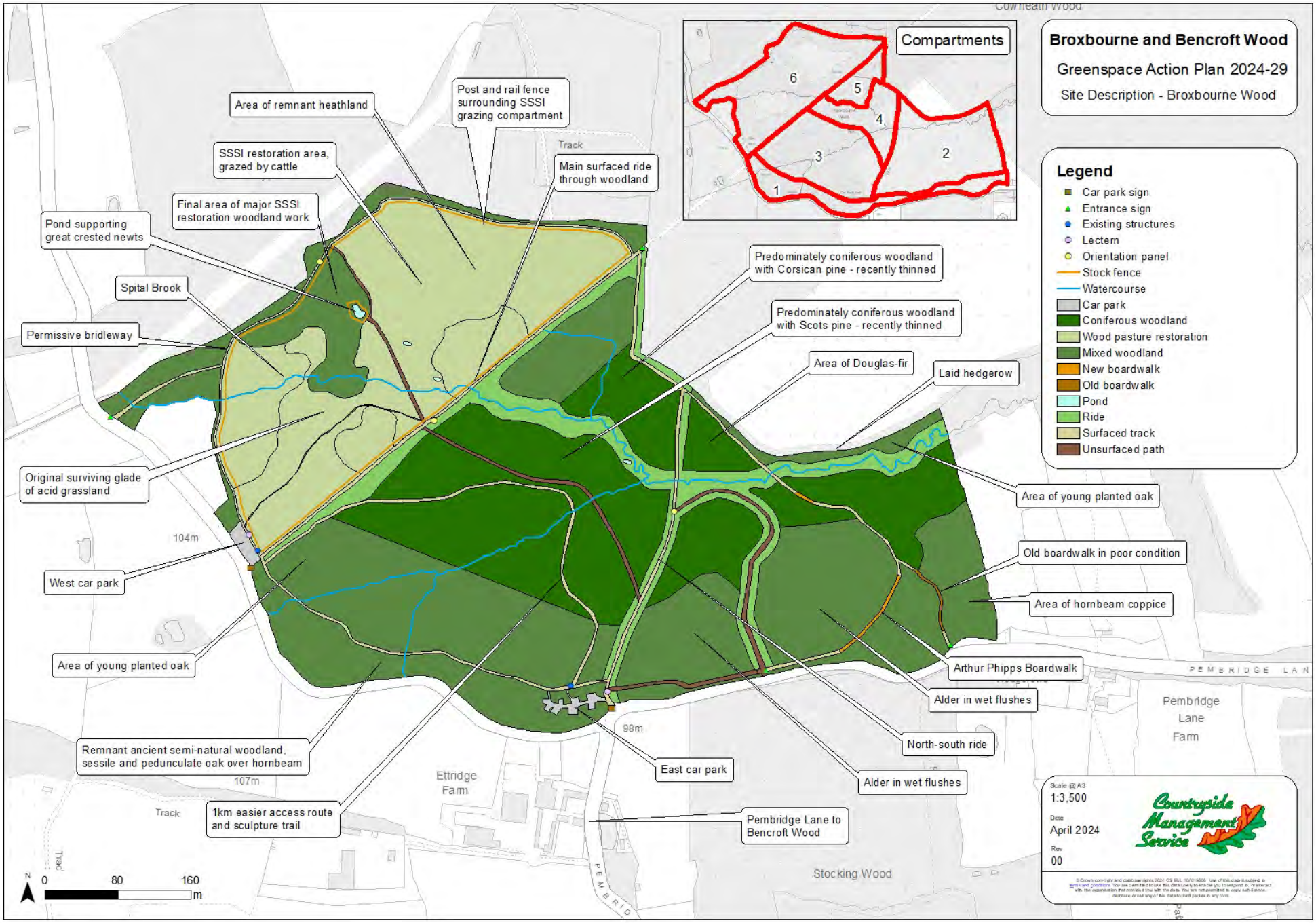
800
m


Broxbourne and Bencroft Wood
Greenspace Action Plan 2024-29
Site Description - Broxbourne Wood
Compartments
6
5
4
3
2
1
Legend
Car park sign
Entrance sign
Existing structures
Lectern
Orientation panel
Stock fence
Watercourse
Car park
Coniferous woodland
Wood pasture restoration
Mixed woodland
New boardwalk
Old boardwalk
Pond
Ride
Surfaced track
Unsurfaced path
Area of remnant heathland
Post and rail fence surrounding SSSI grazing compartment
SSSI restoration area, grazed by cattle
Main surfaced ride through woodland
Final area of major SSSI restoration woodland work
Pond supporting great crested newts
Spital Brook
Permissive bridleway
Predominately coniferous woodland with Corsican pine - recently thinned
Predominately coniferous woodland with Scots pine - recently thinned
Area of Douglas-fir
Laid hedgerow
Original surviving glade of acid grassland
Area of young planted oak
West car park
Old boardwalk in poor condition
Area of hornbeam coppice
Area of young planted oak
Arthur Phipps Boardwalk
Alder in wet flushes
North-south ride
Remnant ancient semi-natural woodland, sessile and pedunculate oak over hornbeam
East car park
Alder in wet flushes
1km easier access route and sculpture trail
Pembridge Lane to Bencroft Wood
Track
104m
98m
107m
Ettridge Farm
Pembridge Lane Farm
Stocking Wood
PEMBRIDGE LANE
0
80
160
m
Scale @ A3
1:3,500
Date
April 2024
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Countryside Management Service

Broxbourne and Bencroft Wood
Greenspace Action Plan 2024-29
Site Description - Bencroft Wood
Pembridge Lane to Broxbourne Wood
Main ride through woodland
Emmanuel Pollards
West car park
East car park
Ponds
Mature sallow
Old hornbeam stubs on boundary wood bank; land owned and managed by Hatfield House Estate
Coppiced in January 2024
Pond
Old hornbeam stubs on boundary wood bank
Oak planting in glade
Unplanted glade
Coppiced in December 2022
Coppiced in December 2021
Abundance of honeysuckle
Coppiced in November 2020
Coppiced in November 2019
Legend
Car park sign
Entrance sign
Combi-interpretation
Orientation panel
Watercourse
Coppicing year 5-9
Permanent Open Space
Coppice Rotation
Ride Management
Car park
Glade
Mixed woodland
New boardwalk
Old boardwalk
Planted glade
Pond
Recent coppice
Ride
Surfaced track
Unsurfaced path
3 Year of coppice rotation
Ettridge Farm
107m
97m
Stocking Wood
The Gables
Pembridge Lane
White Stubbs Lane
Broom Spring
Nut Wood
Wormley West End
Manor Farm
64m
Wormley bury Brook
Scale @ A3
1:3,500
Date
March 2024
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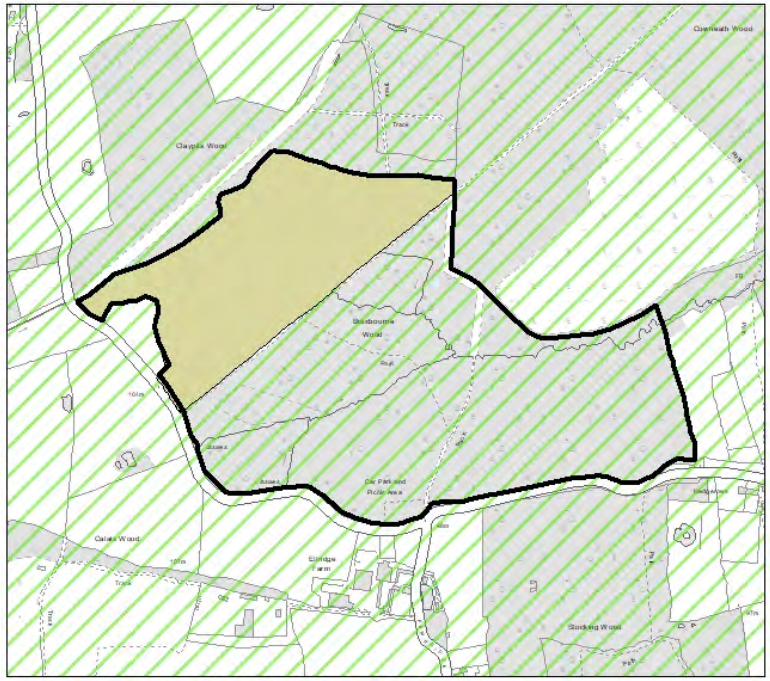
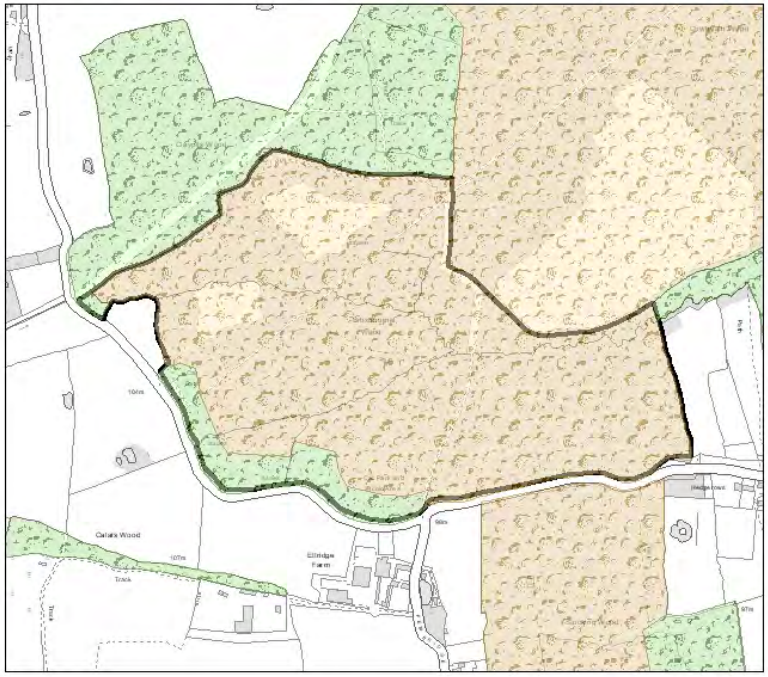
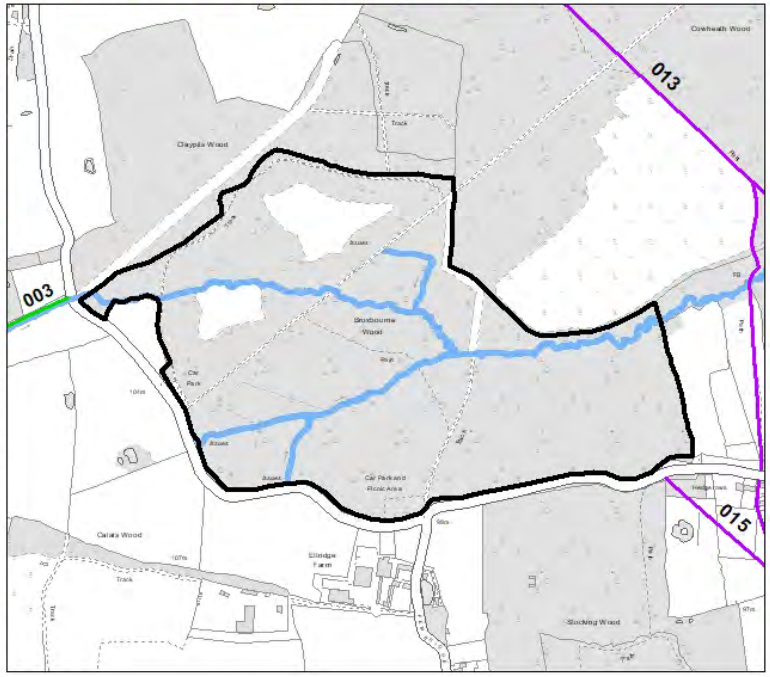
Countryside Management Service
0 80 160 m







Broxbourne and Bencroft Wood

Greenspace Action Plan 2024-29

Broxbourne Wood Constraints Plan

Legend

- Broxbourne Wood boundary
- Wildlife Site
- Special Area of Conservation
- Sites Of Special Scientific Interest
- National Nature Reserve
- Greenbelt - November2016
- Ancient & Semi-Natural Woodland (ASNW)
- Plantation on Ancient Woodland Site (PAWS)

Public Rights of Way

- Byway Open to All Traffic
- Restricted Byway
- Bridleway
- Footpath
- Temp Closed Footpath
- Temp Footpath
- Unmetalled UCR

Detailed River Network

River Type

- Culvert
- Canal
- Lake / Reservoir
- Primary River
- Secondary River
- Tertiary River (MasterMap single line)

N 0 150 300 Meters

Scale @ A3
1:7,500

Date
April 2024

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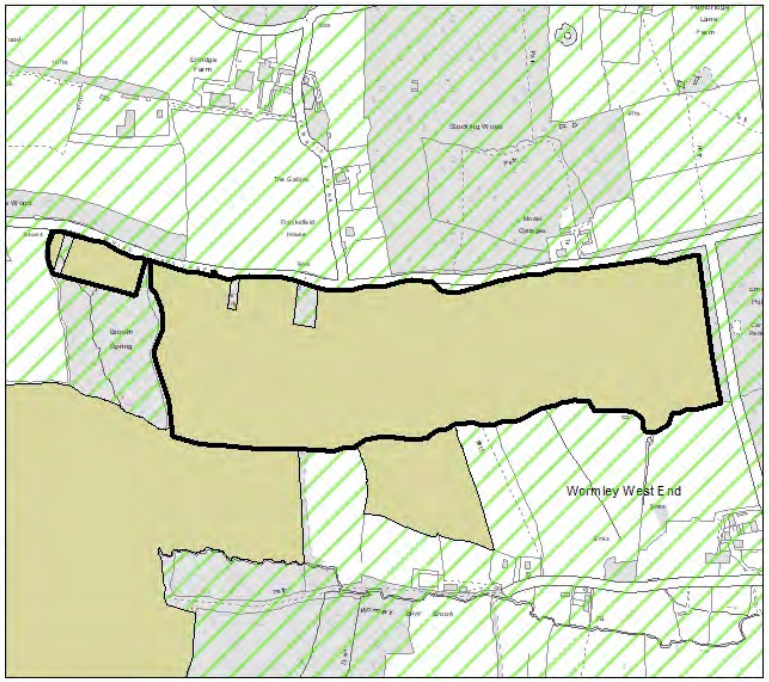
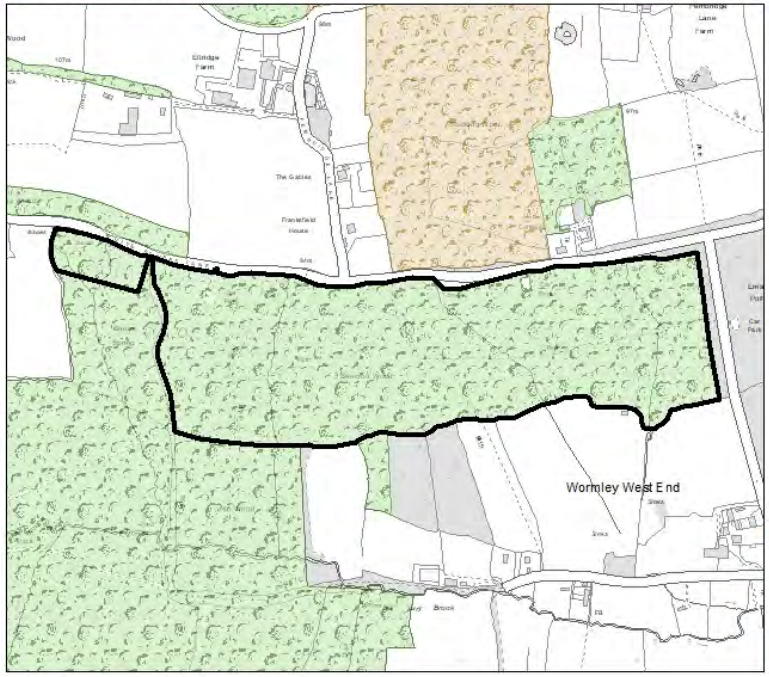
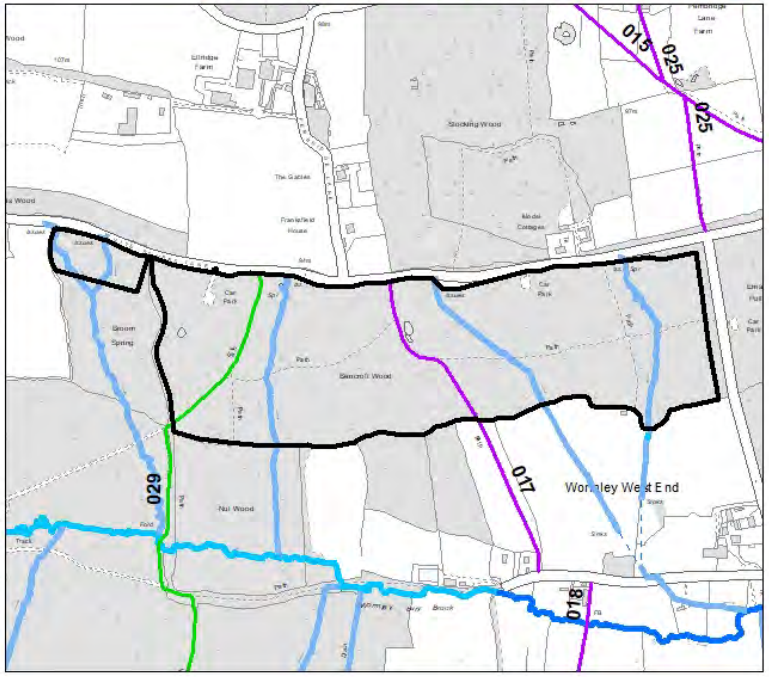
Countryside Management Service







Broxbourne and Bencroft Wood

Greenspace Action Plan 2024-29

Bencroft Wood Constraints Plan

Legend

- Bencroft Wood boundary
- Wildlife Site
- Special Area of Conservation
- Sites Of Special Scientific Interest
- National Nature Reserve
- Greenbelt - November2016
- Ancient & Semi-Natural Woodland (ASNW)
- Plantation on Ancient Woodland Site (PAWS)

Public Rights of Way

- Byway Open to All Traffic
- Restricted Byway
- Bridleway
- Footpath
- Temp Closed Footpath
- Temp Footpath
- Unmetalled UCR

Detailed River Network

River Type

- Culvert
- Canal
- Lake / Reservoir
- Primary River
- Secondary River
- Tertiary River (MasterMap single line)

N 0 150 300 Meters

Scale @ A3
1:7,500

Date
April 2024

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Countryside Management Service


Broxbourne and Bencroft Wood
UK Hab Data
ga1 - lowland dry acid grassland
w1h - other woodland mixed
h1a - lowland heath
w1h - other woodland mixed
w2c - other coniferous woodland
w1f - lowland mixed deciduous woodland
w1f - lowland mixed deciduous woodland
u1c - artificial unvegetated unsealed surface
u1c - artificial unvegetated unsealed surface
w1f - lowland mixed deciduous woodland
Legend
g1a - lowland dry acid grassland
g3c - other neutral grassland
h1a - lowland heathland
u1c - artificial unvegetated unsealed surface
w1f - lowland mixed deciduous woodland
w1h - other woodland, mixed
w2c - other coniferous woodland
N
0
150
300
m
1:7,250
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Countryside Management Service


Broxbourne and Bencroft Wood
UK Hab condition score
Legend
1 - Poor condition
2 - Moderate condition
3 - Good condition
w1h other mixed woodland
Target condition score: 2 (Moderate)
g1a lowland dry acid grassland
Target condition score: 2 (Moderate)
h1a lowland heathland
Target condition score: 2 (Moderate)
w2c other coniferous woodland
Target condition score: 2 (Moderate)
g3c other neutral grassland
Target condition score: 2 (Moderate)
w1f lowland mixed deciduous woodland
Target condition score: 3 (Good)
w1f lowland mixed deciduous woodland
Target condition score: 3 (Good)
Broxbourne
Bencroft
Broxbourne compartments
1
2
3
4
5
6
Claypits Wood
Starch Grove
Calais Wood
Bittridge Farm
Blocking Wood
Hedgerows Wood
Pembridge Lane Farm
Upper White Stubbs
Mortas Wood
Emanuel Portands
Grandsire Grove
Broom Spring
Nut Wood
Wormley West End
Wormley
0
150
300
m
1:7,250
March 2024
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Countryside Management Service

2.2 Geography and Landscape

Broxbourne Wood and Bencroft Wood are both seen as part of a "relict landscape" of woodlands that would have covered vast swathes of Hertfordshire in pre-medieval times. As such, they are vital to the preservation of local landscape heritage. Both woods are Ancient Semi-Natural Woodlands (ASNW) which means that they have been wooded since at least 1600 and likely since the last glaciation.

The woodlands fall within the National Character Area 111 Northern Thames Basin[1] and form part of the *"wooded Hertfordshire plateaux".* The description for this character area explicitly mentions the importance of the Broxbourne Woods NNR to the landscape with particular regard to its near enough continuous management since Roman and medieval times.

2.3 Hydrology and Geology

Broxbourne & Bencroft Woods are both gently undulating sites situated on predominantly London clay but with some overlay of acid gravels.

Broxbourne Wood contains one of the headwaters of a tributary of the River Lea, The Spital Brook. The watercourse runs from west to east and branches out across the site. Bencroft Wood has four small stream beds running from north to south through the site, forming shallow valleys which are either bridged or culverted under footpaths. The watercourses which run through Bencroft are the head of the Wormleybury Brook.

All of the watercourses on the sites are classed as Ordinary Watercourses. Hertfordshire County Council's Flood Risk Management team has responsibility for the regulation of all Ordinary Watercourses, and as such any structure or feature being installed within or removed from any of these watercourses requires consent.

2.4 Land Designations

2.4.1 Statutory

- **National Nature Reserve (NNR)**: Broxbourne Woods 239.4 ha. Follow this link to find out more Hertfordshire's National Nature Reserve - GOV.UK (www.gov.uk)
- **Site of Special Scientific Interest (SSSI)**: Wormley-Hoddesdonpark Wood North – Broxbourne Wood (part) 9.88 ha. Follow this link to find out more Wormley-Hoddesdonpark Wood North (SSSI)

[1] NCA Profile 111 Northern Thames Basin; Natural England; 2013

- **Site of Special Scientific Interest (SSSI)**: Wormley-Hoddesdonpark Wood South – Bencroft Wood 26.4 ha. Follow this link to find out more Wormley-Hoddesdonpark Wood South (SSSI)
- **Special Area of Conservation (SAC)**: Wormley-Hoddesdonpark Woods336.47 ha. Follow this link to find out more Wormley Hoddesdonpark Woods - Special Areas of Conservation (jncc.gov.uk)

The SSSI compartment in Broxbourne Wood is considered to be in unfavourable recovering condition because of felling in the area after WWII and restocking with conifer species. Natural England supports the works which are being undertaken to restore this compartment and acknowledges that it is a work in progress which should reach favourable condition over time.

Bencroft Wood SSSI is considered to be in favourable condition.

2.4.2 Non-statutory

- **Ancient Semi-Natural Woodland (ASNW)**: Woodland that has had continuous native tree and shrub cover since at least 1600 AD and may have been managed by coppicing or felling and allowed to regenerate naturally.
- **Plantations on Ancient Woodland Sites (PAWS)**: Woodland where the original tree cover has been felled and replaced by planting, often with conifers, and usually over the last century.
- **Local Wildlife Site (Broxbourne Wood WS 71/005)**: A series of woodland blocks lying mainly on acid gravel deposits over London Clay. Parts have developed from ancient wood pasture and heaths and retain many large oak and hornbeam pollards along the boundaries and parts are coppice-with-standards. More basic conditions arise from prevalence of boulder clays to the north. This range of geological conditions and the variety of past management regimes has resulted in a varied woodland structure, wide habitat diversity and a correspondingly rich flora.

  Despite extensive clearance and replanting with conifers the remaining semi-natural woodland is of national importance as an example of lowland south-east sessile oak/hornbeam type with the pedunculate oak/hornbeam variant also present. Scrub areas, small ponds, streams, spring seepages, healthy grassland, bracken patches, rough grassland rides are all habitats present. Regeneration is good with secondary woodland of silver birch, downy birch and aspen. The more acidic woodland areas have a flora dominated by bracken and tufted hair-grass with damp patch edges supporting a range of sedges and rushes. Where the soils become more base-rich there is an increasing

presence of ash. Wild service tree can also be found. The woodland flora is diverse with ancient woodland indicators such as dog's mercury, wood meadow-grass, mood millet, yellow archangel with patches of primroses and common cow-wheat. Several areas of neutral to acidic unimproved grassland provide additional interest with tormentil, sheep's sorrel and skullcap. The wide range of habitats supports a variety of invertebrate species, a good woodland bird community, a diverse range of mammals, reptiles and amphibians.

2.5 History and Archaeology

The woods have a history of hornbeam coppice with predominantly oak standards. They were part of larger estates in post-medieval times and were subsequently divided and leased out, creating revenues that contributed to the estates' income. They continued to be managed as coppice until the early 20th century, with commercial coppicing in Bencroft ceasing after World War II, and Broxbourne being heavily planted with conifers in the 1960s.

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

The woods are ancient landscapes and as such contain a number of features of archaeological interest. Bencroft Wood is part of an extensive landscape of co-axial boundaries which is pre-medieval in origin with parts dating to the Bronze Age. It is thought that the c.20 km^2 network of boundaries was constructed in a single operation; they survive today in Bencroft as a number of wood banks, many containing old hornbeam stubs.

One of the more significant linear banks in Bencroft Wood is listed in the Historic Environment Record. This old hollow way, was once a public road called Gravel Lane (until after 1851) and links with the north/south section of Pembridge Lane. See Appendix I for full information from the Historic Environment Record.

2.6 Habitats

Bencroft and Broxbourne Woods (55ha combined) are part of the 240ha Broxbourne Woods National Nature Reserve, a gently undulating landscape of mixed deciduous woodland over clay and acid gravel soils.

Bencroft Wood (22.5ha) is a semi-mature oak-hornbeam Ancient Woodland Site with widespread evidence of historic coppicing. The site contains a valuable ecosystem of maturing oak, multi-stemmed hornbeam formed from coppice stubs, and birch which is co-dominant in the sub-canopy. Due to a lack of active management for some 50 years, much of the woodland has

become dense and overstood, resulting in a shaded understorey with little regeneration. During recent years, active management has recommenced to gradually restore the woodland structure; the first of many small coupes (0.25 ha) of hornbeam coppice are showing vigorous regrowth.

In contrast to Bencroft, Broxbourne Wood (32.5ha) contains a matrix of woodland types and associated habitats, including semi-mature oak-hornbeam ancient woodland, compartments of conifer PAWS with mixed stages of management and regeneration, and an area of former pine plantation being restored to heathland wood pasture. A watercourse running through the site has lush native broadleaf and riparian vegetation growth following removal of conifers, and the main rides are managed on a 3-zone basis to provide valuable open space, mapped in Appendix M. Ponds, acid and neutral grassland, and veteran hornbeam stubbs are all important features for wildlife on site.

Habitat classification was carried out for Broxbourne and Becroft Woods using the UK Habitat classification System along with a condition assessment of each habitat. The UK Hab condition map on 2.1.6 shows the approximated habitats based on a walkover survey and the UK Hab condition scoring map on 2.1.7 shows the scored condition of each habitat and target condition.

More detailed descriptions of these habitat variants are contained within the Forestry Commission Woodland Management Plans in Appendix B.

2.6.1 Broxbourne Wood

2.6.1.1 ***Compartment 1:*** *Linear strip of woodland, roughly 3.49 ha in size. This is classed as Remnant ASNW with a young canopy (planted in the 1960s) of sessile and pedunculate oak, old hornbeam coppice, beech, silver birch, some planted poplar, aspen and horse chestnut. Shrub layer of hawthorn, hazel and blackthorn with some flush areas dominated by alder and willow.*

2.6.1.2 ***Compartment 2:*** *8.05 ha area of woodland with a canopy of conifer, including douglas fir and scots pine, and some Norway spruce and Lawson cypress, the majority planted in the 1960s. In addition to a few scattered pockets of mixed broadleaves there are also four areas of broadleaves planted around 2000. Alder and sallow are more dominant around the stream and wet flushes.*

2.6.1.3 ***Compartment 3:*** *A significant 7 ha stand of Scots pine planted in the 1960s with a relatively sparse under-storey dominated by bracken. Some considerable oak restock to the south of the compartment with sallow and birch regeneration. This area was thinned by felling conifers in 2021 to achieve 30% thinning of the canopy.*

Fig 1 – Corsican pine

2.6.1.4 ***Compartment 4:*** *A 3.08 ha stand of predominantly Corsican pine (established post WWII), sparse under-storey dominated by bracken. This area was thinned by felling Corsican pine in 2012 to achieve 30% thinning of the canopy.*

2.6.1.5 ***Compartment 5:*** *1.63 ha stand of some Corsican pine (established post WWII) and some Lawson cypress, a central area of which was cleared and restocked with oak and hornbeam in the early 90s. Further felling of the remaining Lawson cypress will be carried out over the course of this plan.*

2.6.1.6 ***Compartment 6:*** *This 10 ha SSSI compartment originally contained two small clearings, which had almost completely closed over when CMS took on the site. This compartment included areas of acid grassland and heath surrounded by woodland, predominantly young Scots pine, birch, sallow and some oak, including the non-native Turkey oak (Quercus cerris). Clearance of this woodland has been taking place in stages since 2011 to restore the compartment to its former character as wood pasture, and the compartment is now fenced and grazed by cattle from May until September. The initial restoration programme was scheduled to be completed in 2023. Due to contractor delays the final section of felling is now due to be carried out in Autumn 2024 and mulching of stumps in spring 2025.*

Fig 2 – Area of the SSSI compartment

Within this compartment is a pond, fenced off from the grazed area and supporting populations of smooth, palmate and great crested newt. In addition to amphibians, common lizard is known to inhabit the original grassy glade. A phase 1 survey of this compartment was carried out during spring 2023 to inform future management and can be found in Appendix E.

2.6.2 Bencroft Wood

2.6.2.1 ***Older coppice:*** *There are some dense areas of old hornbeam coppice located to the west of Broom Spring stream, along White Stubbs Lane to the north of the site, and scattered patches throughout the wood. There are occasional oak standards and little ground flora due to the density of the canopy. The old hornbeam stubs along White Stubbs Lane are located on ancient wood banks; some of the stubs have been coppiced over the last few years.*

Fig 3 – Coppice coupe 4 after coppicing 2023

2.6.2.2 ***Recent coppice:*** *There are many patches of more recent hornbeam coppice throughout the woodland. Two areas to the northwest of the site were coppiced and protected by temporary deer fencing in 2012. Since the start of the last management plan, four areas have been coppiced according to the coppice rotation plan and temporarily fenced with deer fencing. These coppiced areas have begun to regenerate successfully. This coppice rotation plan will continue to be followed over the course of this management plan.*

Fig 4 – Coppice regeneration after two years, in 2023

2.6.2.3 Birch/bracken: *Extensive areas of predominantly birch with bracken understorey are located throughout the wood with little regeneration of broadleaves, likely being failed coppice coupes in a previous management regime. Some of these areas have been restocked with oak grown from seeds collected on site. Further work clearing some of these areas and restocking them with seeds collected on site will be carried out over this management plan.*

2.6.2.4 High forest: *There is one area to the south of the site that has a predominance of oak standards.*

Fig 5 – Pond within Bencroft Wood

2.6.2.5 Wet habitats: *There are occasional wet flushes with sallow and sedge species associated with the streams that run through the site. There are also two large ponds in the middle of the wood.*

2.7 Wildlife

The following paragraphs give a brief summary of some of the more notable wildlife populations present within Broxbourne & Bencroft Wood, which is among the most important sites for wildlife in Hertfordshire. More detailed information is provided in Appendix J, and available via the Hertfordshire Environmental Records Centre and specialist groups such as the Herts & Middlesex branch of Butterfly Conservation.

2.7.1 Butterflies and Moths

Fig 6 – Silver-washed fritillary

The woods provide important habitats for a wide variety of large woodland butterfly species including purple emperor, silver-washed fritillary, and white admiral.

Butterfly populations are monitored each year by the Butterfly Conservation group through formal transects in both Bencroft Wood and, as of 2014, the SSSI compartment of Broxbourne Wood. The results from these transects are shown in Appendix K. These results provide a useful record of population fluctuation and help contribute to the determination of future woodland management.

Management of the woods needs to take into account the specific ecological requirements of the significant butterfly species, in addition to all of the other species present on the site, with particular regard to their larval food plants. The widening of rides in the woodlands has been of benefit to populations of silver-washed fritillary and it is important that effective management of these rides continues, including the retention of protective bands of trees either side of the rides where possible to provide shelter from prevailing winds, and the retention of violets close to large tree trunks, particularly oak.

Bracken is a particular issue in the valuable glades and rides. A monoculture of bracken can inhibit the growth of flowering species such as thistle, which benefits peacock butterflies. Management of bracken by contractors and volunteers will continue going forwards.

The purple emperor requires mature sallow for its larval food plant. Although a small number of sallow trees have been removed where unavoidable as part of the SSSI restoration, woodland management throughout the woods favours the retention of sallow and establishing further populations of sallow in suitable locations throughout the wood to enhance its resilience on site.

The white admiral requires shaded honeysuckle for breeding and ride-side bramble for feeding and has declined across Hertfordshire. Its requirement for

shaded honeysuckle should be taken into account when planning woodland management to ensure that this habitat type is retained.

In addition to the significant butterfly populations, the woods are also home to a wide diversity of moths. Significant species are detailed in Appendix J.

Oak Processionary Moth (OPM) was first recorded at Bencroft Wood in 2019 and a Management Plan for a Risk-based approach to management of OPM was developed to allow for public safety to be maintained. The biodiversity of the site is very important, particularly the presence of butterfly and moth species. This approach has little or no impact on the biodiversity of the site through identification of nests located in high-risk areas and removal by qualified contractors. The full OPM Management Plan can be viewed in Appendix G.

2.7.2 Beetles

Diverse populations of beetle have been identified at Broxbourne Wood. A variety of wood piles, some in sun and some in shade, and pollarded oak trees provide good habitat for different species. Of particular note are the Buprestid beetle spp. and green tiger beetle. Glow worms are present close to the site at Monks Green, along a woodland ride (on Bridleway 14). There is an agreement with the site owner for volunteers to cut and stack material along the ride, one side per year.

2.7.3 Newts

There are breeding populations of three newt species in the Broxbourne Wood pond: palmate, smooth and great crested. The pond was fenced to prevent access by dogs and now also forms a barrier to prevent cattle from entering the pond.

Although newts have been known to travel over 1km from their breeding pond, their terrestrial habitat is generally within a few hundred metres of the water body. As such, Natural England has defined an area around the pond of 50m radius within which woodland operations are restricted.

Newt populations in Broxbourne Wood may be at risk from swamp stonecrop (*Crassula helmsii*) which is found in the pond. This non-native succulent plant grows from the muddy pond margins and can spread vigorously to form a dense carpet across the whole surface. Development of the plant needs to be monitored closely and if spread persists, an appropriate solution put in place to ensure the continued survival of newt populations. Dogs should not enter the pond as this may cause transferral to other ponds.

2.7.4 Birds

The network of woodlands containing Broxbourne & Bencroft Wood provides important habitat for bird populations. Surveys carried out in the woods over the last 10 years recorded a number of significant species including hawfinch, crossbill and woodcock. All three native woodpecker species and tawny owl are resident, as are red kite and buzzard. Other species recorded include the red listed marsh tit. For some of these species it is not known if they are still present on site.

Woodland management aims to be respectful of bird populations with no felling taking place during bird nesting season and implementing species specific actions such as the retention of clumps of conifer in the SSSI compartment as feeding habitat for crossbill, and also as raptor perches.

2.7.5 Reptiles

Common lizard, grass snake and slow worm are known to inhabit parts of Broxbourne & Bencroft Wood, notably the grassy clearings within Compartment 6 and the main rides. Further surveying of reptile populations will be an important part of monitoring the ecological success of the SSSI restoration works.

2.7.6 Bats

It is known that there are populations of bat making use of both Broxbourne and Bencroft Wood but there are no recent local records of the species present. There is a lack of mature trees with suitable features that could be used by roosting bats e.g., large cavities. Creation of some features on trees within the grazing compartment at Broxbourne would improve the potential bat roosts e.g. creation of cavities.

2.7.7 Badgers

Although there are not known to be any resident badgers on site, setts have been identified in the surrounding area and evidence of badgers using the woodlands has been recorded.

2.8 Habitat Management

2.8.1 Grazing

Fig 7 - Cows at Broxbourne Wood

The grazed area within Broxbourne Wood covers both an established meadow and the more recently cleared areas within the SSSI. Cattle were first introduced to the site in the summer of 2012.

Grazing is controlled by a contract which is currently between the Countryside Management Service and a commercial grazier. A copy of the outline grazing agreement is included in Appendix H.

As the cleared area has become larger, the number of cattle has also increased. In 2024 eight cattle will be grazed on the site for eighteen weeks from the start of May to September, a change from the previous grazing period of July to September. The reason for this change in the grazing period is to try to control the new scrub growth within the grazing compartment.

2.8.2 Long-term funding arrangements

A Countryside Stewardship agreement started in January 2023 and will continue until December 2027. This covers the entirety of the site, including the SSSI compartment at Broxbourne Wood, and extracts from this agreement are included in Appendix C. The entire site had previously been under two separate agreements, and it was decided at the opportune moment to bring the site into one agreement for a more holistic management approach.

2.9 Access, Facilities and Infrastructure

National Nature Reserves were established in post-war Britain under the National Parks and Access to the Countryside Act 1949 with the aim of protecting sensitive features and providing outdoor laboratories for research. Over the years their importance has widened to provide opportunities for the

general public to experience, learn and enjoy. Broxbourne & Bencroft Wood is no exception and welcomes large numbers of visitors each year from both near and far. The following paragraphs mention some of the facilities and infrastructure that help to support these visits.

2.9.1 Sculpture trail

Fig 8 – Entrance to sculpture trail

Fig 9 – Sculpture

One of the most popular features of Broxbourne Wood is the sculpture trail which follows an easier access route linking the East and West car parks. The sculptures themselves depict aspects of the area's wildlife and history, including a Roman soldier, wild boar, and a stag. An audio tour was created to enhance the visitor experience; this can be downloaded from the CMS website. A review of the sculpture trail will take place during the first year of this management plan to design and install new updated sculptures.

2.9.2 Signage and interpretation

There is a variety of signage and interpretation located around both Broxbourne and Bencroft Woods, including interpretation at entrances and directional signage around both sites. Some of this signage needs to be updated, whilst other signage is damaged.

2.9.3 Car parks

There are four car parks available for public use in the woodland: Broxbourne East and West on Pembridge Lane, and Bencroft East and West on White Stubbs Lane. These car parks were refurbished in summer/winter 2013 as part of a project to improve visitor accessibility to the NNR. These four car parks are the only car parks available to be used by visitors across the whole of the NNR. The layout of the car parks was redesigned to accommodate a greater number of vehicles and resurfaced with new drainage, gates, seating and bollards. Bollards surrounding the car parks were replaced where needed in autumn 2022, including removable bench style bollards. The car park surface will need to be topped up over the course of this management plan.

2.9.4 Public rights of way

Bencroft Wood is crossed by two public rights of way, Brickendon Liberty Bridleway 029 and Brickendon Liberty Footpath 017, which are marked on the Site Constraints plan. Broxbourne Wood has no public rights of way, although a Definitive Map Modification Order has been submitted to Hertfordshire County Council to record a bridleway on a route which includes the main ride at Broxbourne Wood.

Both sites are supported by a network of permissive paths, including permissive routes leading from Bencroft Wood into the adjacent Wormley Wood.

2.10 Community and Events

2.10.1 Leaflets

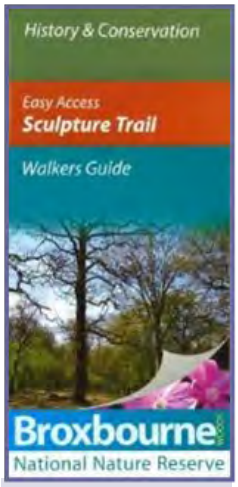


Fig 10 – Leaflets

The focus of recreation within the woodland is somewhat directed towards education and learning, with visitors encouraged to find out about the significance of the National Nature Reserve, the wildlife present, and the purpose of woodland management practices.

A suite of three leaflets is available locally and to download from the CMS website:

- Walkers guide
- Sculpture trail
- History and conservation

Interpretation panels are located in each of the car parks.

2.10.2 Volunteering

Management operations are well supported by volunteer activity from Wood Wardens, CMS practical conservation volunteers, and Herts Regional College.

The Wood Wardens are a group of local people who are actively interested in the management of the NNR. The group take on a range of activities supported by CMS including practical tasks, walks and events, and helping to implement and monitor the Broxbourne & Bencroft Wood Management Plan. The group meet regularly throughout the year to undertake practical tasks.

CMS midweek practical conservation volunteers regularly carry out tasks in Broxbourne & Bencroft Wood to create and restore wildlife habitats and to improve access to the woods. Herts Regional College run regular educational practical conservation sessions in the woodlands, working in areas to support the management plan.

In addition, a number of individuals kindly undertake regular litter picking, report fly tips and undertake cattle monitoring duties.

2.10.3 Website

Hertfordshire County Council's Countryside Management Service website gives information about the history of both Broxbourne and Bencroft Wood, current projects, habitat management and walking routes. The Countryside Management Service website can be found here Countryside Management Service | Hertfordshire County Council

3.0 AIM & OBJECTIVES

The Broxbourne & Bencroft Wood GAP 2024-2029 will be a simple, easy to read plan for use by officers of Hertford County Council's Countryside Management Service and members of the public and will act as a guide to the work of volunteers. The plan will be largely map based, with sequential, annual management maps to show the actions planned for each year. The resulting change will be represented on the map for the following year. The document will be reviewed annually to ensure it remains effective and relevant. The plan will be costed, and potential funding sources identified. Once the final GAP is agreed, funding will be sought to enable the plan to be delivered. The aim and core aspirations of the GAP will be as follows:

3.1 Aim

The aim of Broxbourne & Bencroft Wood GAP is to improve the quality of habitats on site and to provide a safe, enjoyable place for people to visit.

The core aspirations for the site remain unchanged and are set out below. The more specific objectives have been updated to reflect progress made during the last five years and the elements that could have worked better.

3.2 Core aspirations

A. Wildlife Conservation – to manage, enhance and restore Broxbourne & Bencroft Wood to build resilience through diversification across the site and in the context of the NNR and the entire woodland landscape.
Objectives:

A1 Complete the SSSI restoration project and move towards long term management of the Broxbourne Wood SSSI.

A2 Work collaboratively with the Woodland Trust to support a joined-up approach to management of the NNR.

A3 Maintain, restore and/or create habitats of particular value to target species.

A4 Continue to control invasive species and explore new and better methods for management.

B. Woodland Management – to operate under a whole site management approach that effectively balances the environmental quality of the woodland with commercial forestry practices, so that the two are complementary.
Objectives:

B1 Continue to move towards continuous cover forestry (CCF), with a woodland management programme that both benefits the wider environmental aims of the NNR and is commercially sustainable.

B2 Continue to re-establish a hornbeam coppice rotation in Bencroft Wood.

B3 Secure further viable markets for woodland produce.

B4 Promote Broxbourne and Bencroft Wood as a model of good practice in woodland management.

B5 Continue to manage all areas of the woodland in accordance with specifications in this document and the more detailed woodland management objectives in the FC Management Plan.

B6 Respond to the threat of new pests and diseases through early identification and proactive management techniques, to improve resilience and reduce susceptibility.

C. Access and Recreation – to continue to make Broxbourne & Bencroft Wood an attractive destination for visitors from near and far.
Objectives:

C1 Replace or update sculptures on the sculpture trail to ensure that it continues to be a well-visited destination.

C2 Review interpretation and signage across the entire site, to update and replace where necessary.

C3 Continue to maintain boardwalks and footpaths to allow access to both Broxbourne & Bencroft Wood, considering the suitability of boardwalks when replacement is needed.

C4 Continue to explore and develop new opportunities to inform and educate.

D. Monitoring and Review – to carry out regular monitoring of habitats, species and operation and to learn and adapt management accordingly.
Objectives:

D1 Commission and/or coordinate regular surveys of the key species and habitats, using the data to monitor success of projects and to influence future operations; make full use of monitoring and data collection carried out by interest groups.

D2 Maintain systems to carry out simple checks on change and progress that can be easily updated on a regular basis.

D3 Continue to work with external partners on offers of research projects within the woodlands.

E. Site Management – to continue to manage the woodland as a safe and well-maintained environment.

Objectives:

E1 Maintain the woodlands and associated infrastructure in a clean, tidy and serviceable condition, ensuring industry biosecurity protocols are upheld by all contractors and volunteers working on site.

E2 Continue the established tree risk management regime, implemented by CMS staff and regular volunteers with appropriate training.

E3 Ensure that as the Lead Local Flood Authority we employ demonstrable best practice in our management of site water resources.

E4 Continue to have appropriate mechanisms in place to carry out reactionary management, for example the clearance of fallen trees from access routes.

E5 Secure funding to allow the continuation of capital works.

F. Volunteers and Community Support – to continue supporting volunteer activity within the woodlands and developing links with the community.

Objectives:

F1 Ensure that all volunteer groups are aware of the management plan and only carry out activities which are agreed and contribute to established objectives.

F2 Continue to identify and offer opportunities for training and development to volunteer groups.

F3 Continue to promote management activities using social and traditional media.

F4 Build links with the broader NNR community to share best practice.

4.0 MANAGEMENT PRESCRIPTIONS

4.1 A welcoming place

4.1.1 Entrances and car parks

Fig 11 – Entrance to Broxbourne East car park

All four car parks were used by more visitors during parts of 2020 and 2021 because of the Covid-19 Pandemic and people looking for local outdoor spaces to visit. This led to increased wear and tear of carparks and facilities. The four car parks are the only car parks available to visitors across the whole NNR complex, and some visitors use these car parks to access parts of the NNR that are managed and owned by other organisations.

Refurbishment of some aspects of site entrances has been carried out over the last five years, including replacement of broken bollards, levelling of car park surfaces, repairs to damaged height barriers, refurbishment of interpretation structures (sanding and varnishing).

The two entrance routes and car parks both Broxbourne and Bencroft have become uneven in places so some repair works will be needed over the course of this plan.

4.1.2 Interpretation and signage

Fig 12 – Interpretation panel in Broxbourne West car park

Fig 13 – Large way marker

The interpretation boards within all four car parks are becoming tired and will need to be replaced. The wooden structures of the interpretation within the car parks are rotting off at the bases and there have been some changes that need to be included on the site maps. A review of the current interpretation should be carried out with a view to replacement. This should be carried out after the sculpture trail has been updated at Broxbourne Wood.

Many of the large way marking signs (photo right) are coming towards the end of their lives, having recently rotten and fallen over. They are constructed out of windblown Douglas Fir and have become rotten at the base and been pushed or have fallen over. There are 17 of these way marking signs located around both sites. The way marking signage will be reviewed with a view to replacing with a new suite of way marking signs. This review will also include removal of other redundant signage around both woodland sites.

4.2 Healthy Safe and Secure

4.2.1 Anti-social behaviour

There are ongoing reports of anti-social behaviour issues on site including graffiti, littering, unauthorised vehicle access and small fires. It is important that support by site users continues, and that more awareness is raised of anti-social behaviour, including with the police, in order to make it increasingly difficult for the site to be misused. Security of both sites has been an issue over the last five years with access to the site being gained through broken bollards. Works have been carried out to repair these damaged bollards and monitoring/maintenance of bollards should continue. Some of the bollards in Bencroft West car park (at the entrance to the main ride) have been replaced several times after they were broken. An assessment over the future of the future use of bollards to secure this area, will be considered.

4.2.2 Fly-tipping

Fly tipping is a concern at both woodlands but instances have been fewer in recent times. However, one significant incidence of fly tipping took place in spring 2022 when a caravan full of rubbish was dumped at the entrance to Bencroft West car park. It needed to be removed and then the height barrier needed to be repaired. Removing fly tipped waste is an unnecessary cost which absorbs much of the small budget assigned to the site, and there is a risk of an impact on the site's biodiversity through the colonisation of invasive species in garden waste. We have been taking a more proactive approach to this issue, working in positive partnership with the East Herts Council enforcement and inspection team.

4.2.3 Tree safety

Trees are surveyed on an annual basis to identify tree safety issues. A proportionate tree risk management approach has been devised, derived from the National Tree Safety Group publication "Common Sense Risk Management of Trees", and is implemented by trained CMS staff and volunteers. This approach is intended to manage the risk without being unduly onerous or costly, and without having a negative impact on other objectives. It is described in detail in Appendix F.

4.3 Clean and well maintained

4.3.1 Paths and boardwalks

Fig 15 – Boardwalk installation

Fig 14 – Water damaged path

Boardwalks at both Bencroft and Broxbourne Wood have continued to be maintained over the course of the previous management plan by replacement and repair where needed. A new section of boardwalk was installed in the northwest corner of Broxbourne Wood. This new section of boardwalk will

need to be extended down to the watercourse and a new bridge installed. The necessity of installation of further new boardwalks should be seriously considered due to the regular need for maintenance and their impact on access for woodland work.

Paths around both woodlands have become worn in places over time due to footfall and water damage. Repairs are to be carried out by either volunteers or a contractor where appropriate. Escape gaps in the grazing compartment fencing have caused wear to the ditch edges, which should be bult back up to prevent further erosion.

4.4 Sustainability

4.4.1 Materials

Materials created from woodland work are to be used on site if possible. This might be the creation of dead hedging using brash or temporary deer fencing posts from coppice material. Sallow will also be planted in some of the wetter areas of the SSSI by taking cuttings from existing sallow trees.

Timber for signage, interpretation and boardwalks is to be sourced from sustainable FSC sources. Where boardwalks are to be replaced the sub-structure is to be replaced with recycled plastic to allow for increased longevity of each boardwalk. Where boardwalk boards need to be replaced they are to be replaced with like for like timber boards.

4.4.2 Attracting funding

In order to continue managing and improving the site there is a requirement to continue attracting investment, particularly with regards to capital funding. A new Countryside Stewardship agreement for Broxbourne & Bencroft Wood has already been approved. This includes the SSSI grazing compartment that was previously included in an HLS agreement. This new Countryside Stewardship will help to support woodland management and the SSSI restoration works on the site.

Funding through Countryside Stewardship is limited in terms of what it can achieve, and further funding will need to be sought to carry out larger scale capital projects. Section 106 funding could be sought for access improvements where appropriate. Biodiversity Net Gain (BNG) funding is also a potential source of income through selling units to developers to carry out work beyond the existing Countryside Stewardship agreement. Natural England should be consulted and consent obtained for areas that are SSSI before setting up a BNG project. For areas where there is an existing Countryside Stewardship Agreement a baseline should be established based on what existing obligations have been achieved.

4.5 Biodiversity, Landscape & Heritage

4.5.1 Woodland

Woodland management over the course of this management plan will involve continuation of current practices at Bencroft Wood, with a focus on coppicing of selected hornbeam coupes. This woodland work to also include coppicing some short sections of woodbank through the introduction of recutting, following previous successful trials. Prior to re-cutting the surrounding area should be opened to the light by selective removal of shading trees, set out in specification 10.

Woodland management at Broxbourne Wood over the course of this management plan will focus on continuing the move towards Continuous Cover Forestry (CCF) to develop a woodland that is diverse in structure and species based on the Woodland Management Plan 2020 – 2030 Appendix B. This will include selective removal of trees where they are shading out natural regeneration and affecting the development of other trees. If natural regeneration is not successful in Broxbourne Wood some underplanting will be carried out in accordance with the Countryside Stewardship agreement.

Within compartment 3 there are large oak trees that would benefit from being halo thinned around to allow them to grow and be healthy, this thinning could be carried out by volunteers.

4.5.2 Wood pasture restoration

Fig 16 – Wood pasture habitat

The SSSI at Broxbourne Wood is a diverse habitat, on the majority of which we are working to restore towards wood pasture. There is one more section to be felled in autumn 2024. The next challenge in the SSSI restoration project will be to ensure the habitat develops positively through appropriate long-term management. A slight change to the grazing regime will be implemented with cattle brought onto site in May and staying on until September. A gradual increase in cattle numbers reflects the increasing area of grassland. Annual bracken control will be carried out by a contractor using a bracken roller pulled

behind a small tractor. There will also be a programme of annual scrub control to avoid dominance of pioneering plant species, whilst recognising the importance of species such as broom, aspen and sallow. This scrub control will be carried out according to growth with a focus on a particular area or areas each year as shown on the map in Appendix N. Scrub control will be carried out by volunteers and contractors where required. Some individual trees may be removed, where tree cover is dense and coppicing of some of the wet flush areas will also take place.

Management of the wet flush areas will be carried out by volunteers on an annual basis with a focus on different areas each year according to the mapped rotation in Appendix N. This work will involve coppicing and felling of 10-20% these mapped areas according to specification 14.

Management decisions will reflect the objective to maintain a balance of habitat types across the SSSI, within the context of the NNR as a whole. In addition, further planting of appropriate trees will be carried out in conjunction with the continued and gradual removal/veteranisation of turkey oak hybrids. The recently planted standard trees have been protected from cattle by cattle guards. All cattle guards should be monitored and trees maintained and replaced if needed by suitable oak trees from Bencroft Wood.

4.5.3 Ponds

There are several ponds dotted around both sites, some are seasonal whilst others hold water throughout the year. Some maintenance will be carried out to improve the resilience of these ponds to dryer summers and to make improvements for wildlife diversity. This work is to be part funded through the agreed Countryside Stewardship agreement.

4.5.4 Hedgerows and scrub

Broxbourne Wood has several hedgerows which form a boundary to the site alongside Broxbourne West car park and alongside the southwestern boundary. Another section of hedge alongside the area of grass to the north of the cattle corral would benefit from being laid over the course of this plan.

Scrub is developing within the grazing compartment (SSSI) at Broxbourne Wood. This scrub is a mixture of bramble, hawthorn, blackthorn and some broom. This maturing scrub is not appetising to cattle so needs to be cut back by mechanical means either by a contractor or volunteer session, to allow fresh growth which can then be controlled by cattle grazing.

4.5.5 Wood ant translocation

Broxbourne Wood has been identified as a site that would be suitable for the translocation of wood ants. There are historic records of wood ants within the wider woodland complex and the habitat within Broxbourne Wood is

considered suitable. We plan to reintroduce wood ants to the woodland if the habitat and existing invertebrate assemblages are deemed to be suitable and if Natural England approve this. A formal survey of invertebrate assemblages will need to be carried out prior to obtaining permission from Natural England.

4.6 Community Involvement

4.6.1 Sculpture trail

The sculpture trail is becoming tired and wooden sculptures are beginning to fall over and rot. Sculptures need to be replaced and new ideas around the designs for these need to be developed. Input will be invited from site users as part of the development process.

4.6.2 Volunteering and community support

Both the Wood Wardens, managed under the CMS Friends Group umbrella, and the CMS Tuesday volunteer group have continued to play a vital role in the delivery of the management plan. Although some of the works over the last five years have had a further dramatic impact on the woodland, in particular the large-scale timber extraction, HCC have not received any formal complaints from members of the public and user satisfaction appears to be very good. This has been attributed to good information dissemination throughout the process with regular news stories, posters and events, and in particular the presence of Wood Wardens on site who have provided an invaluable information point for explaining works to visitors. Herts Regional College will also continue to be involved in practical work on the site, carrying out tasks including scrub clearance, footpath maintenance, coppicing, litter picking and veteran tree identification.

5.0 ACTION PLANS AND MAPS

The action plans below have been established to achieve the aims and objectives set out in section 3. The action plan sheets cover the period April 2024 to March 2029. All costs are estimates and full costs will need to be identified for each item prior to the submission of a capital bid or external funding application.

Abbreviations: BES - Broxbourne Environmental Services; CMS – Countryside Management Service; Con – Contractor; EC – Ecological Consultant; FC – Forestry Commission; HERC – Herts Environmental Records Centre; HRC – Hertford Regional College; SC – Stock Checkers; Vols – Volunteers; WT – Woodland Trust; WW – Wood Wardens

5.1 Broxbourne Wood Annual Items

Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
0.1	Bracken control – rolling and mechanical removal.	A4, B5	June - July	CMS	Con/Vols	CS grant	£650	16	
0.2	Strim carpark edges and exit splays	C3	May & Aug	CMS	CMS/Vols	N/A	N/A		
0.3	Strim sculpture trail	C3	May & Aug	CMS	CMS/Vols	N/A	N/A		
0.4	Arrival of cows on SSSI compartment	A1, A3	May	CMS	Grazier	CS grant	£400	15	
0.5	Daily stock checking	A1, A3, F2	May - Sept	CMS	SC/grazier	N/A	£1,700	15	
0.6	Take fixed point photographs	D2	See appendix L	CMS	CMS	N/A	N/A	Appendix L	
0.7	Removal of cows from SSSI compartment	A1, A3	Sept	CMS	Grazier	CS grant	£400	15	
0.8	Maintenance of saplings and scrub within SSSI compartment	A1, A3	Oct - Feb	CMS	CMS/Vols/Con	CS grant	Vol time	11	
0.9	Maintenance of rides – zone 1	B5	May & Sept	CMS	WW/Vols	CS grant	Vol time	4 Appendix M	
0.10	Maintenance of rides – zone 2 and 3	B5	Sept – Feb	CMS	WW/Vols/Con	CS grant	Vol time	4 Appendix M	

0.11	Maintenance of permanent open space along stream corridor	B5	Sept – Feb	CMS	WW/Vols	CS grant	Vol time	5	
0.12	Lawson cypress sapling removal	A4, B5	Sept – Feb	CMS	WW/Vols	N/A	Vol time	7	
0.13	Rotational coppicing of sallow in wet flushes	A3	Sept – Feb	CMS	WW/Vols	CS grant	Vol time	14	
0.14	Ecological monitoring	D1, D3	Ongoing	Various	Various	N/A	N/A	2	
0.15	Implementation of tree risk strategy	E2	Ongoing	CMS	CMS/Vols/ WW/Con	N/A	Officer time	Appendix G	
0.16	Maintenance of infrastructure as required	E1	Ongoing	CMS	CMS/Vols/WW	Site budget	N/A	1, 3	
0.17	Performance of annual litter contract and collection of fly tipping	E1	Ongoing	CMS	BES	Site budget	£6,000	17	
0.18	Checking culverts for blockages and removal of debris as necessary	E1	Ongoing	WW	WW	N/A	Vol time		
0.19	Maintain stock fencing around SSSI compartment	B1	Ongoing	CMS	CMS/Vols/WW	N/A	Vol time		
0.20	Publicise management activities using social media and on site	F3, F5	Ongoing	CMS	CMS	N/A	N/A		
0.21	Implementation of Oak Processionary Moth (OPM) Management Plan, including OPM surveying and nest removal.	A4, A2, B6	Ongoing	CMS	CMS/Con	N/A	N/A		
0.22	Seek further funding for management plan operations	E5	Ongoing	CMS	CMS	N/A	N/A		
0.23	Aftercare of tree planting within the grazing compartment and parkland tree guards.		Annually	CMS	WW/Vols/HRC	N/A	Vol time	12, 24	
0.24	Rotational scrub control within the SSSI compartment.	A1, A3	Oct - Feb	CMS	Con/Vols	CS	Volunteer time	11, Appendix N	

5.2 Broxbourne Wood Year 1 Action Plan (2024-2025)

Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
1.1	Veteranise Hybrid Turkey Oaks	A3	Oct - Feb	CMS	Con	CS	£300	1	
1.2	Extension of boardwalk	C3	By the end of 2024	CMS	CMS/Vols	TBC/external	£3,000	3	
1.3	Commission the design and production of replacement sculptures for the sculpture trail.	C1, C4	By March 2025	CMS	CMS, Con	TBC/external	£30,000 - £40,000	18	
1.4	Appoint an ecological consultant to update GCN disturbance licence.	A1, A3	By Aug 2024	CMS	Con	CS	?	11	
1.5	Heavily thin Lawson's Cypress	B1, B5	Oct - Feb	CMS	Con	CS/Timber sales	Equal to timber value	7	
1.6	Final area of SSSI restoration works felling in an area close to the pond.	A1, A3	Sept - Oct	CMS	Con	CS/Timber sales	£12,000	11	
1.7	Halo thinning around large oaks and removal of trees in poor condition in compartment 3	B1, B3, B5	Oct – Feb	CMS	Con/Vols/WW	CS	£1,000	7	
1.8	Repair water damage to main ride	C3	By March 2025	CMS	Con/Vols	N/A	Vol time	25	
1.9	Review directional signage around the site and replace as required	C3	By March 2025	CMS	Con/Vols/CMS	NNR Reserves	£6,000	21	
1.10	Assessment of the suitability of the site for wood ant relocation	D3	By March 2025	CMS	Vols	N/A	N/A	2	
1.11	Repair fencing around grazing compartment	E1	By June 2024	CMS	Vols	NNR Reserves	£300	22	
1.12	Determine the exact locations of the zone 3 scallops for the next 4 years	A4, B5	By Oct 2024	CMS	CMS	N/A	N/A	4	
1.13	Put together a species list for the site with Latin names	D2	March 2026	CMS	CMS	N/A	N/A		
1.14	Review year 1 actions	D2	March 2025	CMS	CMS	N/A	N/A		

5.3 Broxbourne Wood Year 2 Action Plan (2025-2026)

Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
2.1	Halo thinning around large oaks and thinning of those trees in poor condition or too close to others in compartment 3	B1, B3, B5	Oct – Feb	CMS	Con/Vols/WW	CS	£1,000	7	
2.2	CCF thinning through removal of selected trees where too close to others and where over shading natural regeneration in compartments 3 and 4.	B1, B3, B5	Oct – Feb	CMS	Con	CS & sale of timber	£5,000	7	
2.3	Surveying of invertebrate assemblages of SSSI area and identified translocation site (subject to funding)	D1, D3	May – Sept	CMS	Con	External	£3,000	2	
2.4	Application to Natural England (NE) for permission to translocate wood ants	D1	By Feb 2026	CMS	CMS	N/A	£300		
2.5	Redistribution of granite surface material in both the east and west car parks	E1	By March 2026	CMS	Con	NNR Reserve	£5,000		
2.6	Interpretation panel review and replacement	C2	By March 2026	CMS	CMS	NNR Reserve	£5,000	20	
2.7	Installation of replacement interpretation panels and structures	C2	By March 2026	CMS	CMS/Vols	N/A	N/A	20	
2.8	Fell 2 scots pine in heather area and lift branches on 2 others.	A1	Oct – Feb	CMS	Con	CS	£500	1	
2.9	Carry out pond restoration works as shown on the map.	A3	Carry out by December 2025	CMS	Con	CS	£2,000	6	
2.10	SSSI restoration – removal of stumps and ground preparation	A1	By the end of May 2025	CMS	Con	CS	£2,500	1	
2.11	Construct 3 leaky dams.	A3, E3	Construct and claim by December 2025	CMS	CMS	CS	N/A		
2.11	Review year 2 actions		March 2026	CMS	CMS	N/A	N/A		

5.4 Broxbourne Wood Year 3 Action Plan (2026-2027)

Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
3.1	Coppice selected trees within wet flush	A1, A3	Oct - Feb	CMS	Vols/WW/HRC	CS	Volunteer time	14	
3.2	Carry out underplanting of broadleaves in areas lacking sufficient natural regeneration	B5	Oct - Dec	CMS	Vols/WW/HRC	CS	Volunteer time	7	
3.3	Translocation of wood ants once previous steps have been completed	D3	March – May	CMS/Phill Attewell	Phill Attewell	N/A	N/A		
3.4	CCF thinning through removal of selected trees where too close to others and where over shading natural regeneration in compartments 2 and 5.	B1, B3, B5	Oct – Feb	CMS	Con	CS & sale of timber	£5,000	7	
3.5	Remove selected turkey oak and conifers from SSSI grazing compartment.	A3	Oct - Feb	CMS	Con	CS	£1,000	11	
3.6	Review year 3 actions		March 2027	CMS	CMS	N/A	N/A		

5.5 Broxbourne Wood Year 4 Action Plan (2027-2028)

Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
4.1	Coppice of trees within wet flush	A1, A3	Oct - Feb	CMS	Vols/WW/HRC	CS	Volunteer time	14	
4.2	Carry out underplanting of broadleaves in areas lacking sufficient natural regeneration	B5	Oct - Dec	CMS	Vols/WW/HRC	CS	Volunteer time	7	
4.3	Aftercare of broadleaf underplanting	B5	Ongoing	CMS	Vols/WW/HRC	CS	Volunteer time	7	
4.4	Review year 4 actions		March 2028	CMS	CMS	N/A	N/A		

5.6 Broxbourne Wood Year 5 Action Plan (2028-2029)

Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
5.1	Aftercare of broadleaf underplanting	B5	Ongoing	CMS	Vols/WW/HRC	CS	Volunteer time	7	
5.2	Lay hedge alongside west car park	E1	Oct - Feb	CMS	Vols	Volunteer time	Volunteer time	23	
5.3	Request all site records for site from the Herts Environmental Records Centre	D1, D2	Feb 2029	CMS	HERC	Officer time	N/A	2	
5.4	Review year 5 actions and write a new management plan		March 2029	CMS	CMS	N/A	N/A		

5.7 Bencroft Wood Annual items

Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
0.1	Bracken control – rolling and mechanical removal.	B5, A4	June - July	CMS	CMS/Vols	N/A	N/A	16	
0.2	Strim carpark edges and exit splays	C3	May & Aug	CMS	CMS/Vols	N/A	N/A	4	
0.3	Take fixed point photographs	D2	See appendix L	CMS	CMS	N/A	N/A	Appendix L	
0.4	Maintenance of rides – zone 1	B5	May & Sept	CMS	WW/Vols	CS grant	N/A	4 Appendix M	
0.5	Maintenance of rides – zone 2 and 3	B5	Sept – Feb	CMS	WW/Vols/Con	CS grant	N/A	4 Appendix M	
0.6	Maintenance of permanent open space	B5	Sept – Feb	CMS	WW/Vols	CS grant	N/A	5	
0.7	Ecological monitoring	D1, D3	Ongoing	Various	Various	N/A	N/A	2	
0.8	Implementation of tree risk strategy	E2, E4	Ongoing	CMS	CMS/Vols/ WW/Con	N/A	Officer time	Appendix F	
0.9	Maintenance of infrastructure as required	E1	Ongoing	CMS	CMS/Vols/WW	Site budget	N/A		
0.10	Performance of annual litter contract and collection of fly tipping	E1	Ongoing	CMS	BES	Site budget	£6,000	17	
0.11	Checking culverts for blockages and removal of debris as necessary	E1	Ongoing	WW	WW	N/A	Vol time	N/A	
0.12	Maintain deer fence around coppice coupes	B2, B5	Ongoing	CMS	WW/HRC	N/A	Vol time	N/A	
0.13	Publicise management activities using social media and on site	F3, F5	Ongoing	CMS	CMS	N/A	N/A	N/A	
0.14	Seek further funding for management plan operations	E5	Ongoing	CMS	CMS	N/A	N/A	N/A	
0.15	Implementation of OPM Management Plan	A4, A2, B6	Ongoing	CMS	CMS/Con	N/A	£600	Appendix G	

5.8 Bencroft Wood Year 1 Action Plan (2024-2025)

Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
1.1	Coppice hornbeam in coupe 6	B2, B5	Oct - Feb	CMS	Con/CMS/ Vols	CS & Sale of timber	£4,000	8	
1.2	Repair water damage to main ride	C3	By March 2025	CMS	Con/Vols	N/A	N/A	25	
1.3	Review directional signage around the site and replace large directional signage	C2	By March 2025	CMS	Con/Vols/CMS	NNR Reserves	£6,000	21	
1.4	Install temporary deer fencing around coppice coupe 6	B2, B5	By March 2025	CMS	CMS/Vols	CS	£300	8	
1.5	Approach Woodland Trust for collaboration across the whole of the NNR	A2	By March 2025	CMS	CMS	N/A	Officer time		
1.6	Determine the exact locations of the zone 3 scallops for the next 4 years	A4, B5	By Oct 2024	CMS	CMS/Vols	N/A	N/A	4	
1.7	Put together a species list for the site with Latin names	D2	March 2026	CMS	CMS	N/A	N/A		
1.8	Get a contractor to position a length of timber to block unwanted access from West Wend Lane	C3	Oct-Feb	CMS	Con	N/A	N/A		
1.9	Review year 1 actions	D2	March 2025	CMS	CMS	N/A	N/A		

5.9 Bencroft Wood Year 2 Action Plan (2025-2026)

Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
2.1	Coppice hornbeam in coupe 7	B2, B5	Oct - Feb	CMS	Con/CMS/ Vols	CS & Sale of timber	£4,000	8	
2.2	Thin natural regeneration in coupe 1 following a review of coupe 24 and the regeneration in coupe 1. Retain Hornbeam where possible and oak saplings.	B2, B5	Oct - Feb	CMS	CMS/ Vols	Vol time	N/A	9	
2.3	Install temporary deer fencing around coppice coupe 7	B2, B5	By March 2026	CMS	CMS/Vols	CS	£300	8	
2.4	Interpretation panel review and replacement	C2	By March 2026	CMS	CMS	NNR reserves?	£5,000	20	
2.5	Installation of replacement interpretation panels and structures	C2	By March 2026	CMS	CMS/Vols	N/A	N/A	20	
2.6	Carry out pond restoration works	E1	By December 2025	CMS	CMS/Vols/Con	CS grant	£2,000	6	
2.7	Review year 2 actions	D2	March 2026	CMS	CMS	N/A	N/A		

5.10 Bencroft Wood Year 3 Action Plan (2026-2027)

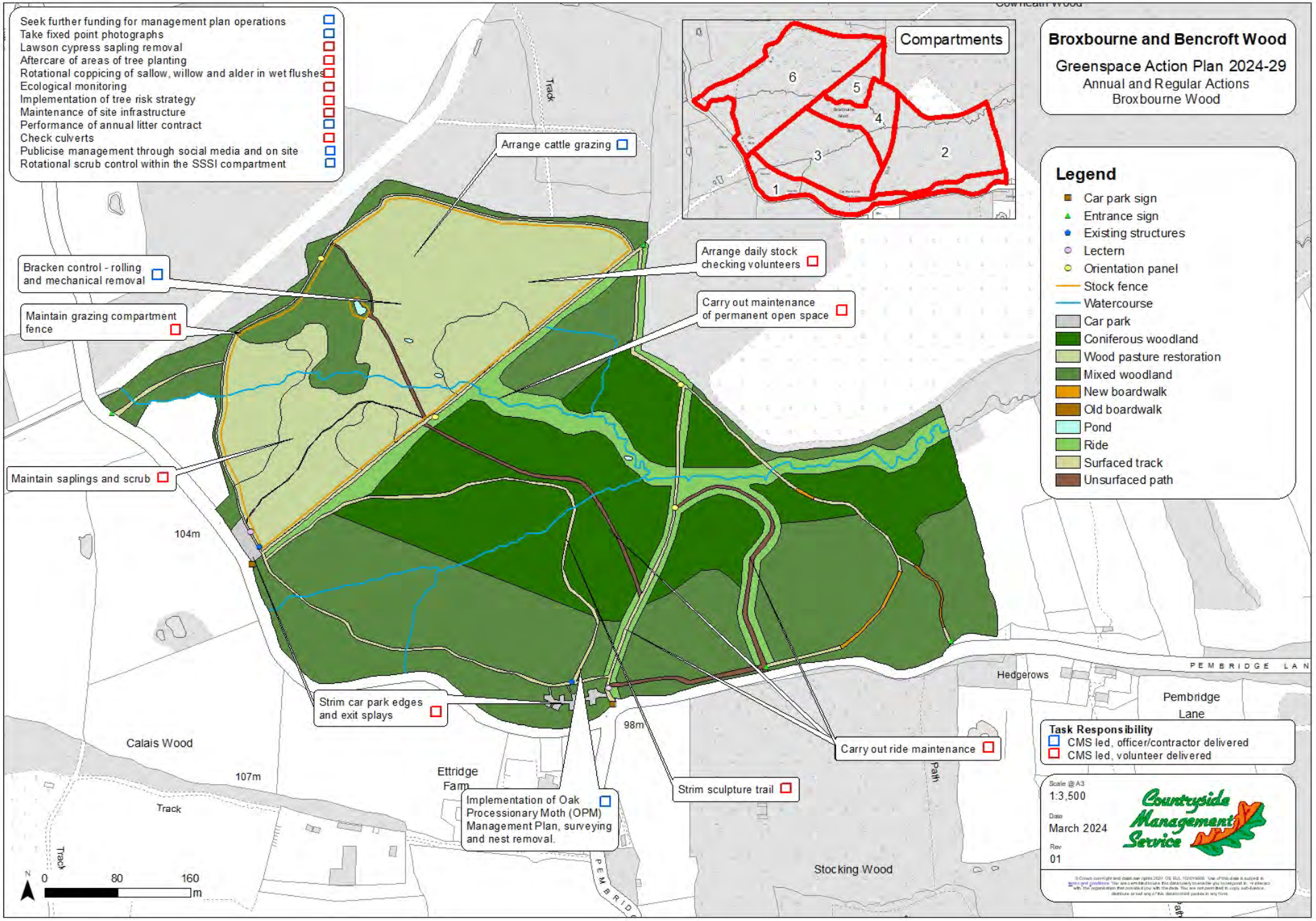
Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
3.1	Coppice hornbeam in coupe 8	B2, B5	Oct - Feb	CMS	Con/CMS/ Vols	CS & Sale of timber	£4,000	8	
3.2	Thin natural regeneration in coupe 2 following a review of coupe 24 and the regeneration in coupe 2. Retain Hornbeam where possible and oak saplings.	B2, B5	Oct - Feb	CMS	CMS/ Vols	Vol time	N/A	9	
3.3	Trial coppicing section of woodbank along the southern boundary in conjunction with coppicing of coppice coupe 8.	B2, B5	Oct - Feb	CMS	Con/CMS/ Vols	CS & Sale of timber		10	
3.4	Install temporary deer fencing around coppice coupe 8	B2, B5	By March 2027	CMS	CMS/Vols	NNR Reserves	£300	8	
3.5	Review year 3 actions	D2	March 2027	CMS	CMS	N/A	N/A		

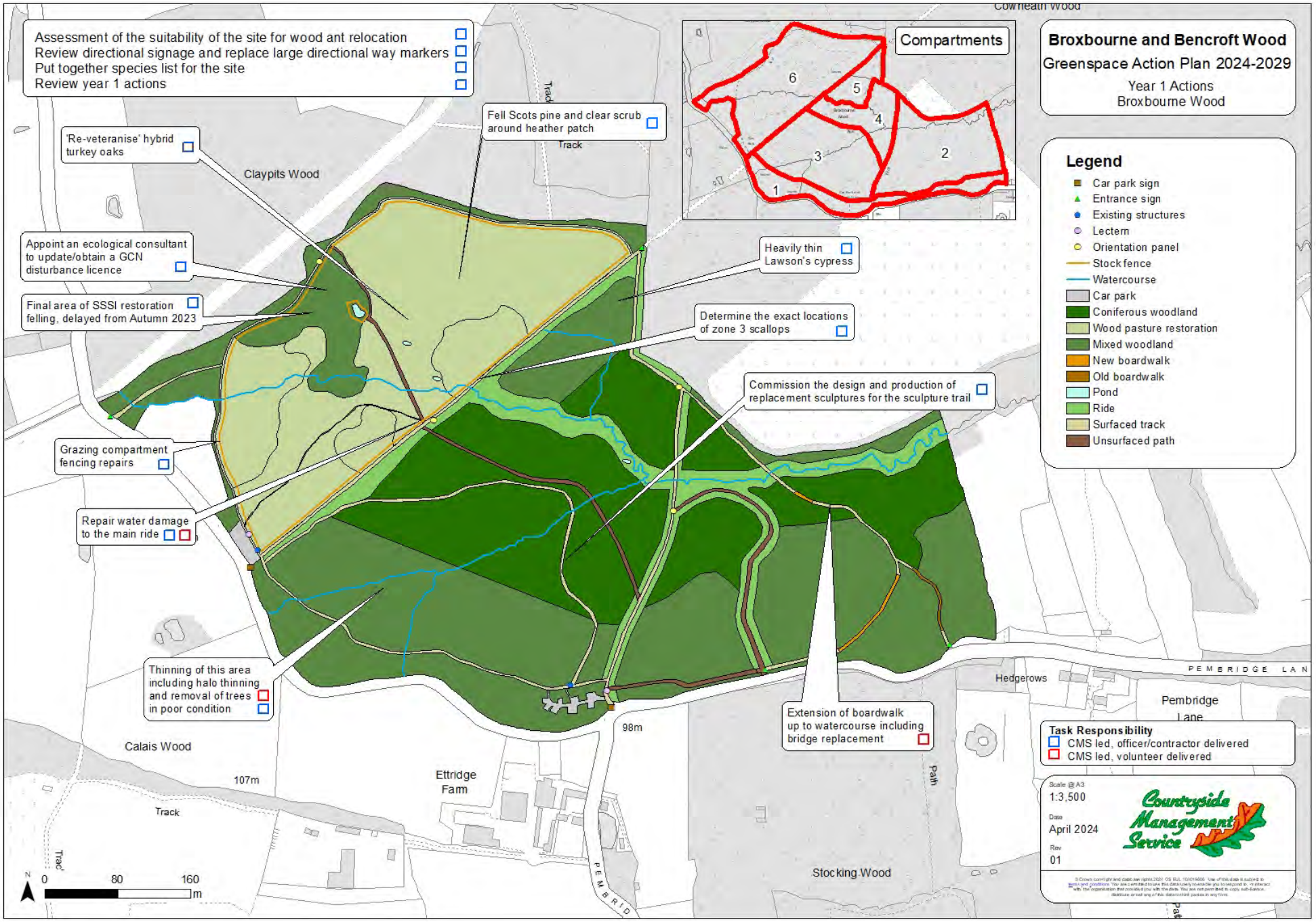
5.11 Bencroft Wood Year 4 Action Plan (2027-2028)

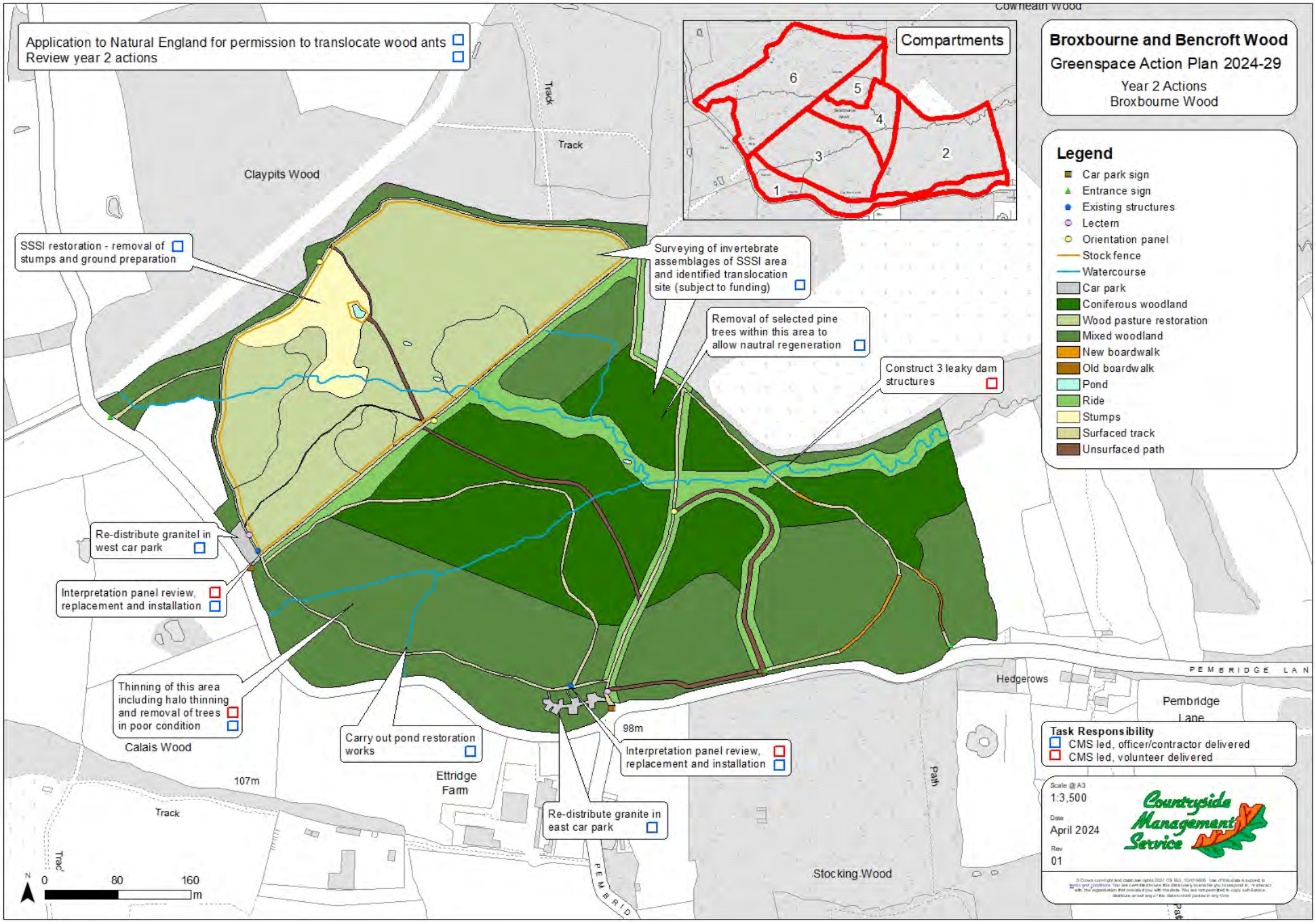
Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
4.1	Coppice hornbeam in coupe 9	B2, B5	Oct - Feb	CMS	Con/CMS/ Vols	CS & Sale of timber	£4,000	8	
4.2	Thin natural regeneration in coupe 3 following a review of coupe 24 and the regeneration in coupe 3. Retain Hornbeam where possible and oak saplings.	B2, B5	Oct - Feb	CMS	CMS/ Vols	Vol time	N/A	9	
4.3	Install temporary deer fencing around coppice coupe 9	B2, B5	By March 2028	CMS	CMS/Vols	NNR Reserves	£300	8	
4.4	Review year 4 actions	D2	March 2028	CMS	CMS	N/A	N/A		

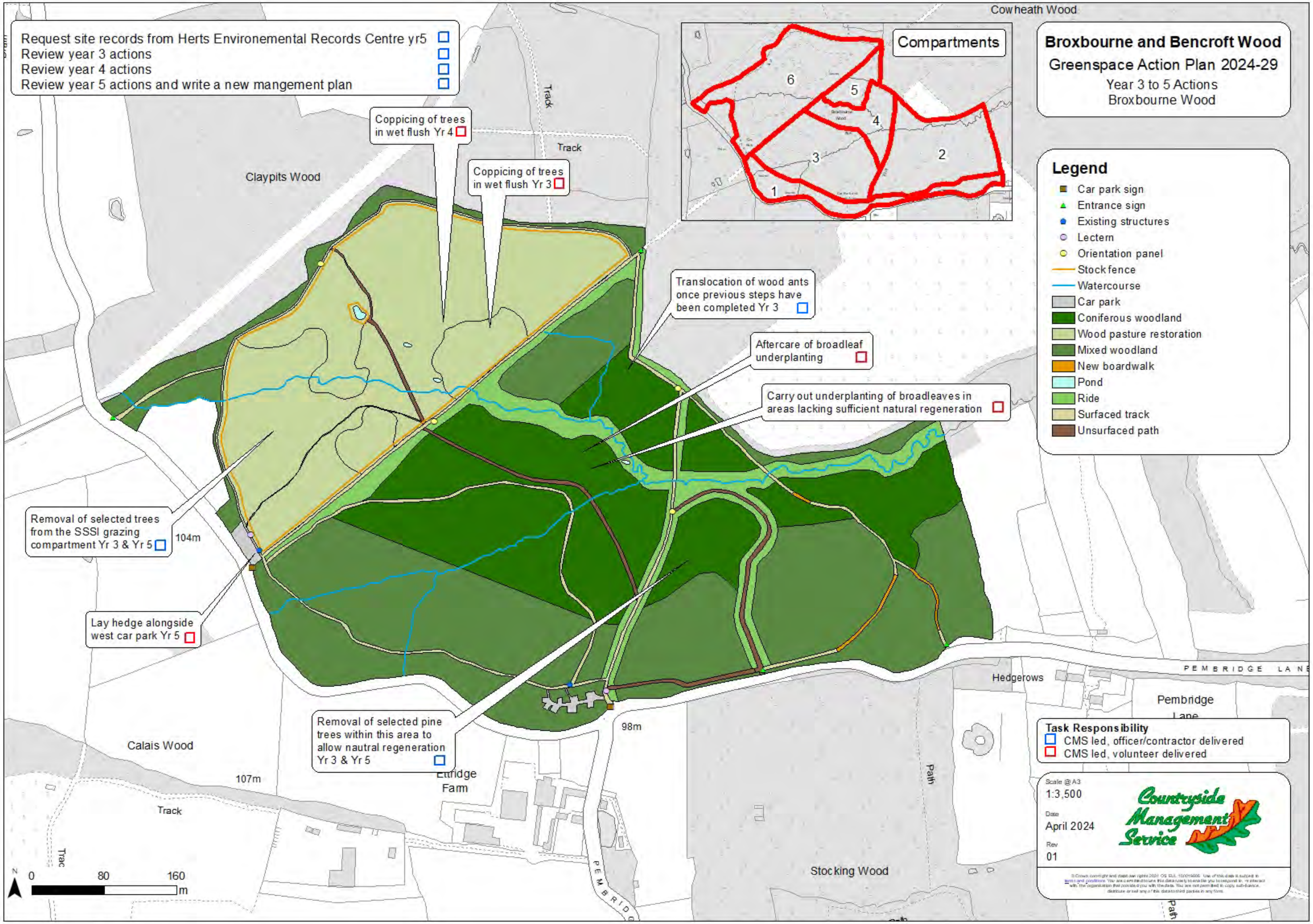
5.12 Becroft Wood Year 5 Action Plan (2028-2029)

Ref. no.	Action	Obj. Ref.	When	Lead	Delivery	Funding	Est. Cost	Spec. Ref.	Status
5.1	Coppice hornbeam in coupe 10	B2, B5	Oct - Feb	CMS	Con/CMS/ Vols	CS & Sale of timber	£4,000	8	
5.2	Thin natural regeneration in coupe 4 following a review of coupe 24 and the regeneration in coupe 4. Retain Hornbeam where possible and oak saplings.	B2, B5	Oct - Feb	CMS	CMS/ Vols	Vol time	N/A	9	
5.3	Install temporary deer fencing around coppice coupe 10	B2, B5	By March 2029	CMS	CMS/Vols	NNR Reserves	£300	8	
5.4	Once the countryside stewardship comes to an end plant up the openspace with oak trees grown from acorns gathered from the site.	B5	Ongoing	CMS	CMS/Vols	N/A	N/A		
5.5	Review year 5 actions and write a new management plan	D2	March 2029	CMS	CMS	N/A	N/A		


Seek further funding for management plan operations
Take fixed point photographs
Lawson cypress sapling removal
Aftercare of areas of tree planting
Rotational coppicing of sallow, willow and alder in wet flushes
Ecological monitoring
Implementation of tree risk strategy
Maintenance of site infrastructure
Performance of annual litter contract
Check culverts
Publicise management through social media and on site
Rotational scrub control within the SSSI compartment
Compartments
6
5
4
3
2
1
Broxbourne and Bencroft Wood
Greenspace Action Plan 2024-29
Annual and Regular Actions
Broxbourne Wood
Legend
Car park sign
Entrance sign
Existing structures
Lectern
Orientation panel
Stock fence
Watercourse
Car park
Coniferous woodland
Wood pasture restoration
Mixed woodland
New boardwalk
Old boardwalk
Pond
Ride
Surfaced track
Unsurfaced path
Arrange cattle grazing
Arrange daily stock checking volunteers
Carry out maintenance of permanent open space
Bracken control - rolling and mechanical removal
Maintain grazing compartment fence
Maintain saplings and scrub
Strim car park edges and exit splays
Implementation of Oak Processionary Moth (OPM) Management Plan, surveying and nest removal.
Strim sculpture trail
Carry out ride maintenance
Track
104m
98m
107m
Calais Wood
Ettridge Farm
Hedgerows
PEMBRIDGE LANE
Pembridge Lane
Path
Stocking Wood
Task Responsibility
CMS led, officer/contractor delivered
CMS led, volunteer delivered
Scale @ A3
1:3,500
Date
March 2024
Rev
01
Countryside Management Service
N
0
80
160
m


Assessment of the suitability of the site for wood ant relocation
Review directional signage and replace large directional way markers
Put together species list for the site
Review year 1 actions
Fell Scots pine and clear scrub around heather patch
'Re-veteranise' hybrid turkey oaks
Claypits Wood
Track
Appoint an ecological consultant to update/obtain a GCN disturbance licence
Final area of SSSI restoration felling, delayed from Autumn 2023
Heavily thin Lawson's cypress
Determine the exact locations of zone 3 scallops
Commission the design and production of replacement sculptures for the sculpture trail
Grazing compartment fencing repairs
Repair water damage to the main ride
Thinning of this area including halo thinning and removal of trees in poor condition
Extension of boardwalk up to watercourse including bridge replacement
Calais Wood
107m
Ettridge Farm
98m
Hedgerows
PEMBRIDGE LAN
Pembridge Lane
Stocking Wood
Path
Compartments
6
5
4
3
2
1
Broxbourne and Bencroft Wood
Greenspace Action Plan 2024-2029
Year 1 Actions
Broxbourne Wood
Legend
Car park sign
Entrance sign
Existing structures
Lectern
Orientation panel
Stock fence
Watercourse
Car park
Coniferous woodland
Wood pasture restoration
Mixed woodland
New boardwalk
Old boardwalk
Pond
Ride
Surfaced track
Unsurfaced path
Task Responsibility
CMS led, officer/contractor delivered
CMS led, volunteer delivered
Scale @ A3
1:3,500
Date
April 2024
Rev
01
Countryside Management Service
0
80
160
m

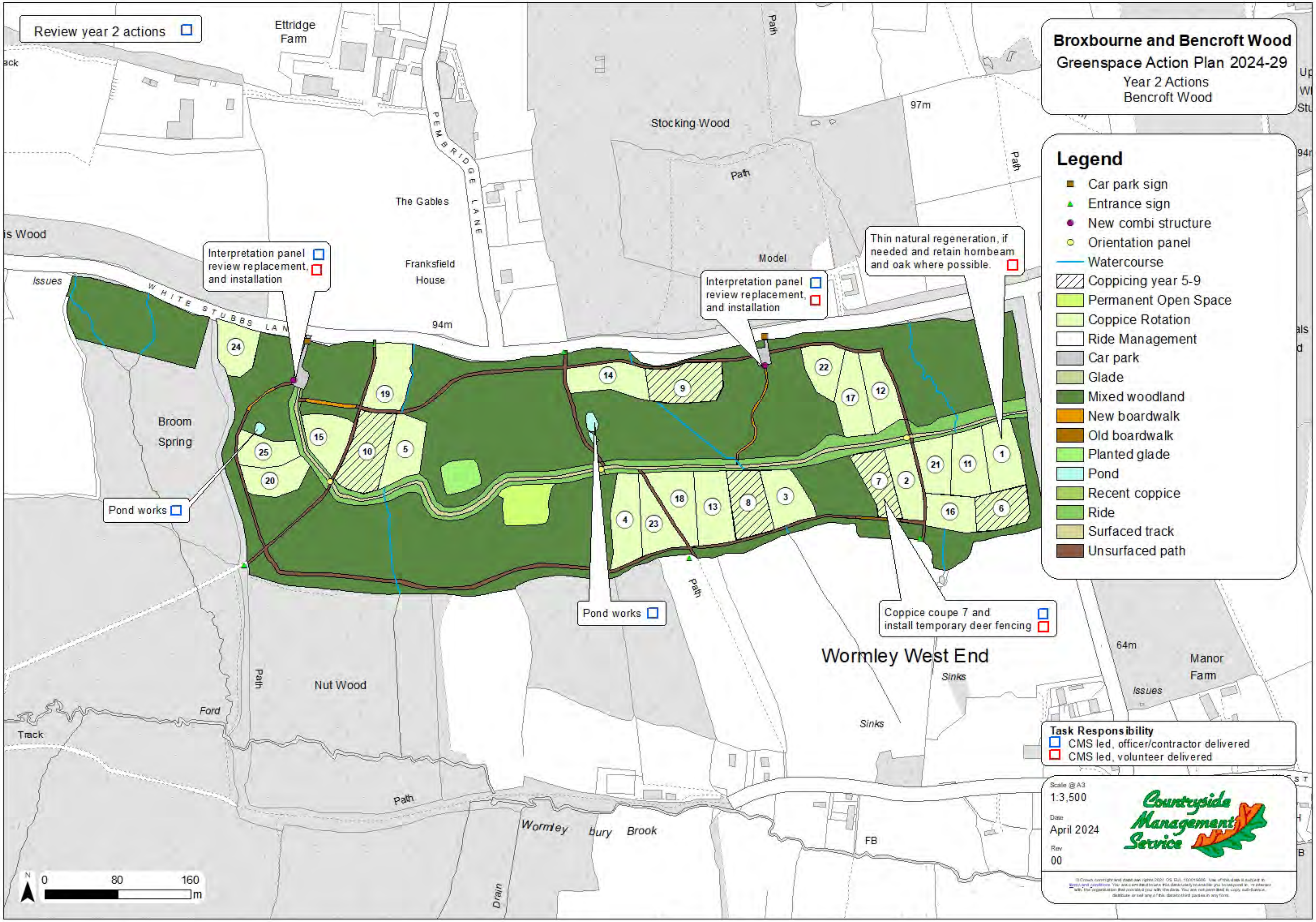

Application to Natural England for permission to translocate wood ants
Review year 2 actions
Compartments
6
5
4
3
2
1
Broxbourne and Bencroft Wood
Greenspace Action Plan 2024-29
Year 2 Actions
Broxbourne Wood
Legend
Car park sign
Entrance sign
Existing structures
Lectern
Orientation panel
Stock fence
Watercourse
Car park
Coniferous woodland
Wood pasture restoration
Mixed woodland
New boardwalk
Old boardwalk
Pond
Ride
Stumps
Surfaced track
Unsurfaced path
Cowheath Wood
Track
Track
Claypits Wood
SSSI restoration - removal of stumps and ground preparation
Surveying of invertebrate assemblages of SSSI area and identified translocation site (subject to funding)
Removal of selected pine trees within this area to allow nautral regeneration
Construct 3 leaky dam structures
Re-distribute granitel in west car park
Interpretation panel review, replacement and installation
Thinning of this area including halo thinning and removal of trees in poor condition
Calais Wood
Carry out pond restoration works
Ettridge Farm
98m
Interpretation panel review, replacement and installation
Re-distribute granite in east car park
107m
Track
Track
Hedgerows
PEMBRIDGE LAN
Pembridge Lane
Path
Stocking Wood
PEMBRID
Task Responsibility
CMS led, officer/contractor delivered
CMS led, volunteer delivered
Scale @ A3
1:3,500
Date
April 2024
Rev
01
Countryside Management Service
N
0
80
160
m



Broxbourne and Bencroft Wood
Greenspace Action Plan 2024-29
Year 3 to 5 Actions
Broxbourne Wood
Request site records from Herts Environemental Records Centre yr5
Review year 3 actions
Review year 4 actions
Review year 5 actions and write a new mangement plan
Coppicing of trees in wet flush Yr 4
Coppicing of trees in wet flush Yr 3
Translocation of wood ants once previous steps have been completed Yr 3
Aftercare of broadleaf underplanting
Carry out underplanting of broadleaves in areas lacking sufficient natural regeneration
Removal of selected trees from the SSSI grazing compartment Yr 3 & Yr 5
Lay hedge alongside west car park Yr 5
Removal of selected pine trees within this area to allow nautral regeneration Yr 3 & Yr 5
Compartments
Legend
Car park sign
Entrance sign
Existing structures
Lectern
Orientation panel
Stock fence
Watercourse
Car park
Coniferous woodland
Wood pasture restoration
Mixed woodland
New boardwalk
Pond
Ride
Surfaced track
Unsurfaced path
Task Responsibility
CMS led, officer/contractor delivered
CMS led, volunteer delivered
Scale @ A3
1:3,500
Date
April 2024
Rev
01
Countryside Management Service
Cowheath Wood
Claypits Wood
Calais Wood
Stocking Wood
Hedgerows
Pembridge Lane
PEMBRIDGE LANE
Track
Path
104m
107m
98m
0 80 160 m


Broxbourne and Bencroft Wood
Greenspace Action Plan 2024-29
Annual and Regular Actions
Bencroft Wood
Seek further funding for management plan operations
Take fixed point photographs
Ecological monitoring
Implementation of tree risk strategy
Maintenance of site infrastructure
Performance of annual litter contract
Check culverts
Maintain deer fenced coppice coupes
Publicise management through social media and on site
Strim car park edges and exit splays
Implementation of Oak Processionary Moth (OPM) Management Plan, surveying and nest removal.
Carry out ride maintenance
Bracken control - rolling and mechanical removal
Maintenance planted glade
Maintenance of permanent open glade
Legend
Car park sign
Entrance sign
New combi structure
Orientation panel
Watercourse
Coppicing year 6-10
Permanent Open Space
Coppice Rotation
Ride Management
Car park
Glade
Mixed woodland
New boardwalk
Old boardwalk
Planted glade
Pond
Recent coppice
Ride
Surfaced track
Unsurfaced path
Task Responsibility
CMS led, officer/contractor delivered
CMS led, volunteer delivered
Scale @ A3
1:3,500
Date
March 2024
Rev
01
Countryside Management Service
Stocking Wood
The Gables
PEMBRIDGE LANE
WHITE STUBBS LANE
House
Cottages
Broom Spring
Nut Wood
Wormley West End
Manor Farm
Wormley
Brook
97m
94m
64m
Issues
Sinks
Ford
Track
Path
FB
Drain
0 80 160 m
N


Broxbourne and Bencroft Wood
Greenspace Action Plan 2024-29
Year 1 Actions
Bencroft Wood
Approach the Woodland Trust to explore opportunities for collaboration across the NNR
Review directional signage an replace large directional way markers
Put together species list for the site
Review year 1 actions
Get a contractor to move a large felled tree to block unwanted access to the woodland from West End Lane
Repair water damage to the main ride
Coppice coupe 6 and install temporary deer fencing
Determine the exact locations of zone 3 scallops
Legend
Car park sign
Entrance sign
New combi structure
Orientation panel
Watercourse
Coppicing year 6-10
Permanent Open Space
Coppice Rotation
Ride Management
Car park
Glade
Mixed woodland
New boardwalk
Old boardwalk
Planted glade
Pond
Recent coppice
Ride
Surfaced track
Unsurfaced path
Task Responsibility
CMS led, officer/contractor delivered
CMS led, volunteer delivered
Scale @ A3
1:3,500
Date
April 2024
Rev
01
Countryside Management Service
Stocking Wood
The Gables
Franksfield House
Model Cottages
PEMBRIDGE LANE
WHITE STUBBS LANE
Broom Spring
Nut Wood
Wormley West End
Manor Farm
Wormleybury Brook
97m
94m
64m
Path
Issues
Sinks
Ford
Track
Drain
FB
0 80 160 m



Broxbourne and Bencroft Wood
Greenspace Action Plan 2024-29
Year 2 Actions
Bencroft Wood
Review year 2 actions
Legend
Car park sign
Entrance sign
New combi structure
Orientation panel
Watercourse
Coppicing year 5-9
Permanent Open Space
Coppice Rotation
Ride Management
Car park
Glade
Mixed woodland
New boardwalk
Old boardwalk
Planted glade
Pond
Recent coppice
Ride
Surfaced track
Unsurfaced path
Interpretation panel review replacement, and installation
Interpretation panel review replacement, and installation
Thin natural regeneration, if needed and retain hornbeam and oak where possible.
Pond works
Pond works
Coppice coupe 7 and install temporary deer fencing
Task Responsibility
CMS led, officer/contractor delivered
CMS led, volunteer delivered
Scale @ A3
1:3,500
Date
April 2024
Rev
00
Countryside Management Service
Ettridge Farm
Stocking Wood
The Gables
Franksfield House
PEMBRIDGE LANE
WHITE STUBBS LANE
Model
Broom Spring
Nut Wood
Wormley West End
Manor Farm
97m
94m
64m
Issues
Sinks
Ford
Track
Path
Wormley
Brook
FB
Drain
0
80
160
m


Review year 3 actions
Review year 4 actions
Review year 5 actions and write new mangement plan
Broxbourne and Bencroft Wood
Greenspace Action Plan 2024-29
Year 3 to 5 Actions
Bencroft Wood
Legend
Car park sign
Entrance sign
New combi structure
Orientation panel
Watercourse
Coppicing year 5-9
Permanent Open Space
Coppice Rotation
Ride Management
Car park
Glade
Mixed woodland
New boardwalk
Old boardwalk
Planted glade
Pond
Recent coppice
Ride
Surfaced track
Unsurfaced path
Coppice coupe 9 and install temporary deer fencing in Yr 4
Thin natural regeneration in coupe 2 and retain hornbeam and oak where possible in Yr 3
Thin natural regeneration in coupe 3 and retain hornbeam and oak where possible in Yr 4
Coppice coupe 8 and install temporary deer fencing in Yr 3
Coppice coupe 10 and install temporary deer fencing in Yr 5
Once the current Countryside Stewardship agreement comes to an end communicate with Natural England and plant space with oak trees from site collected acorns in year 5.
Thin natural regeneration in coupe 4 and retain hornbeam and oak where possible in Yr 5
Trial coppicing a 50m section of woodbank along the southern boundary and protect form deer browsing in year 3 in conjuction with coppice coupe 8.
Task Responsibility
CMS led, officer/contractor delivered
CMS led, volunteer delivered
Scale @ A3
1:3,500
Date
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Rev
00
Countryside Management Service
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Wormley bury Brook
FB
97m
94m
64m
0
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160
m

7.0 SPECIFICATIONS

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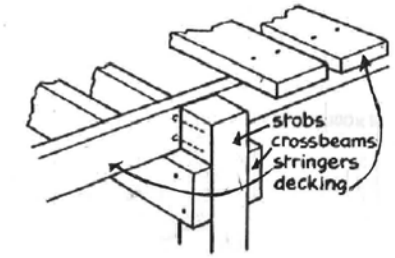
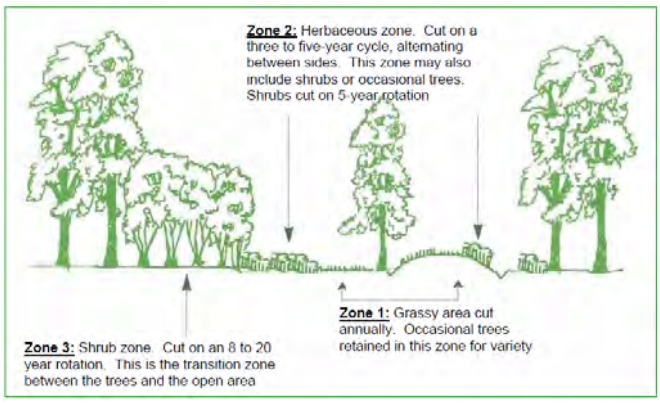
	1 General prescriptions relevant to all operations
Habitat Retention	▪ All mature **sallow** to be retained wherever practical. Only coppice 10-20% of sallow in any given area e.g. ride side or glade per annum, in order to retain eggs of the Purple Emperor butterfly undisturbed and promote a varied age structure. ▪ **Honeysuckle** to be retained wherever practical, in particular shaded groups. This may require a tree or patch of trees to be retained if a particularly good area of honeysuckle is found. ▪ Significant **oak** or **hornbeam** trees to be retained. ▪ Extra care is to be employed when working in sensitive stream-side and wetland areas to minimise damage to stream banks and associated vegetation. Wet flushes containing **alder** should be left and trees retained to maturity. ▪ Retain all standing and fallen **dead wood** where it is safe so to do, and take opportunities to increase dead wood provision. ▪ Care should be taken to protect **ancient woodbanks** from mechanical damage. ▪ Within the SSSI at Broxbourne Wood, **broom**, **bramble** and **scrub** are valuable habitats and should be managed rotationally. These habitats are currently developing and it is too soon to plan their management across the compartment, but work towards ten-year rotational management. ▪ Within the SSSI, retain stands of mature trees to provide cover and ensure a good age range of **aspen** is preserved.
Visitor Safety	▪ Members of the public to be kept a safe distance from active tree works with signs and or banks men. Access routes may require temporary closure. Additional care to be employed when working adjacent to the Broxbourne Wood Sculpture Trail and permissive bridleway. Make use of reinforced crossing points where possible. ▪ Where site boundaries may be compromised by tree removal, stumps are to be left higher or timber to be rolled into position to prevent unauthorised vehicular access. ▪ Where work is taking place adjacent to the roadside bring this to the attention of Herts Highways prior to work taking place.
Timing	▪ Unless otherwise stated, all habitat management work will be undertaken between 1st September and 28th February. ▪ All woodland management work will be undertaken between 1st September and 31st October to minimise damage to soils and tracks.

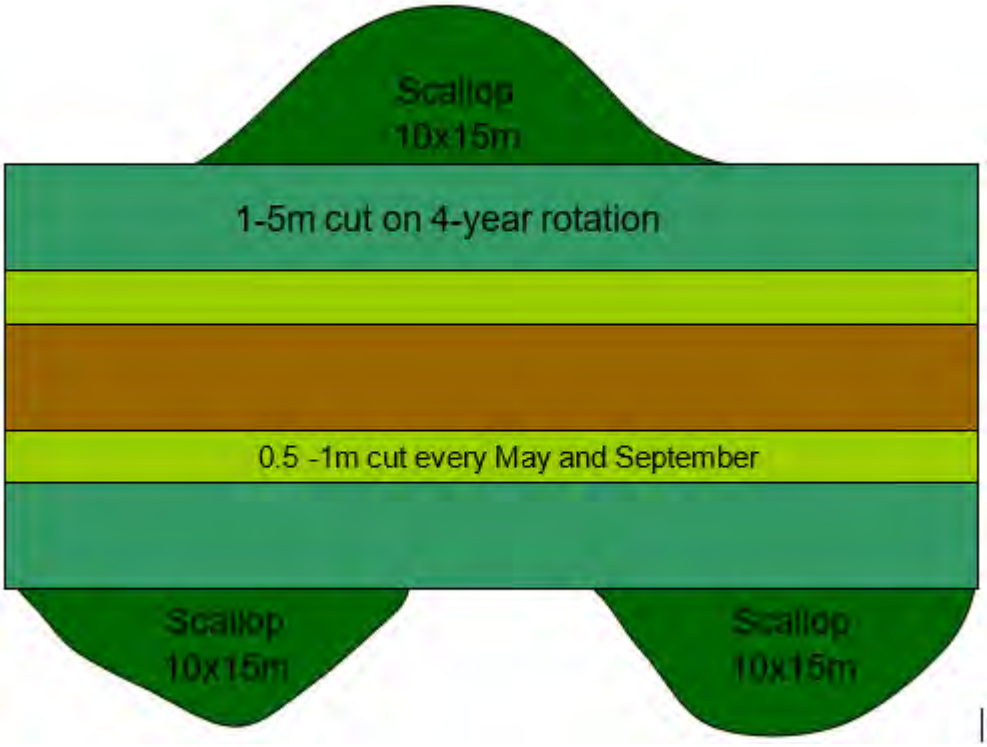
2 Ecological monitoring					
SUBJECT	**FREQUENCY**	**TIMING**	**RESPONSIBLE**	**CONTACT**	**NOTES**
Butterflies	Annual	April - September	Herts & Middlesex Butterfly Conservation	Andrew Wood	Formal transects at both Broxbourne & Bencroft Wood.
Moths	Annual	April - September	Herts Moth Group	Colin Plant	Moth trapping
Woodland birds	Annual	March - September	Herts Natural History Society		
Reptiles	Annual	April - June	CMS	CMS	There may be an opportunity to establish some ongoing monitoring carried out by Wood Wardens or other volunteers
Flora	Annual	April - August	Herts Natural History Society	Alla Mashanova and Ian Denholm (vascular plant recorders)	
Phase 1 Habitat Survey	Every 5 years	May - September	External consultant		
Fixed point photography	Every 15 months	Ongoing	CMS	CMS	Refer to Appendix L

	3 Boardwalk construction
Purpose	To maintain existing boardwalks, ensuring substructures are constructed from recycled plastic (posts, stringers etc). Any new board walks will be reviewed to determine if there is a better option to improve access.  
Method	▪ Boardwalk to be of 1.2m width, treated softwood decking planks on top with recycled plastic substructures. **Timber specification (mm)** Decking — sawn treated softwood — 100 x 45 x 1200 Crossbeams — recycled plastic — 100 x 45 x 900 Stringers — recycled plastic — 120 x 50 x 3600 Stobs — recycled plastic — 100 x 100 x 600  ▪ Bolt two crossbeams to two stobs with M12 220mm coach bolts to form an ‘H’ structure. Top of crossbeam to be 120mm down from top of stob. ▪ Two parallel builders lines will be strung out at a width of 1.2m to give the correct line for construction ▪ ‘H’ structures to be dug into the ground approx 300mm deep every 1.8m. ▪ To begin, use a spirit level to get cross sections level and tamp in first ‘H’ section.

	▪ Dig two more 300mm deep holes 1.8m along the line for next stob/crossbeam section. Stand section in holes and check for level in both directions. ▪ Lay 3.6 m long stringers on top of crossbeams, check for level and attach with decking screws. ▪ Continue along the length of the line. ▪ For crossing ditches extra support will be given by using a third stringer in the centre and having closer spacing of 'H' sections as necessary. ▪ Decking planks screw to the stringers with four 80mm decking screws. ▪ Square mesh to be added on top of decking boards to provide additional grip (top rungs running parallel to the boardwalk route).
Who	CMS volunteers/wood wardens
Future management	Repairs carried out as required by wood wardens and CMS volunteers
	4 Ride management
Zone 1	The edges of the rides at Broxbourne Wood and Bencroft Wood, as shown on the maps in Appendix M, will be cut once a year in September by 0.5-1m wide to maintain a clear path for visitors.
Zone 2	The next zone, 1-5m wide from ride edge will be cut on a 4 year rotation to maintain vegetation in a manageable state whilst providing valuable scrub habitat. One quarter of the total length of ride edge should be cut annually. Larger trees within this zone are to be retained, where they have not been coppiced previously. *Refer to habitat retention above for specific species guidance*
Zone 3	The 5-10m zone will be cut rotationally on a long cycle (at least 25 years). Every year scallops (approx 10x15m arcs) will be cut into the woodland edge to increase the width of the ride at certain points. Approximate location of scallops is shown on the map in Appendix M The cut scallop area will then be left to re-grow providing a succession of habitats from scrub back to woodland into the future. Each year new scallops will be cut so that there is a mosaic of growth stages across the woodland. This is essential for birds, butterflies and other invertebrates. *Refer to habitat retention above for specific species guidance*



Example of what ride zone management might look like, zone widths and intervals between cutting for Broxbourne and Bencroft Wood to be based on the descriptions in the table above. Source: oakleywood.org.uk



	5 Permanent open space management
Purpose	To maintain open spaces within the woodland.
Method	▪ Cut the areas identified as permanent open spaces on the maps in Appendix M on a four year rotation. ▪ Different sections should be cut each year. ▪ Maintain a range of habitats from low cut sward through to mixed scrub woodland. ▪ Select trees to be retained. *Refer to habitat retention above for specific species guidance*
Who	CMS volunteers/wood wardens

Arisings	Brashy material can be cut into small lengths and scattered under existing trees, not within the open spaces. Arisings from cutting grass and other finer vegetation should be collected and removed from site where possible.
	6 Pond restoration
Purpose	To restore ponds to provide additional wet habitat within the woodland.
Method	• For pond restoration, remove surrounding woody cover and reprofile to original base. • Get quotes for work and commission contractor.
Who	Contractor
Future management	Future maintenance of the ponds to be carried out by Wood Wardens.
	7 Continuous Cover Forestry and reduction in extent of conifers
Purpose	Broxbourne Wood contains a matrix of woodland types and associated habitats, including semi-mature oak-hornbeam ancient woodland, compartments of conifer PAWS with mixed stages of management and regeneration. In Broxbourne Wood in particular, the dominance of commercially planted conifers has a detrimental effect on native wildlife. By removing conifers and helping native broadleaves to recover we will be re-establishing a natural woodland system of diverse structure and species composition. Specific conifers will be retained for aesthetic reasons. Groups and individual trees will also be retained across the woodland as part of its diverse species composition and to benefit particular species, such as hawfinch and firecrest. **Continuous Cover Forestry (CCF)** A term used to describe forest management methods which maintain continuous woodland conditions, rather than periodically removing whole crops of trees as clear felling systems do. In other words, the next tree generation will already be established when the old one is harvested. Primarily this is done by manipulating the over-storey through removal of individual trees or small groups, thus controlling the light regime and allowing natural regeneration to occur, without encouraging detrimental weed growth. This gives rise to 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.
Method	▪ In the 23ha of woodland area shown on the map in Appendix C, undertake **selective felling**, **regeneration felling and halo thinning** in a CCF approach.

	▪ **Selective felling**: create conditions to encourage natural regeneration and the development of mixed age classes through individual felling to allow more light to the woodland floor. ▪ **Regeneration felling**: carry out felling to encourage crown development and/or natural regeneration of native species such as oak and hornbeam. Where old trees are present, these will be given additional space by removing competing trees from under their canopies to provide sufficient room to promote a healthy crown. ▪ **Halo thinning**: Halo thinning around mature oak, to allow light and space to grow, primarily in compartment 1 and 3 ▪ In compartment 5, the block of Lawson's cypress should be heavily thinned, leaving strategic trees to maintain a boundary effect. ▪ Leave some stems of felled trees in large sections after felling operations to increase the amount of dead wood towards 20 tonnes per hectare as required within the UKFS. ▪ Where possible and away from areas of high public use, trees for removal should be ring barked to provide standing dead wood, towards a recommended density of four standing dead trees per hectare. ▪ Trees will be felled by contractor with a chainsaw. ▪ Stumps to be left as low to ground as possible and left to rot.
Who	Contractor
Arisings	▪ All timber will be cut to 3m lengths and where there are marketable quantities it should be stacked at the East car park (Broxbourne Wood) pending removal from site for sale. ▪ Commercially unviable brash will be chipped and sold for biomass.
Future management	Natural regeneration should be reviewed to establish the likelihood of success. If required, planting should be of locally appropriate native broadleaved trees (sessile oak and hornbeam) established at a density of 1100 trees per hectare. In the conifer reduction area, remove conifer regeneration in favour of any broadleaved saplings that develop.
	8 Hornbeam coppice – areas of older coppice
Purpose	Bencroft Wood has been shaped by the previous management of people. Hornbeam coppice was a valuable source of fuel wood in the past. Large stands of hornbeam coppice now go unmanaged. If this continues the stools will be lost through degeneration and wind-throw. There is financial value in this coppice material as firewood whilst the effect of opening up areas by coppicing benefits wildlife through increased habitat diversity.

Method	**Coppicing (as shown on the compartment map in Appendix C)** ▪ Coppice native broadleaved species, cutting on an angle above the stub to allow water to run off. Stubs should be cut on good cambium above the previous cut. **Protection** ▪ Area to be protected by deer fencing as per FC Practice note 9 for at least three years following coppicing and until regrowth and regeneration is sufficiently high to withstand deer damage. ▪ The line of the fencing should be cleared of debris before installation, and inside the line of brash. ▪ Posts should ideally be made from suitable hornbeam timber in the brash produced by creating a point on one end and knocking into the ground at intervals of 2m(approx.) ▪ Fencing should be secured to posts with staples and a skirt at the base of the fencing should be weighed down by timber. **Area** ▪ 0.25ha coupes (coppice blocks) to be cut annually on a 25 year cycle.
Who	Contractor
Arisings	▪ Timber should be cut to marketable length (min. 3 metres) and stacked at the end of each coppice coupe and removed when ground conditions are favourable. ▪ Leave equivalent of 3 trees (>200mm diameter) per hectare in the form of log piles ▪ Smaller material can be used to dead hedge the boundaries of the coupe or cut into small lengths and scattered under existing trees, not on newly opened areas. ▪ Where possible and away from areas of high public use, trees which would otherwise be coppiced should be ring barked to provide standing dead wood, aiming for 1-2 trees per coupe.
Future management	Inspect deer fencing annually and maintain in a fit state to prevent deer access. After approximately five years, review regeneration and apply specification 9 below.
	9 Hornbeam coppice – areas of recent coppice
Purpose	To develop commercially viable hornbeam coppice and to sustain coppice management in the long term.
Method	▪ Around five years after the initial re-coppicing described above, review regeneration of stools and natural regeneration between stools. ▪ Where dense natural regeneration has occurred, trial thinning to 1m x 1m spacing between retained trees, leaving 3m x 3m spacing around viable stools. Retain hornbeam wherever

	possible, and leave non-hornbeam species when this is the only option to fill a gap. Retain clusters of oak saplings as future standards. ▪ Leave areas within the same coupe un-thinned to compare outcomes. ▪ Maintain deer fencing to protect ongoing regeneration in remaining open spaces. ▪ If stools fail to regenerate or natural regeneration is insufficient, undertake replanting with hornbeam to achieve a stocking density of 1100 trees/ha at approximately 3m x 3m spacing. Restock oak standards by planting tight groups of five whips and over time thinning to one. No planting within 3m of viable stools. All hornbeam or oak to be used for restocking are to be sourced from onsite either through relocation of saplings or gathering seeds and growing on.
Who	CMS volunteers/wood wardens
Arisings	Used to dead hedge the boundaries of the coupe or cut into small lengths and scattered under existing trees, not on newly opened areas.
Future management	Monitor success of this approach in two coupes trialled during this management plan period. Review whether it is necessary or if future coupes can be left to natural regeneration. Also consider the need for further thinning of regeneration to 3m x 3m spacing after 5-10 years. If restocking is carried out, these areas to be maintained in good condition for 10 years following restocking. They will require weed control by removal of bramble and other encroaching species in the first 3 years.
	10 Coppicing hornbeam stubs on ancient woodbanks
Purpose	Woodbanks with hornbeam stubs are very important archaeological features of the woodlands in this area. They mark the boundaries of the woodland and have remained intact for hundreds of years. Ecologically, they represent the oldest trees in both Broxbourne and Bencroft Wood and due to their age and size are important for bats and invertebrates which inhabit older trees. Traditionally the stubs would have been cut on a regular cycle for fire wood, animal fodder and building materials. As they get older, if unmanaged, they develop large heavy limbs and become more prone to limb failure and wind throw. Due to their roadside location and the underlying archaeology this should be addressed through the reintroduction of a cutting regime. Prior to re-cutting the surrounding area should be opened up to the light by selective removal of shading trees so that subsequent re-growth gets maximum sunlight.
Method	▪ Selective felling to achieve 7m of open canopy adjacent to stubs to be cut along the length of the woodbank. ▪ Subsequent re-cutting of old hornbeam stubs by cutting on an angle above stub to allow water to run off.

	▪ Stubs should be cut on good cambium above the previous cut. ▪ Protection from browsing with temporary deer fencing
Who	Contractor
Arisings	▪ Where there are sufficient quantities, timber should be cut to marketable length (min. 3 metres) and stacked by the ride side to be taken to Broxbourne Wood East car park by contractor pending collection. Alternatively timber could be stacked adjacent to West End Road entrance at the eastern end of the central, permissive bridleway through Bencroft Wood. ▪ Leave equivalent of 3 trees (>200mm diameter) per ha. in the form of log piles ▪ Smaller material can be used to dead hedge areas visible to the public or cut into small lengths and scattered under existing trees, not on newly opened areas.
Future management	Monitor re-growth of stubs and establish a suitable rotation length.
	11 Scrub management within Broxbourne Wood SSSI compartment
Purpose	To maintain a dynamic balance of scrub and grassland as the SSSI restoration progresses, ensuring that priority species are present in a full range of age classes, and taking into account the rapid changes in the habitat in this area.
Method	▪ On an annual basis, remove regenerating saplings, coppice scrub and clear bramble. ▪ This work should be undertaken at varying densities across the SSSI compartment, depending on the characteristics of each area. As the habitat develops, aim to have more open habitat on the tops and more cover in the bottoms. ▪ As an overall guide, manage retained scrub and bramble on a ten-year rotation to provide a variety of ages. ▪ Priority species within the compartment include **broom**, **aspen** and **sallow**. ▪ **Broom**: manage on a ten year rotation where needed. ▪ **Aspen**: retain some stands in the valley bottoms to provide mature aspen. Allow some aspen regeneration to reach maturity. ▪ **Sallow**: see specification 13.
Who	CMS volunteers/wood wardens.
Arisings	Depending on scale, may be stacked in habitat piles or removed from the site.
Future management	Review at the conclusion of the felling phase of the SSSI restoration.
	12 Tree planting aftercare

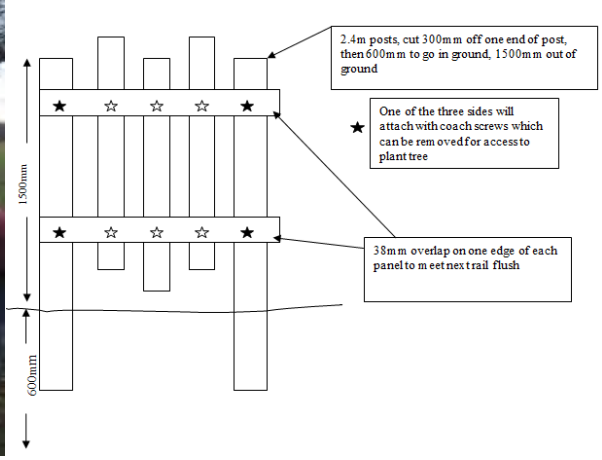
Purpose	To restore areas of new planting which have become overcrowded and outgrown their protective tree tubes.
Method	▪ Volunteers to use scissors to remove redundant tree tubes. ▪ Tube disposal – tubes to be put one inside the other in groups of 5 and removed and disposed of appropriately by CMS. ▪ Gently release suppressed planting – individual trees competing with planted stock to be coppiced where encroaching upon the crown of planted trees. Where competing trees are both planted, the best specimen with straightest stem and best form to be retained. ▪ Prune side branches with a clean cut approximately 1 cm away from the "collar" to leave a small stub. ▪ In planted wet flushes allow sallow and alder to become dominant.
Timing	▪ Formative pruning and thinning to be done between 1st November and 28th February. Tree tube removal can be done year-round.
Who	CMS volunteers
Arisings	Arisings to be left in-situ scattered on the ground.
Future management	Re-assess new planting areas in 10 years' time. Any trees competing with good oak specimens may need to be re-coppiced and planted stock may require further thinning.
	13 Management of sallow (*Salix caprea)* trees
Purpose	The purple emperor butterfly lays its eggs on the leaves of large sallow in shade; to ensure the species breeds successfully at Broxbourne Woods, sallow must be retained and where possible its distribution increased. Sallow is sun loving, often lost through succession of unmanaged woodland as it becomes shaded out by longer lived species.
Method	Depending upon the size, age and condition of individual trees, their position in relation to others and their position in the woodland, one of the following options may be most appropriate: ▪ Coppicing to reinvigorate mature specimens – 10-20% of specimens within the operational area per year. ▪ Coppicing or pollarding individuals which have been damaged through forestry operations. ▪ Thinning to maintain a clear area around selected individuals to prevent competition from neighbouring trees. ▪ Establishment of new sallow should be carried out by planting cuttings in selected areas within the grazing compartment.
Who	Suitable for contractor or volunteers depending on size of tree.

Arisings	Brash and timber should be cut and stacked in semi-shaded position nearby to preserve insects and eggs.
Future management	Monitor re-growth and re-coppice when necessary to prolong life of the tree. Maintain open areas free from competing trees on rides and in glades. Manage areas of newly planted sallow in accordance with specification 12.
	14 Wet flush areas
Purpose	Wet flush areas of **sallow, willow and alder** should be coppiced on rotation to provide a variety of ages and structures of growth.
Method	Cut 10-20% of stems to ground level per year in blocks on rotation.
Who	Suitable for volunteers.
Arisings	Scatter brash in among trees. Cut timber to 1m lengths and stack among trees within the wet flush as habitat piles.
Future management	Monitor stump regrowth and manage on annual rotation.
	15 Grazing
Purpose	The restored open areas require continued grazing to encourage development of heathland/acid grassland and prevent succession to woodland. Extensive cattle grazing has many benefits including: promotion of a varied floral structure through selective grazing habits, reduction in tree establishment through browsing, localised poaching providing habitat for key species such as lousewort, dung from animals creating an important resource for invertebrates and in turn bat and bird species. Use of traditional at-risk or rare breeds is compatible with public access, creates a visitor attraction and supports rural business and food production.
Method	Native breed cattle will be used to graze the SSSI compartment. Longhorn and red poll cattle have been used successfully in the past; both have a docile nature and are suited to this public site with high dog presence. The animals will be checked by trained volunteers six days per week with the stock being checked by the grazier on the other day. Grazing density will be very carefully monitored and adjusted to ensure that desired vegetation recruitment is achieved. From 2024 the stocking rate will be eight animals for eighteen weeks from late May. This will be reviewed as the SSSI restoration programme continues.

	After the cattle have been removed each year, some follow up work will be required to remove saplings and scrub that have been missed by the cattle, see specification 11.
Who	Specialist grazing contractor or local farmer. Follow up work suitable for volunteers.
Monitoring	Daily stock checking to be carried out by volunteer 'stock checkers' once they have been on a training course. Any issues with cattle to be reported back to the grazier and issues with the fencing reported to CMS as out lined in the NNR stock checking flow chart.
	16 Bracken control
Purpose	If left uncontrolled bracken will establish quickly on acidic soils and dominate all other vegetation, reducing establishment of target species and making grazing unsuitable due to its toxicity to stock.
Method	Large areas of bracken will be managed through 'bruising' where access permits; this will be carried out using a mechanical roller pulled by a vehicle. This activity was effective during the previous plan, and its impact will continue to be monitored throughout the lifetime of this plan. Presence of bracken's preferred growth medium will be minimised in newly opened areas through removal of accumulated leaf/needle litter, in selected areas. Trampling by stock and increased public access tend to bruise/damage developing stems, which also acts to reduce the vigour of bracken during the growing season. In areas that have been recently cleared and/or planted, small scale hand control may also be effectively employed.
Who	Contractor and volunteers
	17 Litter control
Details	▪ Litter and waste up to $1m^3$ to be collected from car parks including up to 1m distance into surrounding vegetation around car park edges – car parks are listed in table below. ▪ Litter and waste to be collected fortnightly. ▪ All collected waste shall be disposed of in accordance with all relevant Acts of Parliament including the Environmental Protection Act 1990, Duty of Care Regulations, The Collection and Disposal of Waste Regulations 1988, relevant Waste Management Papers and all relevant Statutory Instruments and any other requirements laid down by current statute throughout the period of this contract ▪ 28 visits per annum.

	18 Sculpture trail
Purpose	Sculptures along the sculpture trail are increasingly tired and in need of refreshing. Commissioning a new set of sculptures while removing those in worst condition will provide added interest for regular visitors and an attraction for potential new visitors.
Method	▪ Set a budget for the scheme and source funding ▪ Produce a brief/specification document to be sent to potential designers/artists. Make the budget explicit and award the contract based on quality. ▪ Set up a re-launch event for the sculpture trail.
Who	CMS to lead, contractor to carry out work.
Future management	Ensure that the chosen scheme uses materials that have good resilience to outdoor conditions and other pressures and will require minimal maintenance.
	19 Construct leaky woody dams
Purpose	Broxbourne and Bencroft Woods are at the top of their respective catchments, and the watercourses running through them generally have very low flows. In higher flow conditions, leaky woody dams aim to increase interception and infiltration. This increases the amount of water which is retained in the catchment and does not contribute to flows downstream which may cause flooding.
Method	▪ Identify three locations for leaky woody dams along the main watercourse in Broxbourne Wood. ▪ The dams should be built in series of at least three, at least 10m apart. ▪ Secure Ordinary Watercourse Consent for the structures. ▪ Dams should be formed of logs large enough to span the channel, and secured by being dug into the bank, braced against live trees or posts and wired together. They should be up to 1m in height. ▪ Dams should allow low flows to pass unimpeded at all times.
Who	CMS volunteers/wood wardens
Future management	Monitor the structures on an annual basis and reinforce if and when necessary.
	20 Interpretation
Purpose	All onsite interpretation and signage to be reviewed.
Method	▪ Update, produce and install interpretation panels situated in the two car parks at Broxbourne and the two car parks at Bencroft (four in total). To be based on previous designs. ▪ Maps to be updated along with the updated sculpture trail. ▪ For each panel, provide proof of black and white illustration before colouring.

	▪ For each panel, provide two proof stages of full colour design in hard copy and PDF format. ▪ Supply 4 upright A3 lectern and notice board combination structure for the panels to sit in.
Who	CMS to lead, contractor to design and produce interpretation, volunteers to install.
Future management	Ensure that the interpretation uses materials that have good resilience to outdoor conditions and other pressures and will require minimal maintenance. Any maintenance required to be carried out by wood wardens.
	21 Directional signage
Purpose	All onsite directional signage to be reviewed.
Method	▪ Review existing directional signage including large directional signage and route markers. ▪ Find a suitable replacement for large directional signage. ▪ External contractor to produce large directional sign based on the different coloured routes. ▪ Once delivered volunteers to install over several weeks. ▪ Review other smaller route markers and replace where needed.
Who	CMS to lead, contractor to design and produce signage.
Future management	Ensure that the signage is constructed out of material that are durable for outdoor installation.
	22 Grazing compartment fencing
Purpose	Grazing compartment fencing to be monitored and posts and rails to be replaced as required.
Method	▪ Sections of 10m-15m to be worked on at one time. ▪ Rails to be carefully removed from posts and retained where possible. ▪ Old rotten square posts to be removed. ▪ New peeled round posts, at least 100mm top diameter and 1.8m in length to be installed offset from the previous post locations by 30cm. ▪ Additional posts to be added where span between posts is too large where they have been offset. ▪ Rails to be reused where possible and if new rails are needed they should be replaced with like for like (35mm x 85mm 3.5m). ▪ Rails to be screwed to posts with suitable outdoor screws. ▪ All fencing timber to be hazard class 4 pressure treated softwood.

Who	CMS to lead, volunteers to install where small scale or if larger scale a contractor is to install.
Future management	Continued maintenance of fencing going forwards by volunteers and Wood Wardens.
	23 Hedge laying
Purpose	To carry out maintenance of the hedgerow using traditional techniques to create a good feature at the entrance to the car park and a stockproof barrier.
Method	▪ Clear around the bottom of the hedge to give yourself room to work and remove any rubbish. ▪ Select pleachers, which are the stems that are cut and laid. ▪ Trim excess brush from the nearside of the hedge, cutting back to the line of the hedge. ▪ Cut the pleachers at an angle near the base and bend them over to the opposite side of the hedge. ▪ Stake the pleachers at regular intervals to support them. ▪ Bind the top of the hedge with twigs or wire to make it more secure. ▪ Trim any excess branches or stems to give the hedge a neat appearance.
Who	CMS to lead, volunteers to deliver
Future management	Ensure that hedge laying is secured with stakes, some trimming may need to be carried out in future to maintain the hedge.
	24 Parkland tree guard
Purpose	To protect newly planted trees from being eaten by cattle.
Method	▪ 38mm x 88mm 3.6m length treated rails ▪ Horizontals for the guards are 900mm – 8 per guard ▪ Verticals are 1200mm – 12 per guard ▪ Have to fit this out of the 3.6m lengths ▪ 100mm x 100mm sawn treated 2.1m posts  
Who	CMS to lead, volunteers to deliver

Future Management	Ensure that cattle guards are maintained and timber is replaced where necessary and accessibility to the trees are maintained.
	25 Ride surface repairs
Purpose	Repairs to water damage on main rides
Method	This will require an approach which will both limit future erosion and repair any minor damage. ▪ Divert water running across the path into ditches and clear out ditches and culverts where required.  ▪ Level out surface topping if a channel has been created by running water as in the photo above. ▪ Add additional material if required (10mm to fines). ▪ Firm the areas that have been levelled to be firmed with a vibrating plate/roller.
Who	CMS to lead, volunteers to deliver
Future Management	Small scale future maintenance of main rides to be carried out by volunteers and lager scale works to be carried out by contractors.

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