

Version for external consultation Monday 19th
February to Sunday 31st March 2024

Warwickshire Woodlands Forest Plan 2024-2034

Reference OP10/21

Rachel Giles
Spring 2024



The mark of
responsible forestry

Forestry England
forests and woodlands
have been certified in
accordance with the UK
Woodland Assurance
Standard (UKWAS)



Application for Forest Plan approval Warwickshire Woodlands - Spring 2024

Forest district	West England Forest District
Woodland name	Warwickshire Woodlands
Nearest town	Stratford-upon-Avon; Warwick; Royal Leamington Spa
OS grid reference	Centre of the Plan area is at SP 2262 6304
Local authority	<ul style="list-style-type: none"> - Warwickshire County Council - Stratford on Avon District Council (Oversley and May's Wood) - Warwick District Council (Hay Wood and Weston & Waverley Wood) - Alcester Parish Council (Oversley) - Wootton Wawen Parish Council (May's Wood) - Baddesley Clinton Parish Council (Hay Wood) - Stoneleigh Parish Council (Waverley Wood) - Weston under Wetherley Parish Council (Weston Wood)

Plan area	338 hectares
Conifer felling	29.93 hectares
Broadleaf felling	0 hectares

- 1) I apply for Forest Plan approval for the property described above and in the enclosed Forest Plan.
- 2) I confirm that the scoping, carried out and documented in the consultation record attached, incorporated those stakeholders that the FC agreed must be included. Where it has not been possible to resolve specific issues associated with the Plan to the satisfaction of consultees, this is highlighted in the consultation record.
- 3) I confirm that the proposals contained in this Plan comply with the UK Forestry Standard.
- 4) I undertake to obtain any permissions necessary for the implementation of the approved Plan.

Signed... signature

Kevin Stannard, Forestry England Forest Management Director

Date... date

Signed..... Forestry Commission Area Director

Date of approval..... Date approval ends.....

Contents

	Page
Forestry England vision	4
About the Warwickshire Woodlands	5-9
Location	5
Landscape	5
Access	5
Ancient woodland	6
Biodiversity	7
Heritage	7
Current tree species	8-9
Current age composition	9
Warwickshire Woodlands - what we are going to do	10-18
Our vision for the Warwickshire Woodlands	10
Threats and challenges	10
Oversley analysis and concept	11
May's Wood analysis and concept	12
Hay Wood analysis and concept	12
Waverley and Weston Woods analysis and concept	13
Action plan	14
Our management prescriptions	15
Felling plan 2024-2034	16
Longer term felling plan 2024-2054	17
Future habitats and species	18

Appendices

Explanation of some of the terms used in the Forest Plan
Consultation record

Forestry England vision

Forestry England - who we are and what we do

Forestry England is the country's largest land manager.

Our purpose is to secure and grow the social, economic and natural capital value of the nation's forests.

The foundation of our organisation is our world-class sustainable management of the nation's forests.

Our vision for wildlife...

The nation's forests provide the most valuable places for wildlife to thrive and expand in England.

Our vision for people...

The nation's forests are a living treasure for all, deeply connected to people's lives improving the health and wellbeing of the nation.

Our vision for climate...

The nation's forests are resilient to climate change, increasing their value for communities by producing high-quality, sustainable timber and absorbing carbon emissions.

The above is taken from 'Growing the future: 2021-2026':

<https://www.forestryengland.uk/growing-the-future>

For more information about who we are and what we do, please visit:

<https://www.forestryengland.uk>

For an explanation of some of the terms used in this Forest Plan, see [pages 20-21](#).

Our vision for the Warwickshire Woodlands...

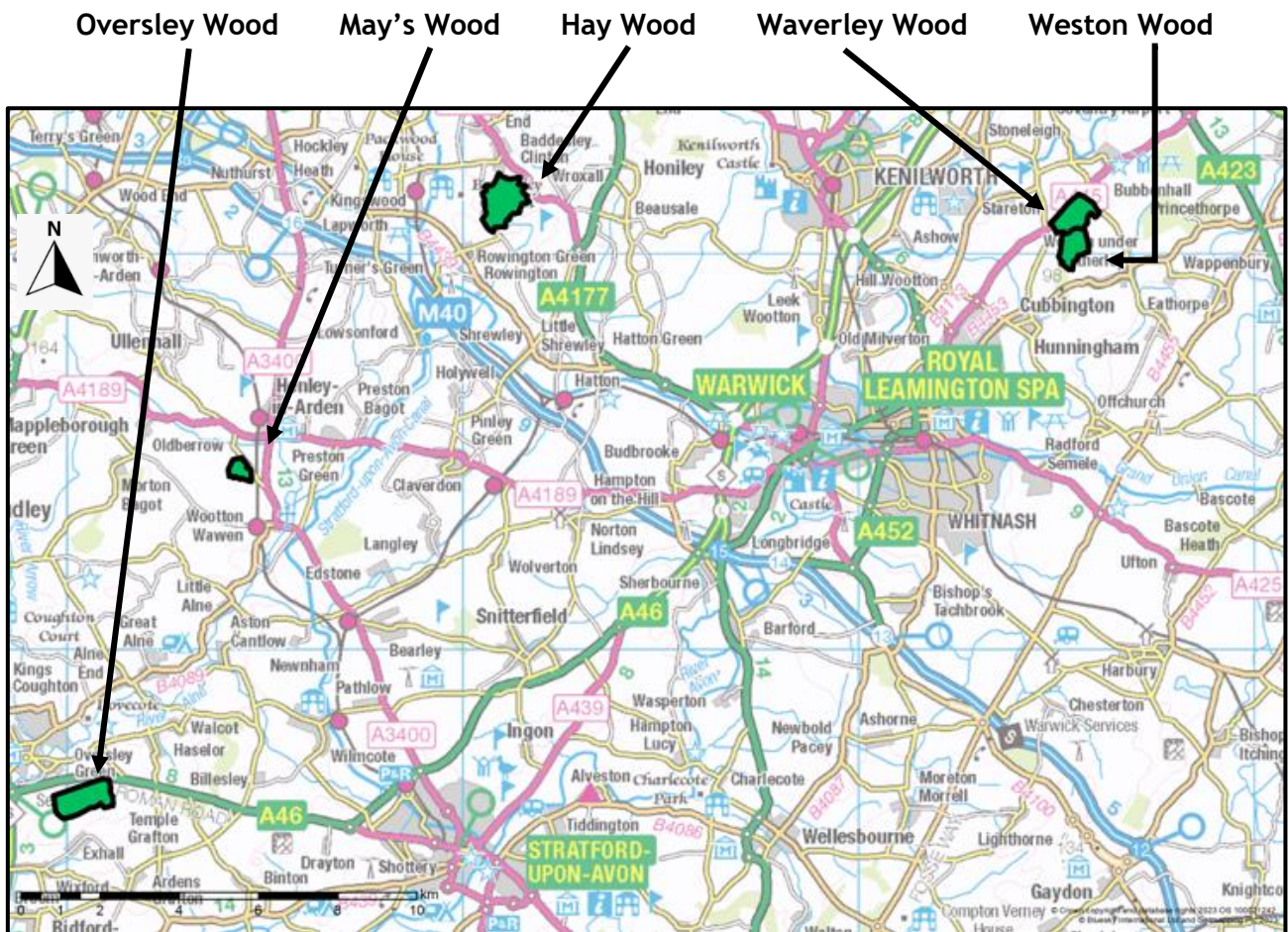
Through our active, carefully considered management, and the continued process of PAWS restoration, the Warwickshire Woodlands will generate a sustainable source of timber, mainly from conifers at first, and from productive broadleaf crops in later decades, while providing a wealth of other services, including space for people to enjoy, and places for biodiversity to flourish.

About the Warwickshire Woodlands

Location

The Warwickshire Woodlands Forest Plan area consists of five woodlands in Warwickshire - Oversley, May's Wood, Hay Wood, Weston Wood and Waverley Wood - which together cover just under 340 hectares. The forest block is divided by the M40 motorway, with Oversley and May's Wood lying to the south and west and the other three woods to the north and east (Figure 1).

Figure 1 - Location of the five woods that make up the Warwickshire Woodlands Forest Plan



Landscape

The Warwickshire Woodlands are low-lying, on predominantly level land, in an agricultural setting with small woodland blocks, and close to large urban settlements.

Access

Oversley, Hay Wood and Weston Wood are freehold, meaning that they are open to the public, whereas May's Wood and Waverley Wood are leasehold, with no public right of access. There are a few public footpaths / bridleways within and adjacent to the woods.

Ancient woodland



Ancient woodland is any area that has been wooded continuously since at least 1600 AD. It includes:

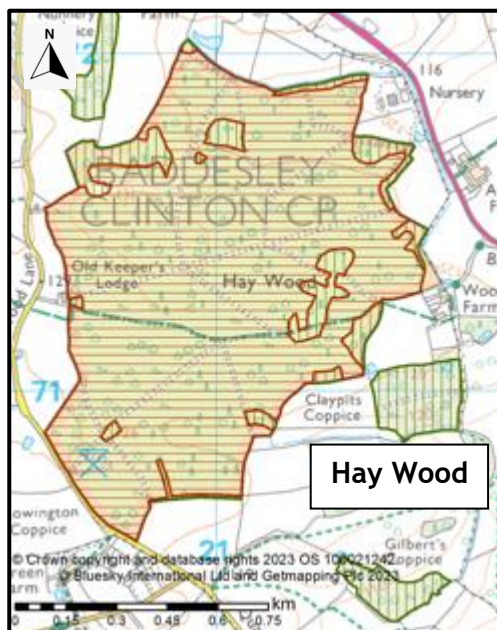
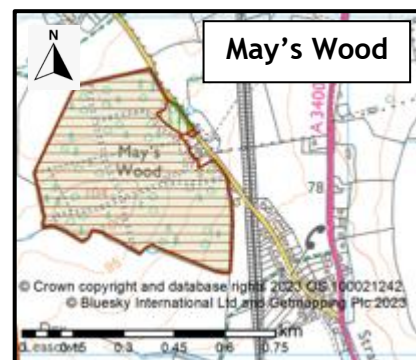
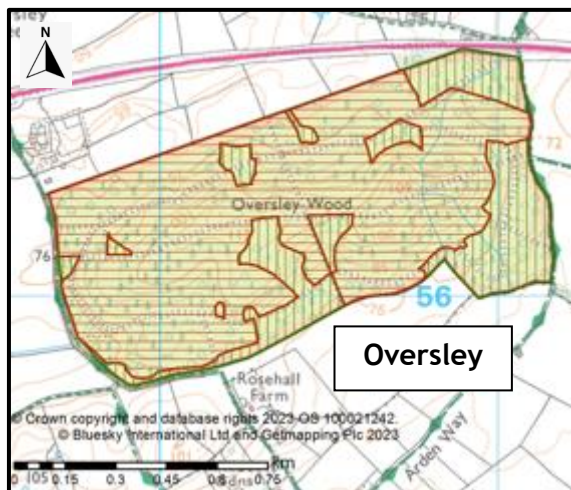
- ancient semi-natural woodland (ASNW), which is mainly made up of trees and shrubs native to the site, usually arising from natural regeneration;
- plantations on ancient woodland sites (PAWS), which are replanted with conifer or broadleaved trees, but retain ancient woodland features, such as undisturbed soil, ground flora and fungi.

Secondary woodland is that which is growing on a site that has not been continuously wooded since 1600AD.

All five of the Warwickshire Woodlands are PAWS or ASNW (Figure 2), so since the early 2000s, there has been a general movement towards the removal of conifers, and an increase in broadleaves and overall naturalness.

Figure 2 - Maps to show ancient semi-natural woodland (ASNW) and plantations on ancient woodland sites (PAWS) in the five Warwickshire Woodlands

Ancient semi-natural woodland (ASNW)	Plantation on ancient woodland site (PAWS)
	



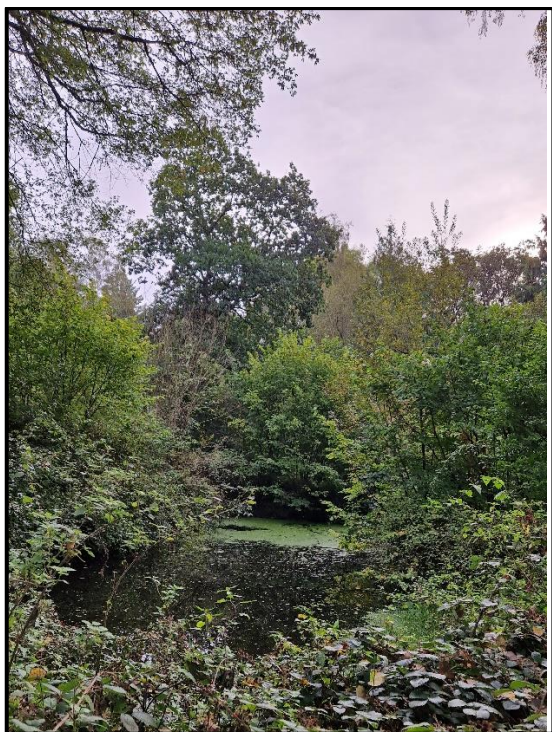
Biodiversity

The Warwickshire Woodlands contain a diverse range of habitats, including broadleaf and conifer stands of various ages, open space, ponds and dead wood, which provide homes and food for many species of animals, birds, plants and fungi. Sightings of species of interest, and of protected species such as dormice and great crested newts, are recorded on our GIS system.

Forestry England has a partnership with the Warwickshire branch of Butterfly Conservation, whose volunteers work in all of our Warwickshire Woodlands - clearing vegetation from ridesides for the benefit of butterflies, moths and other invertebrates, and carrying out species surveys.

Heritage

There are no scheduled heritage features in the Warwickshire Woodlands, but there are several woodbanks / earthbanks and ditches, as well as evidence of ancient woodland management practices such as coppicing.



Above left - pond in Oversley Wood

Above right - fungi on standing deadwood in Hay Wood

Below left - evidence of previous coppicing in Weston Wood

Current tree species

Current proportions of broadleaves, conifers and open space recorded in Forestry England’s subcompartment database for the whole forest block (ie all five of the Warwickshire Woodlands) are shown in **Table 1** below.

Table 1 - Proportions of broadleaves and conifers in autumn 2023	Area	Proportion of Forest Plan area
Broadleaves	197 hectares	58.2%
Conifers	137 hectares	40.3%
Open	5 hectares	1.5%

There is actually more than 1.5% open space across the woodlands because the data doesn’t accurately illustrate temporary open space along ridesides or in the gaps within crops where groups of trees have been felled.

Figure 3 shows the proportions of each tree species group in the Warwickshire Woodlands. The dominant broadleaf species is oak, and the most common conifers are Corsican pine and Scots pine. Other broadleaf species include birch, beech, sycamore and ash, and other conifers include western red cedar, lodgepole pine and small proportions of larch and Douglas fir.

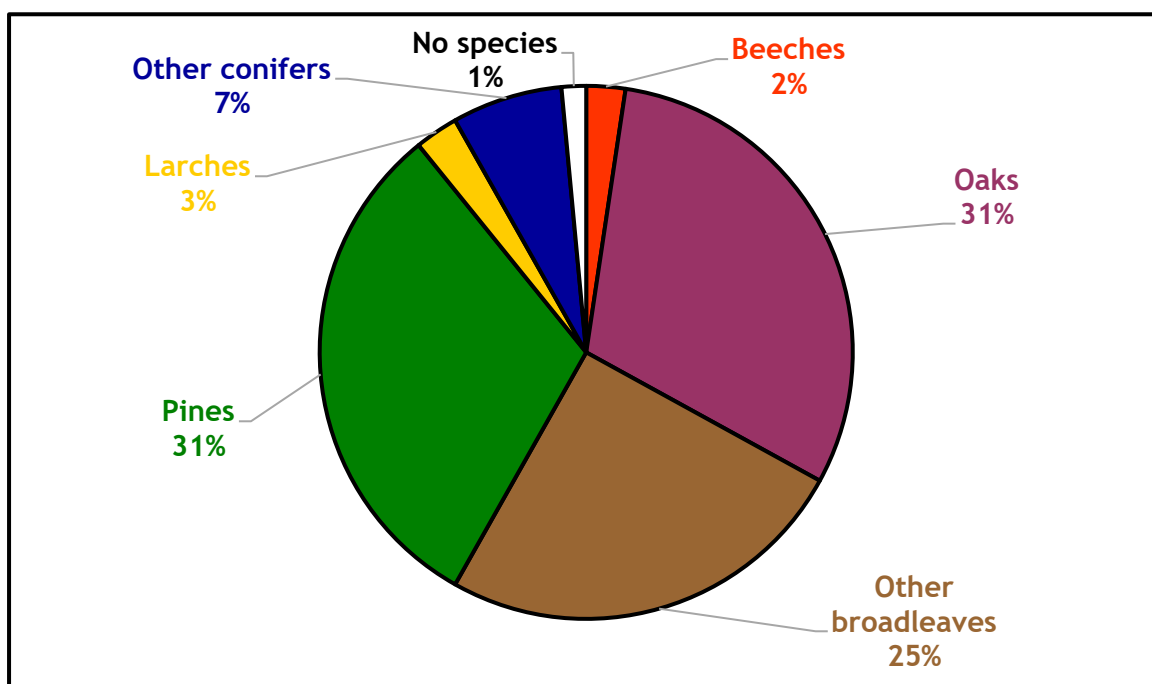


Figure 3 - Chart to show proportions of different species in the Warwickshire Woodlands

Table 2 shows the proportions of broadleaves, conifers and open space, and the most common species in each of the five woodlands. Note that the open space is almost certainly underestimated due to difficulties with recording it accurately within subcompartments.

Current tree species (continued)

Table 2 - Proportions of conifers and broadleaves in each woodland					
	Total area (hectares)	Proportion of broadleaves	Proportion of conifers	Proportion of open space	Most common species
Oversley	93	63%	35%	2%	oak; Corsican pine; birch
May's Wood	24	46%	53%	1%	Scots pine; oak; Douglas fir
Hay Wood	105	47%	52%	1%	oak; Scots pine; western red cedar
Waverley Wood	66	47%	52%	1%	Corsican pine; sycamore; Oak
Weston Wood	52	94%	3%	3%	birch; oak; ash

Current age composition

Figure 4 shows how many hectares of tree planting (or natural regeneration following coppicing or felling) took place in the Warwickshire Woodlands in each decade. The age structure is similar in each of the five woods - with peaks of planting in the 1950s and 60s, and very little recent planting recorded. This may be because we now rely more on natural regeneration than on active restocking, and this is not always easy to record accurately on the database, but is also due to the fact that many of the 1950s and 60s crops are reaching maturity now and being removed and replaced.

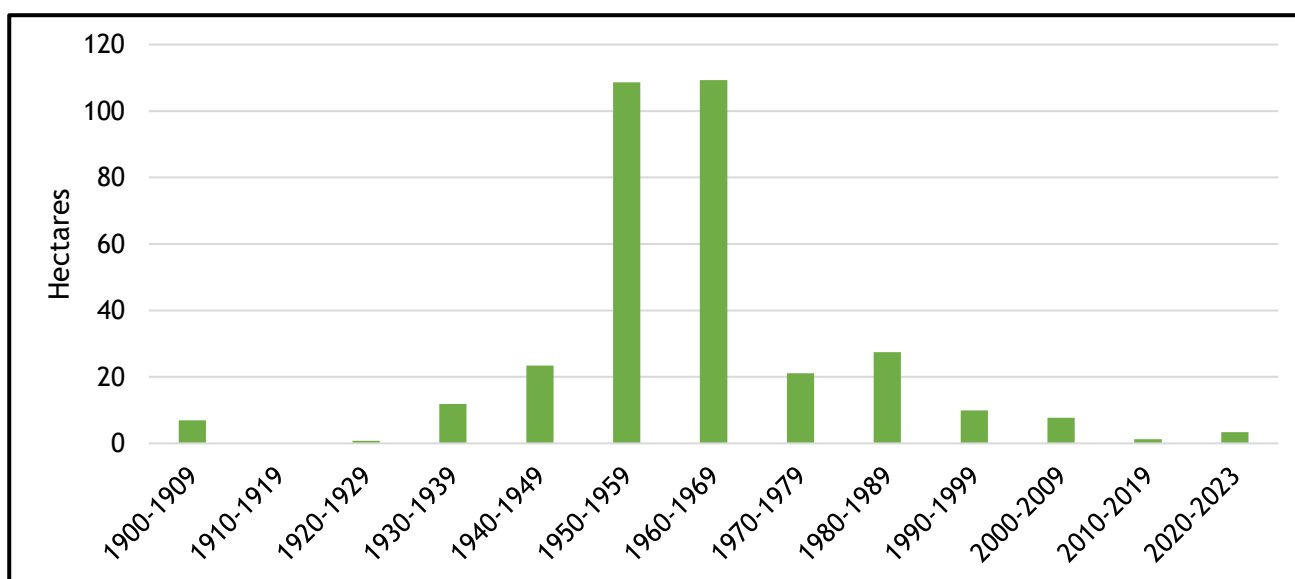


Figure 4 - Chart to show area (in hectares) of the Warwickshire Woodlands that was established in each decade

Warwickshire Woodlands - what we are going to do

Our vision for the Warwickshire Woodlands...

Through our active, carefully considered management, and the continued process of PAWS restoration, the Warwickshire Woodlands will generate a sustainable source of timber, mainly from conifers at first, and from productive broadleaf crops in later decades, while providing a wealth of other services, including space for people to enjoy, and places for biodiversity to flourish.

The next pages show the Analysis (what is there now) and Concept (what we'll do) for each of the Warwickshire Woodlands. **Table 3** on **page 14** is a detailed action plan for this Forest Plan period. This is followed by felling and restock maps.

Threats and challenges

Disease

- There is a fairly significant amount (48 hectares) of Corsican pine in the plan area, but it is reasonably healthy and not suffering too much from red band needle blight. That said, we will gradually remove it as it reaches economic maturity.
- The Warwickshire Woodlands contain 9 hectares of larch which, as a deciduous conifer, adds aesthetic diversity. Larch will be retained until economic maturity unless it succumbs to the disease *Phytophthora ramorum*, and therefore requires removal, in the meantime.
- The 8 hectares of ash is suffering from ash dieback. Some trees will be removed through thinning, but others will be retained to provide valuable deadwood habitat.

Mammals

- Deer are controlled in all five of the Warwickshire Woodlands, and young trees are protected from deer damage by tree tubes.
- Grey squirrels have not been too much of a problem in the past, but are likely to cause more damage as the recent broadleaf planting reaches a vulnerable age.

Ground conditions

- All five of the Warwickshire Woodlands have wet areas - Hay Wood in particular is very wet. Forest operations will be planned carefully (both in terms of time and scale of working) so that valuable forest soils are not damaged by machinery.

Bracken and bramble

- All five of the woodlands suffer with extensive bracken and bramble growth, which hinders natural regeneration, and competes with newly planted trees. Ground preparation is important following clearfells, and restocking is often carried out immediately so as not to allow any weeds to become established.

Climate change

- Our climate is going to change over the coming decades. Restock species and provenances will be chosen carefully to suit the anticipated future climate. We will take chances to increase species and structural diversity because we know that diversification increases resilience.

Oversley - Analysis (A: what is there now) and Concept (C: what we'll do)

A: Area has been recently planted by volunteer group, who also carry out much-appreciated weekly litter picks
 C: Further planting will be carried out in the northwest corner, and we will continue to support, encourage and appreciate the volunteer group

A: Two ponds provide habitat for great crested newts and other species
 C: Ponds will be cleared periodically to ensure open water remains and is not overly shaded by surrounding vegetation

A: Wind-damaged mixed stand of grand fir, western red cedar and aspen
 C: Fell small groups of (mainly) conifers to create gaps into which new trees can be planted to increase structural diversity

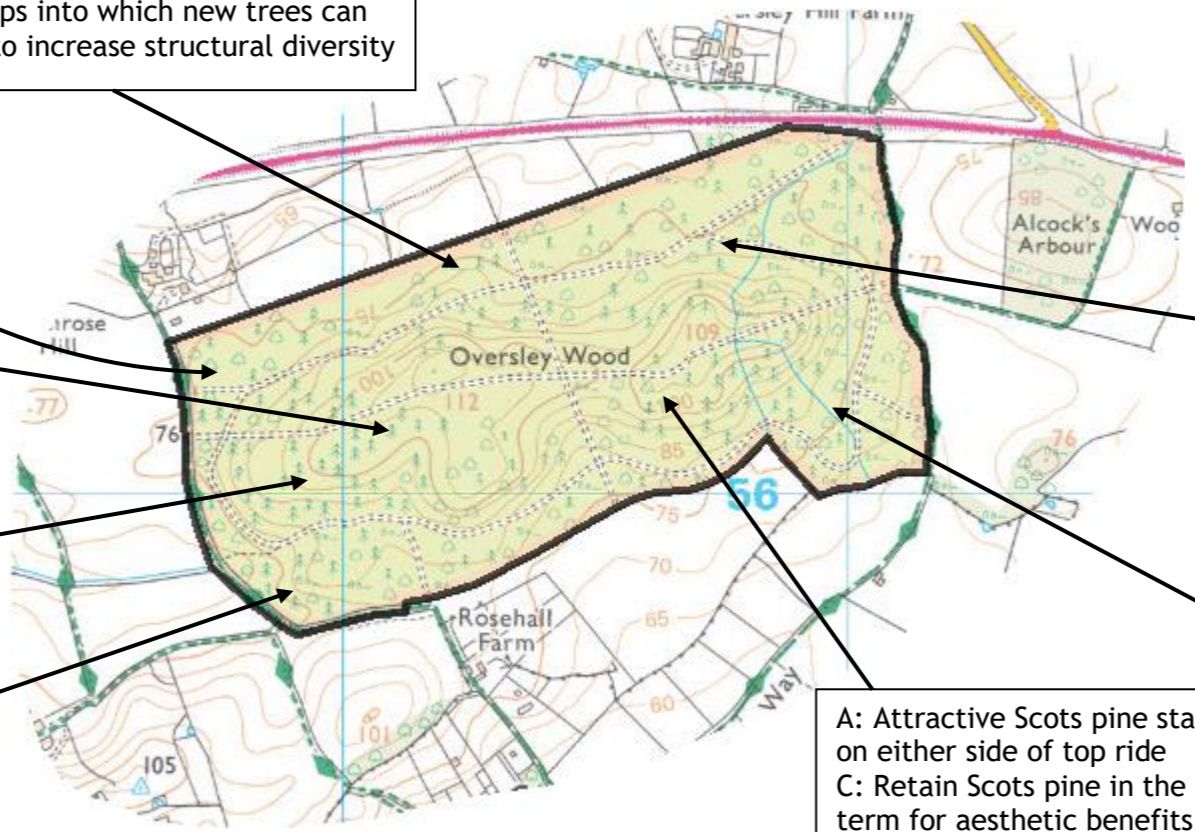
A: The only official access to Oversley Wood is from the bridleway at the northwestern corner; visitors do currently park their cars at the eastern end, but we do not own the access track, and parking causes issues - the gate which is needed by staff, contractors and emergency vehicles is frequently blocked by parked cars and there is often a great deal of litter
 C: If the litter and parking issues continue, we will close the access at the eastern end

A: Some areas of mixed conifers and broadleaves have little or no natural regeneration under the main crop
 C: We will carry out restructuring - small groups of trees (up to 0.25ha) will be felled and restocked with broadleaves in order to increase species and structural diversity

A: The Glade - open space in the centre of the wood - with view of surrounding countryside
 C: Retain the glade as open space, mowing annually

A: Large single-species Corsican pine (CP) stand - the CP in Oversley is fairly healthy, but doesn't really require any further thinning
 C: Gradually remove the CP over the next 20 years through appropriately scaled clearfells, restocking with more diverse species mixtures

A: Ash suffering from dieback
 C: Ash and birch will be removed through thinning, and replaced with minor broadleaf species to increase diversity and resilience



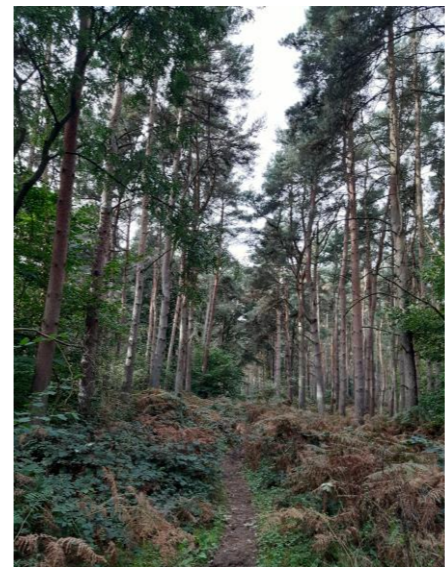
A: Enrichment planting in southwest corner has created structurally interesting stand of broadleaves of various ages
 C: The new trees will be monitored and tubes removed once they are established



A: Trees of special interest (TSI) include mature small-leaved lime coppice and multi-stemmed wild service
 C: Marked on our GIS, these TSIs are protected during forest operations

A: 35% of Oversley is planted with conifers - the wood is a lovely mixture of broadleaf and conifer species
 C: As the wood is PAWS, mature conifers will gradually be removed through thinning, clearfell and small group felling, and replaced with diverse species mixtures

A: Attractive Scots pine stands on either side of top ride
 C: Retain Scots pine in the long term for aesthetic benefits



A: Ridesides coppiced on approximately 10-year rotation, and monitored, by volunteers from Butterfly Conservation (BC) for benefit of flora (including the locally rare narrow-leaved helleborine) and invertebrates (including nationally rare leaf-rolling weevil)
 C: Continue to work with BC to coppice ridesides on rotation, and to monitor species responses



May's Wood - Analysis (A: what is there now) and Concept (C: what we'll do)

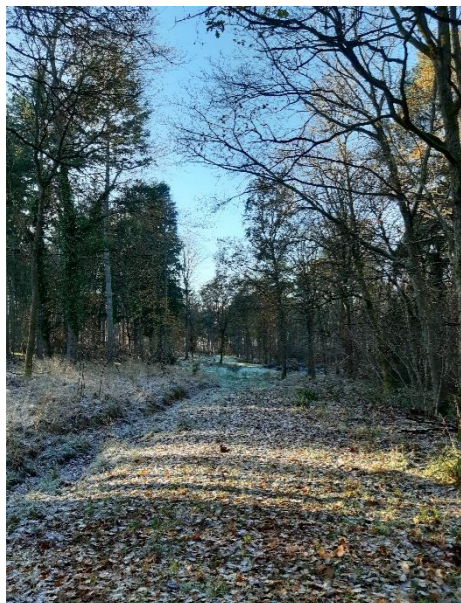
A: A few large old oaks along the northern boundary and in the centre of the wood are recorded as trees of special interest (TSI)
C: Marked on our GIS, these TSIs are protected during forest operations

A: Some areas have little or no natural regeneration under the main crop
C: We will carry out small group fells (up to 0.25ha) and restock these areas with broadleaves in order to increase species and structural diversity, and contribute to PAWS restoration

A: Area planted with European larch and Scots pine
C: Larch will be clearfelled in the second half of the plan period, once the adjacent broadleaves are established

A: Recent broadleaf planting - mostly oak, with small proportions of minor broadleaf species - after removal of poor quality lodgepole pine
C: The new crop will be monitored and weeded as necessary and tubes removed once the trees are established

A: Ridesides have been cleared recently for the benefit of flora and invertebrates; the wood is surveyed occasionally by volunteers from Butterfly Conservation
C: We will continue to clear ridesides periodically when we are working in adjacent crops

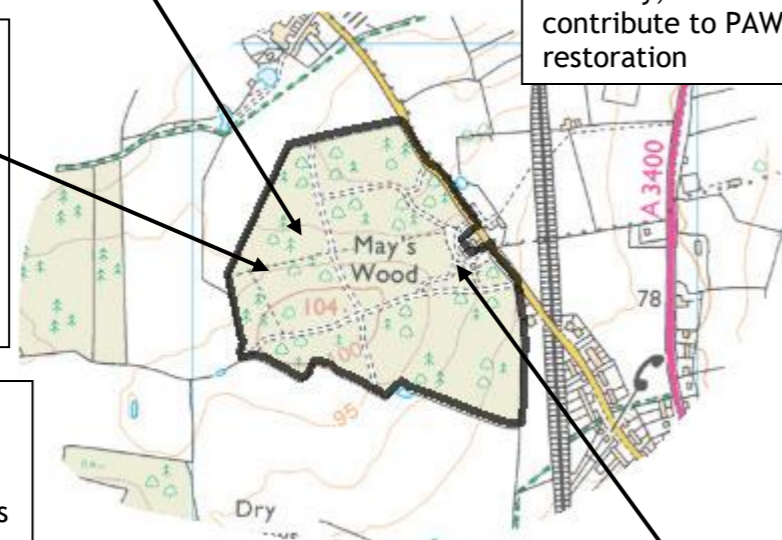


A: 53% of May's Wood is planted with conifers
C: As the wood is PAWS, conifers will gradually be removed through thinning, clearfell and small group felling, and replaced with diverse species mixtures

A: Phone mast - trees have recently been removed from around the mast
C: No further removal of trees should be needed for several years

A: May's Wood is leasehold
C: This means that there is no public access

A: Archaeological features include four small marl pits which now contain water all year round
C: Cut back vegetation to allow light into these ponds if and when resource allows



Hay Wood - Analysis (A: what is there now) and Concept (C: what we'll do)

A: 53% of Hay Wood is planted with conifers
C: As the Wood is PAWS, mature conifers will gradually be removed through thinning and small group felling, and replaced with more diverse species mixtures

A: Hay Wood is very wet, which makes working with machinery challenging
C: Forest operations are planned carefully for when the ground is dry enough to avoid damage to the soil

A: The northwest corner of the wood is used by a local field archery group
C: Having been recently thinned, there is little or no work planned in this area in the plan period

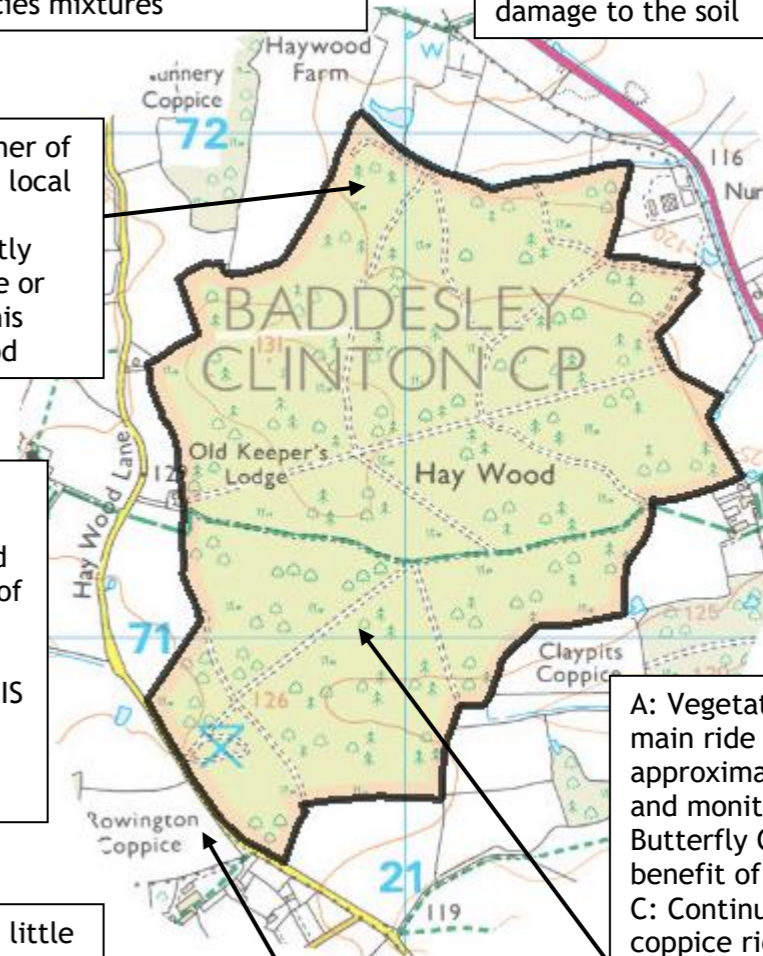
A: Small ponds have formed in dips in the ground, and now hold water permanently, creating potentially valuable wildlife habitat
C: Cut back vegetation to allow light into these ponds if and when resource allows

A: Unscheduled heritage features include earth / wood banks and evidence of ancient coppicing
C: Heritage features are marked on our GIS and are therefore protected during forest operations

A: Some areas have little or no natural regeneration under the main crop
C: We will carry out small group fells (up to 0.25ha) and restock these areas with broadleaves in order to increase species and structural diversity


A: Hay Wood is open to the public and is well used by local people; parking is available on the roadside to the southwest
C: We will continue to welcome visitors to the site

A: Vegetation on the sides of the main ride is coppiced on an approximately 10-year rotation, and monitored, by volunteers from Butterfly Conservation (BC) for benefit of flora and invertebrates
C: Continue to work with BC to coppice ridesides on rotation, and to monitor species responses



Waverley and Weston Woods - Analysis (A: what is there now) and Concept (C: what we'll do)

A: Many of the stands are dominated by Corsican pine which is reaching economic maturity
 C: We will clearfell some areas of Corsican pine in the next ten years and restock with species mixtures in order to increase diversity and resilience



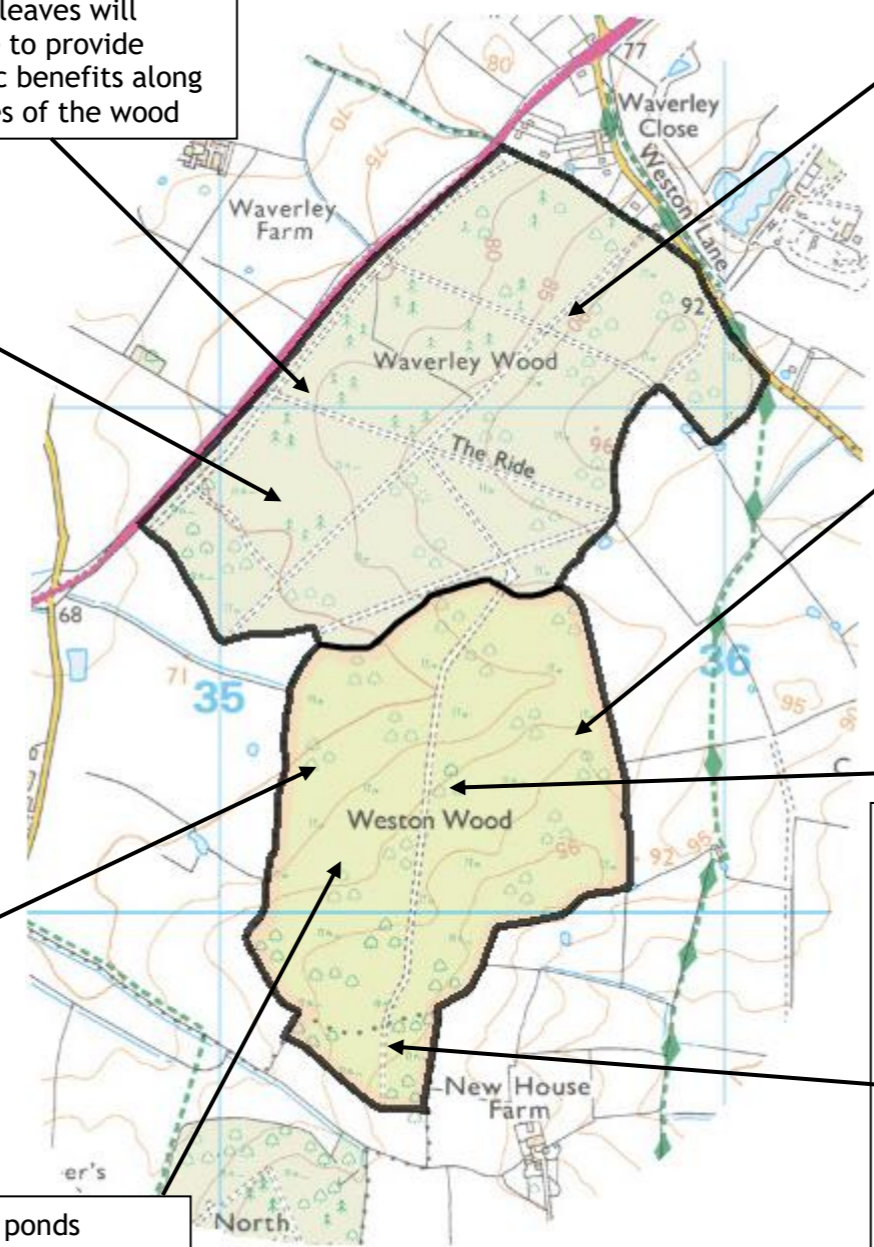
A: A stand of red oak just inside the entrance to the wood, and a strip of beech adjacent to the busy A445 road provide attractive autumn colour and a broadleaf edge to the woodland
 C: Broadleaves will continue to provide aesthetic benefits along the edges of the wood

A: Waverley Wood is leasehold, and there are no public rights of way into Weston Wood
 C: This means effectively that there is no public access to either wood

A: 52% of Waverley Wood is planted with conifers
 C: As the Wood is PAWS, mature conifers will gradually be removed through thinning and clearfells, and replaced with diverse species mixtures

A: The verges of the main forest road through Waverley Wood are cleared periodically by Butterfly Conservation (BC) for the benefit of flora and invertebrates
 C: Continue to work with BC to coppice ridesides on rotation, and to monitor species responses

A: 94% of Weston Wood is broadleaf
 C: The remaining conifers (a larch stand) will continue to be thinned and eventually clearfelled



A: The research plots on the eastern side of Weston Wood are important (and quite famous in forest research circles!) oak provenance trials, established as part of a European collaboration
 C: The experiments are managed by our colleagues in Forest Research; we will manage the strip to the east of the research plots as minimum intervention to provide a corridor of potential dormouse habitat

A: There is plenty of open space in the centre of Weston Wood
 C: This area will be retained as mostly open with occasional large mature oaks - it provides habitat for invertebrates and is useful for deer management



A: A wet area in the western side of the wood is quite wild - with fallen trees and tangled undergrowth
 C: This area will be managed as minimum intervention to benefit species to thrive under low levels of disturbance

A: Large, old multi-stemmed ash in the southern part of Weston Wood
 C: Trees of Special Interest (TSI) are marked on our GIS system and protected during forest operations



A: Weston Wood was once the only natural dormouse site in Warwickshire, but we have had no records of dormice for the past 5 years (maybe simply because survey volunteers have not been on site since before Covid)
 C: Even without formal records, there is no doubt that the habitat is suitable for dormice and that it should remain so - we will work the woods as if dormice are present, and will retain the habitat in as favourable condition as possible

A: The hazel in the southern half of the wood was last worked as regular coppice nearly 25 years ago
 C: There is no obvious market for hazel coppice at the moment, so we won't work it ourselves, but it certainly has potential if a local coppice worker expressed an interest

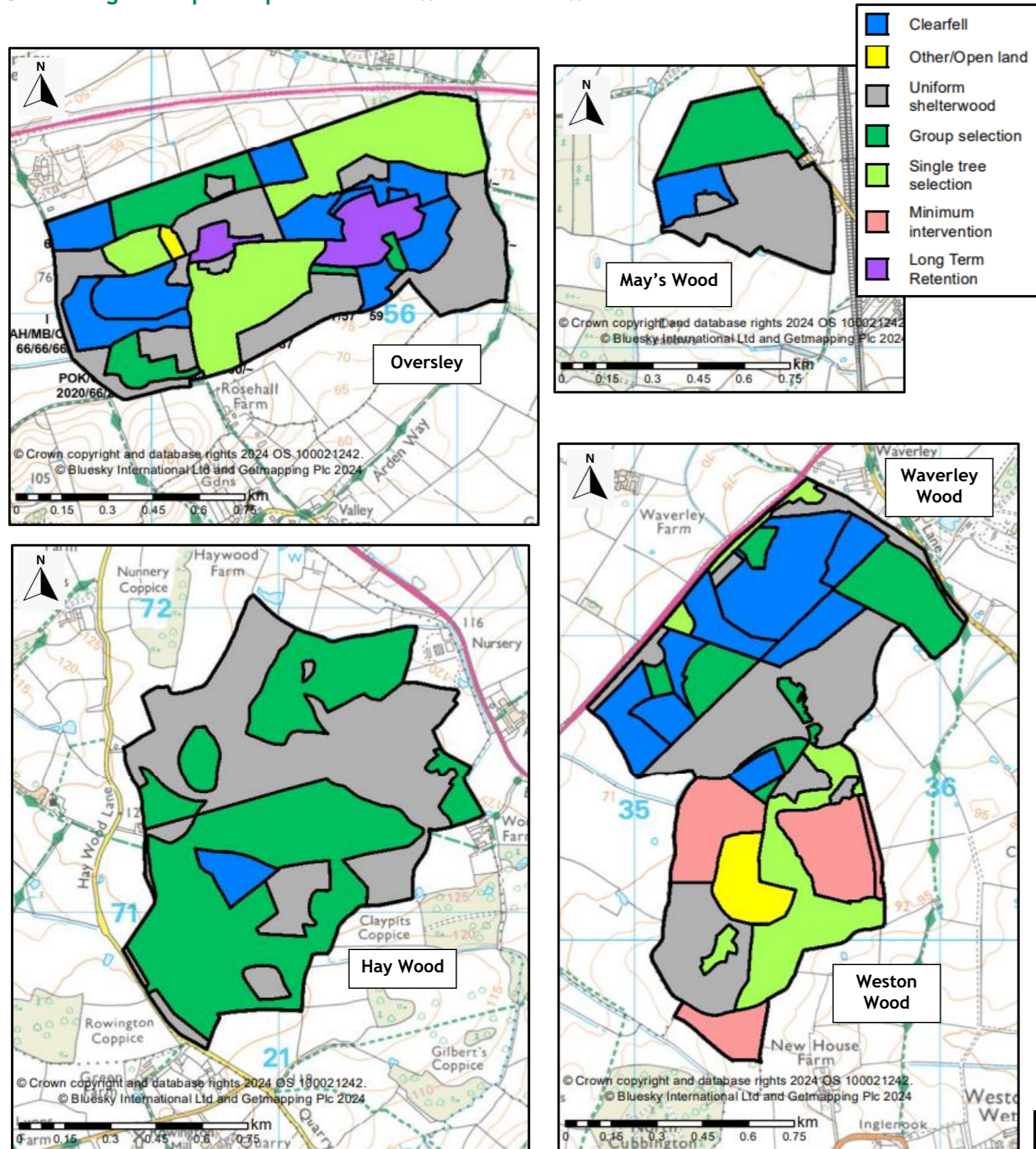
A: Two ponds provide open water habitat
 C: Vegetation around the ponds is cleared periodically by volunteers from Butterfly Conservation

A: The southern end of the wood is planted with potentially productive broadleaves, but is challenging to access
 C: We will continue to thin the broadleaves, but manage the southernmost tip as minimum intervention

Table 3 - Warwickshire Woodlands - Action Plan 2024-2034

Action - what we'll do	Why we're doing it	How we will measure success
<p>Thinning - broadleaves will be assessed for readiness for thinning every ten years and conifers every five years</p> <p>Restructuring - we will clear gaps of up to 0.25ha (no more than one 0.25ha area per hectare) and plant groups of native broadleaves</p>	<p>Timber production</p> <p>PAWS restoration - reduce proportion of non-native conifers and increase proportion of native species</p> <p>Species and structural diversification will increase resilience and ensure an ongoing supply of timber for future generations</p>	<p>Has thinning been carried out on a regular basis, producing marketable timber?</p> <p>Are proportions of conifers / broadleaves changing in the right direction?</p> <p>Is restructuring leading to species and structural diversification?</p>
<p>Clearfelling - 29.93 hectares of conifers (see Figure 6 on page 16)</p> <p>Restocking</p> <ul style="list-style-type: none"> - the focus will be on creating resilient mixtures that will thrive under anticipated climate conditions and contribute to PAWS restoration - each planting site will be assessed to identify appropriate species - most planting sites will include an element of natural regeneration - broadleaf planting is likely to be mainly oak supplemented with smaller proportions of other species - some non-native and near-native conifers and broadleaves will be planted as nurse crops to provide the micro-climate needed to ensure successful establishment of the broadleaves - non-native trees will be removed during the rotation 	<p>Timber production</p> <p>Clearfelling provides temporary open space</p> <p>PAWS restoration - reduce proportion of non-native trees and increase proportion of native species</p> <p>Restocking provides opportunity to choose species to increase diversity and future resilience</p> <p>Incorporating natural regeneration keeps costs down and allows the growth of new trees that are likely to be ideal for the site</p>	<p>Have clearfells been carried out as per the felling plan, producing marketable timber?</p> <p>Has restocking followed current PAWS guidance?</p> <p>Has restocking led to an increase in species diversity?</p> <p>Is natural regeneration successful?</p>
<p>Rideside coppicing and clearing - will be done in all five woods, by Butterfly Conservation and / or by our contractors when we are carrying out forest operations</p> <ul style="list-style-type: none"> - Priority areas are the eastern end of Oversley, the main ride from the parking area into Hay Wood, and the central ride in Weston Wood, all of which are currently valuable open / dynamic habitat as a result of rideside work by Butterfly Conservation 	<p>Creation / maintenance of graded edge vegetation and dynamic / open space for the benefit of flora and invertebrates (and indirectly, birds, bats and other mammals)</p> <p>Provision of visually appealing, open spaces for people to walk in and enjoy</p>	<p>Have priority ridesides been cleared / retained as dynamic / open habitat?</p> <p>Do the publicly accessible woods feel light and open?</p> <p>Do survey results continue to confirm the value of the rides for butterflies and other invertebrates?</p>
<p>Pond restoration / maintenance - ponds will be monitored by the beat team and / or volunteers, and the vegetation in and around them will be cleared as needed and as resource allows</p> <ul style="list-style-type: none"> - Priority ponds are the two in Oversley and the two in Weston Woods - It would be great to work around the ponds in May's Wood and Hay Wood too, but we are unlikely to have resources to do so 	<p>Retention / provision of open water habitat for aquatic flora and fauna</p> <p>Provision of visually appealing woodland habitats for people to enjoy</p>	<p>Are ponds monitored?</p> <p>Have priority ponds been cleared of enough vegetation to provide an open water habitat?</p>
<p>Significant and protected features - ensure that heritage features (eg woodbanks and earthworks), conservation features (eg TSIs) and protected species (eg great crested newt) are marked on our GIS system and identified and included in the site planning process</p>	<p>Protection of features and important species during operations</p>	<p>Are heritage sites and conservation sites and species marked on our GIS, and noted and protected at the site planning stage and during operations?</p>
<p>Deadwood - take opportunities to increase standing and fallen deadwood where safe and appropriate</p>	<p>Dead and decaying trees and fallen branches provide food and habitat for lichens, fungi, bryophytes, invertebrates and hole-nesting birds and mammals</p>	<p>Is there an obvious deadwood resource in all of the Warwickshire Woodlands?</p>
<p>Community - continue to support volunteers and nurture relationships with groups who are willing to assist with site maintenance / monitoring</p> <p>Informal recreation - continue to manage visitor access to ensure that the woodlands are accessible, but not damaged by antisocial behaviour</p>	<p>Volunteers / partnerships with other organisations are a great help to Forestry England (eg litter picking, tree planting, butterfly monitoring, rideside management)</p> <p>Health and wellbeing benefits for volunteers and visitors</p>	<p>Are the 'Friends of Oversley Wood' and Butterfly Conservation still working with Forestry England?</p> <p>Have any new volunteer partnerships developed?</p> <p>Is public access and behaviour sustainable and non-damaging?</p>

Our management prescriptions for the Warwickshire Woodlands



Crops will be assessed at regular intervals for readiness for thinning - broadleaves every ten years and conifers every five years. If stand density is appropriate for thinning, then selected trees will be marked for removal in order to achieve the objectives for the site, eg PAWS restoration or timber production.

Each stand in the plan area has been given a management type (Figure 5).

- As a general rule, pure conifer crops will be **clearfelled** at, or close to, economic maturity; these areas will be **restocked** with species mixtures that continue to deliver the site objectives.
- Other crops are managed with alternatives to clearfell, or lower impact silvicultural systems (LISS), which maintain continuous forest cover:
 - Mixed conifer / broadleaf crops will often be managed under a **group selection** system, where groups of trees (up to 0.25ha) of all ages and sizes (usually more conifers than broadleaves) are removed through thinning, creating gaps in the canopy which will be filled by a combination of planting and natural regeneration, to create a structurally diverse and species rich woodland.
 - Mixed-age broadleaves will usually be managed as **single tree selection** systems - these stands already have some structural diversity, which is enhanced by thinning individual trees of all ages and sizes.
 - Even-aged broadleaf crops may be managed as **shelterwood** - thinning leads to spaces between the trees, and when the overstorey is mature enough, it provides seed and shelter for the next generation of trees. If sufficient understorey does not develop through natural regeneration, additional trees are planted, which allows us to add to species diversity.

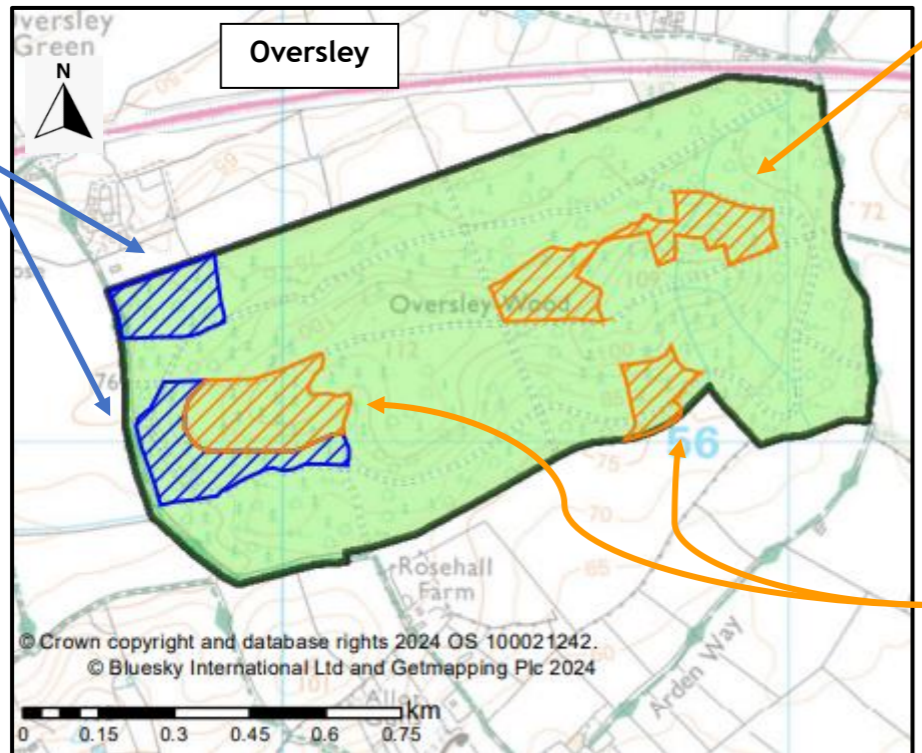
Other management systems include the following:

- Stands that would benefit from being left alone for this plan period will be managed under **minimum intervention**. This may be because they have been heavily thinned and we are waiting to see whether natural regeneration will develop, or because they contain species or habitats that do best under low levels of disturbance.
- In some cases, we want to retain stands or groups of trees beyond economic maturity, usually for aesthetic or biodiversity reasons - in these cases, we assign them the management type: **long term retention**.
- Some areas are recorded as 'other / open land' - this includes actual open space, such as The Glade at Oversley, and other land uses such as the deer lawns in Weston Wood. Small areas of open space / dynamic habitat, such as those alongside the rides and junctions in all five woods, are not recorded as open on the map in Figure 5 because they are incorporated into the subcompartments as components. The same is true of areas which are temporarily open following clearfelling.

Figure 5 - Management prescriptions for the Warwickshire Woodlands

Warwickshire Woodlands - felling plan 2024-2034 (Figure 6)

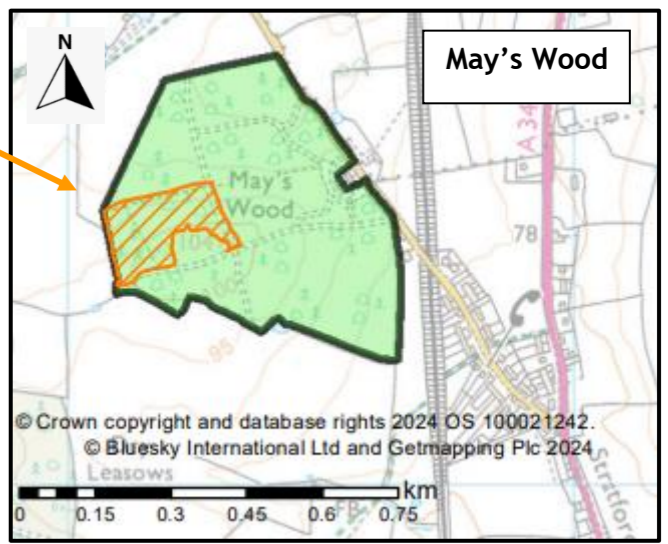
Oversley coupe 21004 (6.35ha)
 Clearfell Corsican pine - maybe in strips of sections, or all in one go; retain any mature broadleaves
 Fell at end of this plan period or beginning of the next



Oversley coupe 21003 (4.76ha)
 Clearfell Corsican pine - maybe in strips of sections, or all in one go; retain any mature broadleaves
 Fell after coupe 21002

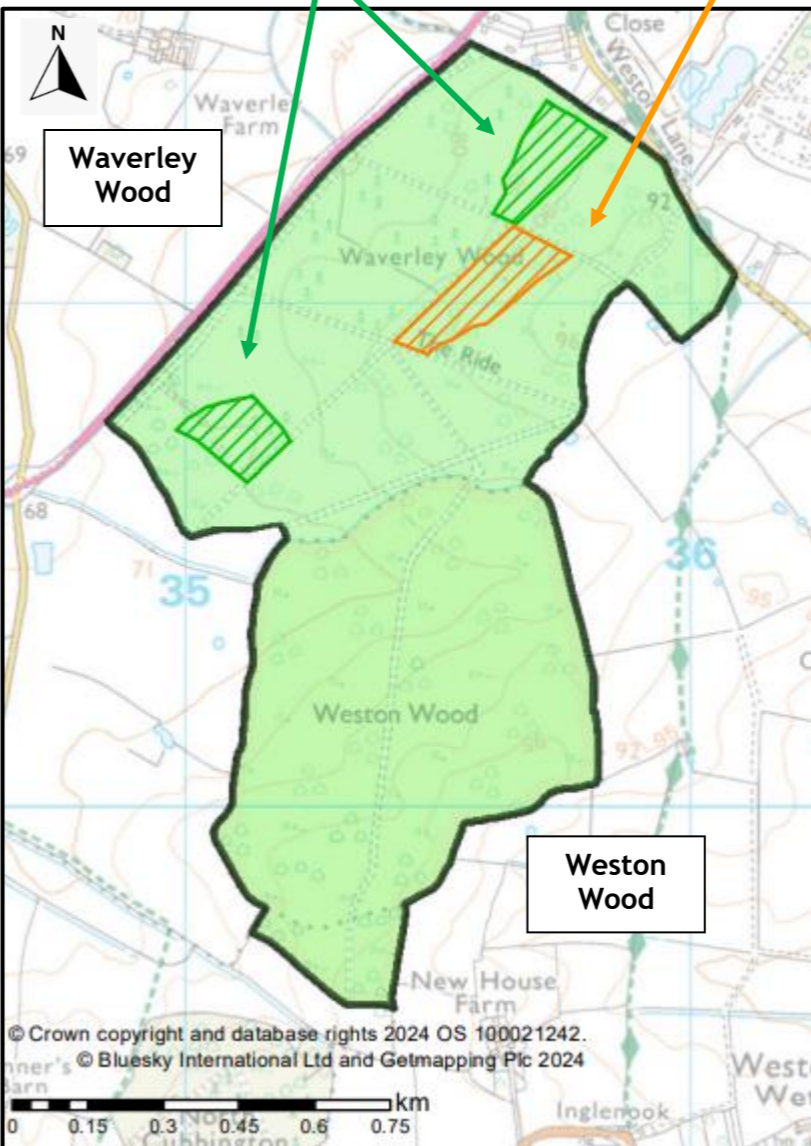
Oversley coupe 21002 (5.74ha)
 Clearfell Corsican pine - maybe in strips of sections, or all in one go; retain any mature broadleaves
 Fell before coupe 21003

May's Wood coupe 21012 (2.83ha)
 Clearfell larch in second half of plan period once neighbouring 2022 broadleaves have become established
 Retain Scots pine and broadleaves

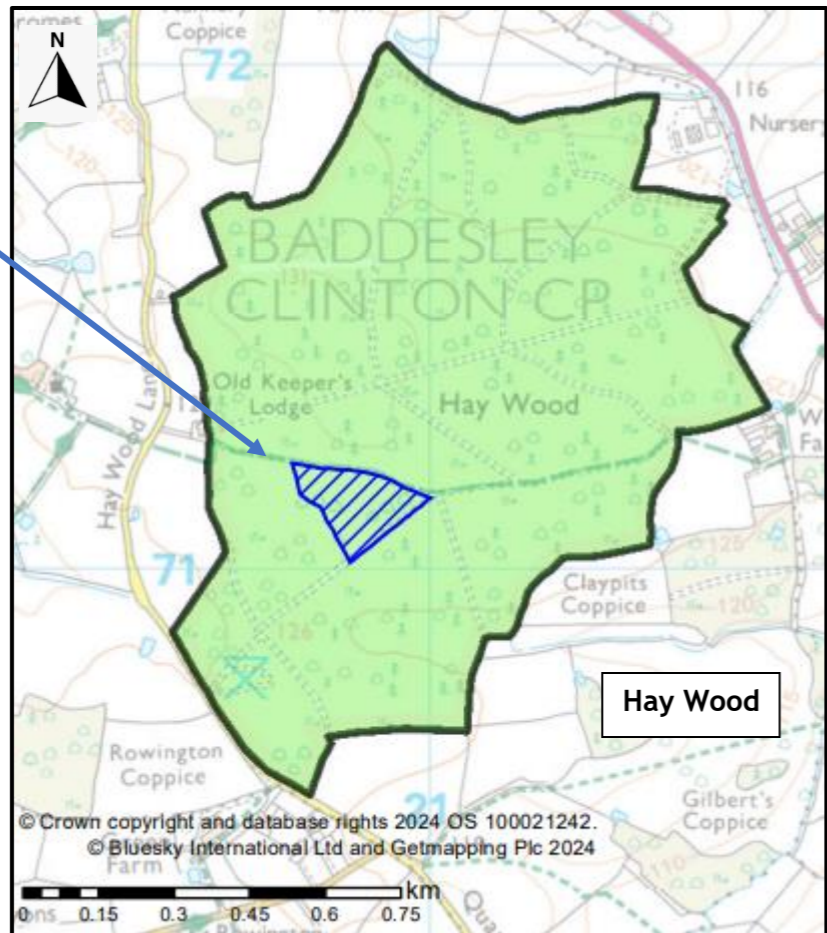


Waverley coupe 21016 (2.05ha) and 21017 (2.41ha)
 Clearfell Corsican pine 2024/25

Waverley coupe 21018 (3.18ha)
 Clearfell Corsican pine; retain any mature broadleaves



Hay Wood coupe 21031 (2.61ha)
 Consider clearfelling Corsican pine towards the end of this plan period or the beginning of the next



Restock
 At the time of writing this Forest Plan, the proposed approximate restock prescription is the same for all of the clearfell coupes:

- 30-40% oak, plus
- 10-20% other minor native broadleaves (mostly planted, supplemented by natural regeneration if viable), and
- up to 40% Scots pine plus other site appropriate non-native species to act as a nurse crop which will be removed during the rotation.

Species choices will be confirmed by the beat team after clearfells have taken place, when site conditions such as soil type and anticipated climate will be analysed in more detail.

10% open space will be left in each restock coupe - often along ridesides.

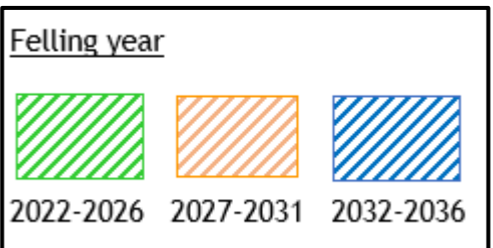


Figure 6 - Felling operations to be carried out in the Warwickshire Woodlands 2024-2034

Warwickshire Woodlands - felling plan 2024-2054 (Figure 7)

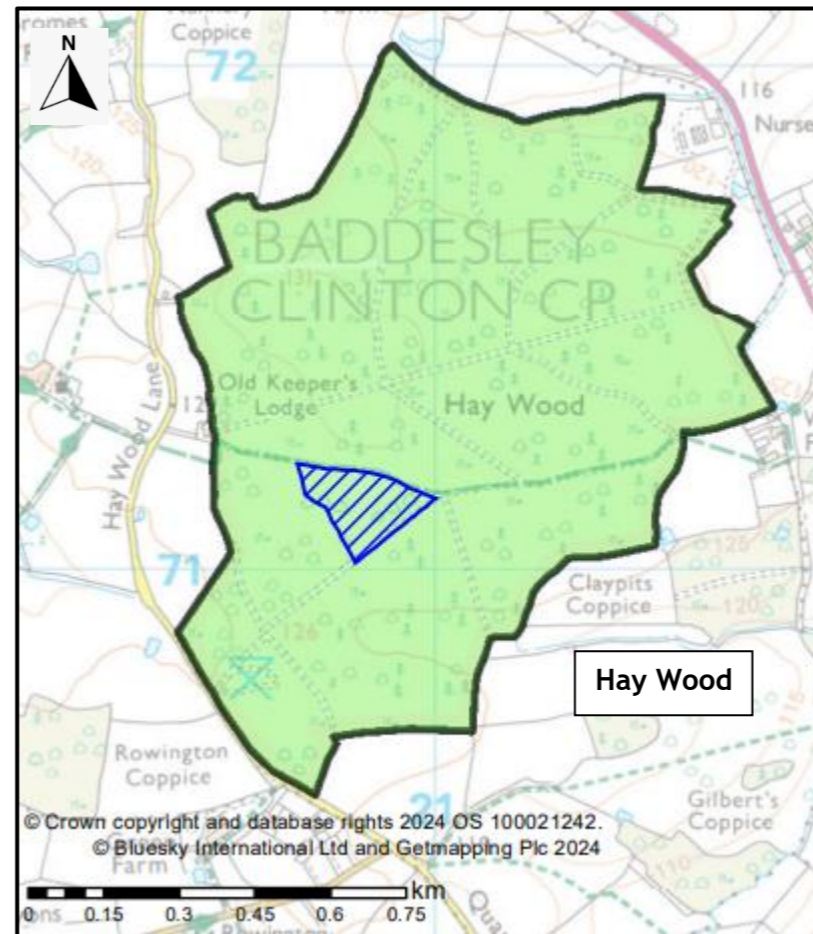
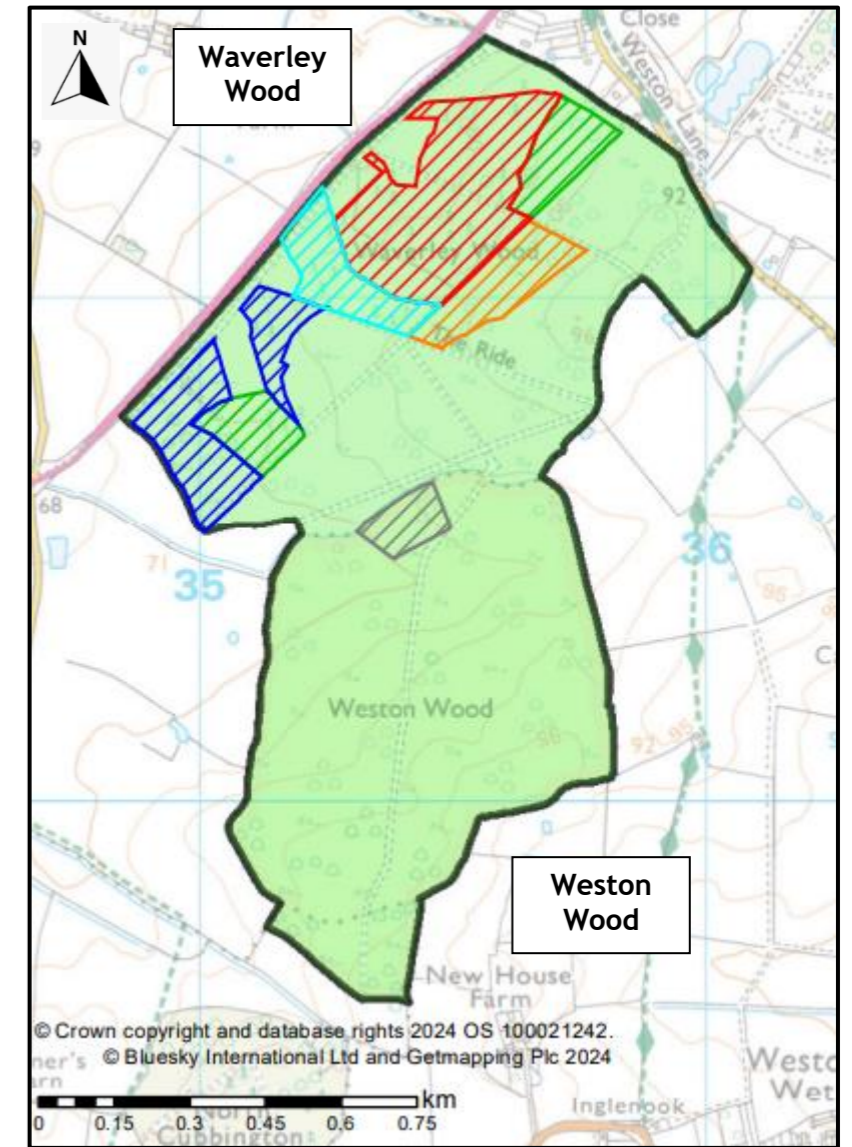
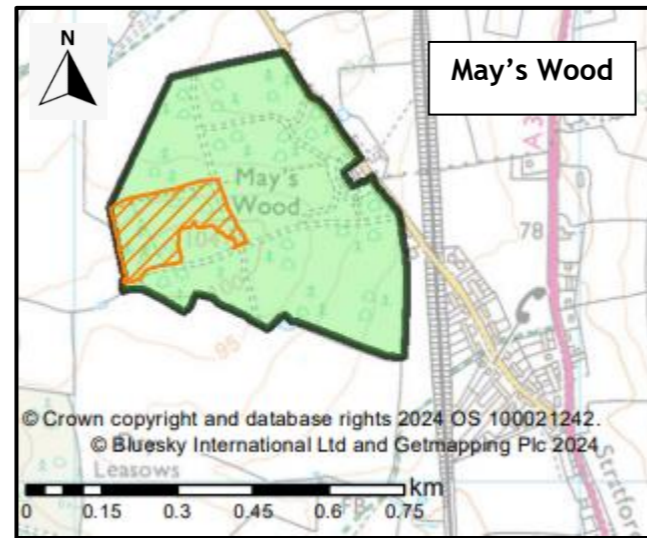
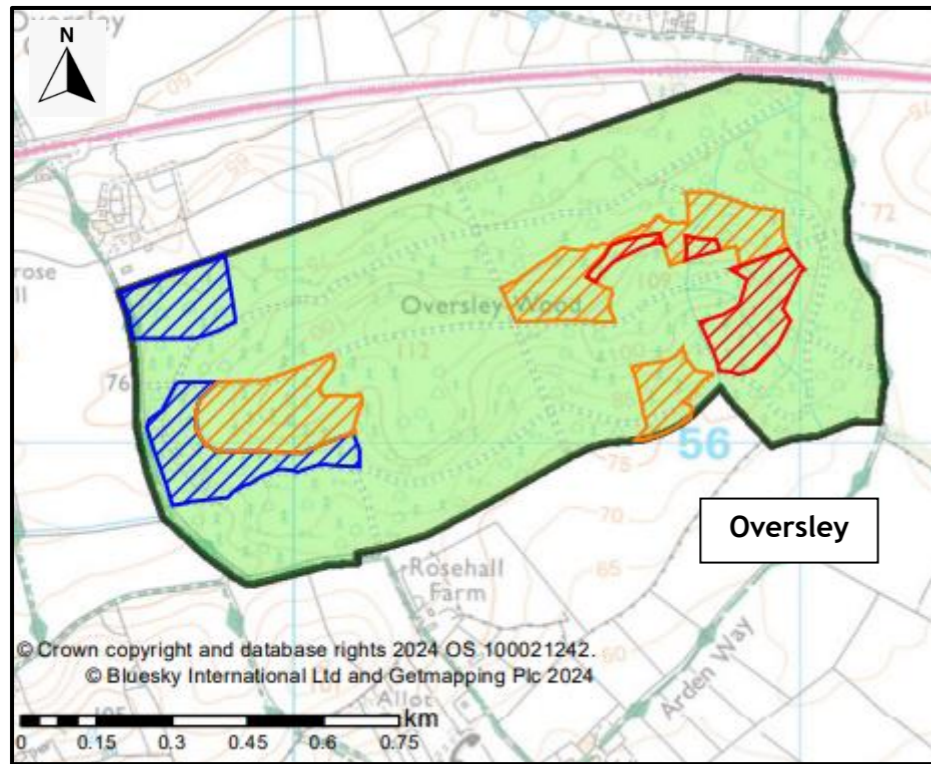


Figure 7 - Long term felling plan for Warwickshire Woodlands 2024-2054

Felling year



2022-2026 2027-2031 2032-2036 2037-2041 2042-2046 2047-2051 Fell after 2052

Future habitats and species

Over the coming decades, the proportion of non-native species in the Warwickshire Woodlands will gradually be reduced through clearfelling conifer crops and through thinning mixed stands to favour broadleaf trees.

As a general rule, where conifers are removed, our restocking programme will increase the proportions of native broadleaves, as well as taking opportunities to create temporary or permanent open space along ridesides and around ponds.

Where non- and near-native species are included as restock components, these will act as nurse crops, to facilitate successful establishment of broadleaf species. The nurse crops will be removed throughout the rotation, leaving restored native woodland, consisting of at least 80% native species at maturity.

When choosing which species to plant in the Warwickshire Woodlands, we will use climate prediction tools to understand likely future climatic conditions on the site, and will also consider the National Vegetation Classification (NVC) woodland type and other site features, such as aspect and soil type. We will refer to the Forest Development Types (FDT) system, in order to create resilient species mixtures. In the long term, the Warwickshire Woodlands are likely to be dominated by oak, with many other minor species including lime, hazel, beech, birch and willow.

Figure 8 gives a broad overview of the future species. Note that the map does not represent a specific date because crops will all reach maturity and be replaced at different times. Note also that the map doesn't show the diversity of species that we anticipate being present in the Warwickshire Woodlands in the future, for example areas shown as oak or pine will actually contain many additional species.

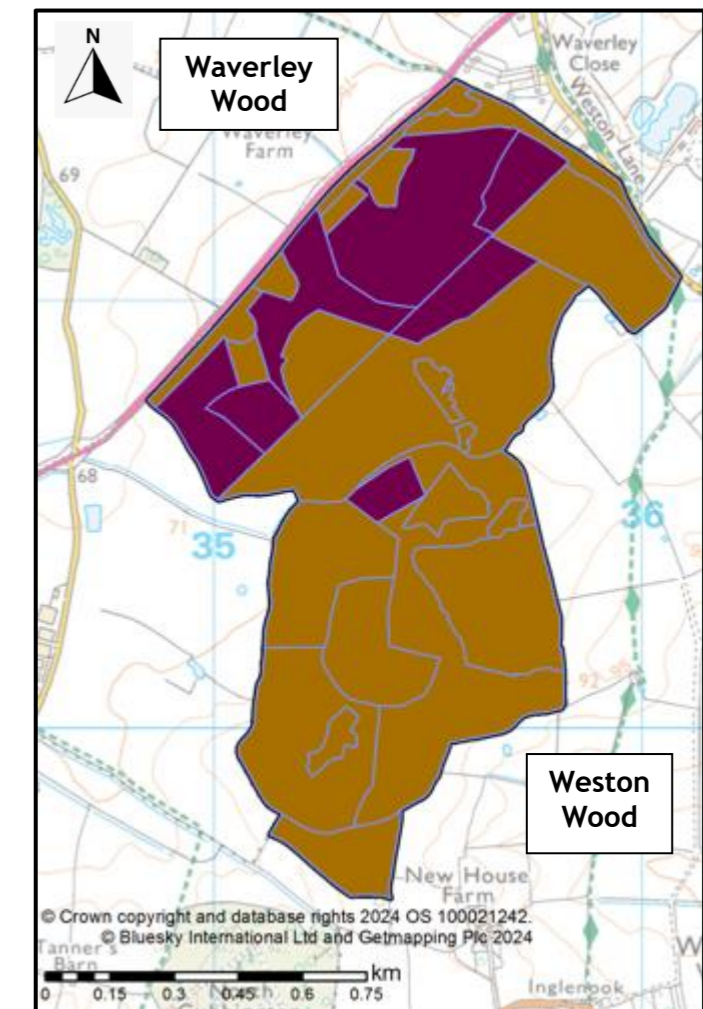
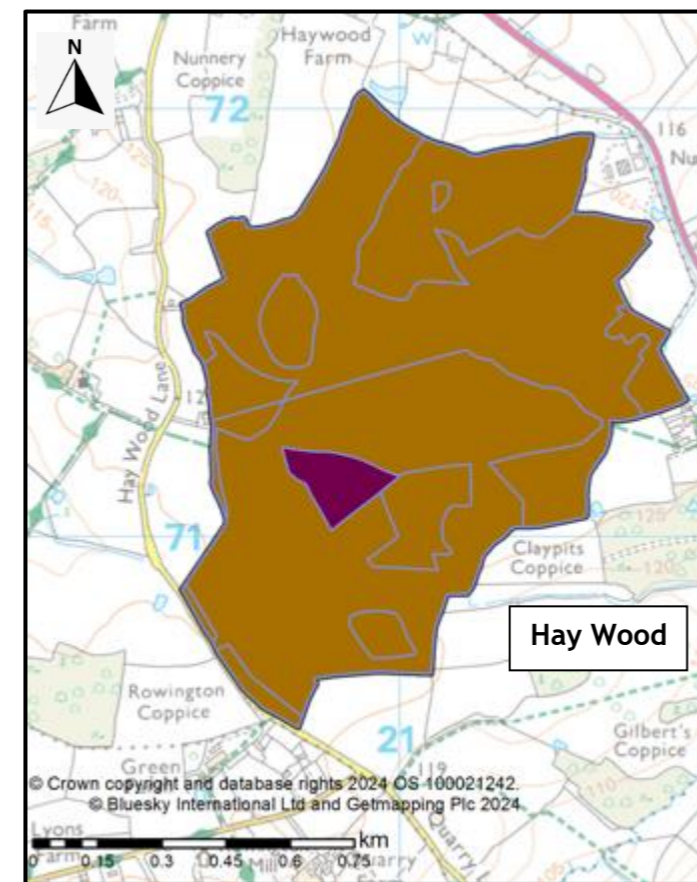
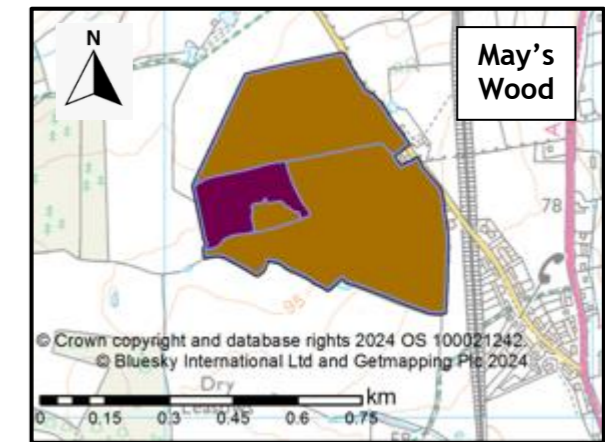
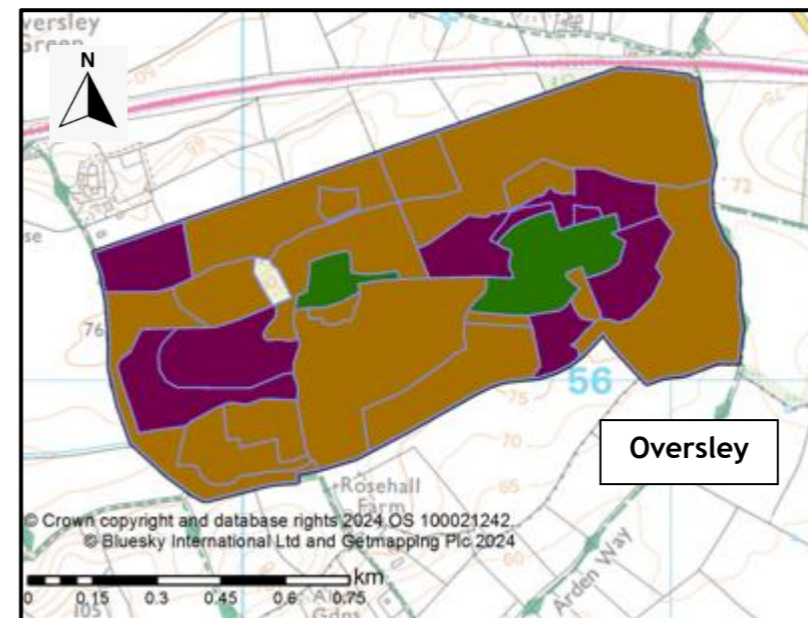


Figure 8
Maps to show future species in the Warwickshire Woodlands

- Future species will be predominantly mixed broadleaf
- Future species will be predominantly oak
- Future species will be predominantly pine

Explanation of some of the terms used in the Forest Plan:

- **Natural capital value** - from the soils to the trees, and all the species which live in them, the whole forest ecosystem is a resource known as '**natural capital**'. Forestry England uses a natural capital approach to help understand the value to society of the various benefits that come from the nation's forests.
- We measure the area of our land in **hectares** - one hectare (ha) is equal to one hundred metres by one hundred metres, or the equivalent of about two and a half acres.
- **Ancient semi natural woodland (ASNW)** and **plantations on ancient woodland sites (PAWS)** are described on [page 6](#).
- **Broadleaves** are trees with broad, flat leaves e.g. oak, hazel, birch. Most are deciduous (lose their leaves in winter). **Conifers** are trees with cones and needles e.g. Scots pine, Douglas fir. Most are evergreen, but not all e.g. larch is a deciduous conifer.
- The forest is divided into **coupes** - groups of trees which will be managed in the same way. Management prescriptions (**forest operations**) include:
 - **Clearfelling** - where all the trees in an area are cut down - often because they have reached economic maturity (their highest possible economic value), but sometimes due to disease; clearfelling provides temporary open space and the opportunity to **restock** (replant) with a different species which may be more appropriate for the site and its management objectives.
 - **Coppicing** - a traditional woodland management technique where broadleaf trees are cut at the base allowing new stems to sprout; sometimes the whole coupe is coppiced; sometimes, larger trees (**standards**) are left alone and allowed to continue to grow. Areas of woodland that are not coppiced are usually referred to as **high forest**.
 - **LISS** - or **low impact silvicultural systems** - provide an alternative to clearfell, involving careful thinning of the existing crop and encouragement of natural regeneration / underplanting, to maintain continuous forest cover and conditions, and to develop the next generations of trees. These include **shelterwood** and **selection** systems which are explained on [page 15](#).
 - **Thinning** is where selected trees are removed, giving the remaining trees room to develop.
- **Rides** are tracks through the forest - **ridesides** are often mown or coppiced to make them light and welcoming for visitors, and to create open sunny spaces for flowering plants and insects.

- A **stand** is a group, or area, of trees that are more or less homogeneous (the same) in terms of species composition, density and age. Stands of trees may be planted deliberately (**plantation**) or arise from **natural regeneration**, where trees grow from seeds which arrived on the site through natural means, usually from the previous crop, or overstorey.
- The **understorey** is made up of the trees and shrubs that grow underneath the main crop (the **overstorey**), from seeds from above, or through deliberate **underplanting** (where new trees are planted under the main crop). The understorey provides habitats for wildlife, and will often become the next crop of trees, when the overstorey is felled. The tops of the trees (the crown or leaves) is sometimes referred to as the **canopy**.
- The forest is managed by a beat team, which includes the forester, wildlife ranger, community ranger, works supervisor (who oversees the operational contracts) and tariffing team (who measure and mark which trees will be felled and which will be kept during forest operations).
- **Veteran trees** have characteristics, such as holes, hollow trunks and fungi, that are valuable for wildlife. Sometimes they may be **halo thinned**, which is when neighbouring competing trees are removed to give the veterans more space. Standing and fallen **deadwood** also provides excellent wildlife habitat and is often left behind after forest operations.
- The **NVC (National Vegetation Classification)** describes the plant communities and trees that would grow naturally on a site - we use it to guide species choice when deciding what to plant as it gives us an idea of which species will grow successfully.
- **FDT (Forest Development Types)** is a new system which will provide guidance as to how manage stands of mixed species in the forest.
- **Dynamic habitat** refers to areas of patchy natural regeneration and open space, where trees will be removed from time to time to create a mosaic of different ages and types of vegetation.

Consultation record

A summary of external consultation responses will be added to the final version

Forestry England - westengland@forestryengland.uk

Date