

# Matlock Forest Plan 2025 – 2035









# **Summary**

The Matlock Forest Plan covers 483 ha across seven named woodlands: *Sitches, Whitesprings*Plantation, Seventy Acre, Forty Acre, Upper Moor, Farley Moor, and Bottom Moor. These woodlands are located on Matlock Moor in Derbyshire, forming a distinctive landscape unit on a plateau that rises to 300 metres above the River Derwent valley.

The forest area includes:

- 388.5 ha of conifer woodland:
- 78 ha of broadleaf woodland
- 16.5 ha of open ground.

Separated by fields and open moorland, the woodlands are partly visible from one another and are prominent in the surrounding landscape. Principal views are from public roads crossing the moors, with the wider setting characterised by open, managed heather moorland and acid grassland grazed by sheep. The centre of the plan area lies approximately 2.4 km north of Matlock and 9 km southwest of Chesterfield.

This Forest Plan outlines detailed proposals for felling and restocking over the next 10 years, alongside broader strategic goals for the next 50 years. The key objectives are:

- **Sustainable Timber Production** Continued harvesting of commercial conifers and broadleaves to support the local economy and timber industry.
- **Biodiversity and Habitat Conservation** Protect and enhance habitats for a wide range of species, including birds of national importance .
- Climate Resilience and Forest Health Diversify woodland structure and species composition to reduce vulnerability to climate change, pests, and diseases, ensuring long-term ecological and economic resilience.
- **Informal Recreation** Maintain access for quiet, informal recreation while protecting sensitive habitats.

This vision reflects a commitment to sustainable forest management—ensuring that Matlock's woodlands continue to thrive as a vital natural resource, a haven for biodiversity, and a place for people to connect with nature.

## **Central Forest District - Matlock Forest Plan**

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All of our forests and woodlands are sustainably managed, ensuring they will continue to benefit future generations. Our management meets best practice standards summarised in the UK Woodland Assurance Standard (UKWAS) and is independently certified under UKWAS to Forest Stewardship Council® (FSC®) and Programme for the Endorsement of Forest Certification (PEFC) standards. (Licence codes FSC-C123214 and SA-PEFC-FM-006972).





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## 1. What are Forest Plans?

Forest Plans are produced by us, Forestry England, for each local forest area to set out how we aim to manage the woodlands in our care over the next 30 or more years and to communicate this to a range of stakeholders. They:

- Provide a description of the woods as they are now
- Outline the main points considered when deciding what is best for the woods
- Describe how the forest will develop over time
- Give specific information about approved tree felling, replanting and regeneration over the next ten years
- Help ensure our plans are economically, environmentally, and socially sustainable, supporting certification of our forest management and timber products

All tree felling in the UK is regulated and a licence is required before trees can be felled. The scale of tree felling in Central England Forest District, which this plan forms part of, means that the Forest Plan is the best way to apply for this licence. Responsibility for checking that the plan meets all relevant standards and statutes lies with the Forestry Commission. If all criteria are met, full approval is given for management operations in the next ten years from the approval date and outline approval is granted for our medium-term vision (ten to fifty years). Plans are reviewed every ten years to renew our felling licence and check we are on track to deliver this vision. We use some technical words and phrases in the text because they best describe what we are doing. These technical words are identified throughout the plan with an asterisk \* and their meaning shown in a glossary (Appendix I, p11).

A Forest Plan is a 'felling and restocking' plan written at landscape scale and does not set out the detailed yearly management operations for each small piece of a wood, known as a coupe\*. It is not possible to say in which year a particular operation will take place, but we can say in which five-year period it should happen. Forest Plans do not detail the management of recreation, ecological or heritage features. Planning for these elements is taken into account but follows a different management cycle and process. This includes Operational Plans\* written by the Beat Forester before each operation takes place. These outline the site-specific features that need to be considered when we undertake felling and restocking.

Terms of Reference (page 10) are agreed at the start of the planning process to set out our management objectives for the plan area, how these relate to Forestry England's District and national priorities, and how these will be monitored.

# **Application for Forest Plan Approval**

#### i Plan Area Identification:

Forest District: Central Forest District

Beat: Peak District

Name: Matlock Forest Plan

Nearest Town: Matlock

OS Grid Reference: Sitches Wood SK 2982 6637

Whitesprings Plantation SK 2878 6544

70 Acre Plantation SK 2938 6488

40 Acre Plantation SK 2977 6516

Upper Moor SK 3084 6458

Bottom Moor SK 3200 6288

Farley Moor SK 3018 6318

Local Planning Authority Derbyshire County Council

## ii Designations:

Lies within the Dark Peak Natural Character Area NCA Profile:51. Lies adjacent to; Eastern Peak
District Moors Site of Special Scientific Interest (SSSI); Peak District Moors Special Protection Area
(SPA); South Pennine Moor Special Area for Conservation (SAC); Sydnope Hall Registered Parks and
Garden; Peak District National Park

## i Date of Commencement of Plan—on approval

Proposed felling and restocking summary for 10 year FP period:

	Conifers	Broadleaves	Total area
Clearfell	53.5	3.7	57.2
Restocking and Regeneration	53.5	3.7	57.2

Total felled area 57.2 ha — Forest Plan maps are attached

The above figures refer to the gross area and exclude routine thinning operations.



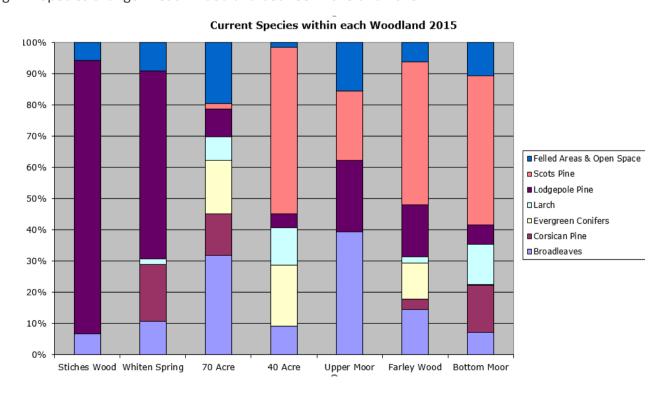
In addition to the above felling 131ha will be managed using Lower Impact Silvicultural Systems (LISS)\*. This will be done through the removal of small groups of trees, removing no more than 40% of the stems within any single management unit/compartment over the plan period. This operation will provide sufficient light to boost growth of understorey and ground flora, allow adequate space for the development of crowns and stem form for quality timber and accelerate individual tree growth.

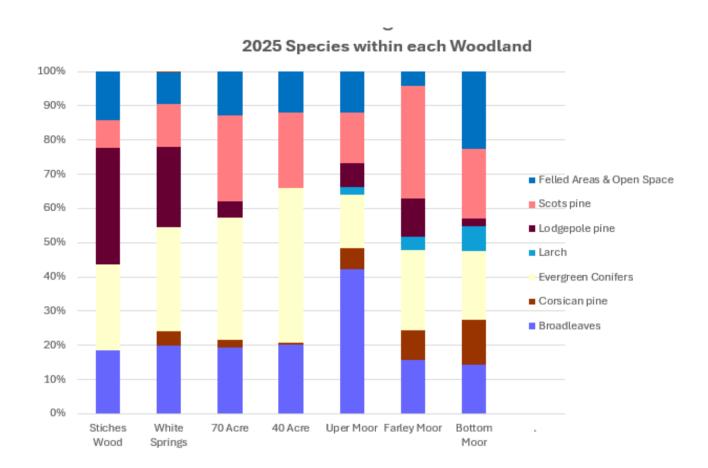
## 2. Review of 2015 Forest Plan

Over the past decade the structure of the forest has changed significantly, primarily due to the completion of most planned clearfelling operations. These efforts focused on removing Lodgepole and Corsican pine, both of which were severely affected by Dothistroma Needle Blight (DNB)\* a fungal disease that causes defoliation and compromises tree health and reduces yield.

During the previous forest plan period, approximately 100 ha were felled. Notably, around half of this area was cleared under Statutory Plant Health Notices (SPHNs)\* issued in response to Phytophthora ramorum infections in larch.

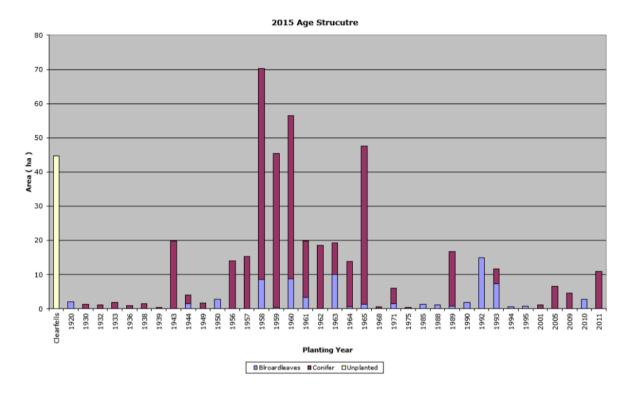


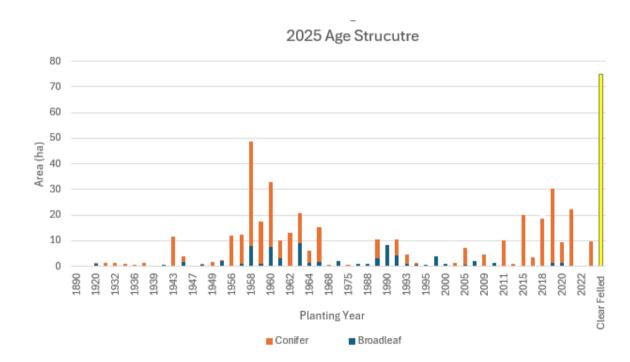




As a result of these interventions and subsequent restocking efforts, tree species diversity has increased from 15 to 26 species. This broader species mix is expected to strengthen the forest's resilience to climate change and future threats from pests and diseases.

Figure 2 — Age Structure Distribution in 2015 and 2025





# **Forest Health and Operations**

In 2021, larch trees in the 40 Acre, and 70 Acre and Farley Moor areas were infected with *Phytophthora ramorum*, a serious and notifiable tree disease. In response, a Plant Health Notice was issued, mandating the immediate removal of the affected trees. These unplanned interventions disrupted and delayed scheduled felling operations elsewhere, as resources had to be redirected to manage the disease outbreak.

# **Ecology**

Recent felling activities have supported Forestry England's objectives for creating transitional open space—an important habitat for ground-nesting birds. In addition, thinning and restocking efforts have diversified the range of habitats available, enhancing overall biodiversity. Throughout these operations, TSI have been retained to mature into future veteran trees, contributing to the long-term ecological value of the woodland.

# **Social and Cultural Engagement**

Although no formal access infrastructure has been developed in the past decade, the public continues to enjoy access via forest roads and informal paths. In the 40 Acre area, Forestry England granted permission to Darwin Forest Country Park to install visitor cabins, and the park has maintained a recreational trail around the woodland.

During forestry operations, a culturally significant standing stone was discovered. This, along with other heritage features, has been preserved to protect the historical value of the site.

# 3. Management Objectives

Grow diverse, climate-resilient timber species to maximise yields and resist pests and disease.

Continue partnering with local businesses and pursue new commercial opportunities that enhance ecosystem services.

Plan for the impacts of DNB and *P.Ramorum\**.

Conserve and restore priority habitats.

Expand woodland edge habitats for the benefits of flora and fauna.

Continue to provide open access to help visitors' health and well-being.

Enhance internal and external landscapes by diversifying woodland structure with well-designed, appropriately scaled interventions.

Protect and preserve features of cultural and historical significance.

Manage riparian zones to support wildlife, reduce flooding link habitats

Create three transitional open spaces for ground-nesting birds every five years through clearfell operations.

Retain and recruit future TSI to become veteran trees and increase deadwood habitats.



We manage the nation's forests to provide benefits for people, nature and the economy. These benefits include spaces for people to enjoy and to exercise, vital habitats for wildlife, a source of sustainable timber and a means of capturing carbon to help mitigate climate change.

## 3.1 Economic

Timber production remains one of our core objectives. All harvesting operations are carefully planned to ensure long-term sustainability, with a focus on producing high-quality conifer and broadleaf sawlogs. By maximizing yield and targeting valuable timber, we aim to improve future revenues while maintaining healthy forest ecosystems.

Timber production will be managed on a sustainable basis, improving future revenues by focussing on quality hardwood and softwood sawlogs and by maximising yield. Emerging markets, including biomass managed on shorter growing rotations, may provide opportunities to harvest and restructure areas where timber production is not currently financially viable.

As part of our restocking strategy, Forestry England will continue to introduce climate-resilient species and species mixes. This helps protect the forest against future threats from pests, diseases, and the accelerating impacts of climate change.

Our approach ensures that we can continue to provide the sustainable timber resources society depends on, while also safeguarding other vital ecosystem services—including: biodiversity, water and soil regulation; carbon storage.

The health of our woodlands has been significantly impacted by a number of tree diseases in recent years. One of the most concerning is Dothistroma Needle Blight (see Pic.1), which has weakened the vitality and reduced the timber yield of Corsican pine, Lodgepole pine, and, to a lesser extent, Scots pine.



Pic.4 Dothistroma needle blight (DNB) causes yellowing and browning of pine needles which stops photosynthesis and causes needles to drop off in subsequent years



Another major threat is Phytophthora ramorum, a disease that has caused widespread loss of larch trees. Once a stand becomes infected, it must be felled under a statutory Plant Health Notice to prevent further spread.

As a result, our forestry operations must increasingly focus on the removal of infected trees, which will affect our long-term harvesting plans. Some conifer stands will need to be felled earlier than their intended 45–55 year rotation, while others may be retained beyond their planned economic rotation length.

Forestry England will continue to collaborate with local businesses, recognising the valuable role they play in supporting the local economy and enhancing visitor experiences. As opportunities arise, we will actively explore new avenues for sustainable business activity—whether through ecotourism, educational partnerships, or nature-based enterprises—ensuring that any developments align with the long-term stewardship of the woodland environment.

As part of our long-term woodland management strategy, Forestry England will increasingly rely on natural regeneration of both conifer and broadleaf species during the next rotation where appropriate. This approach will help create a more diverse forest structure, improving resilience to climate change and reducing the risk of damage from extreme weather events such as high winds.

To ensure that naturally regenerating and newly planted trees can thrive, we will actively manage populations of species that can cause damage, including deer, rabbits and grey squirrels. These animals can browse on young shoots and bark, potentially preventing trees from establishing successfully.

A low-level resident population of roe deer is present in the area, with potential ingress of fallow deer from the Darley Dale/Stanton herd to the west and the Chatsworth herd to the north. There are occasional sightings of red deer and muntjac. These populations will be monitored and managed to maintain a balance that supports both wildlife and woodland regeneration.

Grey squirrel control will continue, particularly in areas where their impact on priority habitats—such as native deciduous woodland—and young conifer stands is most significant. Squirrels can strip bark from trees, leading to long-term damage and loss of habitat value.

By carefully managing these pressures, we aim to support the successful establishment of future woodland rotations to ensuring healthy, diverse, and resilient forests for wildlife and people alike.

#### 3.2 Nature

The woodlands support a rich mosaic of habitats that, in turn, sustain a wide variety of wildlife—some of which are of regional and national importance. Notably, the area hosts a diverse array of breeding and feeding birds, including Goshawk, Hobby, Long-eared Owl, Red Kite, Crossbill, Nightjar, and Woodcock. The latter two species depend on transitional open habitats, which are created following clearfell operations. In the new forest plan, felling has been carefully sequenced to ensure that at least three areas are felled every five years, maintaining a continuity of transitional open habitats.

Several rides within the woodland are botanically significant, supporting species such as the Dingy Skipper, Small Heath, and the Argent and Sable Moth. Forestry England is working in partnership with Butterfly Conservation to ensure that these habitats are managed sensitively during forestry operations.



Pic.2 Woodcock sitting on a nest

Some woodland species also play a vital role in

shaping the ecosystem. Wood ants, for example, redistribute nutrients, act as natural predators of

pest insects, and serve as a food source for species like woodpeckers and badgers. When forestry operations occur near wood ant colonies, care is taken to manage light levels and retain deadwood habitats. Their presence is a strong indicator of a healthy woodland ecosystem.

As the woodlands are still relatively young (less than 100 years old), large veteran trees are scarce. However, several stands have now reached the century mark and will be managed as long-term retention areas to increase deadwood volume and associated habitats. Individual character trees and small groups identified during operations will be retained in perpetuity to create future TSI, enhance deadwood habitat, and diversify the woodland ecosystem.



Pic.3 Wood ants nest



The area designated as a Natural Reserve\* in Sitches Wood will be expanded from 1.6 to 9.5ha. Combined with the 6.4 ha of Natural Reserve in Bottom Moor, these areas will be managed under a minimum intervention policy, allowing the woodland ecosystem to develop naturally over time.

## 3.3 People

The woodlands are regularly enjoyed by local residents for quiet, informal recreation such as walking, birdwatching, and nature photography. While there are no formal recreational facilities, a network of forest roads, informal paths, and public rights of way provide excellent access throughout the woodland blocks. In Forty Acre, a surfaced path has been provided by our neighbours at Darwin Forest Country Park, offering a welcoming route for visitors. Several forest cabins also serve as peaceful retreats for



Pic.4 Ruined farm building

their guests situated in the wood. Two areas are managed under a long term lease agreement for forestry purposes only and there is no public access allowed, see surveys map. The remaining

orestry purposes only and there is no public

Pic.5 Standing stone –Bronze age ceremonial site

woodland within the forest plan is held as freehold, and is open to the public, providing opportunities to support both physical and mental wellbeing.

Although there are no Scheduled Ancient Monuments within the forest plan area, the woodlands contain numerous features of historical interest. These include wood banks, ponds, and old field boundaries (stone walls) and a recently discovered Standing Stone which offer insight into past land uses.

When forestry operations are undertaken, every effort is made to conserve these features and protect their heritage value.

# 4. Harvesting Operations

Despite the challenges of pests, disease and climate change our long-term vision is to sustainably harvest around 70 ha of forest per decade from both clearfell and LISS management systems, based on a 55-year rotation for conifer species. This strategy aims to develop a balanced woodland structure made up of:

- 20% young woodland (newly establishing <20 years old))</li>
- 60% mid-rotation woodland (20–59 years old)
- 20% mature woodland (over 60 years old)

This approach supports the long-term sustainability of timber production while enhancing ecological diversity and resilience.

Through careful planning and adaptive management, we aim to establish a more resilient, productive, and ecologically rich forest over the next 50 years.

Table 2 displays the predicted average annual timber production (from all forest operations combined) for the next six five-year periods. The overall timber volumes are split approximately 7% from broadleaf and 93% from conifers.

Forecast Period	Average annual timber volume (m3)
2025-2026	2,450
2027-2031	2,459
2032-2036	3,267
2037-2041	2,465
2042-2046	2,485
2047-2051	3,979

Table.1 Production forecasts for timber yields.



LISS will be used in both broadleaf and conifer crops in specific areas to help develop mixed stands. Methods such as small group felling ( <2ha) strip shelterwood in the LISS stands will be used to encourage regeneration, see Silvicultural Systems map.

In addition to the planned felling programme, the forest will be assessed for thinning every five years. Thinning operations will be scheduled based on these assessments to manage stand density and light availability. This process is vital for promoting healthy crown and root development, which helps trees remain windfirm as they mature. Thinning also contributes to timber production and provides an important source of revenue.

Before any forestry operations outlined in this landscape-scale plan are carried out, a detailed operational plan\* will be developed. As part of this process, all proposed activities are carefully evaluated to ensure they are appropriate for the site. This includes consideration of local ecology, heritage features, and any site-specific constraints. All operations will comply with relevant regulations and the UK Woodland Assurance Standard (UKWAS)\*.

#### 5. Intended Landuse

No significant changes are planned to the overall proportion of woodland habitats. The current balance—80% conifers, 17% broadleaves, and 3% open space—will change slightly through the introduction of broadleaved buffers, with conifers continuing to dominate. The early removal of diseased trees has led to an increase in younger stands and a temporary reduction in mid-rotation trees. This shift is expected to be short to medium term, with the forest structure gradually returning to a more balanced age profile dominated by mid-rotation trees.

To enhance forest resilience against pests, diseases, and climate change, a broader range of tree species will be introduced during restocking, where appropriate. This forms part of our portfolio approach, which includes accepting natural regeneration and using planting stock sourced locally or from regions 2 to 5 degrees south, where suitable.

Forestry England will continue working with Forest Research to monitor the health of the nations forests. Their decision-support tools help guide species selection based on site conditions, climate projections, and management objectives. Species choice will also be informed by our foresters' expertise and site-specific factors such as conservation designations, browsing pressure, and

competition from ground vegetation. Based on regional soil maps, several species are expected to remain productive through to 2080. The local beat team will carry out more detailed analysis using site-specific soil nutrient and moisture data to ensure the right tree is planted in the right place.

Open habitats will be managed sensitively to support local flora and fauna. Mowing regimes will be varied, leaving uncut margins around woodland edges to allow the development of woody shrubs and a herbaceous layer. This approach helps connect food sources from low vegetation to the tree canopy as the woodland matures. Management of open habitats and riparian zones (water bodies) is not detailed in this forest plan but will be overseen by Forestry England's local staff and environment team.

Conifers	Rotation length based on Forest Gales tool	Broadleaves
Improved Sitka spruce	50	Norway maple
Western hemlock	40	Pedunculate oak
Scots pine	70	Sycamore
Macedonian pine	60	Wild cherry
Japanese larch	35	Silver birch
Pacific fir	60	Downey birch
Western red cedar	45	Rowan
Lawson's cypress	45	Grey alder

Table.2—Species likely to be most suited under predicted 2080 climate conditions. For conifer the species Forest Gales tool has been used to predict the optimum rotation length before the risk of storm damaged increases significantly.

The tree species listed in table.3 were selected using Forest Research's Ecological Site Classification (ESC) tool. This tool helps us understand which species are likely to grow well in local conditions. In this area, ESC suggests that soil nutrients may become the main factor limiting tree growth for many species.

However, ESC is just one part of the decision-making process. It gives a useful overview, but it doesn't cover everything. Final decisions about which trees to plant will be made by Forestry



England's local Beat team. They'll take into account any conservation designations and look closely at the specific conditions of each site.

Other important factors include:

- Water levels and drainage
- Pressure from deer and other browsing animals
- Risks from pests and diseases
- Competition from ground vegetation
- Availability and origin of planting stock

By combining scientific tools with local knowledge and experience, we aim to choose tree species that will thrive now and into the future—supporting a healthy, resilient forest landscape.



Pic.4 Transitional open habitats created following a clearfell operation, which is so important in the life cycle of ground nesting birds, insects and early succession plants.

	Forest Plan Area	Forest Plan Percentage	Forest District Area	Forest District Percentage
Total Area	483 ha	100 %	28203	100
Total Wooded Area	466.5 ha	96.6 %	23744	85.9
Open Habitat (>10%)	16.5 ha	3.4 %	4149.5	14.7
Natural Reserves -	15.9 ha	3.3 %	584.1	6
Longterm Retentions & Low Impact Silvicultural Systems (>1%)	3.5 ha	0.7 %	14,322	50.8
Area of Conservation Value (>15%) including LISS	148 ha	30.6 %	17553.5	62.2

Table.3 Matlock Forest Plan Contribution towards Central District commitments to UKWAS and UKFS



National Strategy	District Strategy	Forest Plan Objective	Monitoring
<ul> <li>1) Maintain the land within our stewardship under UKWAS certification,</li> <li>2) Improve the economic resilience of our woods and forests,</li> <li>3) Encourage and support business activity on and around the Estate.</li> </ul>	<ul> <li>Adapting our management practices to suit the character and requirements of local woodlands whilst satisfying national standards and business requirements.</li> <li>We will use the opportunity presented by additional, unscheduled clearfelling as a result of disease control to accelerate the diversification of both conifer and broadleaf species appropriate to each local area and site type, and in some areas trialling species which may not have been previously planted in forest conditions, using a range of silvicultural systems.</li> </ul>	<ul> <li>Continue to grow commercial timber using a variety of species that will be more resilient to the impacts of climate change, pests and diseases to maximise yields.</li> <li>Ensure stands are more structurally diverse, remain stable, actively managing the woodland to promote age- and species-diversity.</li> <li>Carefully plan the regeneration of stands felled due to Phytophthora and impacted by other pests and diseases.</li> <li>Continue to work with local businesses and consider further possibilities for business activity as opportunities arise.</li> </ul>	<ul> <li>Forestry operations and restocking will be recorded in the Forestry England subcompartment database and monitored at 5 year mid-term review and 10 year renewal.</li> <li>Monitor as part of the 10 year forest plan renewal.</li> <li>Monitored as part of the operational planning process and record in the subcompartment data base.</li> <li>No monitoring required.</li> </ul>
<ul> <li>For Wildlife:</li> <li>1) Improve the resilience of the natural environment of the Estate under our Stewardship,</li> <li>2) Realise the potential of the Public Forest Estate for nature and wildlife,</li> <li>3) Maintain and improve the cultural and heritage value of the Estate.</li> </ul>	<ul> <li>Adapting more sensitive timber harvesting arrangements and adopting recent FC guidance on forest operations to reduce the impact of forest operations on soils and ground vegetation on sensitive sites.</li> <li>Contributing to and undertaking control programmes to limit the impact of deer and other species on woodland habitats in order to reduce the adverse impacts of grazing and disturbance to native habitats and their flora and Fauna</li> <li>Where possible, work with interested parties to explore ways to maintain or improve features of cultural or heritage value to the local community.</li> </ul>	<ul> <li>Identify key species and habitats and make appropriate provision for their requirements. Maintain the ecological value of the priority habitats.</li> <li>Manage and increase the area of woodland edge habitats for the benefits of flora and fauna.</li> <li>Identify existing locations of TSI and demonstrate appropriate management to recruit future veteran trees and increase the volume and distribution of deadwood.</li> </ul>	<ul> <li>Monitored as part of the operational planning process.</li> <li>Monitored as part of the operational planning process.</li> <li>Monitored as part of the operational planning process.</li> <li>Existing and future TSI to be recorded on the conservation database, reviewed as part of operational planning process and at the 10 year forest plan renewal.</li> </ul>
<ul> <li>1) Encourage communities to become involved in the Estate, its management and direction,</li> <li>2) Provide high quality woodland-based recreational opportunities for people and business,</li> <li>3) Enable everyone, everywhere to connect with the nations' trees and forests so that they understand their importance and act positively to safeguard forests for the future.</li> </ul>	<ul> <li>Provide safe and accessible woodlands.</li> <li>Offering opportunities for quiet recreation and adventurous activities, to enable people to experience the potential health and wellbeing benefits.</li> <li>Developing partnership with private businesses and public bodies to expand and improve recreational opportunities across the estate.</li> <li>Creating a wide variety of opportunities for schools, groups, families and individuals to engage with and learn about trees and forests in accordance with the National and District Strategies.</li> <li>Encouraging third party environmental educators and other partners to offer learning opportunities on the public forest estate.</li> </ul>	<ul> <li>Continue to provide informal access to the public on freehold land.</li> <li>Continue to improve both internal and external landscapes through the diversification of woodland structure and through interventions which are sympathetically designed and appropriately scaled.</li> <li>Conserve features of cultural significance.</li> </ul>	<ul> <li>No monitoring required.</li> <li>Review as part of the forest plan review/renewal.</li> <li>Monitored as part of the operational planning process.</li> </ul>



# Appendix I

## **Glossary**

#### **Acute Oak Decline**

Acute oak decline is a complex syndrome in which several damaging agents interact and cause a serious decline in tree condition, and can kill oak trees within four to six years of the onset of symptoms. The agents can be abiotic or biotic; the latter often include insects and fungi which are not capable of invading healthy trees but which can be very destructive to stressed oaks. Symptoms include characteristic weeping cankers/lesions in the bark.

#### **Ancient Woodland**

Areas of semi-natural native woodland that have had continuous woodland cover since at least 1600. They are particularly rich in biodiversity and this is often notable in their characteristic ground flora.

# Ash Dieback (Hymenoscyphus fraxineus)

Ash dieback (also known as Chalara ash dieback) is a highly destructive fungus killing native ash trees across the UK. Young and coppiced trees will die quickly once infected, more mature ash may survive for a number of years once infected. Causes the timber to lose strength, become brittle and trees to start dropping limbs.

# **Aspect**

The direction a slope faces. This can have a strong influence on the microclimate, ground vegetation, soils and hydrology.

## Canopy

The mass of foliage and branches formed collectively by the crowns of trees. The shade it casts has a strong influence on the plants, trees and shrubs beneath it.

#### **Carr Woodland**

A wet woodland area, usually dominated by willow, birch and alder species.

#### **Chronic Oak Decline**

Chronic oak decline is a complex disorder of oak trees which several damaging agents interact either simultaneously or sequentially to bring about a serious, long term decline in tree health and condition. It differs from acute oak decline (above), which causes a much faster, and usually fatal, decline in tree health.

# Clearfelling

Cutting down of an area of woodland (if it is within a larger area of woodland, it is typically a felling greater than 0.25 ha). A scatter or small clumps of trees may be left standing within the felled area.

#### **Climax Species**

Tree species that will eventually dominate the forest canopy, maximising their exposure to sunlight and out-competing other species.

## **Coppice**

Coppicing is silvicultural system based on regeneration by regrowth from cut stumps (coppice stools). The same stool is used through several cycles of cutting and regrowth. Coppice can also refer to an area of woodland in which the trees or shrubs are periodically cut back to ground level to stimulate growth and provide wood products. 'Coppice with standards' refers to coppice with a scatter of trees grown on a long rotation to produce larger-sized timber and to regenerate new seedlings to replace worn out stools.

#### Coupes

Areas of forest that have been or will be managed together.

# **Dothistroma Needle Blight (DNB)**

DNB is a fungal disease affecting mainly pine species. The fungus affects the needles of the infected tree, which are eventually shed. This can continue year on year and gradually weaken the tree, significantly reducing timber yields. It can also eventually lead to mortality.

# **Ecological Site Classification (ESC)**

ESC is an online tool developed by Forest Research to help a forester choose tree species that are suited to a specific site. It models how well each species is likely to grow using information on climate and soil properties. It can also be used to forecast how climate change may impact suitability.

# **Ecosystem Services**

Ecosystem services are the goods and services that people depend on that arise from ecosystems. They are usually categorised into Provisioning (eg: timber, water, food production), Regulating (eg: regulation of climate and diseases), Cultural (eg: recreational opportunities, aesthetic value) and Supporting services that underpin these (eg: crop pollination).

## **Ecosystem**

An ecosystem is an interconnected network formed of all the living things in a given area (plants, animals and organisms) and their interactions with each other and their non-living environments (eg: weather, earth, sun, soil & climate).

#### Forest Plan (FP)

A FP is primarily a landscape-scale felling and restocking plan. It provides a holistic, long-term approach to planning and forest design, detailing felling operations over a 10 year period for the purposes of licencing felling and outlining proposals over the next 50 years. FPs are reviewed every 5 years and redrawn and approved every 10 years.

# Forest Stewardship Council® (FSC®)

An internationally recognised body promoting sustainable forest management to the forest industry and consumers.

#### **Forestry England**

Forestry England is the executive agency of the Forestry Commission that is responsible for managing the Nation's Forests in England.



# **Glossary continued**

## **Forests and Water Guidelines**

One of seven sets of guidelines that support the United Kingdom Forestry Standard (UKFS). The UKFS and guidelines outline the context for forestry in the UK; set out the UK Government's approach to sustainable forest management; define standards and requirements; and provide a basis for regulation and monitoring, including national and international reporting.

#### **Group Selection**

A method of managing irregular stands in which regeneration is achieved by felling trees in small groups. Group selection involves felling groups of trees (generally <0.25 ha per group)

## **Historic Environment**

The physical remains of every period of human development starting from 450,000 years ago and including earthworks, buried remains, structures and buildings.

# Ips typographus (larger eight-toothed European spruce bark beetle)

Although the beetle prefers stressed or weakened trees, under the right environmental conditions its numbers can increase enough to result in attacks on healthy trees. If left uncontrolled, the beetle could cause significant damage to the United Kingdom's spruce-based forestry and timber industries.

# **Landscape Character**

England is renowned for its rich, diverse and beautiful landscapes which have their own distinct local characters. These have been shaped over many thousands of years by natural influences such as soil and landform and by generations of human activity.

# **Long Term Retention**

Individual, stable stands and clumps of trees retained for environmental benefit significantly beyond their normal economic age or size.

# **Low Impact Silviculture Systems (LISS)**

Silvicultural systems including group selection, shelterwood or under-planting, small coupe felling, coppice or coppice with standards, minimum intervention and single tree selection systems. LISS are generally compatible with windfirm conifer woodlands and most broadleaved woodlands.

#### Minimum intervention

Management with no systematic felling or planting of trees. Operations normally accepted are fencing, control of non-native plant species and vertebrate pests, maintenance of paths and rides and safety work

# **National Character Area (NCA)**

Broad divisions of landscape form the basic units of cohesive countryside character, on which strategies for both ecological and landscape issues can be based. There are 159 Character Areas, each of which is distinctive with a unique 'sense of place'.

# **National Nature Reserve (NNR)**

NNRs were established to protect some of our most important habitats, species and geology, and to provide 'outdoor laboratories' for research. Most NNRs offer opportunities to the public to experience wildlife first hand and learn more about nature conservation.

## Native

Native tree species colonised Britain without human assistance at the end of the last ice age, before the English Channel cut Britain off from mainland Europe.

# **Natural Regeneration**

The growth of new trees from seed found in the soil or cast from adjacent trees. Regeneration only occurs where suitable seed sources and conditions are present.

#### **Natural Reserve**

Natural Reserves are areas which are predominantly wooded, usually mature and intended to reach biological maturity. They are permanently identified and in locations which are of particularly high wild-life interest or potential. They are managed by minimum intervention unless alternative interventions have higher conservation or biodiversity value.

#### **Naturalised**

Naturalised trees have colonised Britain since the land divide with mainland Europe and are growing and reproducing successfully within their natural climatic range without human intervention.

# **Near Native / Honorary Native**

In a **changing** climate many tree species native to continental Europe will spread north. These species are classified as 'honorary/near-native': a species previously considered to be non-native, but whose climate envelope will expand over England as a result of climate change

# **Nest Planting**

**Tr**ees planted in small groups which are distributed across the restock site with remaining unplanted areas left to naturally regenerate. A useful way to introduce new species or provenances to a site.

#### **Notifiable Disease**

Some tree pests and diseases are notifiable, which means that, in England, they must be reported to the Forestry Commission or Animal & Plant Health Agency. Notifiable tree pests and diseases are typically those with the potential to cause greatest damage to our trees, woods and forests.

#### **Open Grown Trees**

Trees that have been given space to develop a large crown and natural shape. In comparison trees planted closely in a plantation managed for timber or biomass tend to have a more uniform shape.

#### Open Space

Areas within a forest without trees, such as glades, stream sides, grass or heathland, water bodies, rocky areas, roads and rides.

# **Operational Plans**

Detailed site plans prepared in advance of all major forest operations providing guidance to Forestry England staff and contractors. They identify site constraints, opportunities and areas requiring special treatment or protection.

## Phytophthora ramorum

P.ramorum is a very destructive pathogen affecting over 150 plant species, particularly larch trees. Some broadleaved plants (such as sweet chestnut and rhododendron) can also host P.ramorum.



# **Glossary continued**

## Phytophthora pluvialis

P.pluvialis was first recorded in the UK in 2021 and affects a range of species including Douglas fir and western hemlock.

# **Plantation on Ancient Woodland Site (PAWS)**

Ancient Woodland areas where semi-natural woodland has been cleared and replaced by plantation, often including non-native species. PAWS sites can include both broadleaved and conifer woods and often retain remnant ancient woodland features like species-rich ground flora or undisturbed soils. Also known as Ancient Replanted Woodland.

# **Pollarding**

A form of pruning where the upper branches of a tree are removed, promoting a dense head of foliage and branches. Cutting is usually around 2.4 metres above ground – the height that wild animals or domesticated stock could reach. Traditionally, trees were pollarded for fodder or for wood. Fodder pollards are generally pruned every two to six years, wood pollards at longer intervals, usually of eight to 15 years, to produce upright poles for eg: fence rails and posts.

#### **Production Forecast**

The projected volume of biomass that the forest will produce each year. Calculations are based on species, age, net area and yield class.

# **Public Rights of Way (PROW)**

Access routes open to the public through legal designation. These include footpaths, by-ways and bridleways.

#### Respacing

Thinning of dense natural regeneration at a young age (generally when trees are 2-5m tall) to produce a more consistent crop, focus available resources on the remaining trees and promote good development.

# Restocking

The establishment of trees where felling has taken place. Restocking may be achieved through natural regeneration, but it is more usually associated with replanting.

#### Ride

Forestry term for unsurfaced roads, paths and tracks within a woodland which provide access for management and other activities.

#### **Scheduled Monument**

A scheduled monument is a site that is legally protected because of its historical importance.

# **Secondary Woodland**

Woodland that has been established on land formerly used for another purpose (eg: as pasture, arable fields, quarries, etc.). Unlike ancient woodland it has not been continuously wooded in the past.

## **Seed Trees**

Trees with good shape and growth rates chosen to produce seed for restocking. Seed trees need to be of an age and size where they produce fertile seeds in large quantities.

# Selective Felling (Regeneration Felling)

Where individual trees of varying sizes are selected and removed from a stand. The whole stand is worked and the aim is to maintain full stocking of all tree sizes and ages, from seedlings to mature trees, in any one area.

# Semi-natural woodland

Those woodlands which are comprised mainly of locally native trees and shrubs, and have some structural characteristics of natural woodland.

## **Shade tolerant species**

Trees that have adapted to lower light levels and will regenerate and establish freely under the shade of the surrounding tree canopy, as opposed to light demanding species which require full sun/high light levels to establish and grow.

#### Shelterwood

The shelterwood system involves the felling of a proportion of the mature trees within an area whilst leaving some trees as a seed source and shelter for natural regeneration. The seed trees are subsequently removed. Note that the term 'seed tree system' is often used to describe 'shelterwoods' with densities of <50 retained mature trees per hectare.

The spatial arrangement of the retained trees can be uniform, in groups, or in strips, so giving rise to the name of different shelterwood systems. The removal of the seed trees can involve several felling operations

## **Silvicultural Systems**

Silviculture is the process of tending, harvesting and regenerating a forest. Different patterns of felling and regeneration form distinct 'silvicultural systems'. Different systems may be suitable for different management objectives (eg: conservation in an ancient woodland vs timber production in a conifer plantation).

## Site of Special Scientific Interest (SSSI)

A SSSI is a formal conservation designation. Usually, it describes an area that is of particular interest to science due to the rare species of fauna or flora it contains - or even important geological or physiographical features that may lie in its boundaries.

# **Small Coupe Felling**

A small-scale clearfelling system. The system is imprecisely defined but coupes are typically up to 2 ha in extent, with the larger coupes elongated in shape so the edge effect is still high.

# **Special Area of Conservation (SAC)**

SACs are protected areas in the UK designated under the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales. These areas form an internationally important network of high-quality conservation sites that make a significant contribution to conserving Annex I and Annex II habitats and species.



# **Glossary continued**

## **Special Protection Area (SPA)**

SPAs are protected areas selected to protect one or more rare, threatened or vulnerable bird species listed in Annex I of the Birds Directive, or specific regularly occurring migratory species. They form an internationally important network of high-quality conservation sites that make a significant contribution to conserving important habitats and species.

# **Strategic Plan**

**For**estry England's stated priorities which are to be delivered across an extensive landscape, such as a District or nation-wide, which then informs the vision and objectives of a Forest Plan at a more local scale.

# **Strip Felling**

Strip felling involves removal of some trees in rows, leaving strips of mature trees in place rather than clearfelling a crop in one operation. This creates space between remaining trees suitable for planting new trees (especially species that require sheltered growing conditions) and maintains woodland cover while new trees are established. The width of strips may vary and multiple strips are removed from one stand at a time.

# **Sub-compartments**

Areas of forest that form a homogeneous crop in terms of age, species composition and condition. They may be split across several locations and their boundaries may change as the forest develops after felling and restocking.

# The nation's forests

**The** woodlands managed by Forestry England. These include both freehold and leasehold land. (Previously referred to as the Public Forest Estate.)

# **Thinning**

The removal of a proportion of trees in a forest after canopy closure, usually to promote growth and greater value in the remaining trees.

# **Trees of Special Interest (TSI)**

Trees that are of interest biologically, aesthetically or culturally because of their age, or trees that are in the ancient stage of their life, or trees that are old relative to others of the same species. Also referred to as Veteran or Ancient trees.

# **UK Forestry Standard (UKFS)**

**Outlines** the Government's criteria and standards for the sustainable management of forests in the UK.

# **UK Woodland Assurance Standard (UKWAS)**

A voluntary scheme for the independent assessment of sustainable forest management in the UK. The Scheme has been developed by a partnership of forestry and environmental organisations in response to growing consumer demand for timber products from sustainably managed forests.

# **Understorey Woodland Species**

Minor tree species that live under top canopy trees or are 'pioneer' species that arrive in clearings before climax species become established. Once the overstorey is established understorey species are more common on woodland edges and clearings where light levels are higher.

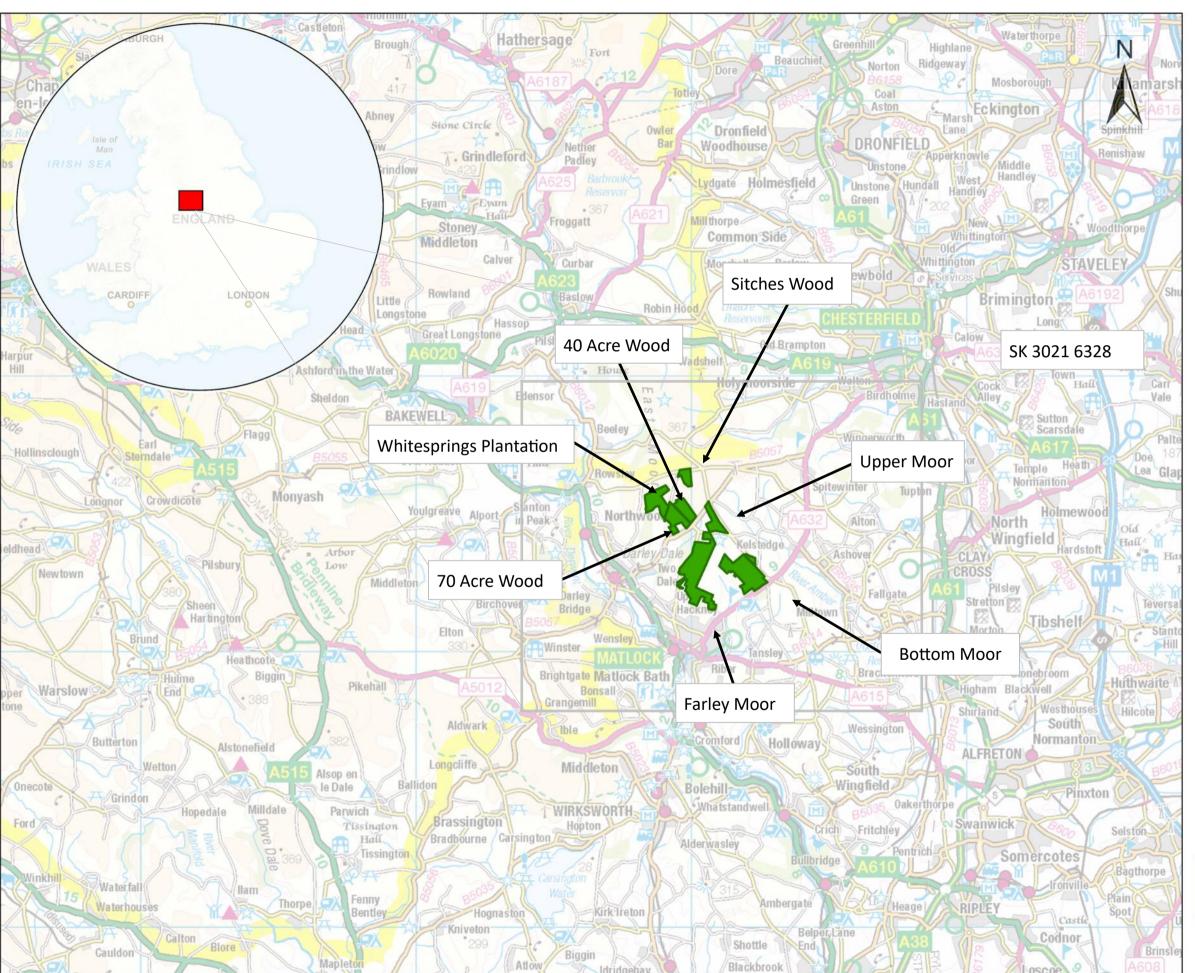
## **Wood Pasture**

Areas of historical, cultural and ecological interest, where grazing may be/have been used in combination with a proportion of open tree canopy cover

#### **Yield Class**

Yield class is a measure of the growth rate of a tree crop on a given site. It describes the maximum average volume increase that a particular crop can achieve on 1 ha of land each year. For example, a crop capable of a maximum annual growth of 14 m3 per hectare has a yield class of 14. Yield Class varies depending on factors including the species, how it is managed and local site conditions.

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# **Location Map**

The Matlock Forest Plan covers seven woodlands, spanning approximately 483 ha, located within the Dark Peak Natural Character Area. These woodlands lie 1.5 miles north of Matlock and 6 miles south of Chesterfield, adjacent to the Peak District National Park.

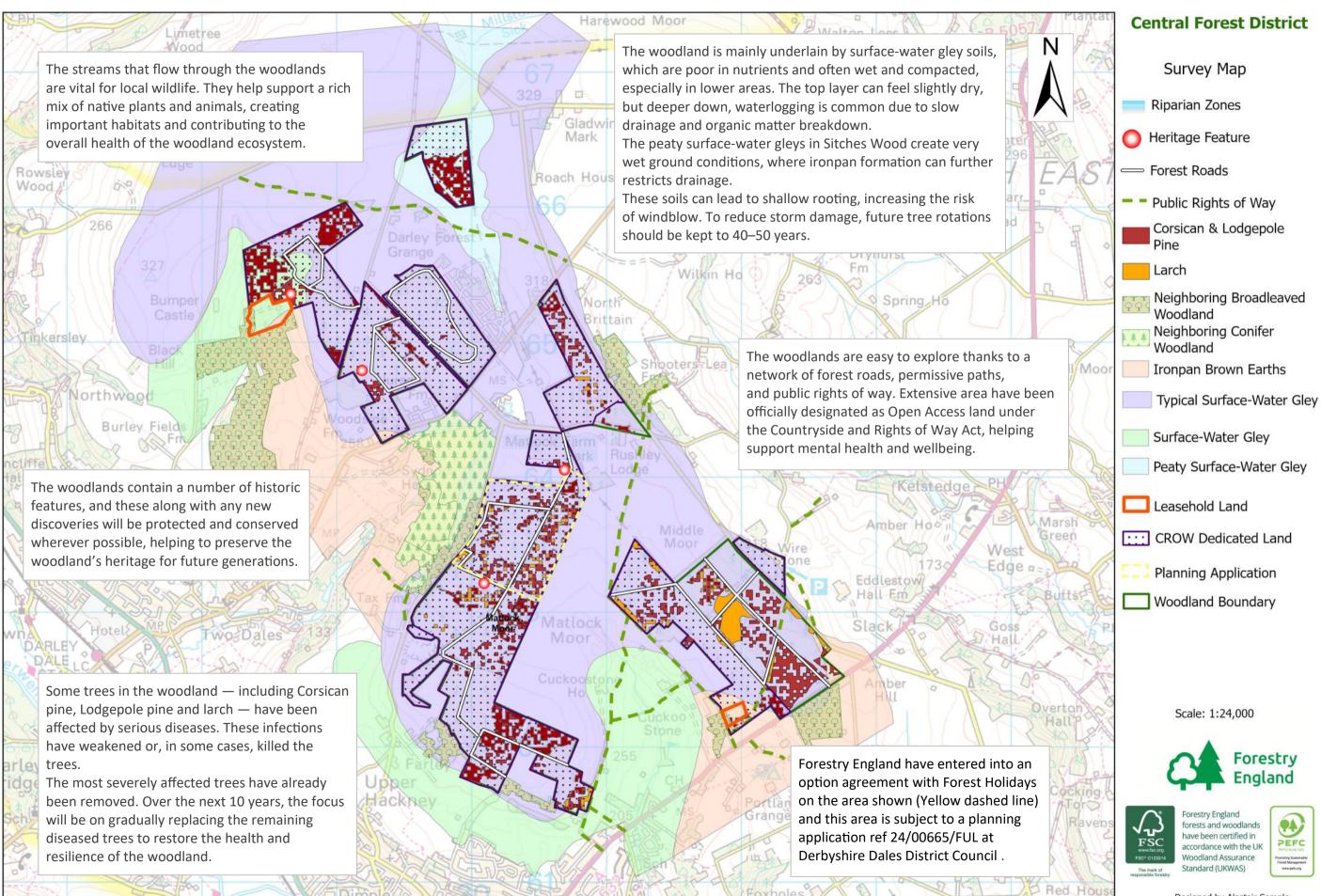
The woodlands are partially visible from one another and are prominent features in the surrounding landscape, forming a cohesive landscape unit.

The woodland composition is predominantly coniferous, with some broadleaved elements. The age structure is largely dominated by mature trees (over 50 years old), alongside a significant proportion of recent planting, which has taken place following the removal of diseased trees.

Scale: 1:125,000

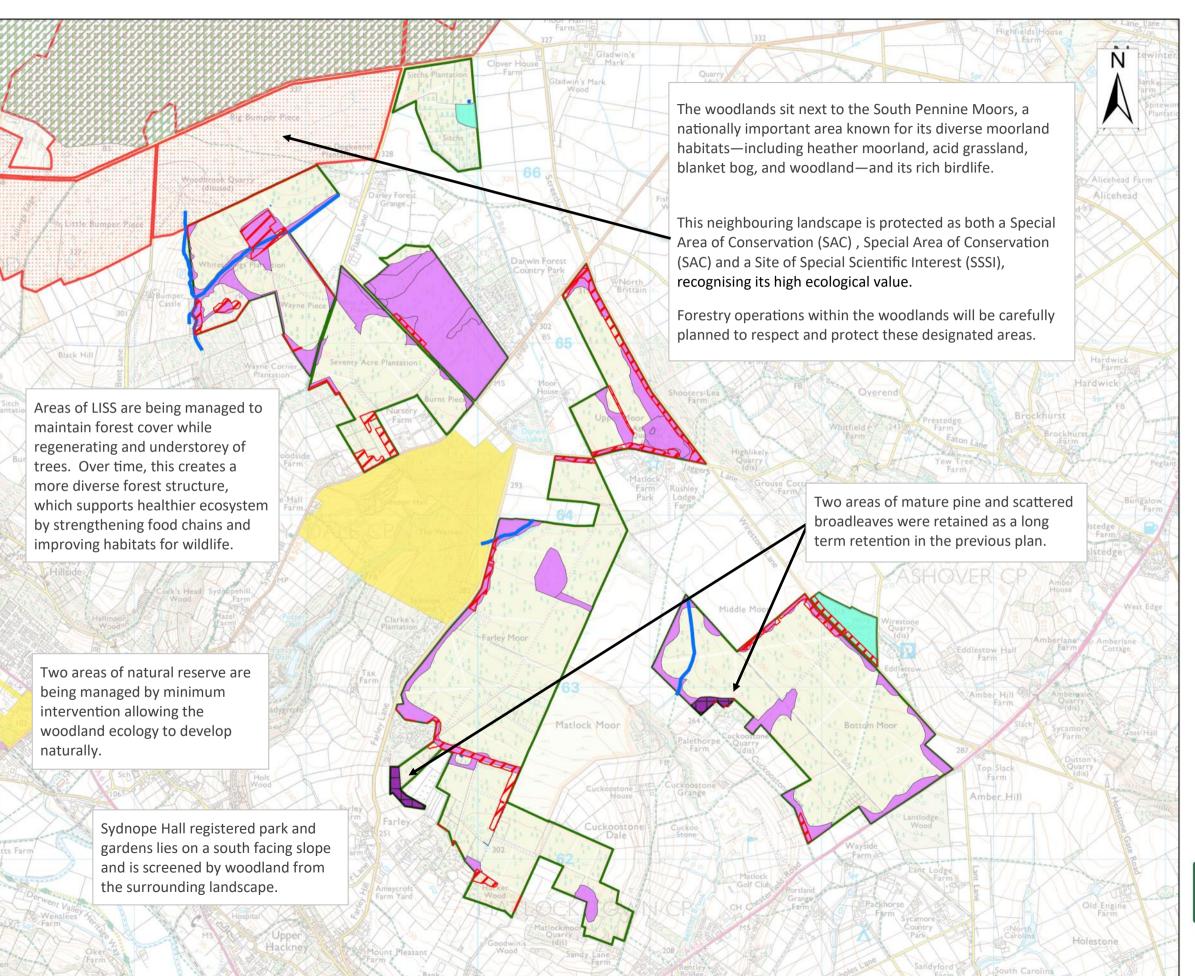






Fm ...





Conservation Map



Low Impact Silvicultural System (LISS)

Natural Reserve

National Parks

Watercourses

Registered Parks and Gardens

Sites of Special Scientific
Interest, Special Areas of
Conservation & Special
Protection Areas

Priority Habitats Deciduous Woodland

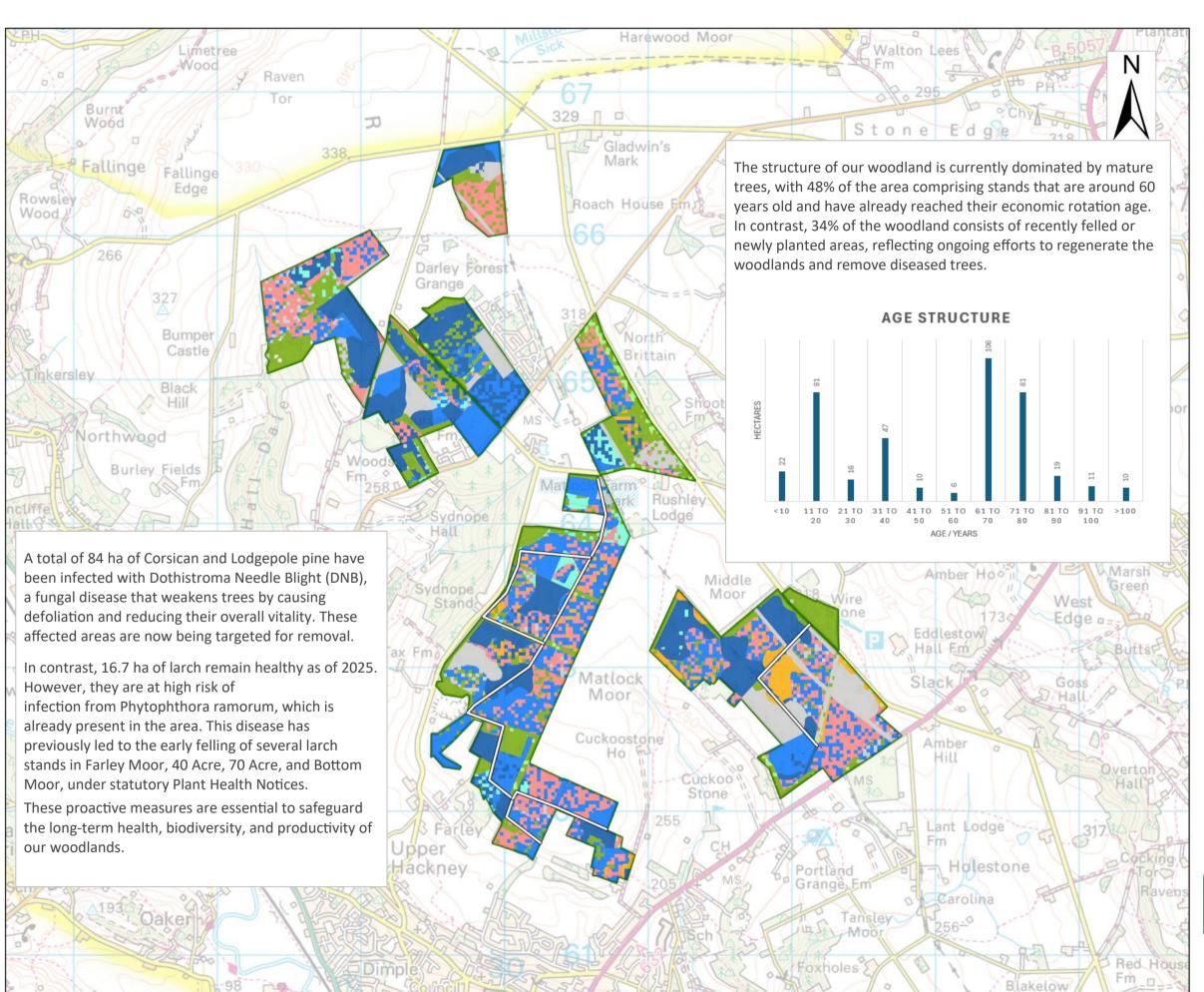
Woodland Boundary

Scale: 1:20,000









**Current Species** 

Corsican & Lodgepole pine

Spruce & Firs

Pine

Evergreen Conifers

Larch

Native & Honorary/nearnative Broadleaves

Non-native Broadleaves

Open/Felled

Woodland Boundary

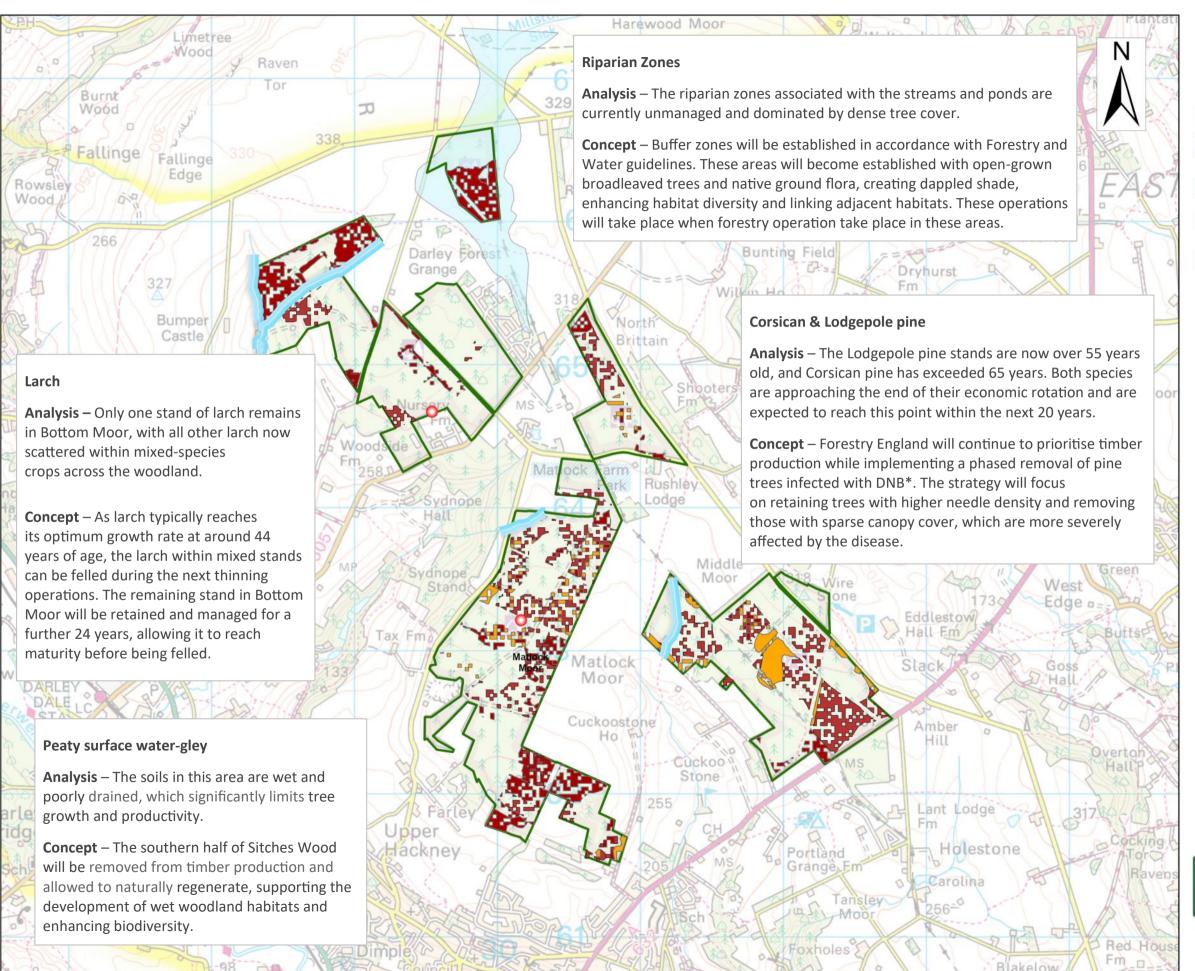
The coloured squares on the map represent the proportion of each species in mixed stands rather the precise location of each species within the forest.

Scale: 1:24,000









Analysis & Concept

Riparian Zones

Corsican & Lodgepole

Larch

Peaty Surface-Water Gley

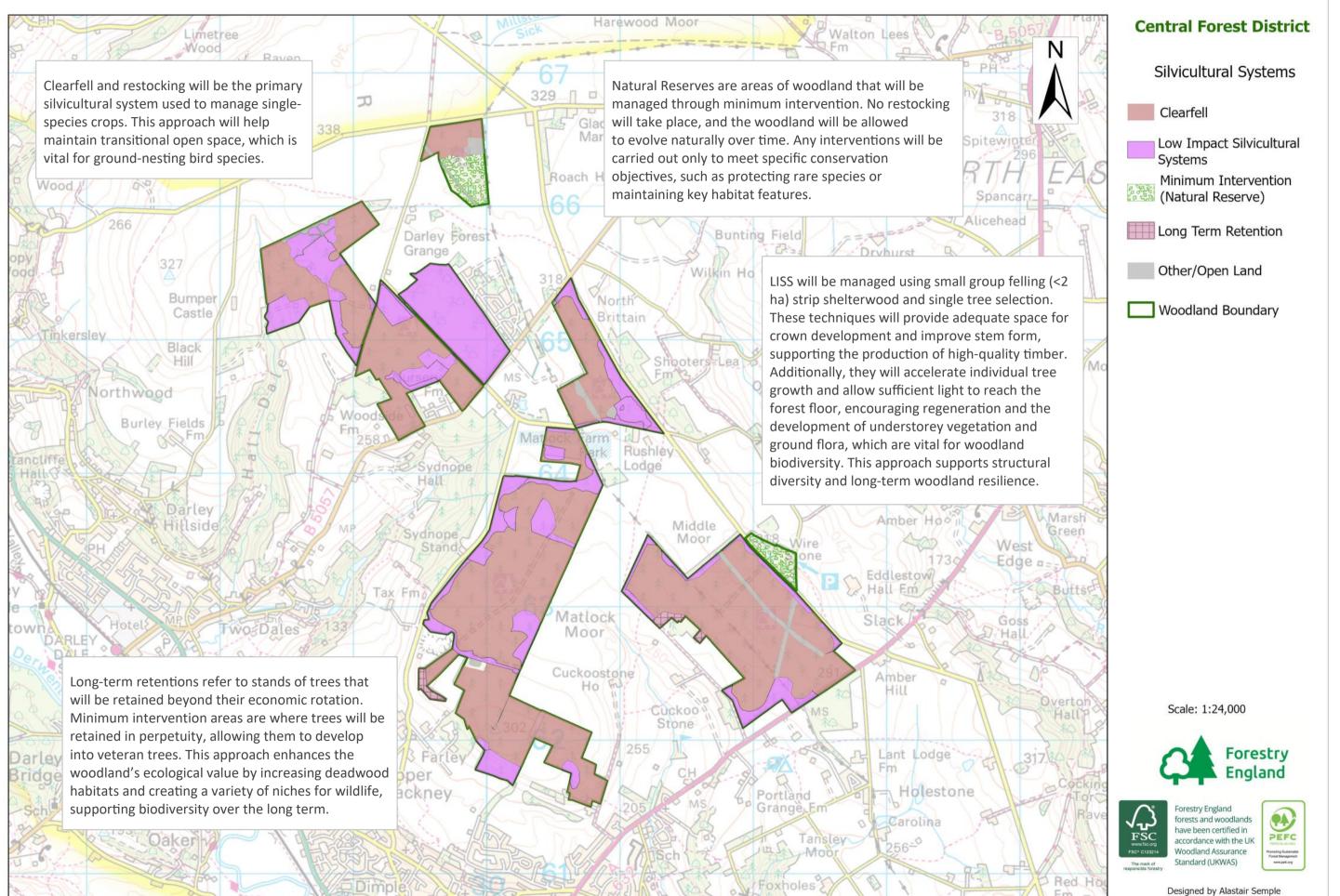
Woodland Boundary

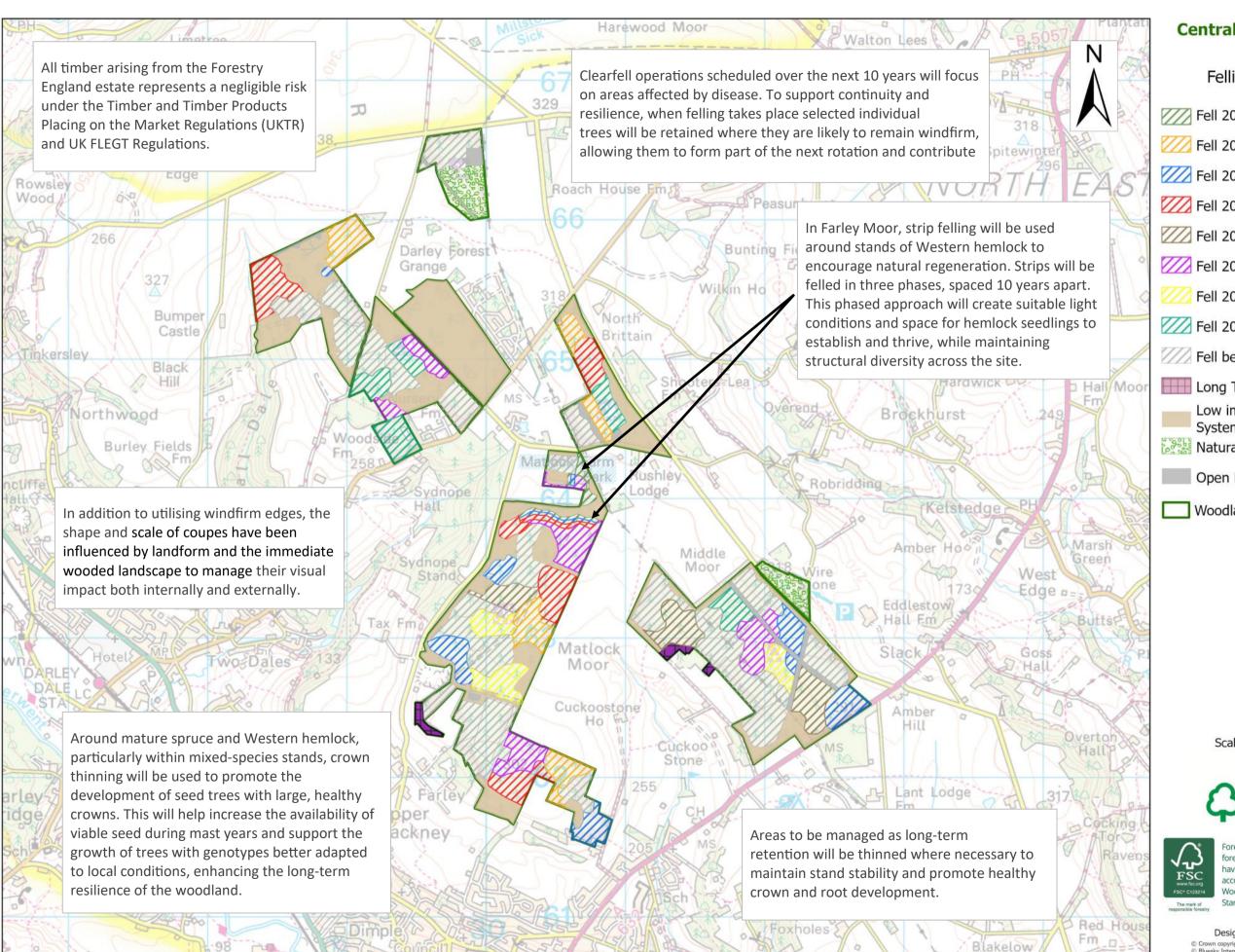
Scale: 1:24,000











Felling Periods

Fell 2022-2026

Fell 2027-2031

Fell 2032-2036

Fell 2037-2041

Fell 2042-2046

Fell 2047-2051

Fell 2052-2056

Fell 2057-61

Fell beyond 2061

Long Term Retention

Low impact silvicultural System

Natural Reserve

Open Habitats

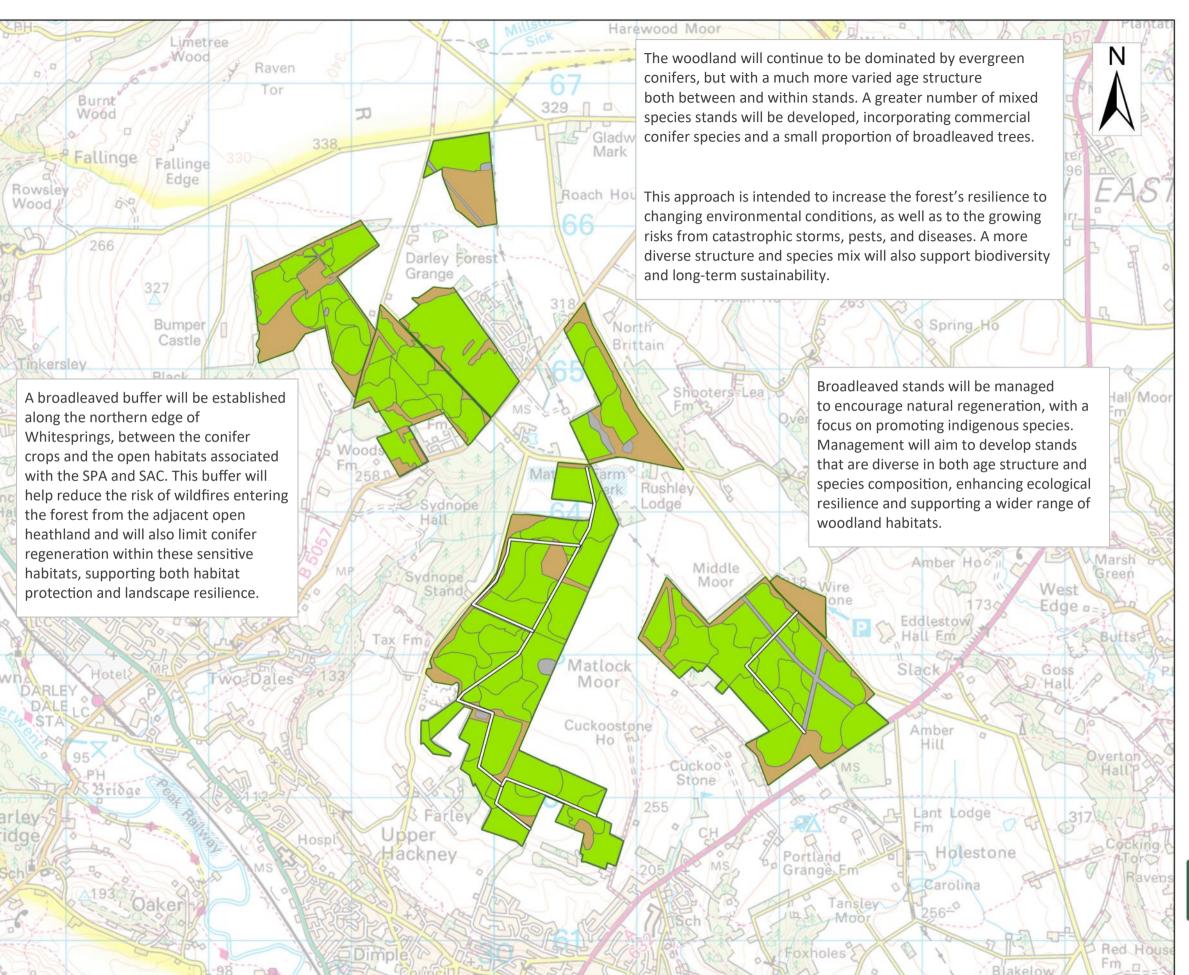
Woodland Boundary

Scale: 1:24,000









Intended Landuse

— Forest Roads

Open Habitats

Conifers Dominated Woodland

Broadleaves Dominated Woodland

Woodland Boundary

Scale: 1:24,000





