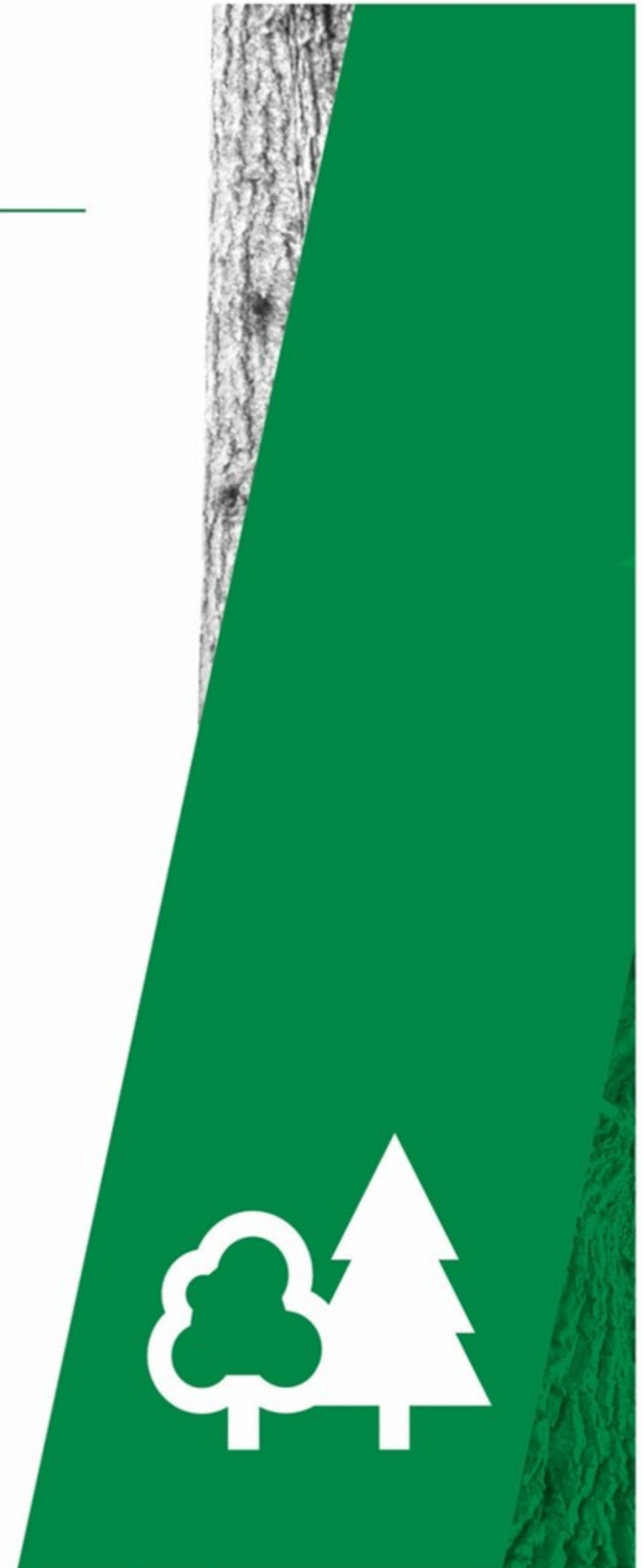


# Nettleton Forest Plan 2022 – 2032



The mark of  
responsible forestry

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



### Summary

*Space for Felling licence once approved*

This Forest Plan (FP) summarises proposals by Forestry England (FE) for the management of woodlands near Nettleton. The Nettleton Forest Plan Area (FPA) covers 79.2ha in total and comprises three adjacent woodlands: Big Wood, Long Wood and Black Wood, see *Location Map, p13*. ('Nettleton Wood' also neighbours the woodland block, but is under private ownership and falls outside the remit of this plan.) The Nettleton FPA is situated in the West Lindsey district of Lincolnshire, between the villages of North Kelsey and Nettleton, approximately 2km west of Caistor and 11km north of Market Rasen.

Given the predominantly flat topography of the area, the only significant viewpoint of the Nettleton FPA in the wider landscape is looking westward from the Lincolnshire Wolds Area of Outstanding Natural Beauty (AONB). The pine-dominated woodland is undesignated (as is the surrounding farmland), but does surround a small block of Ancient Replanted Woodland under private ownership. There are remnants of a small WWII army camp on the western edge of Big Wood.

Public access into the Nettleton FPA is primarily from local dog walkers and the residents and visitors at the two neighbouring caravan sites. Although there are no public footpaths within the Nettleton FPA, the woodland is dedicated open access land under CROW (Countryside and Rights of Way Act 2000), and walkers enjoy the forest roads and network of informal paths. The Moortown Road (B1205) passes through the wood and there is a small informal parking area by the forest gate just off the road.

The primary management objectives for the FP will be to:

- Adopt silvicultural systems\* appropriate to sustainable commercial objectives with the priority of producing quality timber.
- Make the woodland ecosystem\* more resilient to the impacts of climate change, diseases and pests, by continuing to diversify the even-aged structure of the mature conifers and by introducing a greater range of site- and climate-suited tree species during restock.
- Maintain and extend the broadleaf woodland edge habitat for the benefit of wildlife.
- Introduce operations to remove/reduce invasive species such as rhododendron.
- Continue to provide open access for the public.

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## A Application for Forest Plan Approval

### i Plan Area Identification:

Forest District: Central Forest District  
 Beat: East Beat  
 Name: Nettleton Forest Plan  
 Nearest Town: Caistor  
 Grid Reference: TA 0884 0025

Local Planning Authority: West Lindsey District Council

### ii Designations:

National Character Area (NCA): Central Lincolnshire Vale (44)

### iii Date of Commencement of Plan: On approval.

Proposed felling and restocking summary for 10yr FP period:

	Conifers	Broadleaves
Clear Fell	23.6ha	0ha
Restocking	18.5ha	5.1ha

*NB - All above figure's refer to the gross area and excludes thinning operations that take place on a 5 year cycle in conifers and 10 year cycle in broadleaves.*

Total clear fell area: 23.6ha  
 Forest Plan maps are attached

"In addition to the above felling 21.2ha will be managed using Low 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/compartments over the plan period. This operation will include: provision of 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; and also be supported, where necessary, by supplementary planting in order to increase species diversity."

I apply for Forest Plan approval for the area described above and in the enclosed Forest Plan.

I undertake to obtain any permission necessary for the implementation of the approved plan.

Signed ..... Approved .....

FDM

District ..... Conservancy .....

Date ..... Date .....

All of our forests and woodlands in this Forest District are certified by the Forest Stewardship Council® (FSC®) and the Programme for the Endorsement of Forest Certification™ (PEFC™). All Forestry Commission forests and woods are independently certified as sustainably managed, to continue to benefit future generations.



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





## 1. What are Forest Plans?

Forest Plans are produced by us, Forestry England, as a means of communicating our management intentions to a range of stakeholders. They aim to fulfil a number of objectives:

- To provide descriptions of our woodlands to show what they are like now.
- To explain the process we go through in deciding what is best for the woodlands' long-term future.
- To show what we intend the woodlands to look like in the future.
- To detail our management proposals, for the first ten years so we can seek approval from the statutory regulators.

The Forest Plan is a 'felling and restock' plan and is written at a 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 which year a particular operation will take place, but we can say in which five-year period it should happen. Before operations are undertaken Operational Plans\* are written by the forester before each felling and restock operation takes place. These outline in detail the site specific details that need taking into account when undertaking the felling and restocking operations.

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, is such that the Forest Plan is the best mechanism for applying for this licence. Responsibility for checking that the plan meets all the relevant standards and statutes lies with the Forestry Commission, formally known as Forest Services. If all the criteria are met, full approval is given for the management operations in the first ten years (2022-2031) and outline approval for the medium term vision (2032-2071).

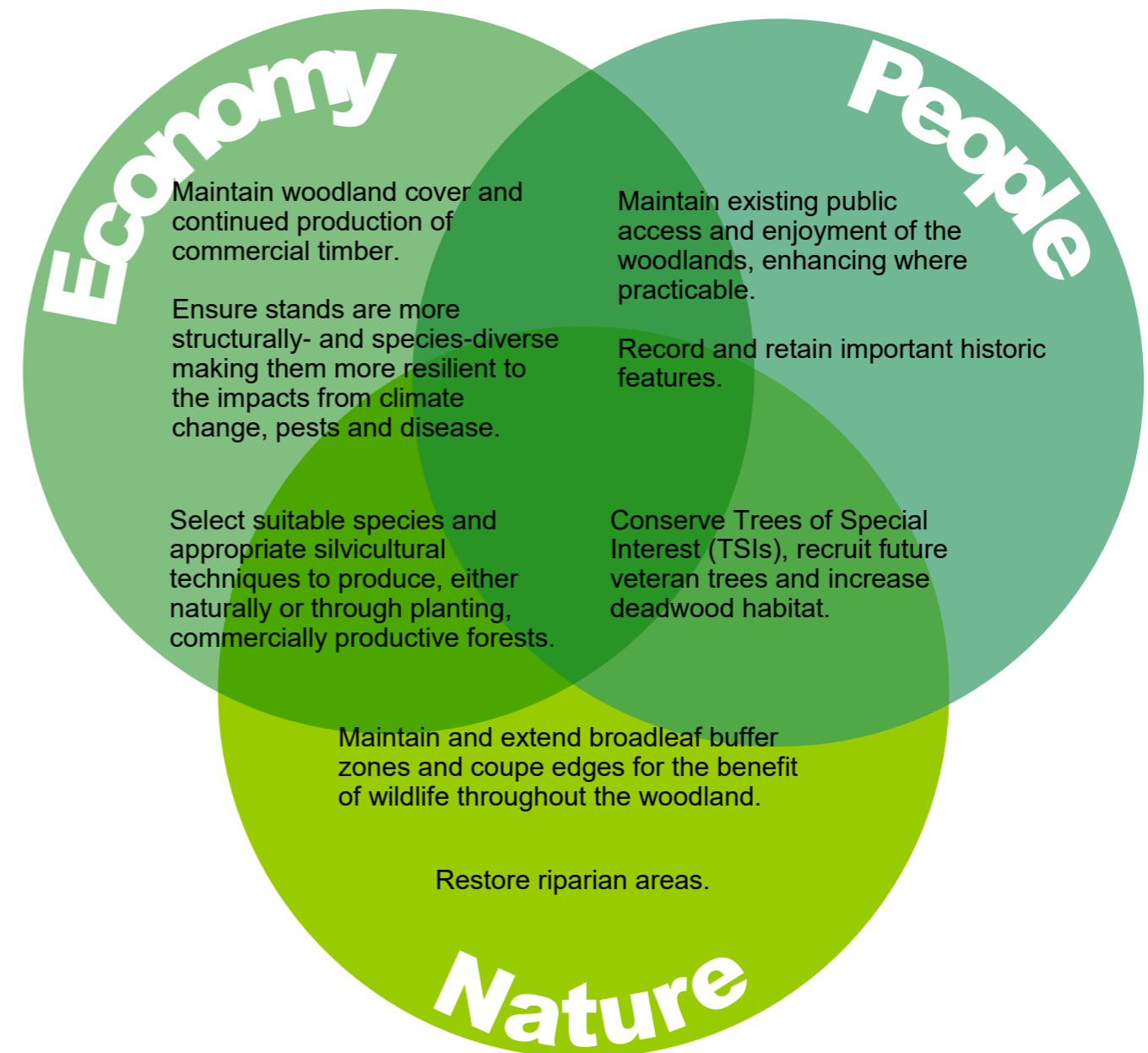
All of our forests and woodlands in this Forest District are certified by the Forest Stewardship Council\* ® (FSC®) and the Programme for the Endorsement of Forest Certification (PEFC). All Forestry Commission forests and woods are independently certified as sustainably managed, to continue to benefit future generations.



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 at the back of the plan (Appendix I).

## 2. Management Objectives

Protecting and Expanding England's Forests and Woodlands and Increasing their Value to Society and the Environment



*We are growing the future.  
We think beyond our own generation.  
We are developing forests today while carefully planning the future.  
We are managing something that is growing, active and evolving.*

*What separates us from other organisations that protect the environment or historical assets is that we are always adapting; from cultural changes over time to bigger issues like a changing climate.*

*It's a job that never stops growing.*

## 2.1 Economic

The age structure in the Nettleton FPA is biased towards mature conifers aged between 61-70yrs old. Yield classes range between 10-16 for conifers and 2-8 for the broadleaves. The soil type is ground-water gley with brown earth and sand across the site. A perched water table in certain areas means there is only a thin depth of fertile soil above the waterlogged gley, and this limited rooting depth has caused some windblow of mature trees. Accordingly, species choice, ground preparation, maintaining existing drainage, and planned future rotation length (ie: maximum stable tree heights) are important considerations for the forester. Although the Corsican pine is infected with Dothistroma Needle Blight\* (DNB), the trees are old enough and the infection levels sufficiently-moderate for this not to be of great concern in the short term. The Nettleton FPA is a productive site, and climate modelling predicts relatively-good timber yields from commercial softwood species can be expected going forwards.

The mature conifer stands are stocked with sizeable logs offering excellent market value, and the recent conifer and broadleaf restocks will be ready for thinning in the next 20 years. The proposed felling programme will produce a regular and sustainable timber resource while meeting Forestry England environmental and social objectives for the FPA. The conifer stands will be managed on normal economic rotations (where tree stability allows), based on their predicted growth rates and log size specifications for particular markets. The Nettleton FPA is one of the few environmentally-undesigned sites on Central England Forest District's East Beat, and a continued economic focus on commercial timber production is vital in balancing the multiple forestry objectives across the wider District.

The broadleaf stands are mainly naturally-regenerated birch, with some areas ready for thinning and group-felling operations, and other areas which will benefit from respacing\*. In the group-fell areas there is scope to introduce additional species (such as oak and wild cherry) which will help diversify the current stand structure, increase available habitats for wildlife and produce small yet sustainable yields of high quality timber.

Squirrel damage is not currently a major issue in the woodland, and deer and rabbit populations are currently at a level that any browsing damage is not preventing regeneration. However, this may be partially consequential of the current species mix. Predation control is likely to become necessary in the future during the establishment of more palatable species.

## 2.2 Environmental

The Nettleton FPA has no specific environmental designations. It lies in close proximity to the Lincolnshire Wolds AONB and within the Central Lincolnshire Vale NCA: a tranquil, rural and sparsely settled landscape, largely used for the growing of arable crops; predominantly cereals. The woodland is dominated by even-aged mature Scots and Corsican pine. The current approach of a phased clearfell/restock programme across the conifer coupes will continue. This will diversify the available habitat through the creation of transitional open space following the felling operations and more varied canopy levels, resulting in a more structured, diverse and resilient woodland into the future. When felling occurs in the existing conifer stands, one or two individual trees will be retained for wildlife habitat.

Work will also continue to restore the riparian zones within the Nettleton FPA. Where present, the level of conifers on edge of water courses is to be reduced and the broadleaves thinned-out to create areas of dappled shade. All water courses will be managed in accordance with the Forestry and Water Guidelines\* to ensure broadleaved buffers are in place to help maintain water quality and maximise habitat value.

In previous years, bats have been known to use the unmodified air-raid shelter (*see Pictures 1 & 2*) as a hibernaculum to overwinter, favouring the roof seams.



Pictures 1&2: WWII shelter (outside and inside)

There is potential for roosts in the mature broadleaves on the edge of the public road and the forest road through Big Wood, plus at the south-western corner of Black Wood adjacent to the railway line.





Big Wood also includes significant deadwood monoliths (see Pictures 3-5). These important habitats are to be retained while it remains safe to do so, given their vicinity to public roads.

Current and future Trees of Special Interest (TSI's)\*, located in more appropriate areas with lower public presence, will be identified and marked for retention.



Pictures 3-5: standing deadwood habitat edging the forest road.

Great crested newts (GCNs) are known to inhabit the old firepond in Big Wood, next to Nettleton Beck. GCNs are a European Protected Species, their primary habitat being the adjacent patch of Carr woodland\*. The pond and this woodland will be retained and preserved in accordance with GCN-protection guidelines, with careful planning of forestry operations when in the vicinity.



Picture 6: great crested newt

Work to tackle the invasive rhododendron will be instigated during the plan period. This work will focus on the rhododendron within the woodland compartments. The attractive banks of rhododendron along the edge of the forest road to the caravan park are to be retained.



Pictures 7 & 8: Banks of rhododendron line the edges of the forest road



### 2.3 Social

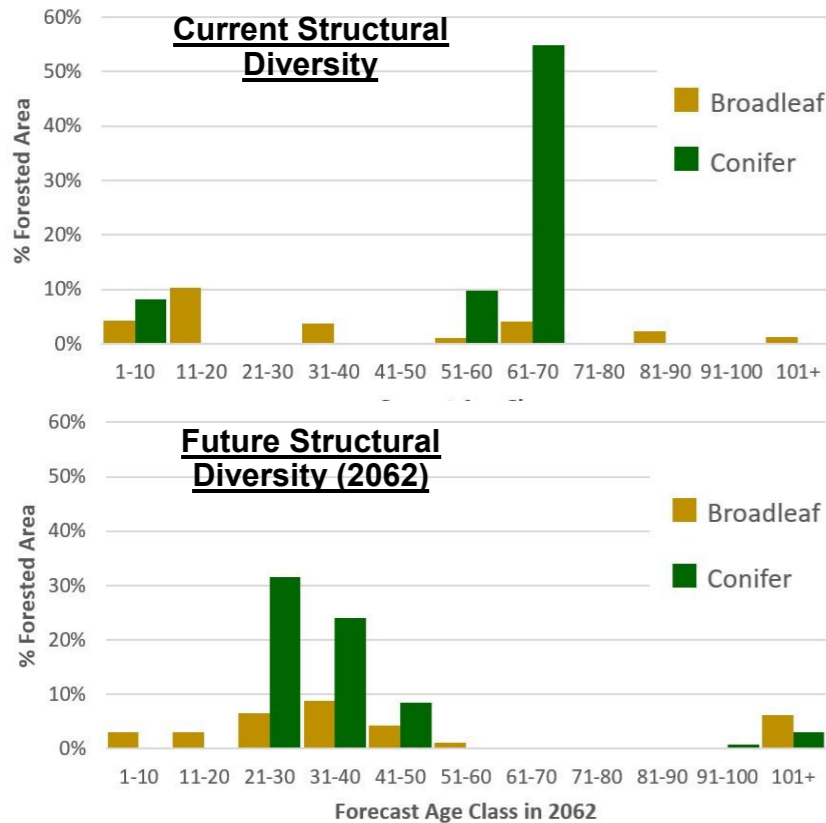
The Nettleton FPA woodlands are locally regarded as “quiet woods for quiet people”, and enjoyed by Caistor and Nettleton locals and residents of the two adjacent caravan parks. The regular public visitors are predominantly walkers, joggers and dog walkers. Other less-frequent user-groups and events include ad hoc orienteering exercises, charity runs (usually in aid of the Lincolnshire Air Ambulance), and occasionally it has formed part of a longer trek for the Endurance Horse Society. Activities in neighbouring woods include a clay shoot and a Guiding Camp.

Visitor facilities are limited to a small car parking area off the Moortown Road and a single dog-waste bin managed by the council. Within the woods themselves are a number of informal tracks and paths. The entirety of the FPA is dedicated open access land (CRoW), although there are no designated public footpaths. Fortunately there also seem to be few antisocial behaviour issues.



### 3. Harvesting Operations

The majority of the forest plan area will continue to be managed as commercial conifers using a clear a clearfell and restock silvicultural system. These mature conifer stands will be felled in phases through the next 20 years, maintaining an economic focus whilst also enabling the creation of a more structured, diverse, and resilient woodland going forward (see charts below). Further opportunity to increase structural diversity will be available over future rotations.



The remaining areas of predominantly birch woodland will be managed using LISS\* group felling. This will encourage natural regeneration and also involve the supplementary planting of additional species to increase diversity and resilience.

Two mature Scots pine blocks, already demonstrating significant broadleaf regeneration of oak and birch, will also be managed using LISS. These stands will develop into biodiverse habitats, with over-mature conifers intimately mixed with multi-aged broadleaves.

Standard thinning operations will be carried out in broadleaves (over 22 years old) every 5 or 10 years and in conifer crops (aged over 18) every 5 years. Naturally-regenerated birch will likely require respacing\* during establishment. Managing stand density and light availability using thinning will produce strong yields and trees with good form for commercially-quality timber.

### 4. Intended Landuse

Restocking the clearfell stands will select from a more diverse palette of species and mixes, chosen with consideration of future climate models to be more resilient to anticipated extreme weather events and also to changing market demand. Conifers will remain the dominant woodland type, providing nesting sites and winter cover for wildlife whilst maintaining commercial timber production.

Corsican pine, despite being very well suited to the predicted climate changes, will not be planted due to the presence of DNB\*. Species-choice for restock will be determined by the local Beat Forester, with due consideration given to the species identified by the Ecological Site Classification tool\* (ESC), plus specific site factors including hydrology, browsing pressure, pests and diseases, competition from ground vegetation, planting stock provenance and availability. Wherever possible, planting stock should be sourced from latitude 2 to 5 degrees south of Nettleton, increasing the trees' suitability to future climatic conditions and the prospect for the woodlands to remain a healthy productive ecosystem into the future.

Potential site-suitable species identified by an initial ESC-analysis include:

- Conifers: western red cedar, Lawson's cypress, Serbian spruce and Scots pine,
- Broadleaves: hornbeam, small-leaved lime, wild cherry, red oak and common alder.

Birch is regenerating prolifically throughout the Nettleton FPA and is currently well suited to the site. However, by 2080 its predicted-suitability drops considerably, highlighting the need to think beyond birch natural regeneration. Diversifying by planting improved birch from more southern provenances and additional broadleaved-species will be options for the local forester in the future.

Woodland edge habitats will be managed and extended through a combined approach of retaining existing broadleaves, natural regeneration, and broadleaf planting on restock coupe edges where appropriate.

Low rabbit and deer populations have enabled previous strong regeneration of birch. With the introduction of potentially more palatable species, browsing pressure will need to be monitored regularly and may require active management and fencing. Furthermore, soils and hydrology (especially important at Nettleton with the perched water table) will be carefully considered by the forester prior to determining ground preparation and planting species.



Picture 9: Perched water table causing thin root plate and susceptibility to windblow

**Table.1 The Nettleton Forest Plan Contribution towards the Central District and commitments to UKWAS and UKFS**

	Forest Plan Area (ha)	Forest Plan Percentage	Forest District Area (ha)	Forest District Percentage
Total Area	79.2	100%	27,144	100%
Total Wooded Area	71.2	89.9%	23,909	88%
Open Habitat (>10%)	8	10.1%	3,235	12%
Natural Reserves - Plantation (1%)	0	0%	133.12	2.9%
Natural Reserves - Semi Natural (5%)	0	0%	228.35	0.83%
Long-term Retentions & Low Impact Silvicultural Systems (>1%)	21.15	26.7%	14,637	55.2%
Area of Conservation Value (>15%) including LISS	29.15	36.8%	17,582.3	64.8%

## 5. 2022 Forest Plan comparison against the previous Forest Plan

The main management objectives in the new FP remain unchanged with the focus on maintaining production of sustainable and commercial timber, whilst improving broadleaved areas for wildlife and amenity value. The main variation in the new plan is adaption of the felling-coupe schedule following a previous significant windblow event.

The new plan places greater emphasis on providing more opportunities to diversify species mixtures which may be more resilient to the current and future threats from pests, diseases, climate warming and more extreme weather conditions.

**6. Terms of Reference**

National Strategy	District Strategy	Forest Plan Objective	Monitoring
<p><b>Economy:</b></p> <p>1) Maintain the land within our stewardship under UKWAS* certification,</p> <p>2) Improve the economic resilience of our woods and forests,</p> <p>3) Encourage and support business activity on and around the Estate.</p>	<p>1) Adapting our management practices to suit the character and requirements of local woodlands whilst satisfying national standards and business requirements.</p> <p>2) We will use the opportunity presented by additional, unscheduled clear felling 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.</p>	<p>Initiate a structured and sustained programme of clearfell, LISS and thinning operations.</p> <p>Select suitable species and appropriate silvicultural techniques to regenerate (either naturally or through planting) commercially productive forests.</p> <p>Ensure stands are more structurally- and species-diverse making them more resilient to the impacts from climate change, pests and disease, to enable production and marketing of economic timber into the future.</p>	<p>This will be reviewed every 5 years as part of the FP review process and any changes recorded.</p> <p>Production forecasts will be run annually to inform the Central District's business plan and ensure sustainable yields.</p> <p>The Ecological Site Classification tool will be used to help select suitable species for each restock site.</p> <p>Stocking density, growth rates, stems/ha and species origin and provenance will be monitored and recorded within FE's sub-compartment database.</p>
<p><b>Nature:</b></p> <p>1) Improve the resilience of the natural environment of the Estate under our Stewardship,</p> <p>2) Realise the potential of the Public Forest Estate for nature and wildlife,</p> <p>3) Maintain and improve the cultural and heritage value of the Estate.</p>	<p>1) Adapting more varied 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.</p> <p>2) 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</p> <p>3) Where possible, work with interested parties to explore ways to maintain or improve features of cultural or heritage value to the local community.</p>	<p>Where appropriate, redesign coupe boundaries for landscape improvements and to reduce risk of windblow.</p> <p>Manage and maintain existing broadleaf coupes and buffer zones sensitively. Plan restock coupes with broadleaf elements where appropriate (through planting or natural regeneration) extending buffer zones on forest edges, riparian zones and adjacent to the Ancient Replanted Woodland.</p> <p>Introduce a programme of operations to remove invasive rhododendron within the woodland.</p> <p>Ensure future management operations protect soils, water quality and the key wildlife habitats (including deadwood, open space and for protected species including bats and GCNs.)</p>	<p>Will be reviewed at Ops1 stage, 5 year reviews and 10 year plan renewals. Changes to the forest structure will be recorded and mapped in the FE sub-compartment database.</p> <p>Ensure at Ops1 stage all operations conform to the Forestry and Water guidelines.</p> <p>Conduct a bat survey and record results.</p>
<p><b>People:</b></p> <p>1) Encourage communities to become involved in the Estate, its management and direction,</p> <p>2) Provide high quality woodland-based recreational opportunities for people and business,</p> <p>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.</p>	<p>1) Provide safe and accessible woodlands.</p> <p>2) Offering opportunities for quiet recreation and adventurous activities, to enable people to experience the potential health and wellbeing benefits.</p> <p>3) Developing partnership with private businesses and public bodies to expand and improve recreational opportunities across the estate.</p> <p>4) 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.</p> <p>5) Encouraging third party environmental educators and other partners to offer learning opportunities on the public forest estate.</p>	<p>There are no plans for increased public facilities.</p> <p>Continue to conduct tree safety inspections and maintain the current forest roads for public access on foot.</p> <p>Continue to explore permissions for local groups when approached.</p>	<p>Tree safety inspections and operations to be recorded.</p>



## Appendix I

### Glossary

#### 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.

#### Carr Woodland

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

#### Clearfell System

The removal of all trees in one operation (>0.5ha).

#### Coupes

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

#### Dothistroma Needle Blight (DNB)

Caused by the fungus *Dothistroma septosporum*, DNB causes premature needle defoliation, resulting in loss of timber yield and, in severe cases, tree death. DNB is also known as red band needle blight because of the colourful symptoms it shows on pine trees.

#### Ecological Site Classification (ESC)

ESC is an online tool set up by Forest Research that assists a user in choosing a tree species for a given site. The system is built on four climatic variables and two edaphic (soil) properties.

#### Ecosystem

An ecosystem includes all the living things (plants, animals and organisms) in a given area, interacting with each other, and also with their non-living environments (weather, earth, sun, soil, climate).

#### Ecosystem– Services

Are the variety of goods and services upon which people depend, and that arise from ecosystems. Ecosystem Services are commonly categorised into Provisioning (e.g. water, food production), Regulating (e.g. the control of climate and diseases), Cultural (e.g. aesthetic values, recreational opportunities), and the underpinning Supporting services (e.g. crop pollination).

#### England Forestry Strategy (now England's Trees Woodlands and Forests)

Describes how the Government will deliver its forestry policies in England, and sets out the Government's priorities for the next five to ten years.

#### Forestry England

The part of the Forestry Commission that following devolution is responsible for the management of the Public Forest Estate woodlands in England.

#### Forestry and Water guidelines

Forests and Water is one of a series of seven guidelines that support the United Kingdom Forestry Standard (UKFS). The UKFS and guidelines outline the context for forestry in the UK; set out the approach of the UK government to sustainable forest management; define standards and requirements; and provide a basis for regulation and monitoring; including national and international reporting.

#### Forest Plan (FP)

An FP provides a holistic and long-term approach to planning and forest design, detailing felling operations over a 10 year period and outlining proposals over the next 50 years. The FP's are reviewed every 5 years and redrawn and approved every 10 years.

#### Forest Stewardship Council (FSC)

An internationally recognised body made up of non-government organisations promoting sustainable forest management to the forest industry and consumers.

#### Historic Environment

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

#### Landscape Character

England is renowned for its rich, diverse and beautiful landscapes which have their own distinct local character. 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

Trees that are being retained beyond their normal economic / commercial age.

#### Low Impact Silvicultural Systems (LISS)

Describes a number of felling systems (shelterwood, group felling, selection systems) which avoid large-scale felling coupes and which maintain forest canopy at one or more levels.

#### Native

Native trees are determined by whether the trees colonised Britain without assistance from humans since the last ice age.

#### Naturalised

Naturalised trees those that have colonised the British Isles since the land divide from Europe, seen to be within their natural climatic range and are regenerating freely.

#### Natural regeneration

The growth of trees from seed found in the soil or cast from adjacent trees and shrubs.

#### Natural Reserve

Natural reserves are predominantly wooded, are permanently identified and are in locations which are of particularly high wildlife interest or potential. They are managed by minimum intervention unless alternative management has higher conservation or biodiversity value.



**Glossary (continued)****Open grown trees**

Trees that have been given space to develop a large crown and natural shape as opposed to tree planted closely in a plantation managed for timber and biomass.

**Operational Plans (Ops1)**

Detailed site plans that are prepared in advance of all major forest operations and identify site constraints, opportunities and areas requiring special treatment or protection.

**Public Forest Estate (PFE)**

The woodlands managed by Forestry England which would include both freehold and leasehold land.

**Public Rights of Way (PROW)**

Access routes open to the public through legal designation.

**Respacing**

Dense regeneration is thinned at a young age (generally when trees are 2-5m tall) to prevent it becoming drawn up.

**Restocking**

The re-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.

**Secondary Woodland**

Woodlands that have been established on land that was formally used as pasture, meadow, arable, quarries, etc and has not continually been wooded

**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.

**Silvicultural Systems**

Techniques of managing a forest through a variety of cutting / felling patterns over varying time scales.

**Strategic Plan**

Serves as a guide to the management of woodlands within Central England Forest District. It divides the district into zones for the purpose of management, and ensures that forestry activities reflect the local ecological, social and cultural individuality of woodland. Strategic objectives for each zone are presented within the context of the Government's strategic priorities for forestry in England (eg: forestry for rural development; forestry for economic regeneration; forestry for recreation, access and tourism and forestry for the environment and conservation).

**Sub-compartments**

Areas of forest comprising a more or less homogeneous crop in terms of age, species composition and condition. Their boundaries may change as the forest develops after felling and restocking.

**Thinning**

The removal of a proportion of the trees in a sub-compartment to improve the quality of the remaining trees, accelerate individual tree growth and provide income.

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

**Understory Woodland Species**

Minor tree species that live under the top canopy trees, or are pioneer species that arrive in clearings before climax tree species become established. Once the overstory becomes established these minor species are usually restricted to the woodland edge where light levels allow them to survive.

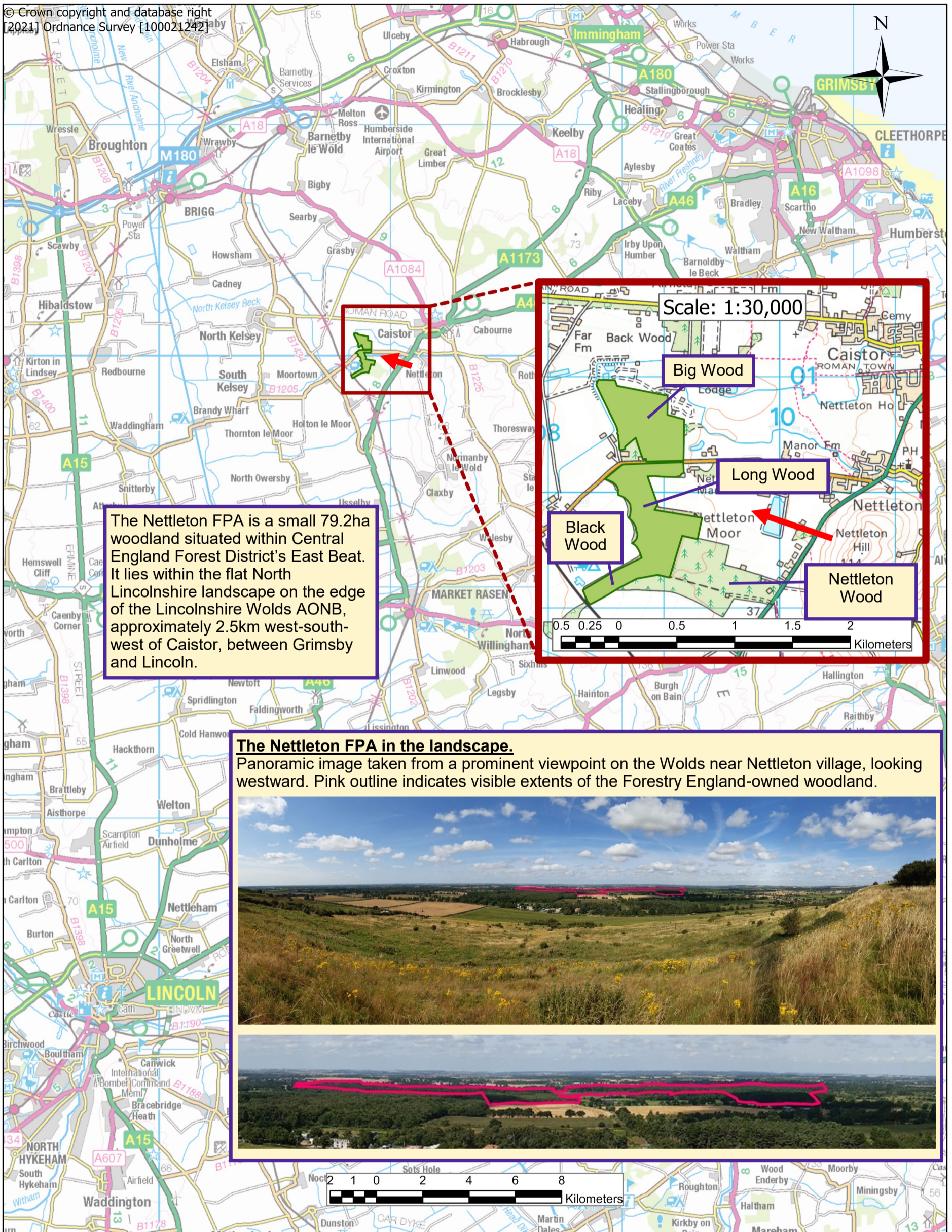
**Trees of Special Interest (TSIs)**

A tree that is of interest biologically, aesthetically or culturally because of its age, or a tree that is in the ancient stage of its life, or a tree that is old relative to others of the same species.

**Yield Class**

Yield class is a measure of the growth rate of a tree crop and is the maximum average rate of volume increment (increase) that a particular crop can achieve. For example, a crop capable of a maximum annual increment of 14 m<sup>3</sup> per hectare has a yield class of 14.





The Nettleton FPA is a small 79.2ha woodland situated within Central England Forest District's East Beat. It lies within the flat North Lincolnshire landscape on the edge of the Lincolnshire Wolds AONB, approximately 2.5km west-south-west of Caistor, between Grimsby and Lincoln.

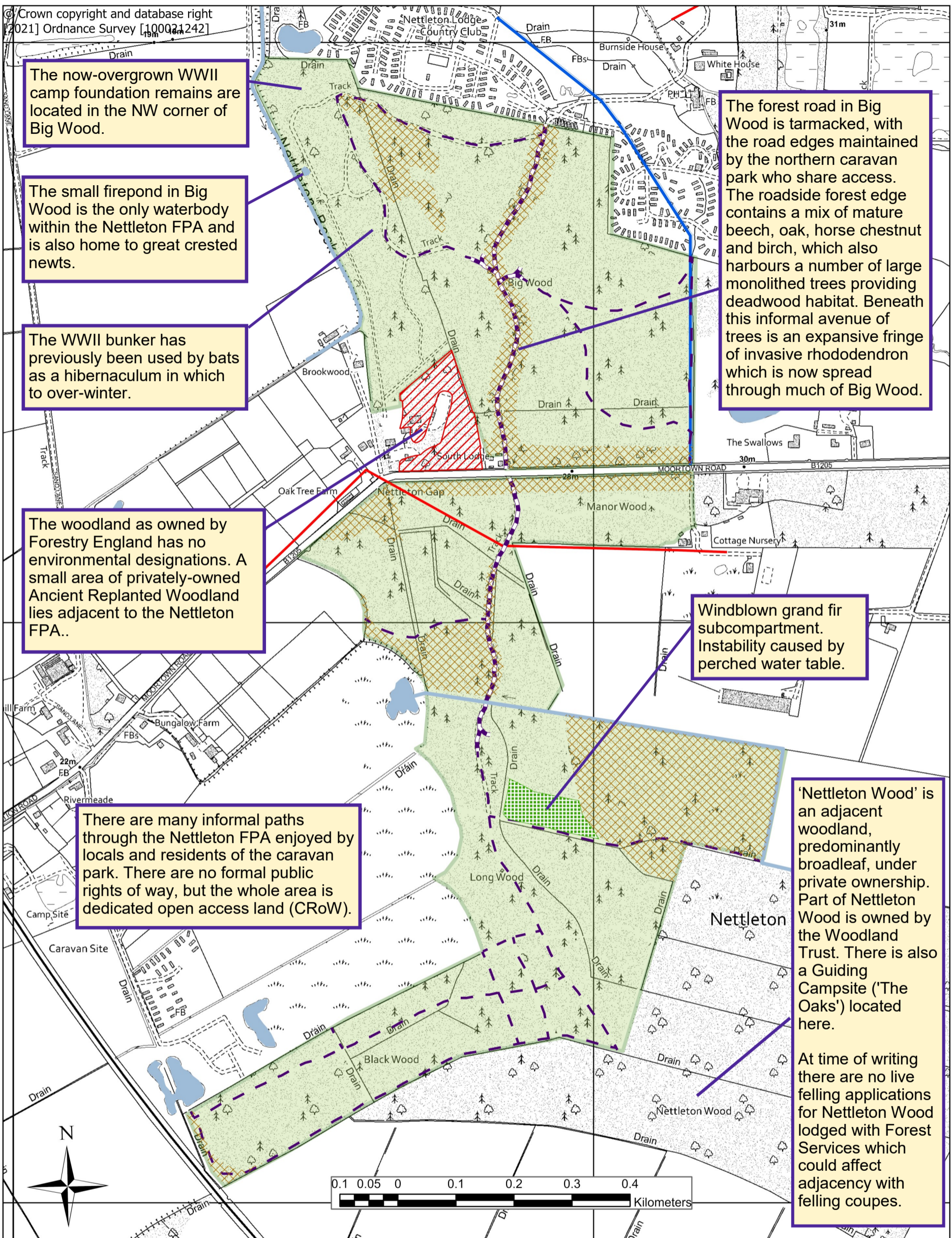
**The Nettleton FPA in the landscape.**  
Panoramic image taken from a prominent viewpoint on the Wolds near Nettleton village, looking westward. Pink outline indicates visible extents of the Forestry England-owned woodland.

Nettleton 2022 Forest Plan  
Location Map  
Date Printed: 09/11/2021  
User: andrew.gardiner  
Scale: 1:150,000

- Viewpoint
- Management Area

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



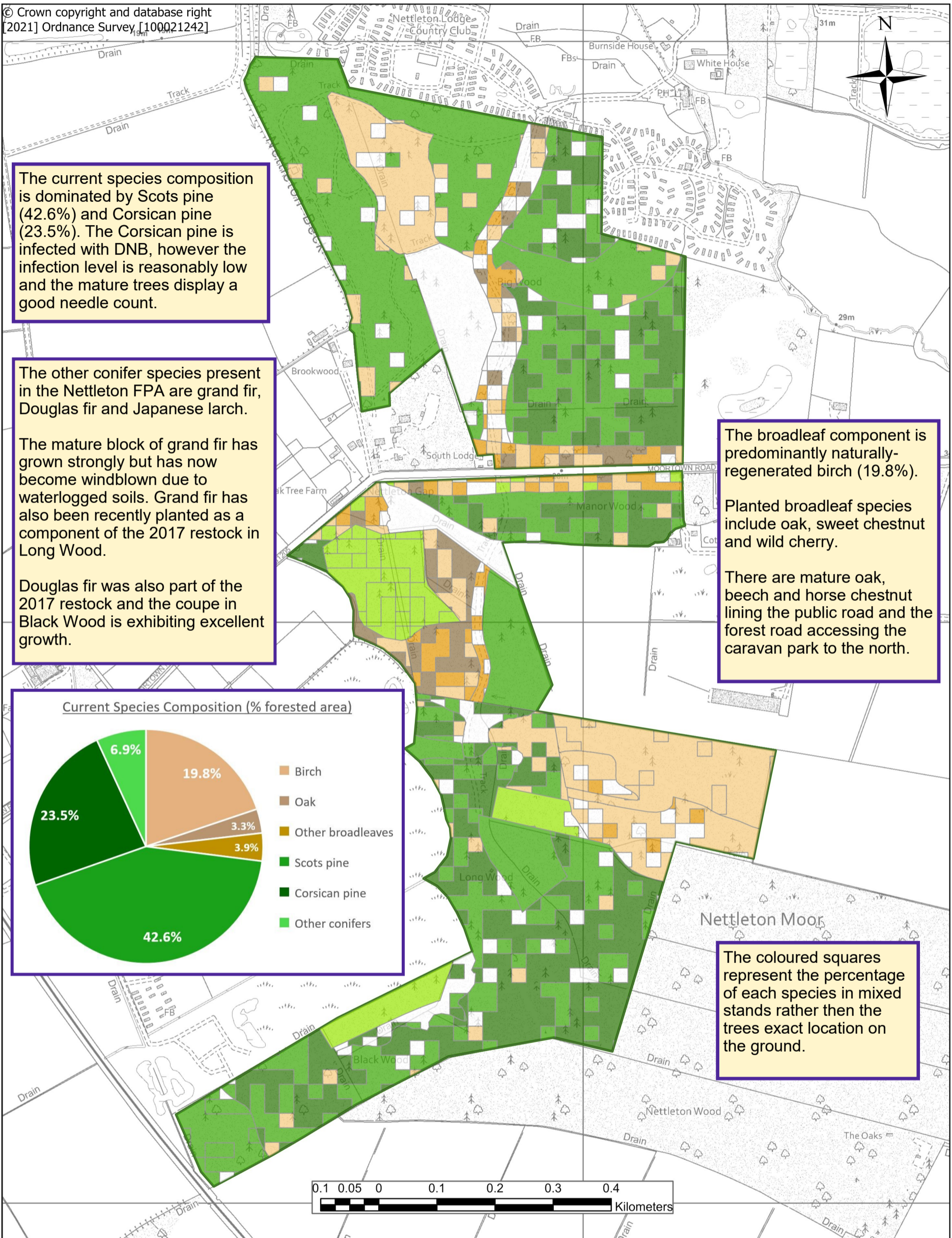


**Nettleton 2022 Forest Plan Survey Map**  
 Date Printed: 09/11/2021  
 User: andrew.gardiner  
 Scale: 1:6,000

Management Area	Forest Roads
Neighbouring Ancient Replanted Woodland	Informal Paths
Powerlines	Water Pipelines
Watercourses	Existing Broadleaf Woodland
Waterbodies	Windblown Grand Fir

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



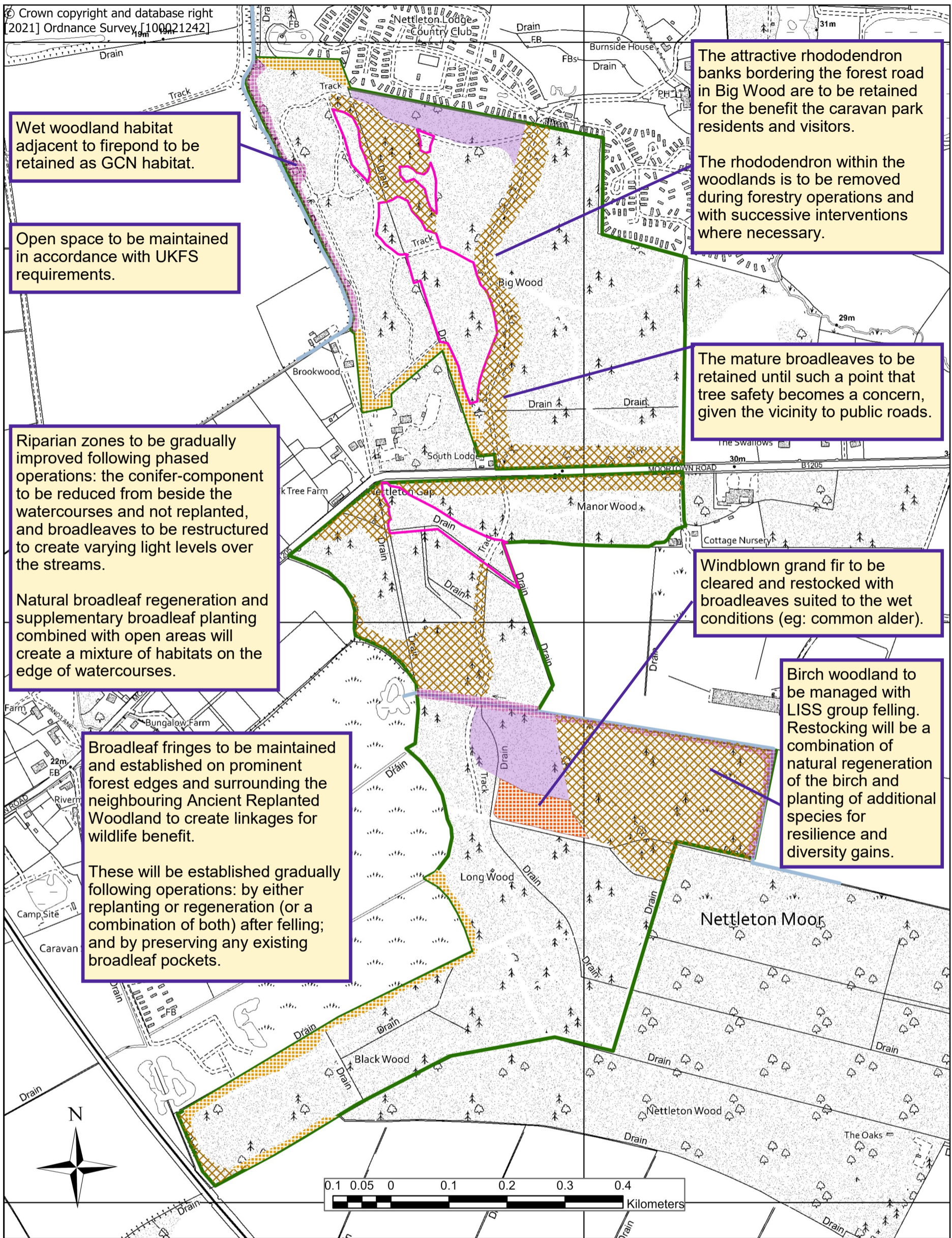


**Nettleton 2022 Forest Plan**  
**Current Species Map**  
 Date Printed: 09/11/2021  
 User: andrew.gardiner  
 Scale: 1:6,000

Current Species	
	Birch
	Oak
	Other broadleaves
	Open habitat
	Scots pine
	Corsican pine
	Other conifers
	Management Area

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The attractive rhododendron banks bordering the forest road in Big Wood are to be retained for the benefit the caravan park residents and visitors.

The rhododendron within the woodlands is to be removed during forestry operations and with successive interventions where necessary.

The mature broadleaves to be retained until such a point that tree safety becomes a concern, given the vicinity to public roads.

Windblown grand fir to be cleared and restocked with broadleaves suited to the wet conditions (eg: common alder).

Birch woodland to be managed with LISS group felling. Restocking will be a combination of natural regeneration of the birch and planting of additional species for resilience and diversity gains.

Wet woodland habitat adjacent to firepond to be retained as GCN habitat.

Open space to be maintained in accordance with UKFS requirements.

Riparian zones to be gradually improved following phased operations: the conifer-component to be reduced from beside the watercourses and not replanted, and broadleaves to be restructured to create varying light levels over the streams.

Natural broadleaf regeneration and supplementary broadleaf planting combined with open areas will create a mixture of habitats on the edge of watercourses.

Broadleaf fringes to be maintained and established on prominent forest edges and surrounding the neighbouring Ancient Replanted Woodland to create linkages for wildlife benefit.

These will be established gradually following operations: by either replanting or regeneration (or a combination of both) after felling; and by preserving any existing broadleaf pockets.

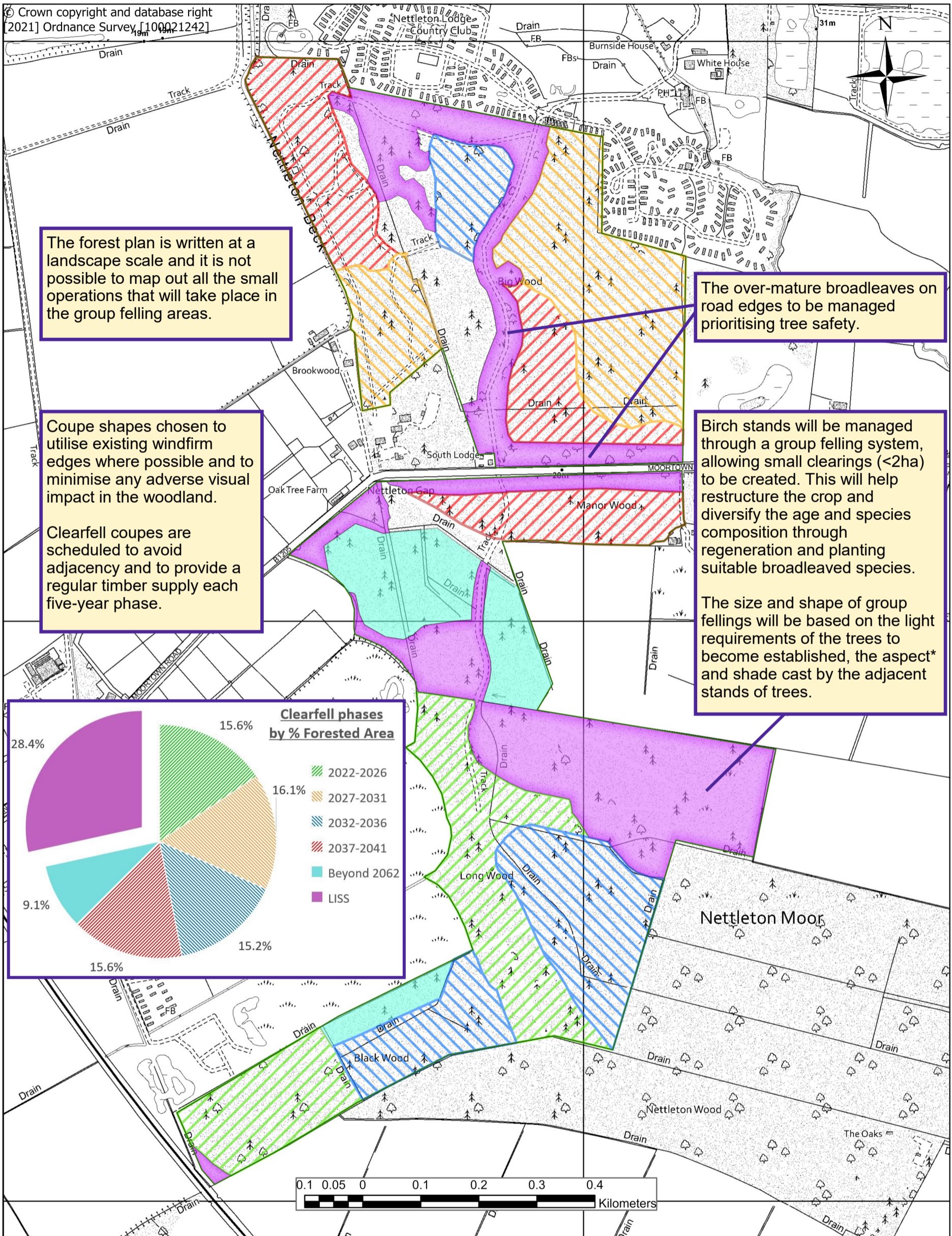
**Nettleton 2022 Forest Plan Analysis & Concept Map**

Date Printed: 09/11/2021  
 User: andrew.gardiner  
 Scale: 1:6,000

- Management Area
- Watercourses
- Existing broadleaf woodland
- Open Space
- New broadleaf restock area
- Pine blocks moved into LISS management
- Maintain/establish broadleaf edge habitat
- Managed riparian zones







The forest plan is written at a landscape scale and it is not possible to map out all the small operations that will take place in the group felling areas.

The over-mature broadleaves on road edges to be managed prioritising tree safety.

Coupe shapes chosen to utilise existing windfirm edges where possible and to minimise any adverse visual impact in the woodland.

Clearfell coupes are scheduled to avoid adjacency and to provide a regular timber supply each five-year phase.

Birch stands will be managed through a group felling system, allowing small clearings (<2ha) to be created. This will help restructure the crop and diversify the age and species composition through regeneration and planting suitable broadleaved species.

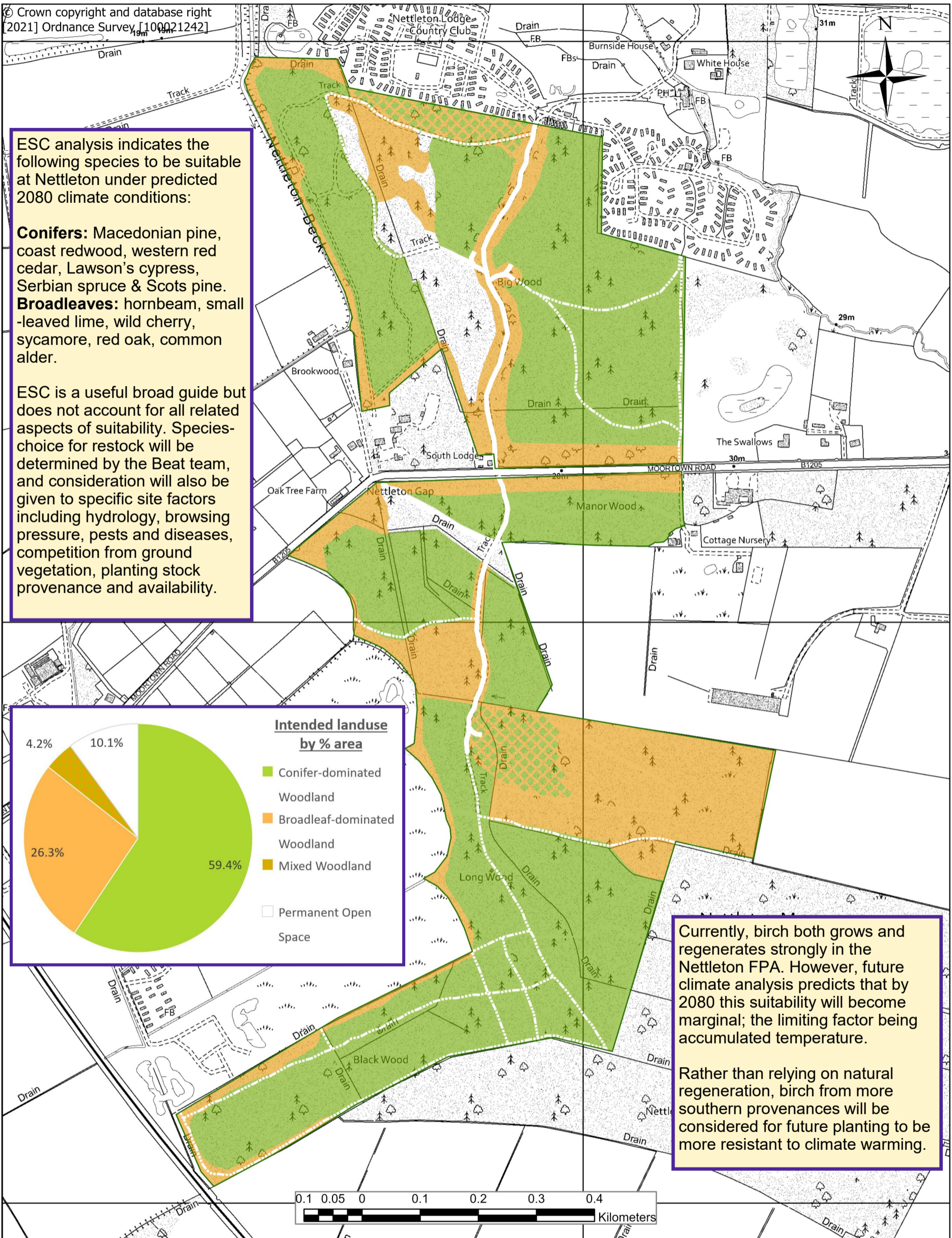
The size and shape of group fellings will be based on the light requirements of the trees to become established, the aspect\* and shade cast by the adjacent stands of trees.

**Nettleton 2022 Forest Plan Felling Map**  
 Date Printed: 09/11/2021  
 User: andrew.gardiner  
 Scale: 1:6,000

- |                        |                         |
|------------------------|-------------------------|
| Management Area        | Felling Phase 2022-2026 |
| Open habitats          | 2027-2031               |
| LISS (Group selection) | 2032-2036               |
|                        | 2037-2041               |
|                        | Beyond 2062             |







**Nettleton 2022 Forest Plan Intended Landuse Map**

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 User: andrew.gardiner  
 Scale: 1:6,000

	Management Area
	Open Space
	Conifer-dominated Woodland
	Broadleaf-dominated Woodland
	Mixed Woodland

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