

Wharnccliffe and Wombwell Forest Plan 2020– 2029



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



Summary

Space for Felling licence once approved

The Wharnccliffe and Wombwell Forest plan (FP) summarises proposals by Forestry England for the management of Wharnccliffe (449ha), Old Park (36ha) and Wombwell (145ha) woods. The FP lies on the outskirts of Sheffield and Barnsley in a transitional area, lying between the more sparse rural landscapes to the west and heavily developed industrial areas to the east (Nottinghamshire, Derbyshire and Yorkshire Coal fields and the Yorkshire Southern Pennine Fringe natural areas No.37 & 38).

The woodlands are important features in the local landscape with a diverse mixture of associated woodland species, archaeological features which date back to 7500BC, Lowland Heath (designated as a local nature reserve) and Wharnccliffe Crag, a geological feature designated as a Site of Special Scientific interest (SSSI). The native oak birch woodland were largely cleared in the early 20th century for the war effort and when replanting began the introduction of conifers, sweet chestnut and beech was used to help produce timber crops on a shorter rotation than the traditional oak stands. Over the last decade the health of the forest has been impacted by a number of diseases now affecting a wide variety of tree species across the country and this will have a major impact on the forest structure and the suitability of species that will survive and remain healthy.

Public access into these woodlands has been enjoyed for centuries and today Forestry England manages a network of forest roads and promoted trails to allow easy access all year around. Parking facilities are available at Wombwell and Wharnccliffe which allows easy access for people from surrounding areas as well as local residents. There is access on foot across the whole plan area and a number of bridleways, and the Trans Pennine Trail which crosses through Wharnccliffe provides access for horses and bicycles. In Wombwell Forestry England is working in partnership with a local fishing club to sustainably manage the two fishing ponds.

The primary management objectives for the FP will be:

- Continue to restore the ancient woodland through the gradual removal of exotic species. Diversify the age structure of the woodlands.
- Adopt silvicultural systems appropriate to the commercial and environmental objectives with the priority to produce quality timber where possible.
- Make the woodland ecosystem more resilient to the impact of climate change, pests and diseases.
- Implement agreed management plans for the Scheduled Ancient Monuments and SSSI keeping them in a favourable condition.
- To provide open access for the public on foot and to develop the recreational potential for other activities appropriate to the area in partnership with other organisations.

Central Forest District - Wharncliffe Forest Plan

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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 (2020 - 2029) and outline approval for the medium term vision (2030 - 2069).

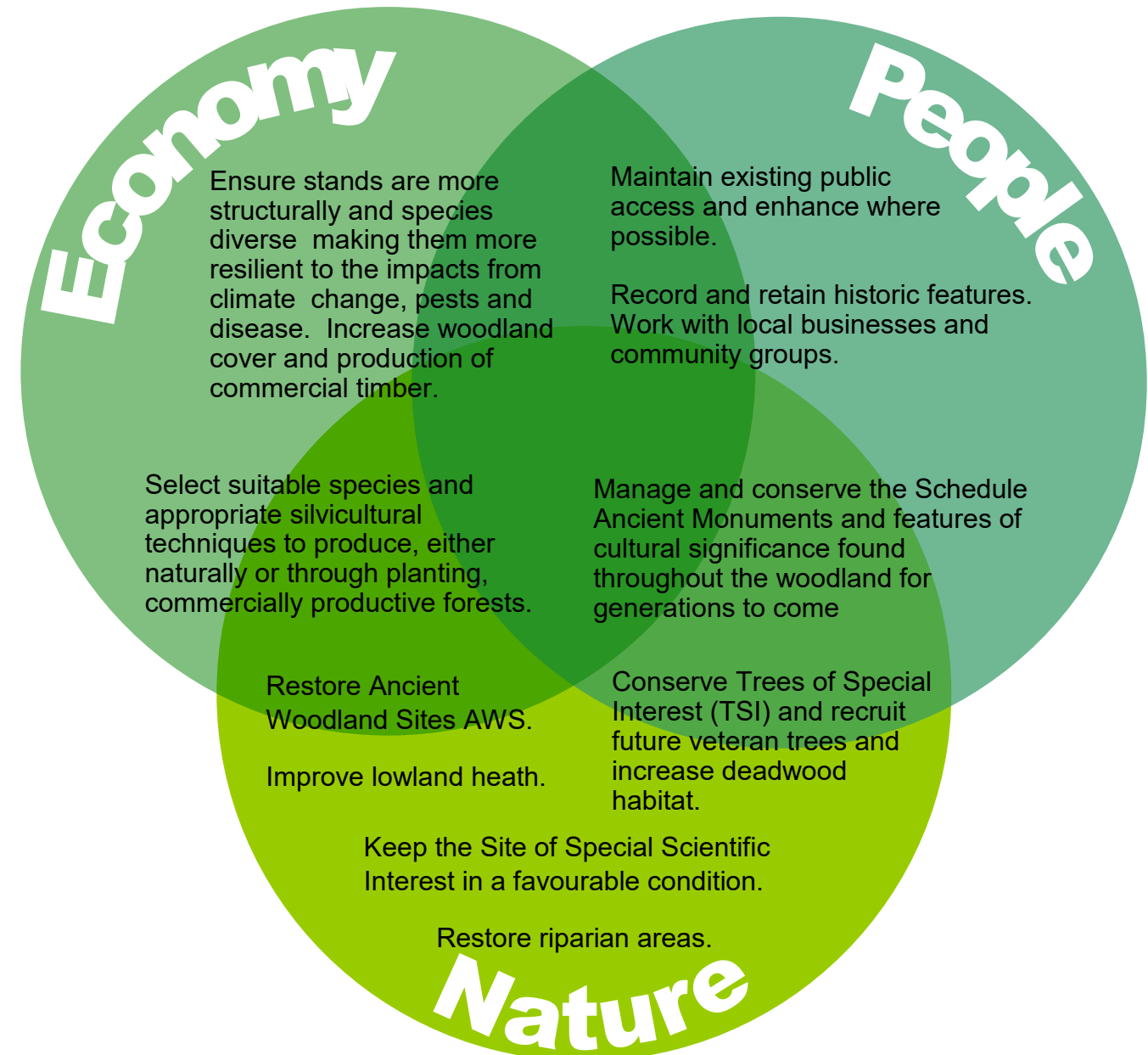
All of our forests and woodlands in this Forest District are certified by the Forest Stewardship Council® (FSC®) and the Programme for the Endorsement of Forest Certification (PEFC). All Forestry Commission forests and woods are independently certified as sustainably managed, to continue to benefit future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

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. Management objectives

2.1 Economic

The woodlands age structure is quite uniform with 69% of the 325,000 trees aged between 60 and 80 years old with an average yield class of 12 for the conifers and 4 among the broadleaves. The soils are varied across all sites ranging from well drained acidic podzols, particularly on the steeper slopes in Wharnccliffe, with deeper brown earths occur by streamside's and on the gentler slopes and man made restored soils on the old colliery site recently planted in Wombwell. The soils moisture content and fertility will produce reasonable timber yields across each of the woodlands.

The mature stands of trees are now producing sizable logs with a good market value and the new plantings will be ready for thinning in the next 10 years. This will produce a regular and sustainable timber resource while meeting Forestry England environmental and social objectives for the forest plan area.

The management objectives for the oaks/birch stands (270ha) will be to begin group felling, removing 12ha in coupes of ≤ 2 ha in size on a 10 year cycle. This will help diversify the current stand structure, increase available habitats for wildlife through the creation of transitional open space and produce sustainable yields. The long term objective will be to produce quality oak logs on a 120- 160 year rotation. The other broadleaves will be managed on a rotation length designed to reach their normal economic rotation ranging from 50-100 years. By the early introduction of group felling and removal of some trees before they reach their economic rotation it will ensure that the broadleaves stands do not reach maturity all at the same time and make the stand structure more resilient to any catastrophic weather events. This will be particularly relevant to Wharnccliffe which has a high wind classification* due to its elevated position, perched water table and has experienced windblow previously.

Conifers stands on secondary woodland sites will be managed on a normal economic rotation based on their predicted growth rates and log size for specific markets.

Squirrel damage is becoming more prevalent in the woodlands damaging and in some cases, killing established more mature trees. Active measures are being taken to reduce squirrel numbers and ensure trees can develop and mature. Deer and rabbit populations are not currently at a level that any browsing damage is preventing regeneration. Populations will be monitored and active management carried out to ensure population

density does not increase and prevent the forest regenerating. The area of woodland cover will be increased in Wombwell with 9.6ha of grassland on 3 separate locations being planted with a mixture of both hardwoods and conifers based on the ESC survey data collected on each planting site and rooting depth; see intended landuse map. This will still leave 13.5ha of open land that will need continued management annually.

2.2 Environmental

The restoration of the AWS remains the management objective on PAWS* sites which are predominantly in the southern half of Wharnccliffe wood with a small area of Corsican Pine in Old Park. The remaining native woodland is therefore partly secondary with relict pockets of the former semi natural woodland surviving along streamsidess and more extensively on the steeper and boulder-strewn terrain in the northern part of the wood. When felling take place in the existing conifer stands one or two individual trees will be retain to provide breeding site for high nesting birds.

Over the last 10 years restoration has begun on two riparian zones (Broomhead Spring and Waterfall Clough). Conifers are being removed from within 1 tree length of the water courses and the broadleaves thinned out to create areas of dappled shade. This work will be completed within the approval period of this plan. In addition 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.



Pic 1 Broomhead Spring
(Riparian zone)



Pic 2 Shetland cattle grazing heathland

The heath in Wharnccliffe is the most extensive tract of intermediate level heathland in the Sheffield region. The main area of heather stretches for nearly a kilometre from the northern end of the crags as far as the north-western corner of Wharnccliffe Chase where it narrows and extends for some distance along the crag edge. Forestry England has over

2.2 Environmental

the last 10 years through active management and removal of tree cover complemented by grazing of cattle and sheep helped open up the woodland and create better conditions for the heathland and associated wildlife. The Heath also supports Common lizard and Grass snake and in an adjacent pond, Palmate newt, Common frog and toad. The site has been well researched by entomologists and is listed on Natural England's Invertebrate Site Register. It is particularly noted for its deadwood and ASNW insect associations.

Wharnccliffe Heath has also been designated as a Local Nature Reserve (LNR). Deadwood habitat is however limited elsewhere across the plan area and where safe to do so large



Pic 3 Old stump provide deadwood habitat and a relic from the former Ancient Woodland.

diameter trees will be retained to provide standing deadwood which is an important missing component of many woodlands. This will provide nesting and feeding habitats for invertebrates and birds whose life cycle is dependant on elevated locations above the forest floor. Long-term retentions will also be used to allow trees to reach their biological maturity and increase the availability of deadwood

habitats across the forest plan area. A stand of Oriental spruce is now being managed as a seed stand due to the trees excellent shape and form. Oriental spruce is one species that will be very suitable for the predicted climatic conditions in the region over the next century, and will be used when restocking secondary woodland sites. This will continue to be managed through minimum intervention and allow the area to evolve naturally without any human intervention.

The woodlands support a wide variety of birds which includes the region's most important site for breeding Nightjar. Other birds include Whitethroat, Tree pipit, Willow warbler, Whinchat, Redstart, Yellowhammer, kestrels, meadow pipits, skylarks, Spotted flycatcher Woodcock, Long-eared owl, Pied flycatcher, green and spotted woodpeckers . Wharnccliffe Heath also supports Common lizard and Grass snake and in an adjacent pond, Palmate newt, Common frog and toad. The LNR has been well researched by entomologists and is listed on Natural England's Invertebrate Site Register. It is particularly noted for its deadwood and ASNW insect associations.

2.3 Social

Wharnccliffe and Wombwell Woods have a long history of public use which has substantially increased in recent years. The principal activities include walking and other activities, such as orienteering; cycling, (including sporting and off-road mountain biking), horse riding, both private and commercial. Wharnccliffe Craggs have attracted rock climbers for many years. The woodland are also attractive to bird watchers and other naturalists.

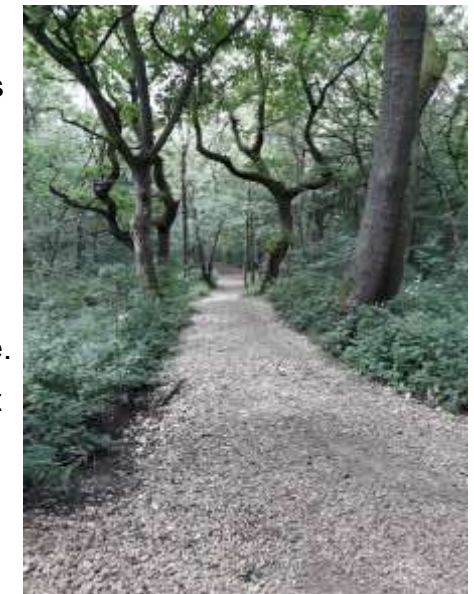


Pic 4 Open paths through new woodland creation at Wombwell.

Visitor facilities are currently informal and limited to a car park at Wharnccliffe and one at Wombwell, waymarked pedestrian trails and a mountain biking trail.

A spur of the Trans-pennine Trail (bridleway) also runs through Wharnccliffe linking Grenoside

and Oughtibridge to Wortley. Specialist recreational use and licensed sporting activities are zoned to reduce conflict, damage to fragile sites and disturbance to wildlife. Recreational impacts will need to be monitored to prevent damage to sites of recognised ecological and cultural heritage. Large housing developments recently built and currently planned around both Wharnccliffe and Wombwell will see an increase in visitor numbers and pressure on facilities and woodland ecology.



Pic 5 Surfaced path within Wharnccliffe .



Pic 6 Rocky outcrops associated with the Iron Age and Roman Quern workings.

The Wharnccliffe area has significant archaeological interest dating back to the Mesolithic period (7500BC). Of particular interest are the Iron Age and Roman Quern workings associated with Wharnccliffe Craggs and scheduled as an ancient monument. This is by far the most extensive quern-working site in the country with a range of other archaeological features. There are also remains of Mesolithic occupation sites and later enclosures related to farming and settlements in the area. Archaeologically, the site is of considerable

national and international significance. The features which are of note within Wombwell Wood are the Iron Age / Romano-British earthworks which are also designated as SAMs. There are two enclosures with outer ditch and inner banks which have been well preserved within the woodland.

Future woodland management in and adjacent to the SAMs will be carried out in accordance with the UK Forest Standard. Forestry England aim to preserve these and other features of cultural significance, including the more recent industrial heritage, to help future generations understand about 10,000 years of local history.

3. Harvesting Operations

Most of the forest plan area will be managed through Low Impact Silvicultural Systems * (LISS) and the only proposed clearfells within this plan are focused on the clearance of stands dominated by larch. *Phytophthora ramorum* has now been identified on larch in the south western corner of Wharnccliffe and these clearfell operations it is hoped will reduce the spread and prevent it attacking the larch in the north and Sweet chestnut stands throughout the woodland. If *Phytophthora* does spread the Plant Health Agency will issue plant health notices to remove a buffer of 100m around each infected tree which could mean additional trees have to be felled in the approval period of this plan.

BL stands will be managed through a group felling system which will allow small clearings (<2ha) to be created which will begin to restructure the crop and diversify the age and species composition. 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. No more than 10% of the broadleaves on AWS will be removed within any 5 year period.

Exotic conifer stands on AWS will be thinned out to allow for the restoration of AWS. Selective felling will be used on conifer stands where up to 40% of the conifers could be removed at each intervention. The intensity and frequency of selective felling operations will be targeted to release any broadleaf tree in mixed stands, encourage and release any natural regeneration and suppress invasive ground vegetation.

Scots pine is seen as a naturalised* species and will be managed on a 80 -100 year rotation which will encourage natural regeneration. Scots pine currently occupies just 1.5% of the plan area and will be managed in mixed stands rather than as a monoculture.

Thinning will be carried out in broadleaves over 22 years old every 8-10 years and in conifer crops over 18 years old every 5 years. This will help produce trees with good shape and form and commercially viable timber.

When felling and thinning operations are carried out in Wharnccliffe evergreen conifer stands that have now created strong patterns and geometric shapes on the steep hillside will be targeted to soften their shape and the hard edges present between the deciduous and evergreen crops.

4. Intended Landuse

Natural regeneration will be used as the preferred method to restock AWS with enrichment planting used where necessary to ensure full stocking is achieved (1,100 stems/ha for broadleaves) and to diversify the species mixtures. Regeneration has been successful across all areas in the past due to low rabbit and deer population and these will need actively managing to ensure successful levels of regeneration can be maintained.

Due to the predicted impacts of climate change over the next century there is some uncertainty as to how well our native species will survive. Sudden Oak Death, Acute Oak Decline, Chalara and *Phytophthora* pose a serious threat to the survival of oak, ash and Sweet chestnut in the British landscape. For the benefit of the woodland ecosystem and associated flora and fauna up to 20% of AWS will be restocked with naturalised species*.

This will provide a greater selection of tree species which will lessen any possible loss of



Pic 7 Young oak stand naturally regenerated in Wombwell Wood.

woodland cover due to pest, disease, or climatic impacts in the future.

Within the secondary woodland areas species composition will also be diversified using a selection of species the future climate models predict will be better suited to more extreme weather events likely to occur. Evergreen conifers will be the dominant woodland type which will provide additional winter cover for wildlife and produce commercial timber on a shorter rotation, <80years. Suitable species include Douglas fir, Western Red cedar, and various spruce species. Any restocking to be used will favour a range of species and genetic type from a provenance 2 to 5 degrees south of the forest plan area that will be better suited to the predicted local climatic conditions.

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

	Forest Plan Area	Forest Plan Percentage	Forest District Area	Forest District Percentage
Total Area	630	100	28,170	100
Total Wooded Area	540	86	23,909	84.9
Open Habitat (>10%)	90	15	4,181	14.8
Natural Reserves - Plantation (1%)	0	0	174.3	1.4
Natural Reserves - Semi Natural (5%)	0	0	396	3.3
Longterm Retentions & Low Impact Silvicultural Systems (>1%)	601	95	14,524	51.6
Area of Conservation Value (>15%) including LISS	628	99	16,194	57.5



Pic 8 & 9 Shetland cattle and sheep delivering a wide range of benefits and helping to restore the SSSI back into a favourable condition.



Pic 10 Old oak in Wombwell and Wharnccliffe Woods. creates more open habitats and attracts a wide variety of insects and birds.

5. 2020 Forest Plan comparison against the old Forest Plans

The main management objectives in the new FP remain unchanged with the focus on the production of sustainable timber and the restoration of AWS, heathlands and riparian zones. The main variations in the new plan is in the amalgamation of three woodlands into one plan and the type of silvicultural systems used to manage the crops and the creation of 9ha of new woodland.

The new plan has placed greater emphasis on the need to begin restructuring the stands aged between 60 and 80 years to reduce the risk of windthrow and provide opportunities to diversity species mixtures which may be more resilient to the current and future threats from pests, disease and climate change.

When the old plan for Wharnccliffe was written the SSSI was in an unfavourable condition and over the last 10 years through the proactive management of woodland cover and the introduction of grazing to manage the vegetation Forestry England has brought the SSSI into a favourable condition.



Pic 11 An old fire pond in Wharnccliffe provides open still water and attracts a wide variety of insects and amphibians.

6. Meeting and Monitoring Management Objectives

National Strategy	District Strategy	Forest Plan Objective	Monitoring
Economy: 1) Maintain the land within our stewardship under UKWAS certification, 2) Improve the economic resilience of our woods and forests, 3) Encourage and support business activity on and around the Estate.	1) Adapting our management practices to suit the character and requirements of local woodlands whilst satisfying national standards and business requirements. 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.	Initiate a structured and sustained programme of clearfell, Low Impact Silvicultural Systems (LISS) and thinning operations. Select suitable species and appropriate silvicultural techniques to regenerate (either naturally or through planting) commercially productive forests. Ensure stands are more structurally and species diverse making them more resilient to the impacts from climate change, pests and disease.	This will be reviewed every 5 years as part of the FP review process and any changes recorded in the sub compartment data base. Ecological Site Classification tool will be used to help select suitable species for each restock site and production forecasts run annually to inform the Central Districts business plan of predicted yields. Stocking density, growth rates, stems/ha and species origin and provenance will be recorded and monitored.
Nature: 1) Improve the resilience of the natural environment of the Estate under our Stewardship, 2) Realise the potential of the Public Forest Estate for nature and wildlife, 3) Maintain and improve the cultural and heritage value of the Estate.	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. 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 3) Where possible, work with interested parties to explore ways to maintain or improve features of cultural or heritage value to the local community.	Redesign boundaries for landscape improvements and begin a programme to gradually remove and integrate the strong blocks of conifers into the surrounding ancient woodland. Introduce a felling programme to diversify the woodland structure and manage light levels to allow ground flora and an understory to develop and flourish. Implement the agreed strategies for the SSSI and SAM management plans. Ensure future management operations protect soils and water quality.	Will be reviewed at Ops1 stage, 5 year reviews and 10 year plan renewals. Changes to the forest structure will be recorded and mapped. Monitored understory before operations take place to influence the speed and rate of canopy removal and at the 10 year plan renewal. FE will continue to work with Natural England and Historic England to agree and implement management plans to conserve and protect the SSSI and SAM. Ensure at Ops1 stage all operations conform to the Forestry and Water guidelines.
People: 1) Encourage communities to become involved in the Estate, its management and direction, 2) Provide high quality woodland-based recreational opportunities for people and business, 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.	1) Provide safe and accessible woodlands. 2) Offering opportunities for quiet recreation and adventurous activities, to enable people to experience the potential health and wellbeing benefits. 3) Developing partnership with private businesses and public bodies to expand and improve recreational opportunities across the estate. 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. 5) Encouraging third party environmental educators and other partners to offer learning opportunities on the public forest estate	Continue to maintain the current recreation facilities for access on foot and explore opportunities to increase access and parking where resources permit. Continue to work in partnership with local communities and businesses to help manage the current facilities and explore opportunities to widen the public services, education and learning. Work with volunteer groups (Wharncliffe Heath Trust, Wombwell Fishing Club and Barnsley Council group events) to help manage and care for the woodlands.	Public access and facilities will be monitored and maintained by the beat team on a regular basis throughout the year. The beat team and estates department will monitor existing and future contracts with private businesses annually. The beat team will monitor and review activities throughout the year.

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.

Clearfell System

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

Coupes

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

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 approved plan that outlines felling operations over a 10 year period, outlining proposals over the next 50 years. The FP's are reviewed every 5 years and redrawn and approved every 10 years.

Glossary

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

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.

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

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.

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.

Glossary

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 (e.g. forestry for rural development; forestry for economic regeneration; forestry for recreation, access and tourism and forestry for the environment and conservation).

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

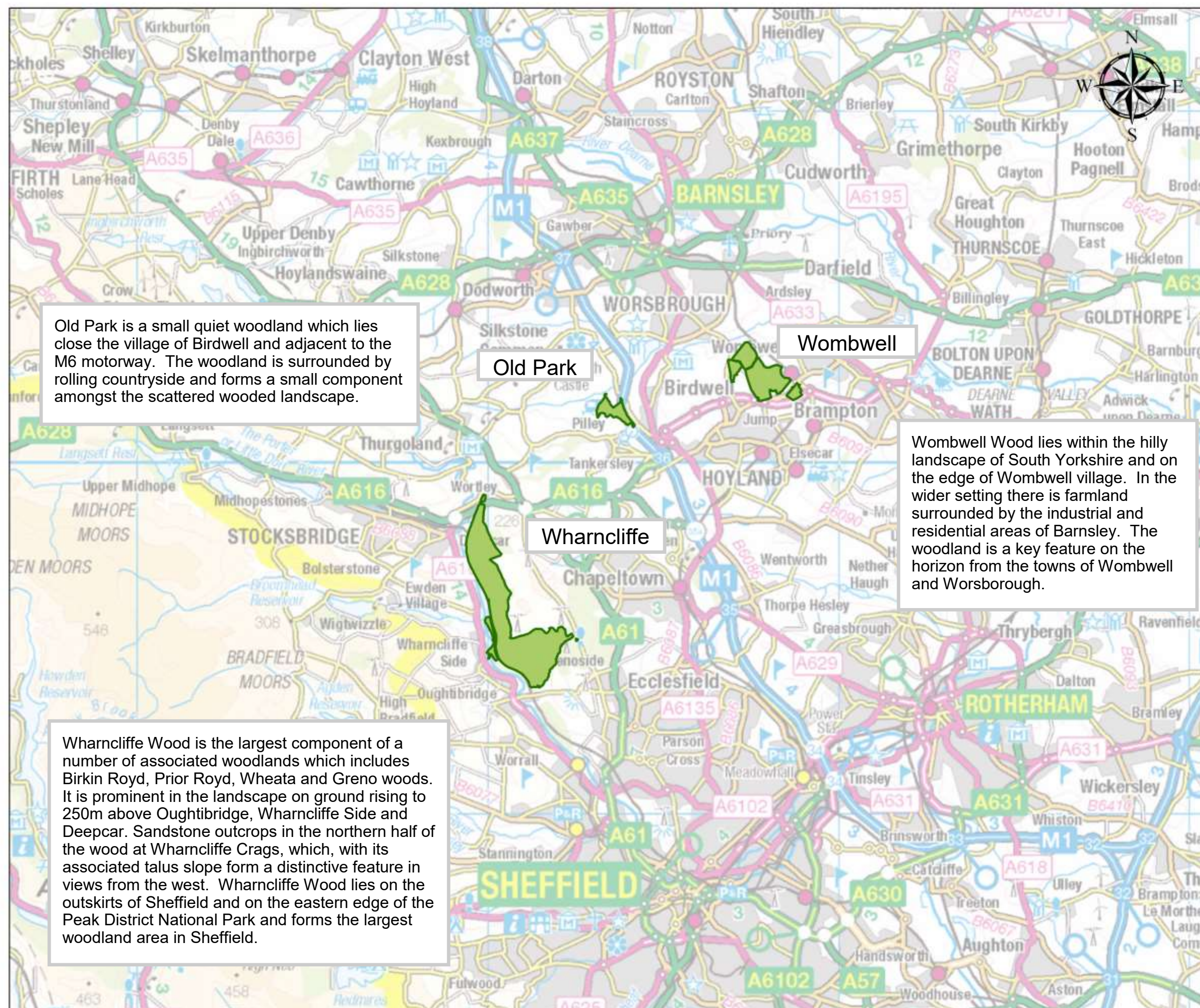
Minor tree species that live under the top canopy trees, or are pioneer species that arrive in clearings before climax tree species become established. Once the overstory becomes established these minor species are usually restricted to the woodland edge where light levels allow them to survive.

Trees of Special Interest (TSI)

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 m³ per hectare has a yield class of 14.



Central Forest District

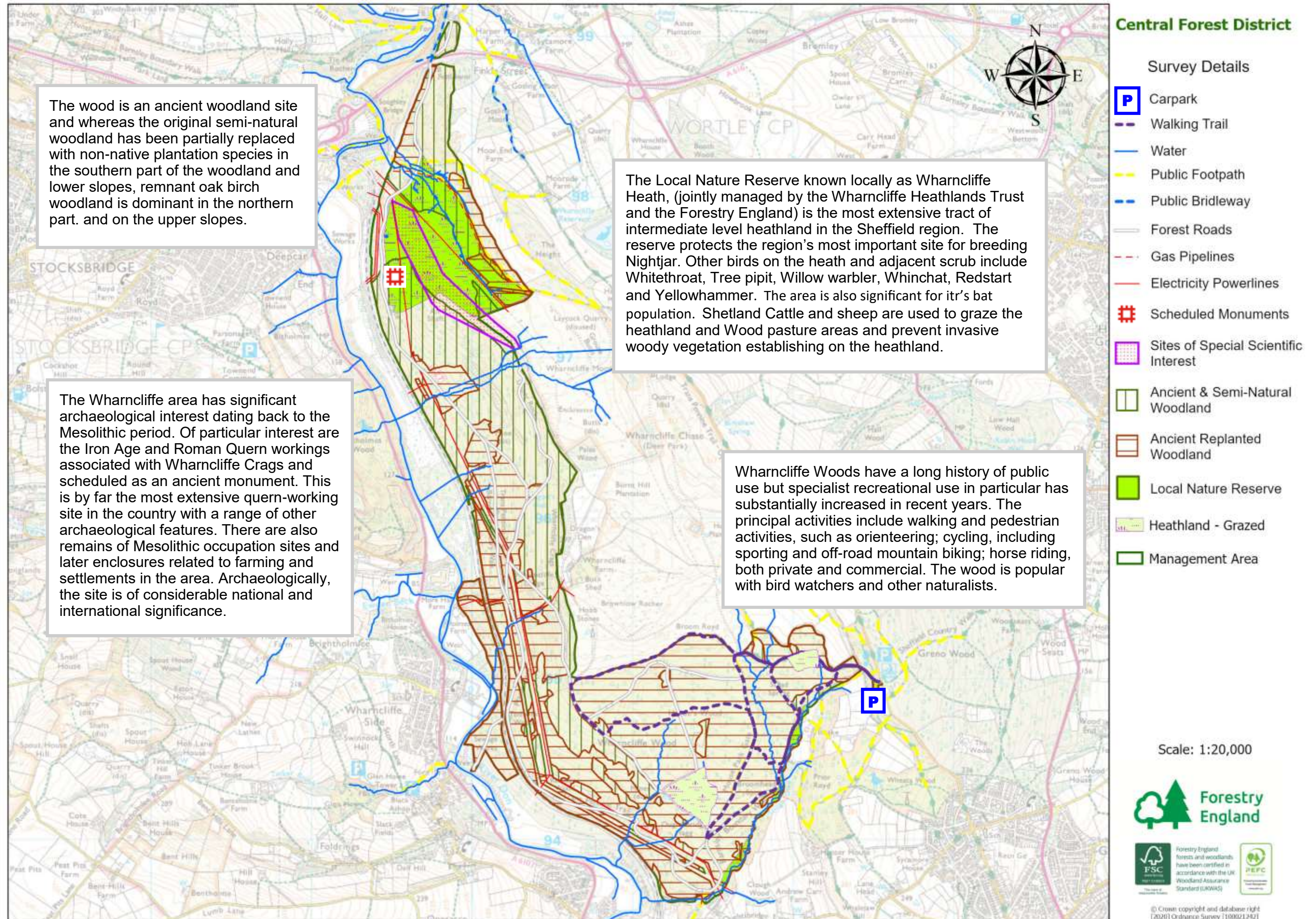
Location Map

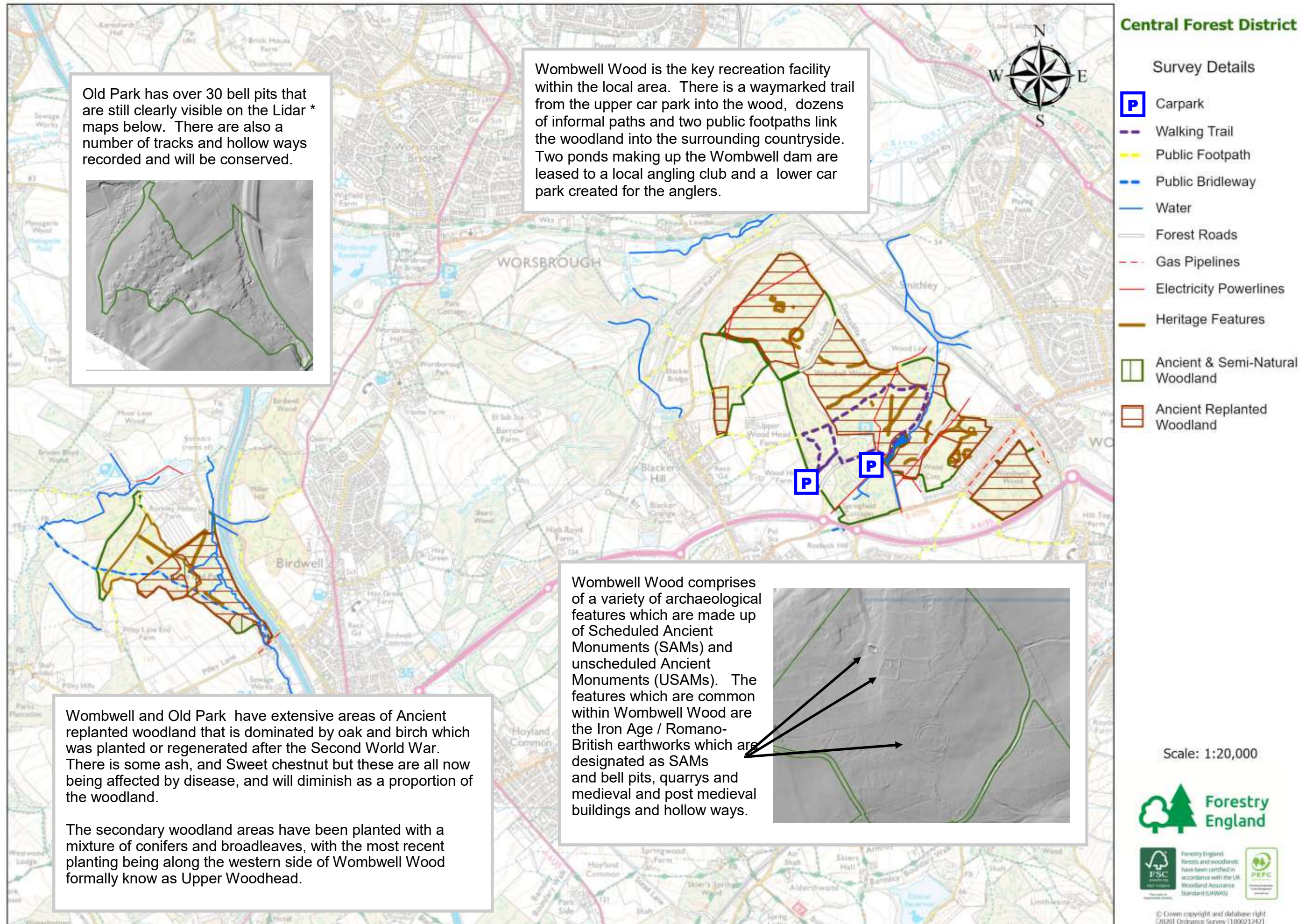
 Management Area

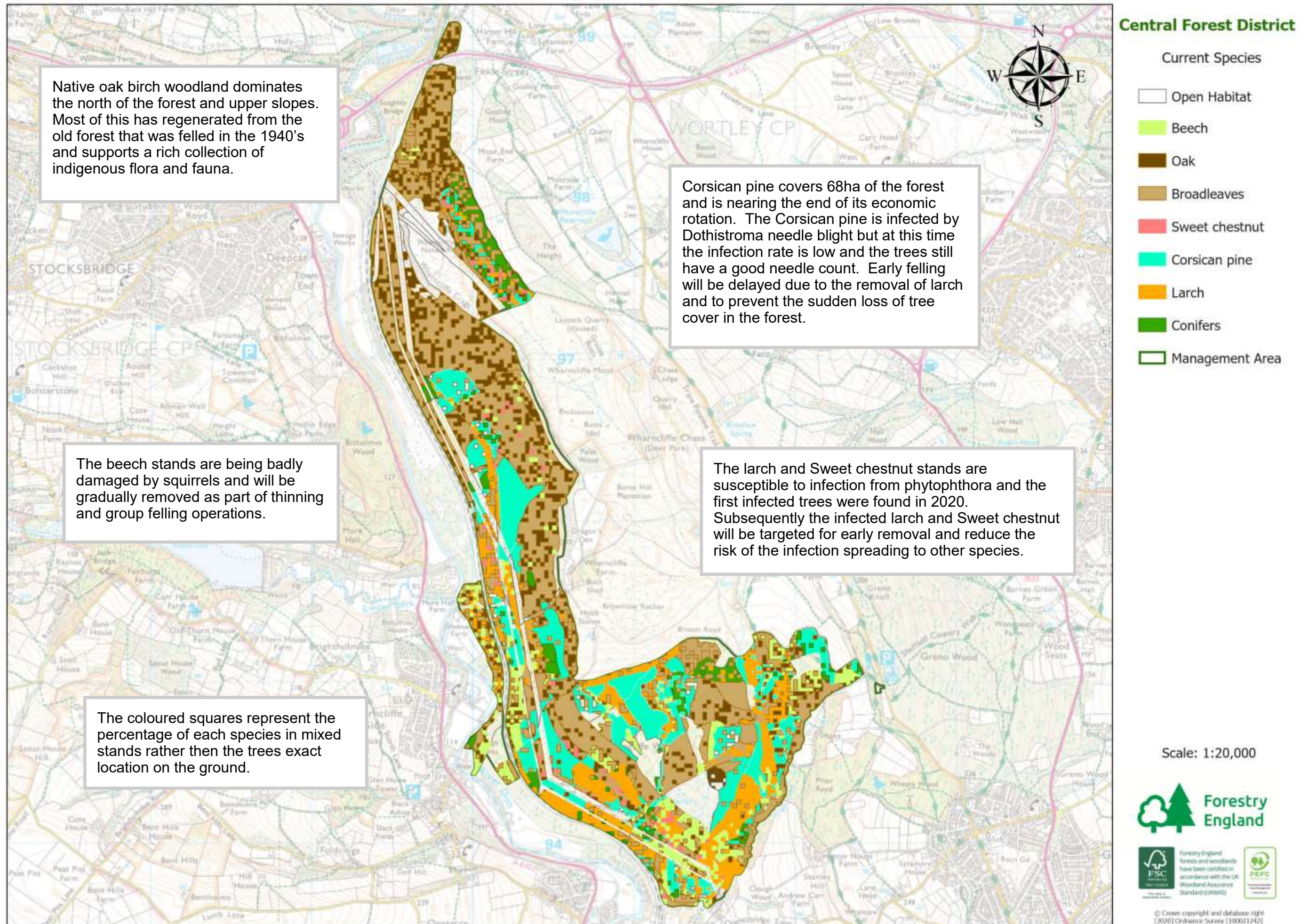
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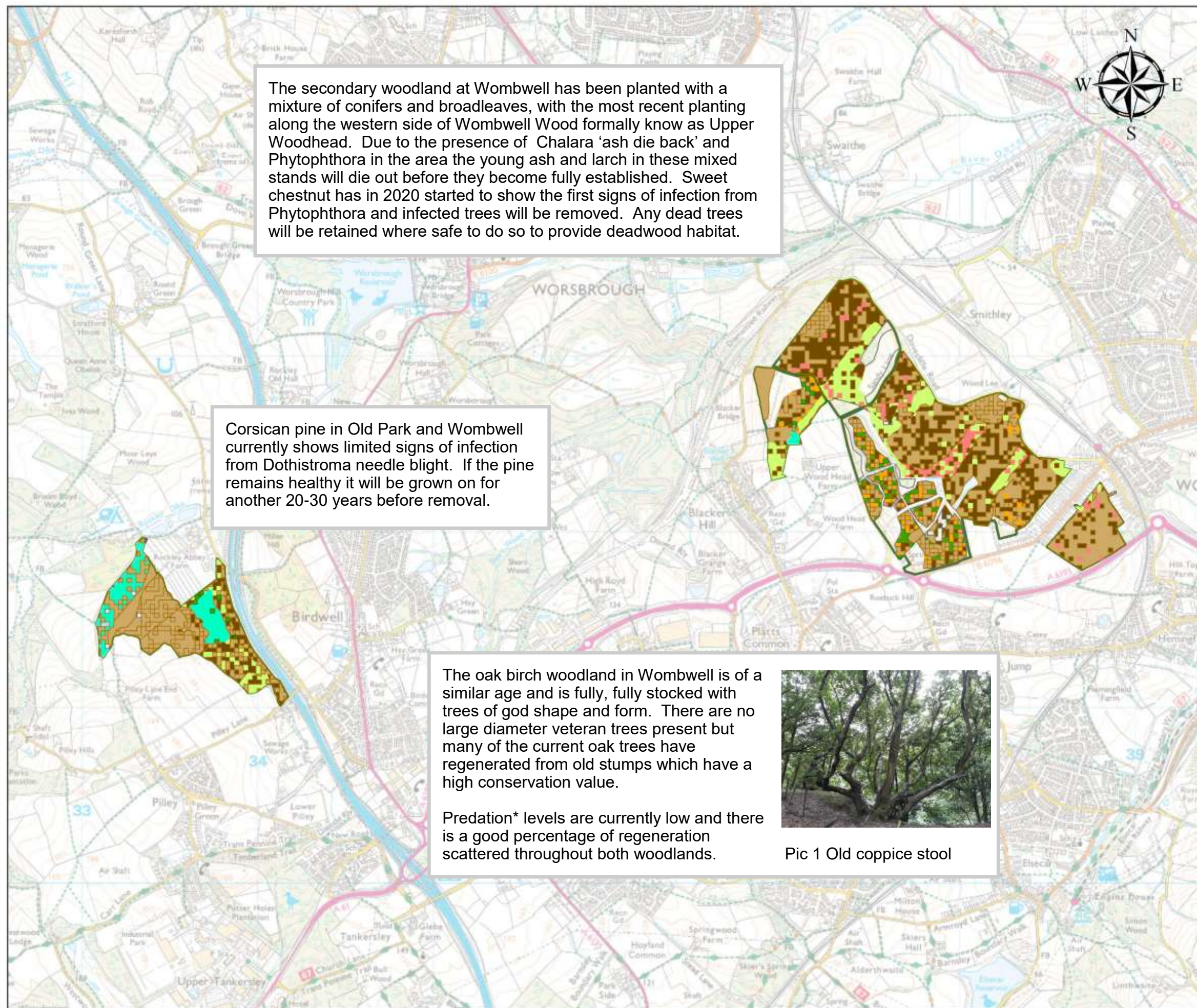


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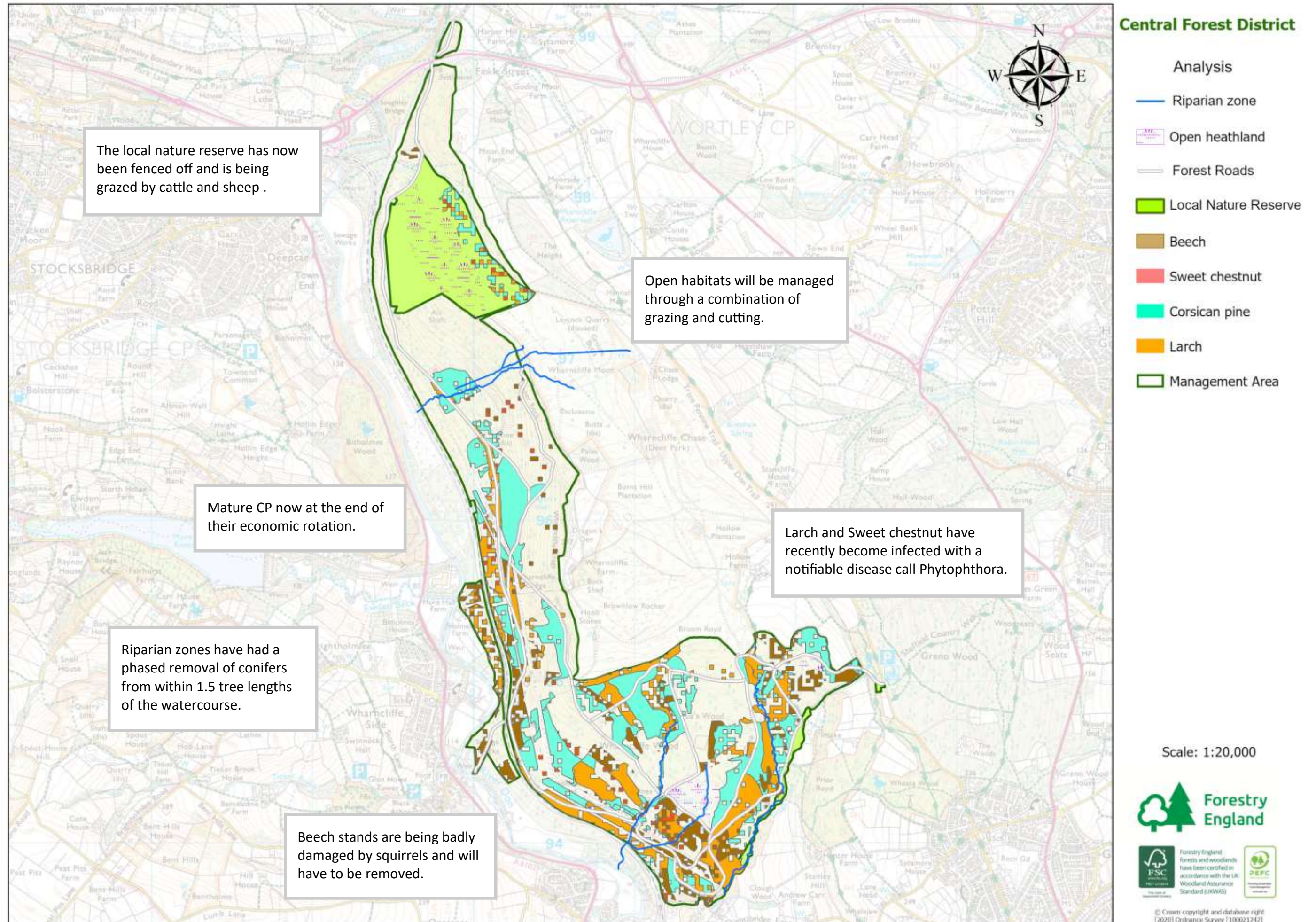


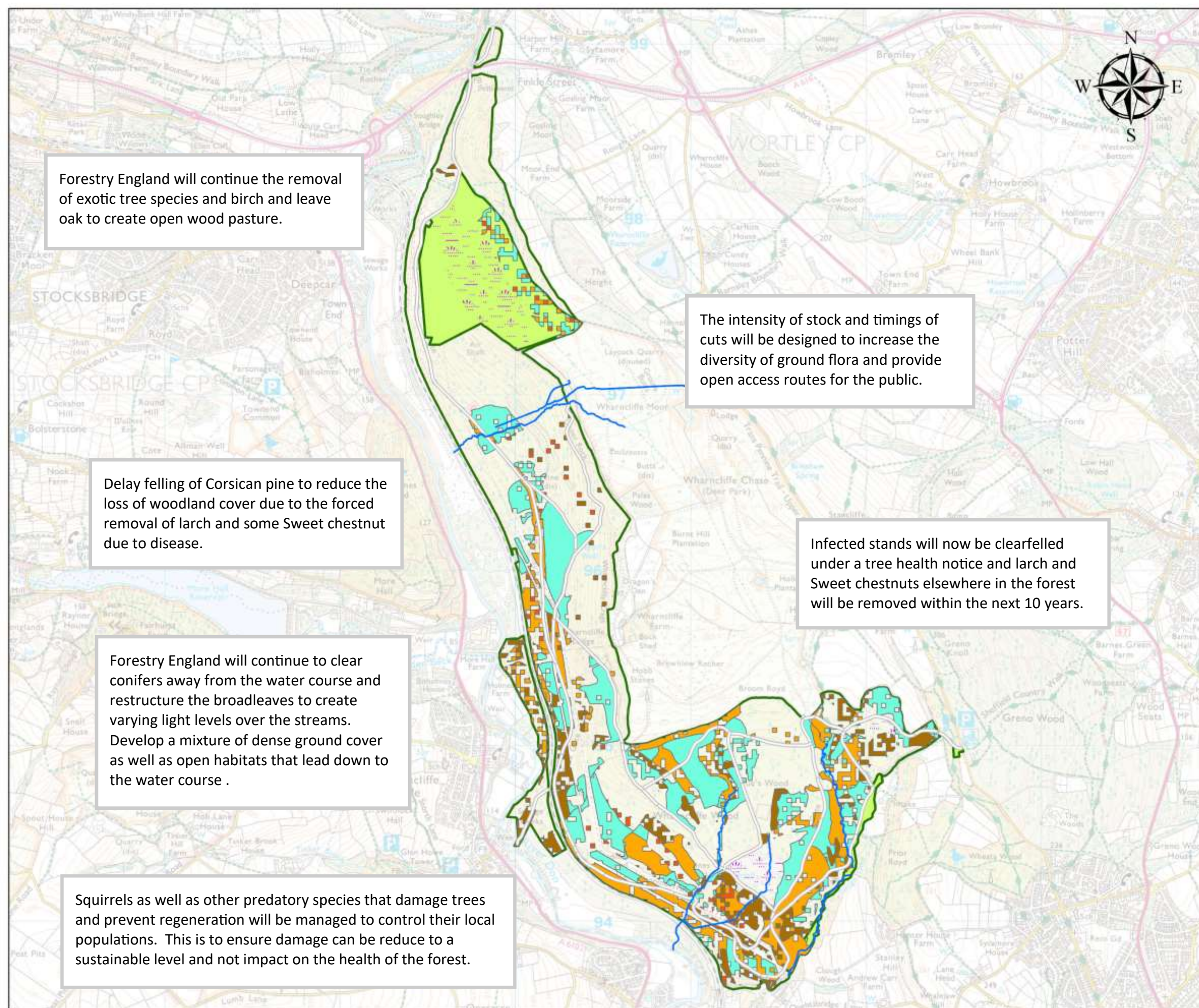
Central Forest District

Current Species

- Open Habitat
- Beech
- Oak
- Broadleaves
- Sweet chestnut
- Corsican pine
- Larch
- Conifers
- Management Area

Scale: 1:20,000





Central Forest District

Concept

-  Riparian zone
-  Open heathland
-  Forest Roads
-  Local Nature Reserve
-  Beech
-  Sweet chestnut
-  Corsican pine
-  Larch
-  Management Area

Forestry England will continue the removal of exotic tree species and birch and leave oak to create open wood pasture.

The intensity of stock and timings of cuts will be designed to increase the diversity of ground flora and provide open access routes for the public.

Delay felling of Corsican pine to reduce the loss of woodland cover due to the forced removal of larch and some Sweet chestnut due to disease.

Infected stands will now be clearfelled under a tree health notice and larch and Sweet chestnuts elsewhere in the forest will be removed within the next 10 years.

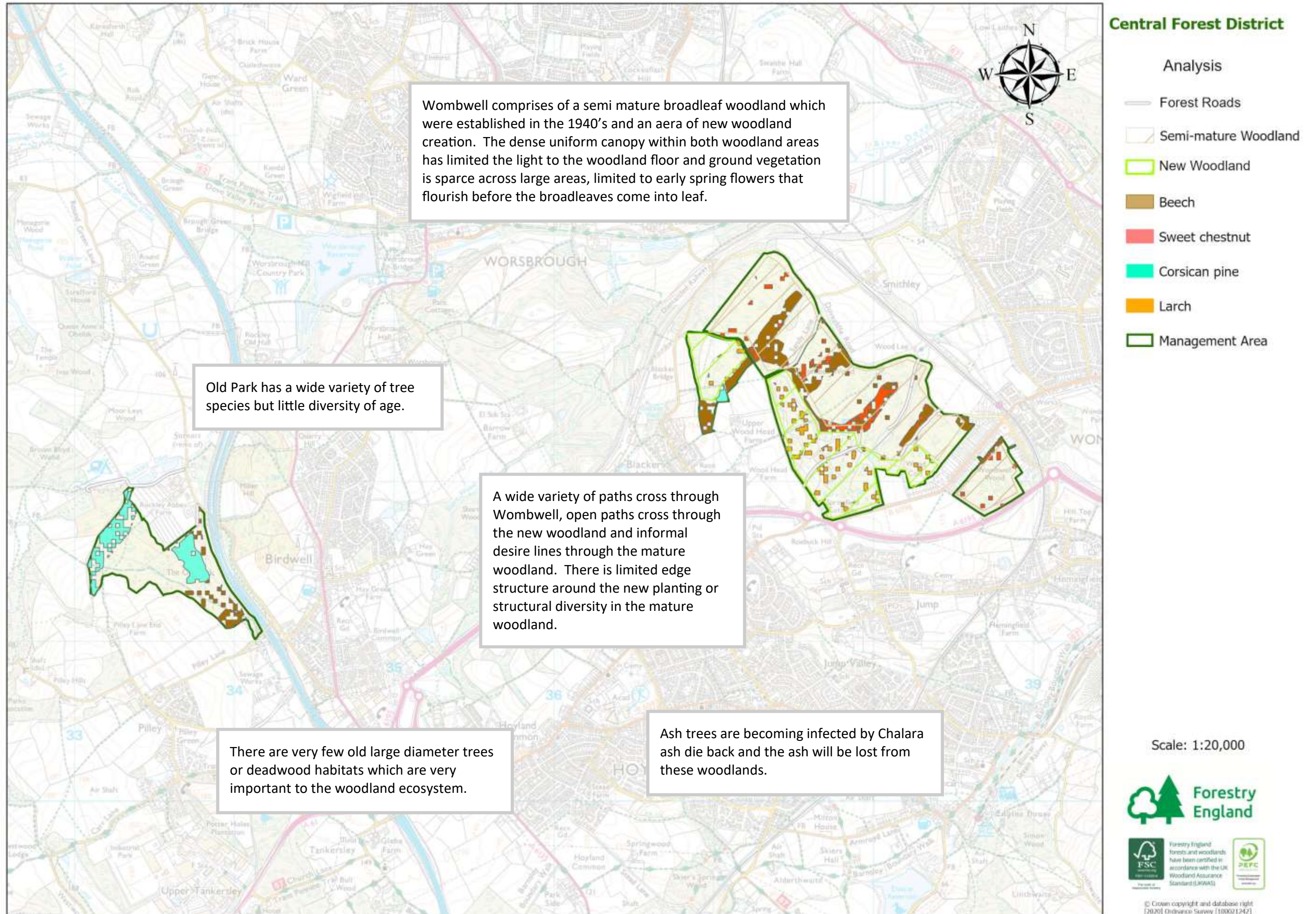
Forestry England will continue to clear conifers away from the water course and restructure the broadleaves to create varying light levels over the streams. Develop a mixture of dense ground cover as well as open habitats that lead down to the water course .

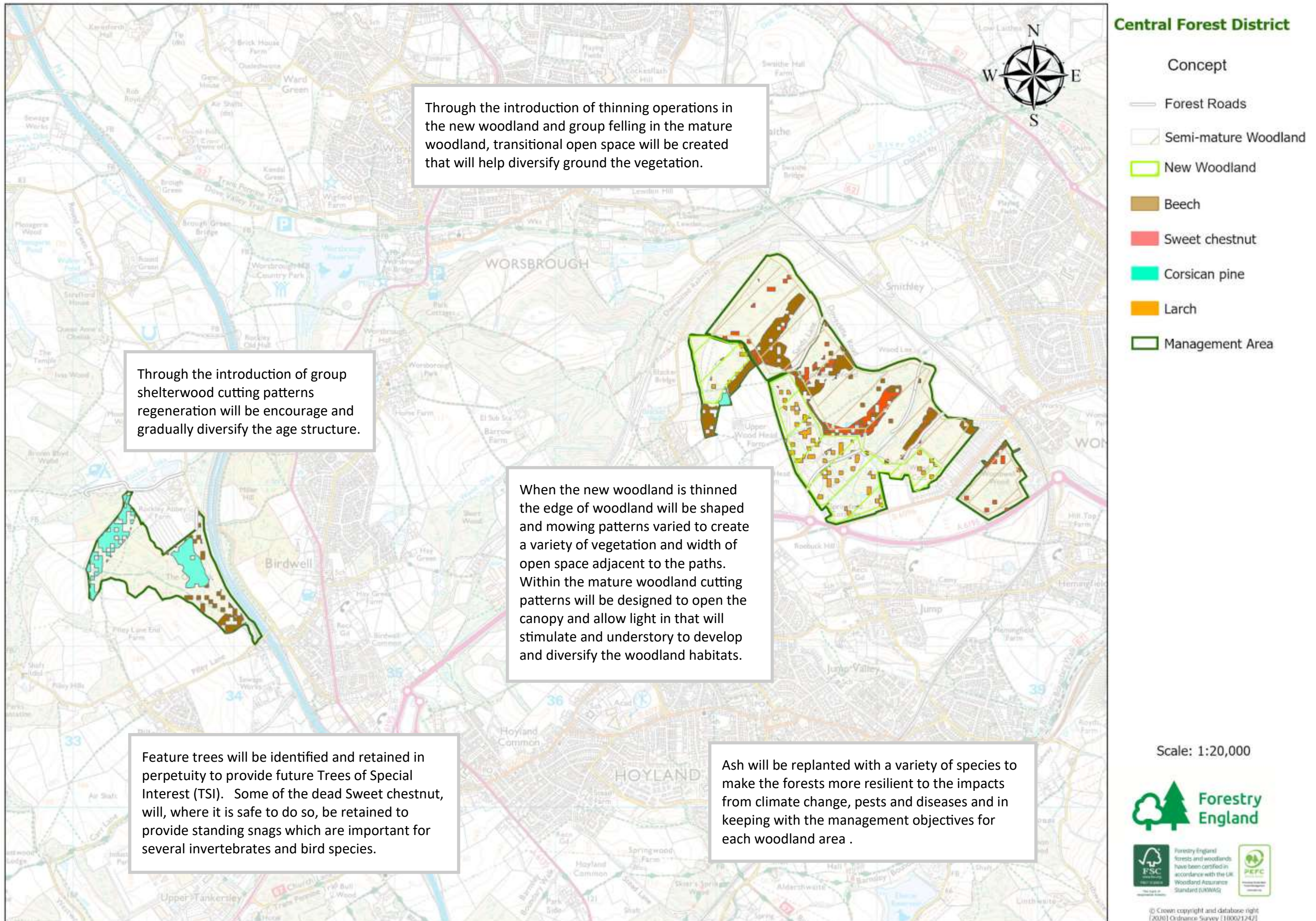
Squirrels as well as other predatory species that damage trees and prevent regeneration will be managed to control their local populations. This is to ensure damage can be reduce to a sustainable level and not impact on the health of the forest.

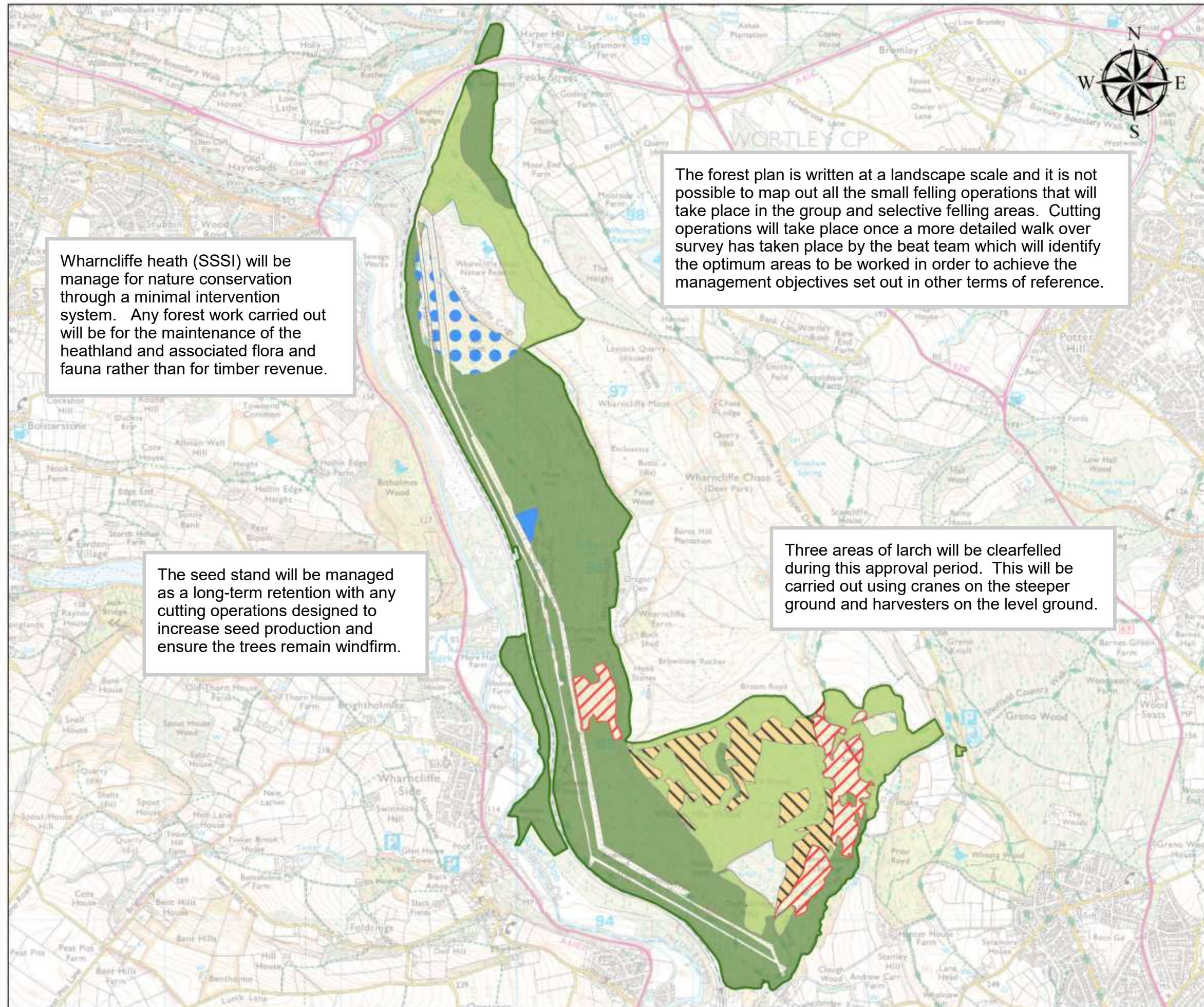
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Central Forest District

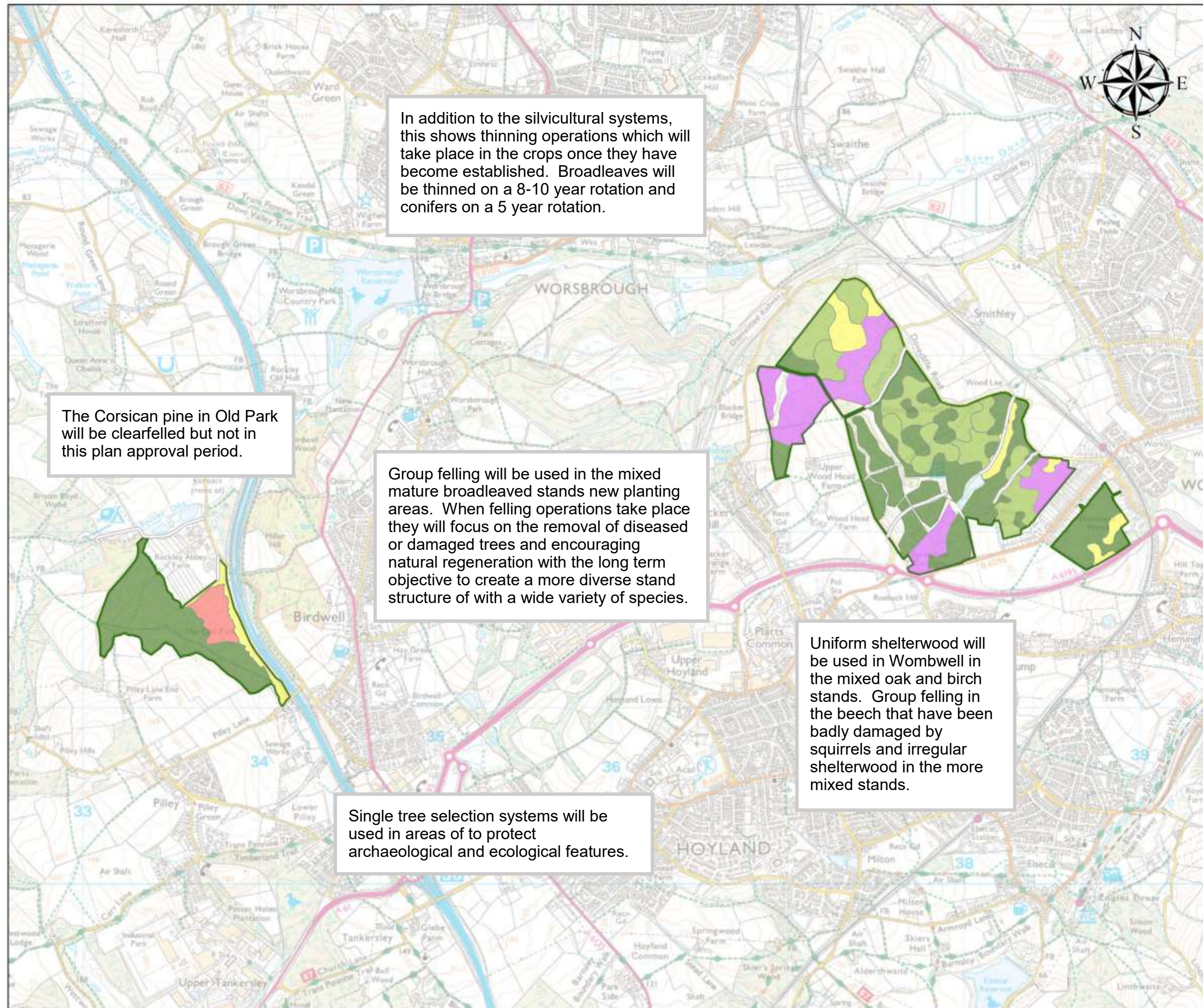
Silvicultural Systems

- Forest Roads
- Open Land
- Seed Stand
- ▒ Minimum Intervention
- Clearfell
- Single Tree Selection
- Group Selection
- Uniform Shelterwood
- ▨ Strip Shelterwood
- Irregular Shelterwood
- Management Area

Scale: 1:20,000



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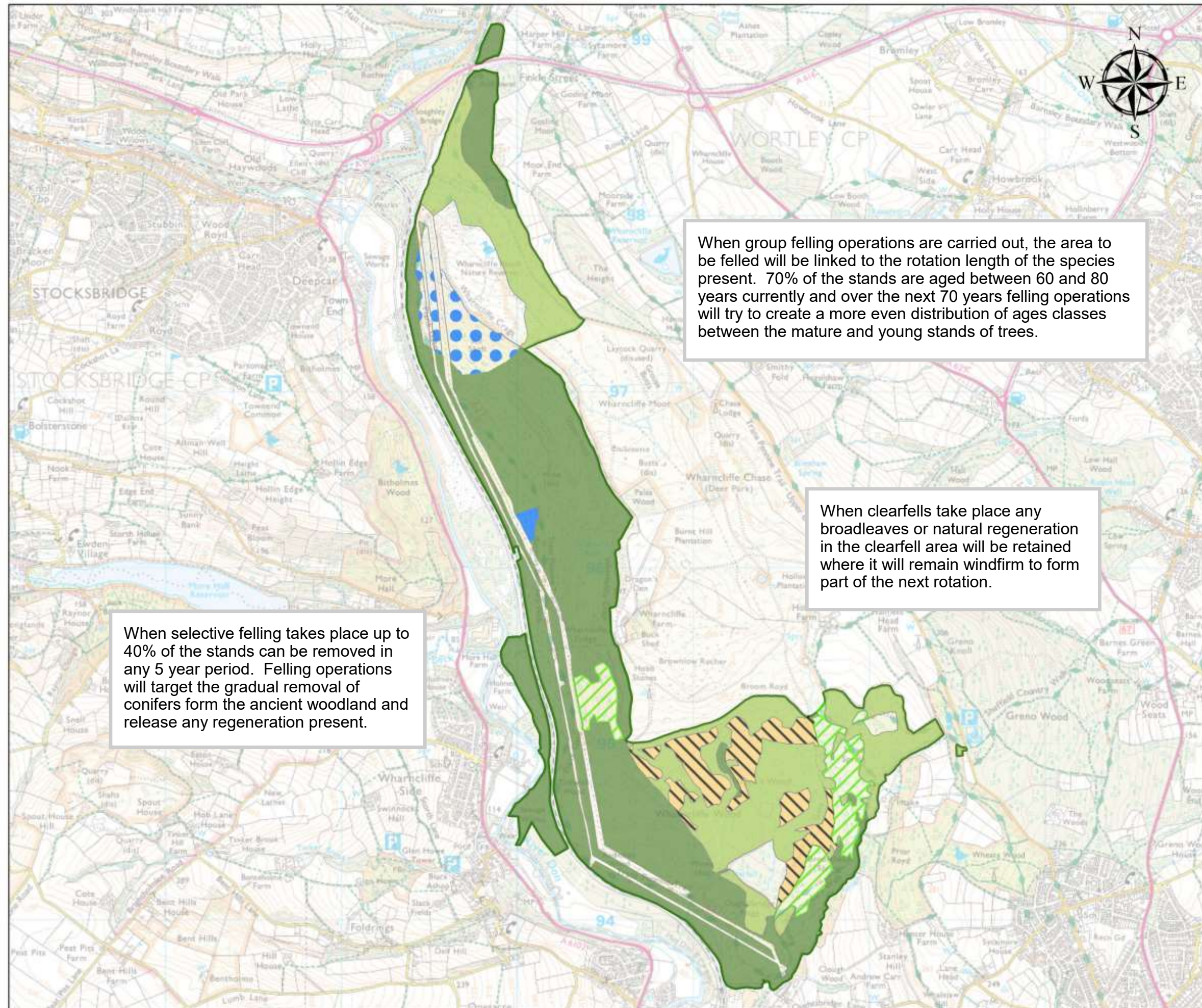
Central Forest District

- Silvicultural Systems**
- Forest Roads
 - Open Land
 - Seed Stand
 - Minimum Intervention
 - Clearfell
 - Single Tree Selection
 - Group Selection
 - Uniform Shelterwood
 - Strip Shelterwood
 - Irregular Shelterwood
 - Management Area

Scale: 1:20,000



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Central Forest District

Felling Map

- Forest Roads
- 2022-2016
- Open Land
- Seed Stand
- Minimum Intervention
- Group Selection
- Uniform Shelterwood
- Strip Shelterwood
- Management Area

When group felling operations are carried out, the area to be felled will be linked to the rotation length of the species present. 70% of the stands are aged between 60 and 80 years currently and over the next 70 years felling operations will try to create a more even distribution of ages classes between the mature and young stands of trees.

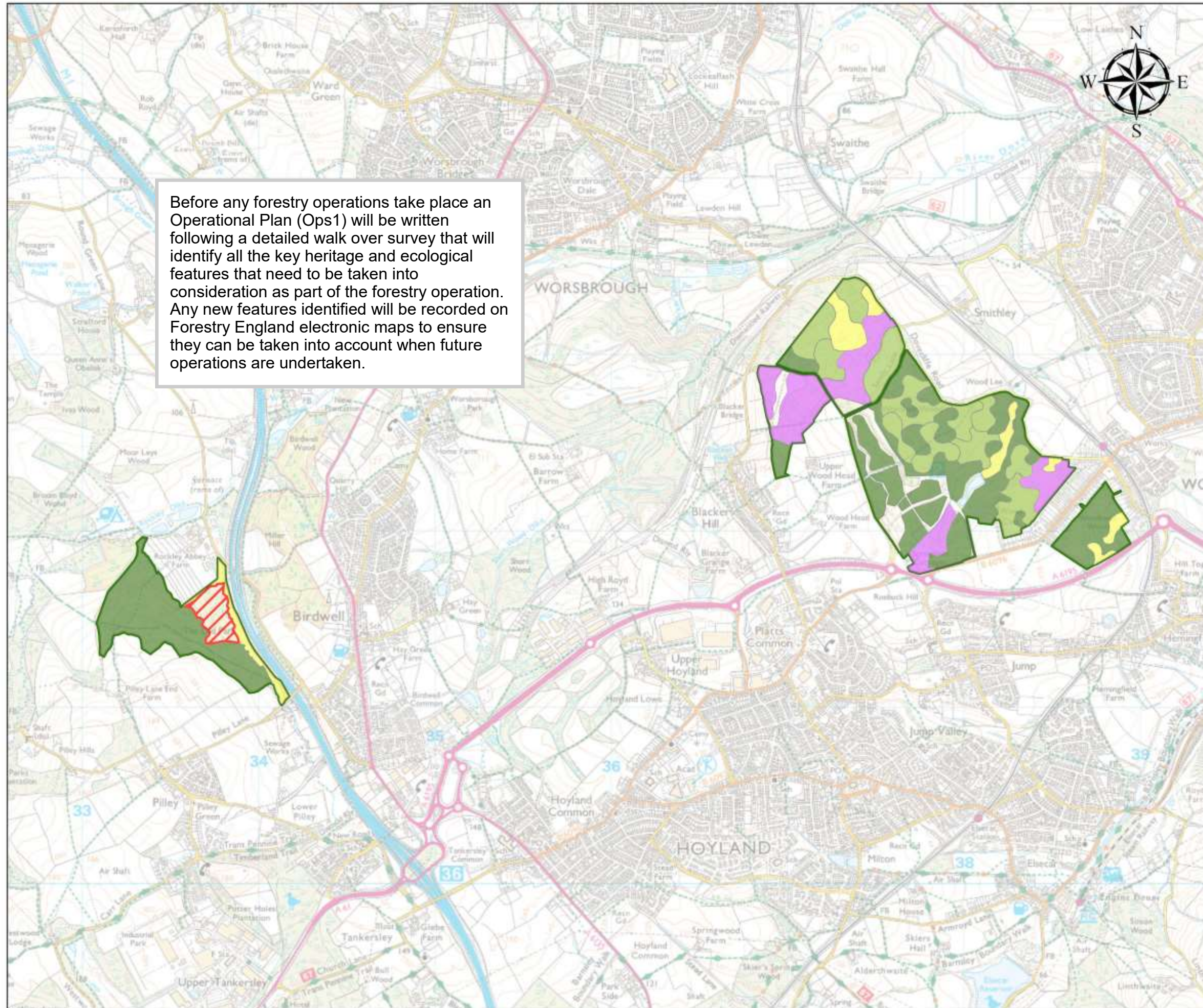
When clearfells take place any broadleaves or natural regeneration in the clearfell area will be retained where it will remain windfirm to form part of the next rotation.

When selective felling takes place up to 40% of the stands can be removed in any 5 year period. Felling operations will target the gradual removal of conifers from the ancient woodland and release any regeneration present.

Scale: 1:20,000



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Before any forestry operations take place an Operational Plan (Ops1) will be written following a detailed walk over survey that will identify all the key heritage and ecological features that need to be taken into consideration as part of the forestry operation. Any new features identified will be recorded on Forestry England electronic maps to ensure they can be taken into account when future operations are undertaken.

Central Forest District

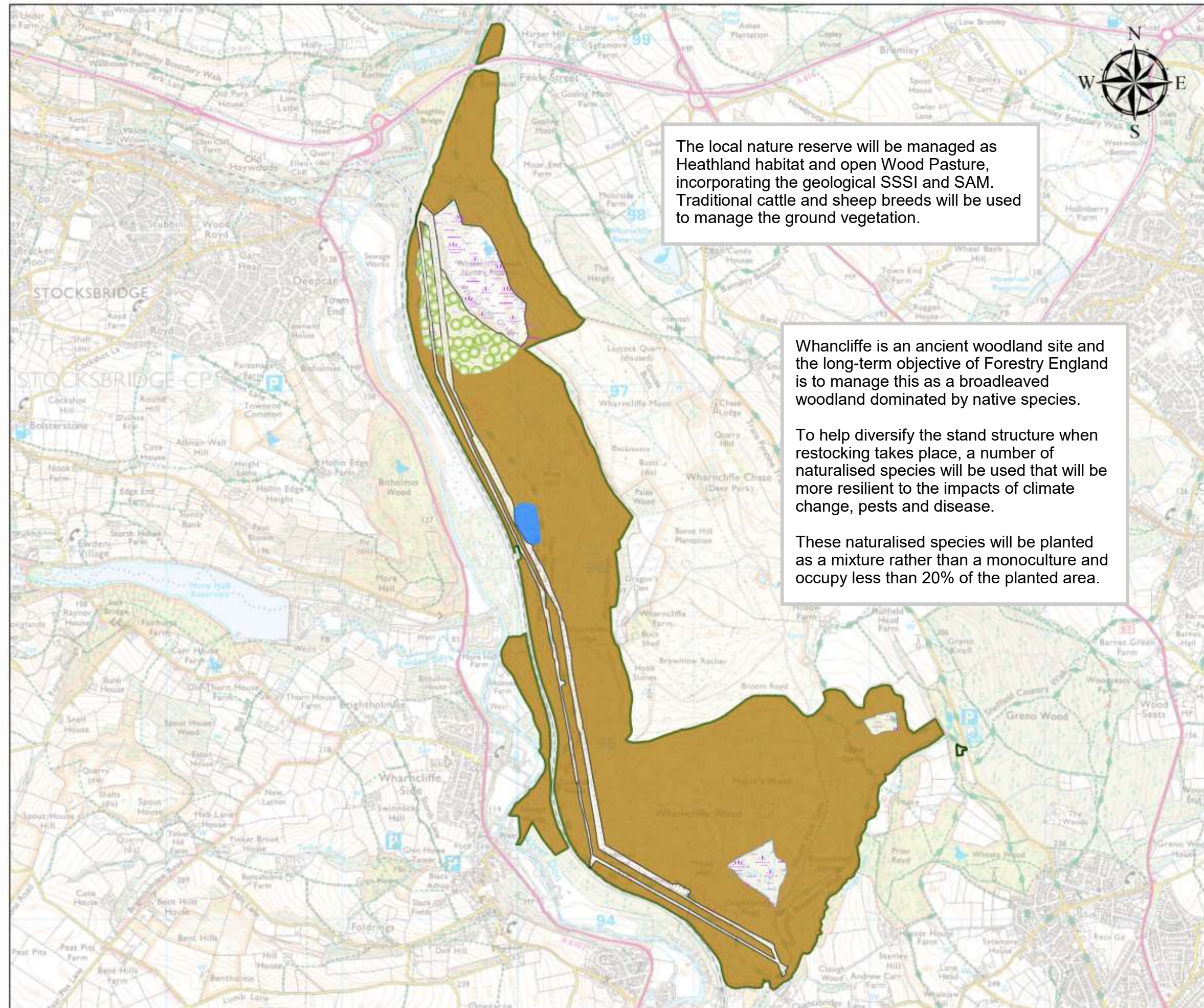
Felling Map

-  Forest Roads
-  2037 - 2041
-  Open Land
-  Single Tree Selection
-  Irregular Shelterwood
-  Group Selection
-  Uniform Shelterwood
-  Management Area

Scale: 1:20,000



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The local nature reserve will be managed as Heathland habitat and open Wood Pasture, incorporating the geological SSSI and SAM. Traditional cattle and sheep breeds will be used to manage the ground vegetation.








Wharnccliffe is an ancient woodland site and the long-term objective of Forestry England is to manage this as a broadleaved woodland dominated by native species.

To help diversify the stand structure when restocking takes place, a number of naturalised species will be used that will be more resilient to the impacts of climate change, pests and disease.

These naturalised species will be planted as a mixture rather than a monoculture and occupy less than 20% of the planted area.

Central Forest District

Intended Landuse

-  Forest Roads
-  Open Ground
-  Open Wood Pasture
-  Open heathland
-  Mixed woodland dominated by Native Broadleaves
-  Oriental spruce - seed stand
-  Management Area

Scale: 1:20,000



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