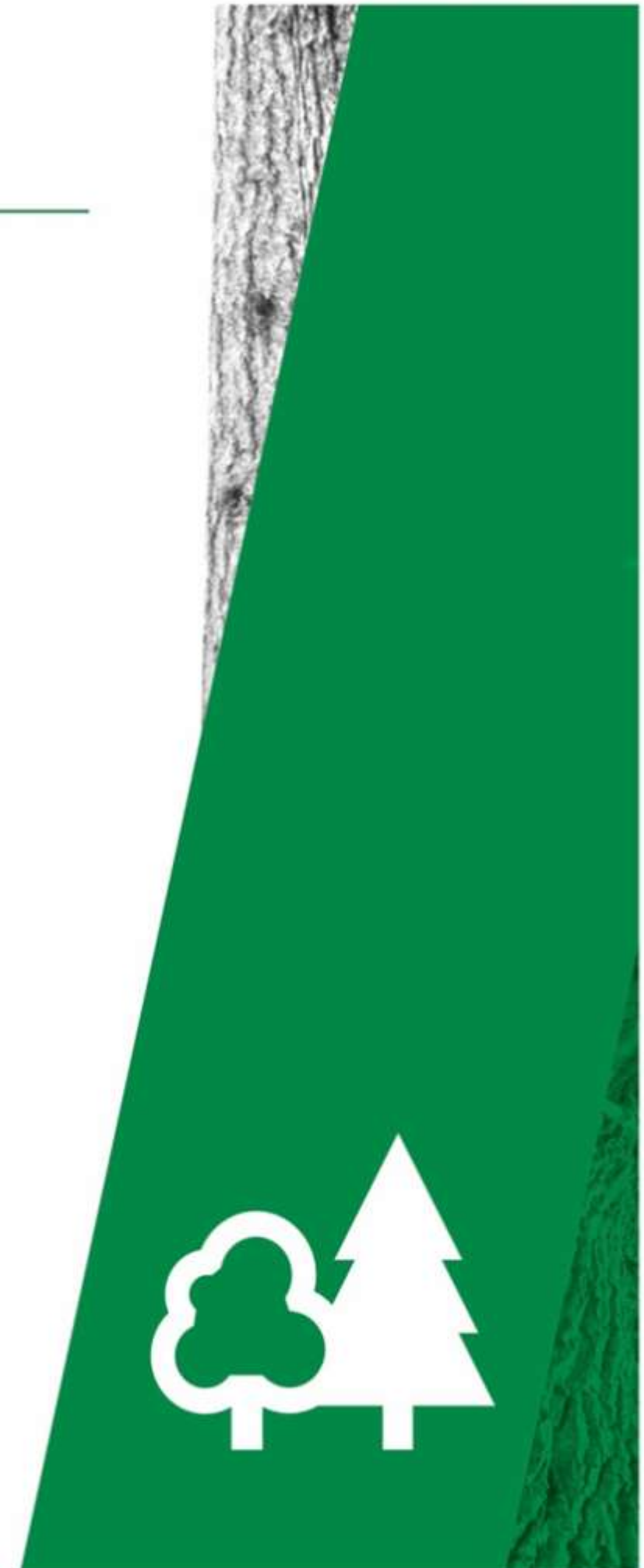


Wigan Forests Plan 2023– 2033



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



Summary

The Wigan Forests Plan covers 328ha of woodland that lies 7km south of Wigan and 21km west of Manchester. The plan comprises five woodlands: Viridor (96ha), Byrom Wood (28ha), Windy Bank (43ha), Colliers Wood (132ha), Barlows Farm (29ha) made up of a mixture of open habitats, water features and woodland.

Each site plays an important role in the provision for wildlife, public access and economic regeneration in the area. The woodlands were created in 2002 with Viridor and Colliers Wood being created on former colliery sites with the rest being planted on agricultural land.

The primary management objectives for the woodlands covered in the plan are to; maintain and where possible improve habitats; improve the resilience of the natural environment to climate change; facilitate recreation; produce quality timber products; support the local economy and businesses.

Popular with walkers, cyclists, horse riders and wildlife watchers, there is a network of paths providing easy access all year round across each woodland and linking to neighbouring wildlife sites and green spaces. Each woodland supports a wide variety of flora and fauna some of which are of regional, national and international importance (willow tit and the great crested newt). Viridor has been designated a Site of Special Scientific Interest and a National Nature Reserve as it supports the most outstanding assemblage of breeding birds associated with lowland open waters and wet grassland in Greater Manchester and Merseyside.

The plan area comprises 210ha of open habitats, 115ha of woodland and 3ha of open water. Some new planting is planned for Viridor (4ha) to create wildlife corridors between existing woodland for the willow tit, which is red listed, priority species and at Byrom Wood (1.5ha) to help diversify the current broadleaved stands that have become badly damaged by squirrels.

Central Forest District - Wigan Forests 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 show what we intend the woodlands to look like in the future.
- To detail our management proposals (felling and restocking), for the first ten years so we can seek approval from the statutory regulators.

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 II). A Forest Plan is a ‘felling and restocking’ 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 in which year a particular operation will take place, but we can say in which five-year period it should happen. Operational Plans* are written by the Beat Forester before each felling and restocking operation takes place. These outline the site specific features that need taking into account when undertaking the felling and restocking operations. This forest plan does not deal with the management of recreation, ecological or archaeological features. Planning for these elements follows a different management cycle and process. Terms of Reference (page 7) are written to set out the management objectives for the plan area, how these relate to district and national policies, and how these will be monitored.

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. If all the criteria are met, full approval is given for the management operations in the first ten years from the date it is approved and outline approval for the medium term vision (10 to 50 years).

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



Application for Forest Plan Approval

i Plan Area Identification:

| | | |
|--------------------------|------------------------------------|--------------|
| Forest District: | Central Forest District | |
| Beat: | Delamere | |
| Name: | Wigan Forests Plan | |
| Nearest Town: | Wigan | |
| OS Grid Reference: | Viridor Wood | SD 6019 0101 |
| | Byrom Wood | SJ 6207 9893 |
| | Windy Bank | SJ 6807 9758 |
| | Colliers Wood | SD 6838 0045 |
| | Barlows Farm | SD 6291 0228 |
| Local Planning Authority | Wigan Metropolitan Borough Council | |

ii Designations:

National Nature Reserve (NNR), Site of Special Scientific Interest* (SSSI), Secondary Woodland*, The Mersey Valley (60) and the Lancashire Coal Measures (56) National Character Areas.

iii Date of Commencement of Plan

As soon as possible once approved. **Approval Date ***** 2023**

| | Conifers | Broadleaves |
|----------------------|----------|-------------|
| Clear Fell | | 14.9 |
| Planting | 3.9 | 2.9 |
| Natural Regeneration | | 14.9 |

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

Total clear fell area 14.9ha
Forest Plan maps are attached

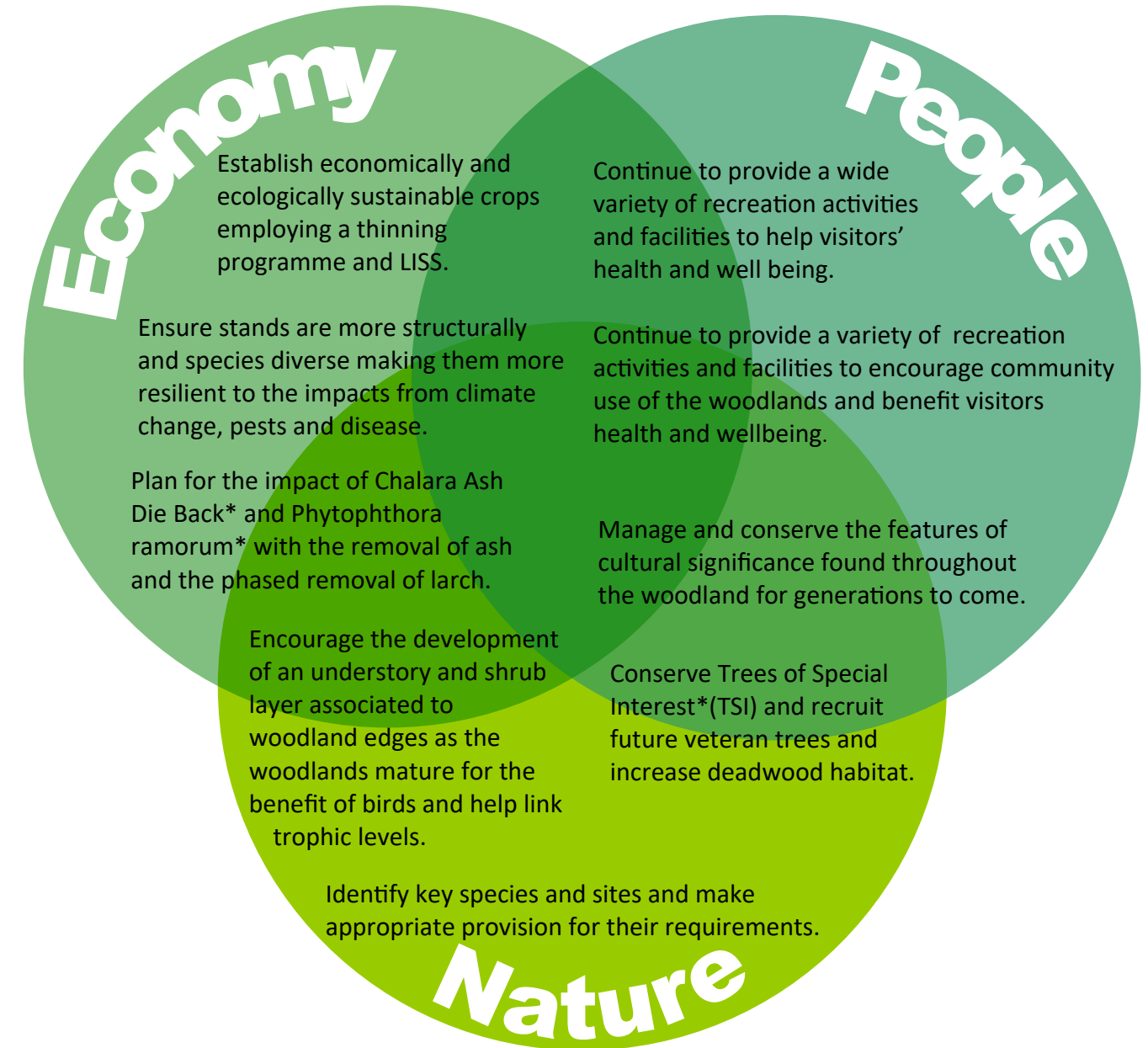
In addition to the above felling 132ha will be managed using Low Impact Silvicultural Systems* (LISS). This will be done through the removal of small groups of trees, removing no more than 40% of the stems within any single management unit/compartiment over the plan period. This operation will provide 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.

All of our forests and woodlands in this Forest District are certified to the Forest Stewardship Council® (FSC®) licence code FSC-C123214 and the Programme for the Endorsement of Forest Certification (PEFC) licence code SA-PEFC-FM-006972 standards.

2. Management Objectives

2

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



Forestry England—what we do

*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—Forestry England.*

2.1 Economic

There has previously been no income generated from these woodlands. The majority of woodland habitats are young, having been planted between 2001 and 2005. Over the next 10 years most woodland areas will be managed by respacing the trees (thinning*) and releasing some timber to the market. Any forestry operation that takes place will be small scale as there is no existing provision for access by forest machinery onto or across the sites. This could place limitations on the availability of contractors with the right machinery and increase operational costs. Of the 5 woodlands Barlows Farm is the only site where the tree cover is so sparse that there will be no opportunities in the future to generate income from timber sales. Forestry England will try to support local markets and contractors in the future management operations.

In Viridor an additional 4.5ha of new woodland will be created taking into consideration the some notable botanical species (orchids and wintergreen) found at Viridor. This will help link existing woodland cover, create wildlife corridors for the willow tit and help suppress invasive vegetation currently present on the site. The new woodland will help diversify the current age range and ensure the woodland area are managed at a more sustainable scale.

Squirrel damage is present in every woodland but particularly high in Byrom Wood which will limit the opportunity to grow trees on a longer rotation length. Ash die back* is now present on all sites and the infected trees will be

removed as stands are thinned in the next 10 years. This will have a financial impact as the ash trees which have only just become established will have to be removed, never reaching



Pic..1 Young stands of trees now needing thinning and respacing.

maturity. The removal of the ash will provide the opportunity to do some additional planting in the existing woodlands and introduce a more diverse mixture of species that will be better suited to the predicted climate at the end of this century. Evergreen conifers will be introduced into pockets of open space left by the ash removal and a small area of new planting at Byrom Wood (1.2ha). The conifers selected will be less palatable to squirrels and provide the opportunity to produce commercial timber on a short rotation. A belt of trees in Viridor adjacent to the railway line will be clear felled for health and safety reasons and in future trees will be managed on a 25 year rotation to ensure no future risk to

the train line.

Currently no income is generated from visitors through car parking, permits or the provision of recreational activities.

2.2 Nature

The Wigan Forest Plan is of high value for wildlife and supports some nationally and internationally important species. Approximately two thirds of the plan area is classified as open habitats and is dominated by reed beds, fen, swamp and marshy grassland, of which some areas are listed as priority habitats. With open water that has formed following subsidence from deep mining Viridor and Barlows Farm support greater crest newts, Cetti's wabler, bittern, snipe, water rail and willow tit as well as many over wintering waterfowl.



Pic. 2 Open water in Abram Flashes Site of Special Scientific Interest (SSSI) National Nature Reserve (NNR) at Viridor.

The woodland within Viridor, Windy Bank and Byrom Wood will be cut on a shorter



Pic. 3 Willow tit at nest site in deadwood.

rotation for the benefit of wildlife. In Viridor and Windy Bank the woodlands will be felled when the trees reach 60 to 80 years old (with the exception of the Natural Reserve* at Windy Bank). Phased felling will be introduced to ensure that, long term, 20% of the woodland is <20years old, 60% is 21 to 59 years old and 20% is between 60 and 80 years old. Some individual and small groups of trees will be retained in perpetuity as TSI* and left to become biologically mature. This will increase the percentage of standing deadwood which is currently scarce in the woodlands. In Viridor the 4ha of new woodland planting as well as the regeneration on the clearfell site adjacent to the railway line will in the short term

provide new dense woodland.

There is currently limited woodland edge habitat. When the young woodlands are thinned for the first time the outer rows of trees will be thinned heavily to create open space and allow an herbaceous layer to develop. This will help link the trophic levels through the establishment of ground flora, scrub and young trees into the maturing woodland canopy behind, illustrated in Appendix I.

Willow tit are found in coniferous across Europe with their preference being for damp deciduous woods with a good secondary undergrowth. Alder holts, and other damp woods and copses with plenty of rotten stumps, especially near water, are favoured for nesting. Forestry England will manage the woodland adjacent to the SSSI* to replicate the damp deciduous woodland favoured by Willow tit.



Pic. 3—Staff from DPD planting trees at Colliers Wood.

In Byrom Wood the level of damage caused by squirrels debarking the younger trees is so extensive it is now killing the trees which will prevent the woodland maturing. The young damaged trees in Byrom Wood will be cut on a 25 year cycle with 3ha being cut every five years in small coupes* of <0.5ha. These coupes being cut will be scattered throughout the woodland creating transitional open space and developing a mixed stand structure which will benefit many pioneer species. If the future the squirrel population can be controlled the trees in Byrom Wood will be managed on a longer rotation to become high forest. The belts of mature oak that follow the water courses and surround the ponds with be managed on a 100 + year rotation.

Working in partnership with Greater Manchester Ecology Unit, Natural England and Transport for Greater Manchester Forestry England has improved a number of ponds at Barlows Farm and Colliers Wood for the newts, and will continue to manage Barlows Farm exclusively for conservation rather than timber.



Pic. 4—Art sculptures and seating at Viridor.

2.3 People

The community woodlands are enjoyed by a wide number of people from local areas on a daily basis. A network of surfaced paths around all but Barlows Farm provide easy access on foot all year round. The relatively flat terrain make these woodlands accessible to a wide range of visitors and Forestry England has provided a number of seating areas and interpretation to help visitors navigate around the woodlands. The woodlands are popular with walkers, cyclists, horse riders and bird watchers.

Forestry England is working in partnership with a number of groups and companies to provide outdoor education and activities for their staff and the public to help foster a stronger sense of ownership with these woodlands. In Colliers Wood Forestry England works to support the [Green Crew](#) with access to deliver their horticultural activities for adults with learning difficulties. As former coal mines Viridor, Colliers and Barlows Farm provide strong links to the cultural heritage in the area.



Pic. 5—Dawn chorus walk—Windy Bank

3. Harvesting Operations

A phased programme of felling will take place in Viridor and Windy Bank with the objective of establishing dense areas of young woodland favoured by a number of the bird species present on the site. Individual felling coupes will be less than 0.5ha and distributed throughout the woodland in a pattern to provide wildlife corridors linking these woodland habitats as the woodlands mature.

In Byrom Wood a similar pattern of small scale felling coupes will be created but these will be more wide spread due to the current level of squirrel damage. In Byrom Wood the management objective will be to fell the majority of young woodland over the next 25 years and allow it to regenerate. The mature oaks stands will be managed using a LISS to encourage regeneration and give the current trees space to mature into.

Colliers Wood will be managed as high forest using LISS* with no clearfells planned in the short to medium term. Two new woodland areas are planned in Colliers Wood and a planting programme has begun involving the public and business partnerships.

The tree cover on Barlows Farm will be managed through LISS the trees being left to mature and to thinned out naturally. Any forestry operations on this site will be carried out for conservation or safety reasons only.

Outside of the woodlands managed as natural reserves, long term retention and at Barlow Farm, thinning assessments will be made every 5 years and thinning operations planned accordingly. Thinning operations are essential for each tree’s crown and rooting systems to develop fully helping ensure the trees remains stable in the wind as they mature.

4. Intended Landuse

No major changes are planned to the overall proportion of woodland habitats and open space. In Viridor an additional 4ha of woodland will be created to help link up the 31ha of woodland cover already present on the site. In Colliers Wood planting is already underway to create some new woodland habitats on topsoil left from the creation of the Manchester Tramway that runs adjacent to the site. The new woodland areas will be a mixture of evergreen conifers and broadleaved species.

Within broadleaf stands ash die back* is already having a significant impact and reduce the yields from the woodlands. Sudden Oak Death, Acute Oak Decline, and Phytophthora ramorum* are now present in the region an will pose and additional risk to the woodland habitat over the next century.

To reduce this risk when replacing dead or infected trees we aim to introduce a wider range of species and genetic types from a provenance 2 to 5 degrees south of the forest plan area. These trees will be better suited to the predicted local climatic conditions at the end of this century.

The open habitats will be managed sympathetically for the benefit of flora and fauna. The management of these open habitats is not detailed in the forest plan and will be managed by Forestry England local staff and ecologists.

Table.1 The Wigan Forests Plan Contribution towards Central District commitments to UKWAS and UKFS

| | Forest Plan Area | Forest Plan Percentage | Forest District Area | Forest District Percentage |
|--|------------------|------------------------|----------------------|----------------------------|
| Total Area | 328 | 100 | 27,144 | 100 |
| Total Wooded Area | 115 | 87.6 | 23,909 | 88 |
| Open Habitat (>10%) | 213 | 11 | 3,235 | 12 |
| Natural Reserves - Plantation (1%) | 6.36 | 1.9 | 251 | 1.57 |
| Natural Reserves - Semi Natural (5%) | 0 | 0 | 380.9 | 4.81 |
| Longterm Retentions & Low Impact Silvicultural Systems (>1%) | 132 | 40 | 14,637 | 55.2 |
| Area of Conservation Value (>15%) including LISS | 294 | 89 | 17,582 | 64.8 |

5. Terms of Reference

| National Strategy | District Strategy | Forest Plan Objective | Monitoring |
|--|---|--|---|
| <p>Economy:</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>Establish economically and ecologically sustainable crops employing a thinning programme and LISS wherever possible.</p> <p>Establish an appropriate balance between open space and woodland.</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.</p> <p>Plan for the impact of Ash Die Back and Phytophthora ramorum with the removal of ash and the phased removal of larch.</p> | <p>This will be reviewed every 10 years as part of the FP review process and any changes recorded in the sub compartment data base.</p> <p>ESC* will be used to help select suitable species and they will be recorded in the subcompartment database. Production forecasts* will be run annually to inform the Central Districts business plan of predicted yields.</p> <p>Stocking density, growth rates, stems/ha and species origin and provenance will be recorded and monitored as part of the forest plan review. Record changes in the sub compartment data base.</p> |
| <p>Nature:</p> <p>1) Improve the resilience of the natural environment of the Estate under our Stewardship,</p> <p>2) Realise the potential of the Nations Forests for nature and wildlife,</p> <p>3) Maintain and improve the cultural and heritage value of the Estate.</p> | <p>1) 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.</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>Identify key species and sites and make appropriate provision for their requirements.</p> <p>Demonstrate appropriate management to enhance and maintain the ecological value of the non-designated priority habitats.</p> <p>Continue to manage open habitats for flora and fauna.</p> <p>Encourage the development of an understory and shrub layer associated to woodland edges as the woodlands mature for the benefit of birds and help link trophic levels.</p> <p>Identify existing TSI and demonstrate appropriate management to recruit future veteran trees and increase the volume and distribution of deadwood.</p> <p>Invasive vegetation will be monitored and suppressed by the creation of new woodland.</p> | <p>When operational plans are written conservation measures will be reviewed and monitored by Forestry England ecologists to ensure conserve and enhance habitats.</p> <p>No monitoring required.</p> <p>No monitoring required.</p> <p>TSI and deadwood habitats will be identified and recorded on the conservation layer to ensure they are retained in perpetuity.</p> <p>Monitored by the beat team annually.</p> |

6. Terms of Reference

| National Strategy | District Strategy | Forest Plan Objective | Monitoring |
|---|---|--|--|
| <p>People:</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>Continue to work with local businesses, volunteer groups and members of the public to provide a wider range of services and facilities on site.</p> <p>Diversify species composition and structure, and plan sympathetically designed and appropriately scaled interventions to improve and maintain the visual integration of the forest into the wider landscape.</p> <p>Maintain existing public access and enhance where possible.</p> <p>Conserve features of cultural significance and record on the conservation database.</p> | <p>The beat team, volunteer co-ordinator and estates team will monitor and review activities annually.</p> <p>Species composition will be recorded in the subcompartment data base and reviewed every 10 years.</p> <p>Public access and facilities will be monitored and maintained by the beat team on a regular basis throughout the year.</p> <p>Monitored at the operational planning stage by the beat teams and ecologists.</p> |

Appendix I

Woodland Edge Management

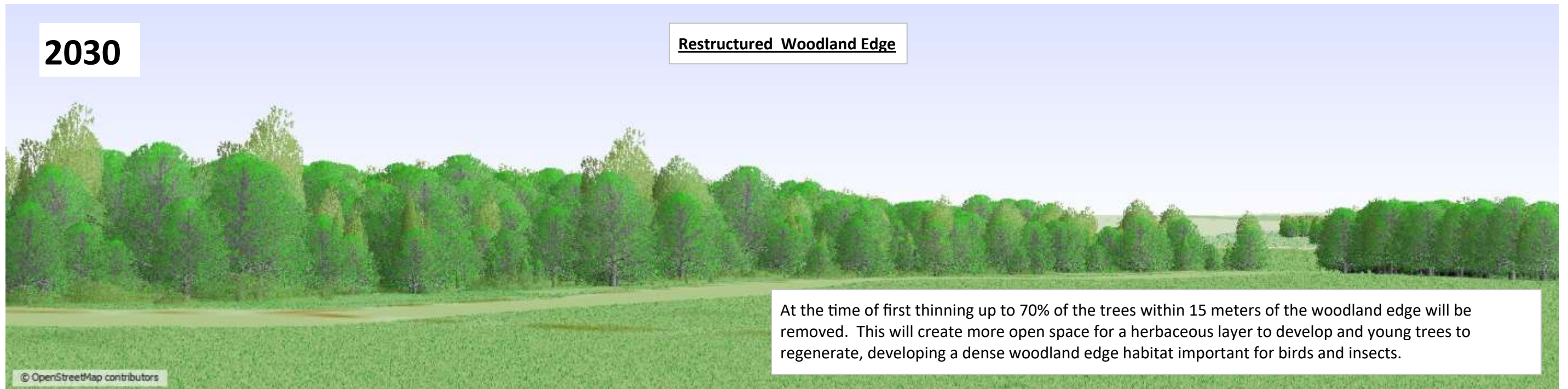


2023

Unmanaged Woodland Edge

The young woodland edge is currently very uniform and planted tight to the public path creating a straight hard edge with very little structural diversity.

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2030

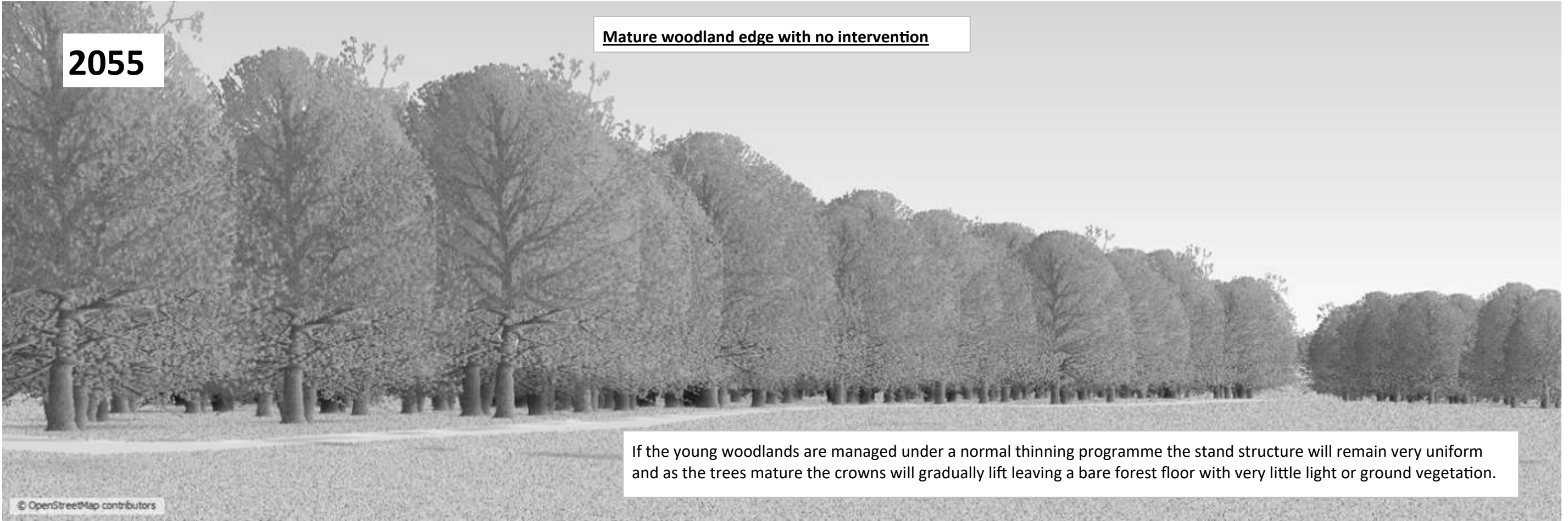
Restructured Woodland Edge

At the time of first thinning up to 70% of the trees within 15 meters of the woodland edge will be removed. This will create more open space for a herbaceous layer to develop and young trees to regenerate, developing a dense woodland edge habitat important for birds and insects.

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2055

Mature woodland edge with no intervention

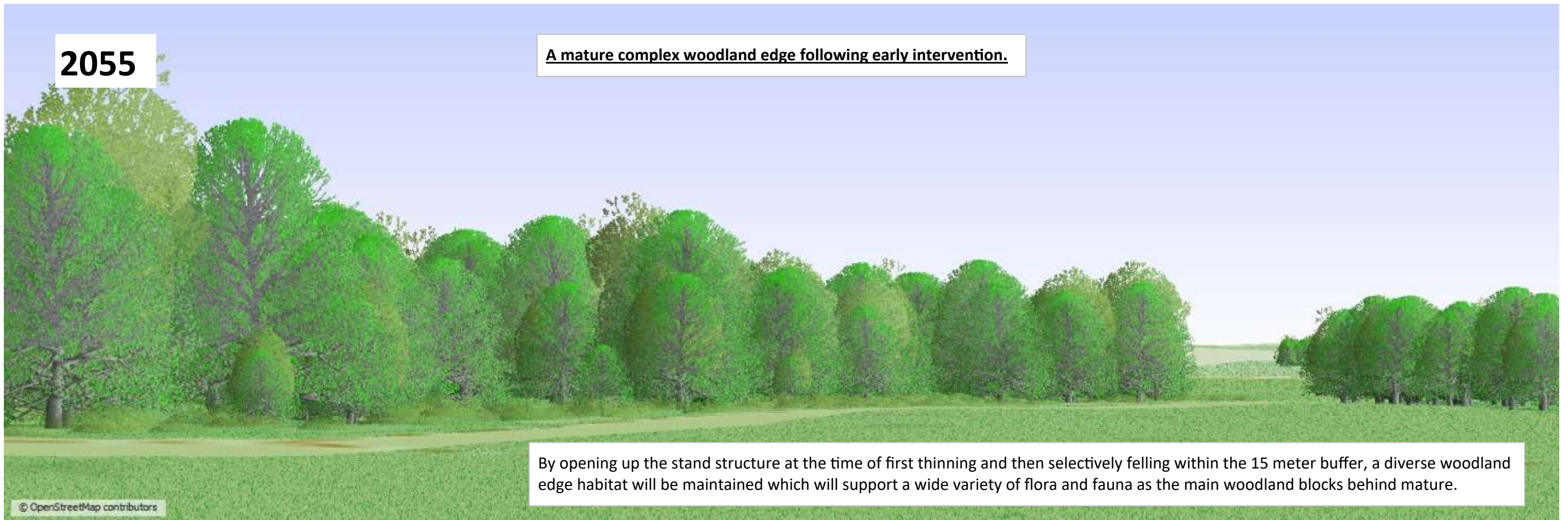


If the young woodlands are managed under a normal thinning programme the stand structure will remain very uniform and as the trees mature the crowns will gradually lift leaving a bare forest floor with very little light or ground vegetation.

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2055

A mature complex woodland edge following early intervention.



By opening up the stand structure at the time of first thinning and then selectively felling within the 15 meter buffer, a diverse woodland edge habitat will be maintained which will support a wide variety of flora and fauna as the main woodland blocks behind mature.

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Appendix II

Glossary

Acute Oak Decline

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.

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.

Chalara Ash Dieback

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.

Clearfell System

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). Sometimes scattered 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.

Coupes

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

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

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).

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).

Forestry England

Forestry England is the executive agency of the Forestry Commission that is responsible for managing Public Forest Estate woodlands in England.

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.

Forest Plan (FP)

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

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.

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.

Lower Impact Silvicultural 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 which are suitable for windfirm conifer woodlands and most broadleaved woodlands.

Minimum Intervention

Management with no systematic felling or planting of trees. Operations normally permitted are fencing, control of exotic plant species and vertebrate pests, maintenance of paths and rides and safety work. Management only involves the basic inputs required to protect the woodland from external forces or ensure succession of key habitats and species.

Glossary

Nation's Forests

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

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.

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.

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 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.

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.

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.

Glossary

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 which provide access for management and other activities.

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.

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.

Thinning

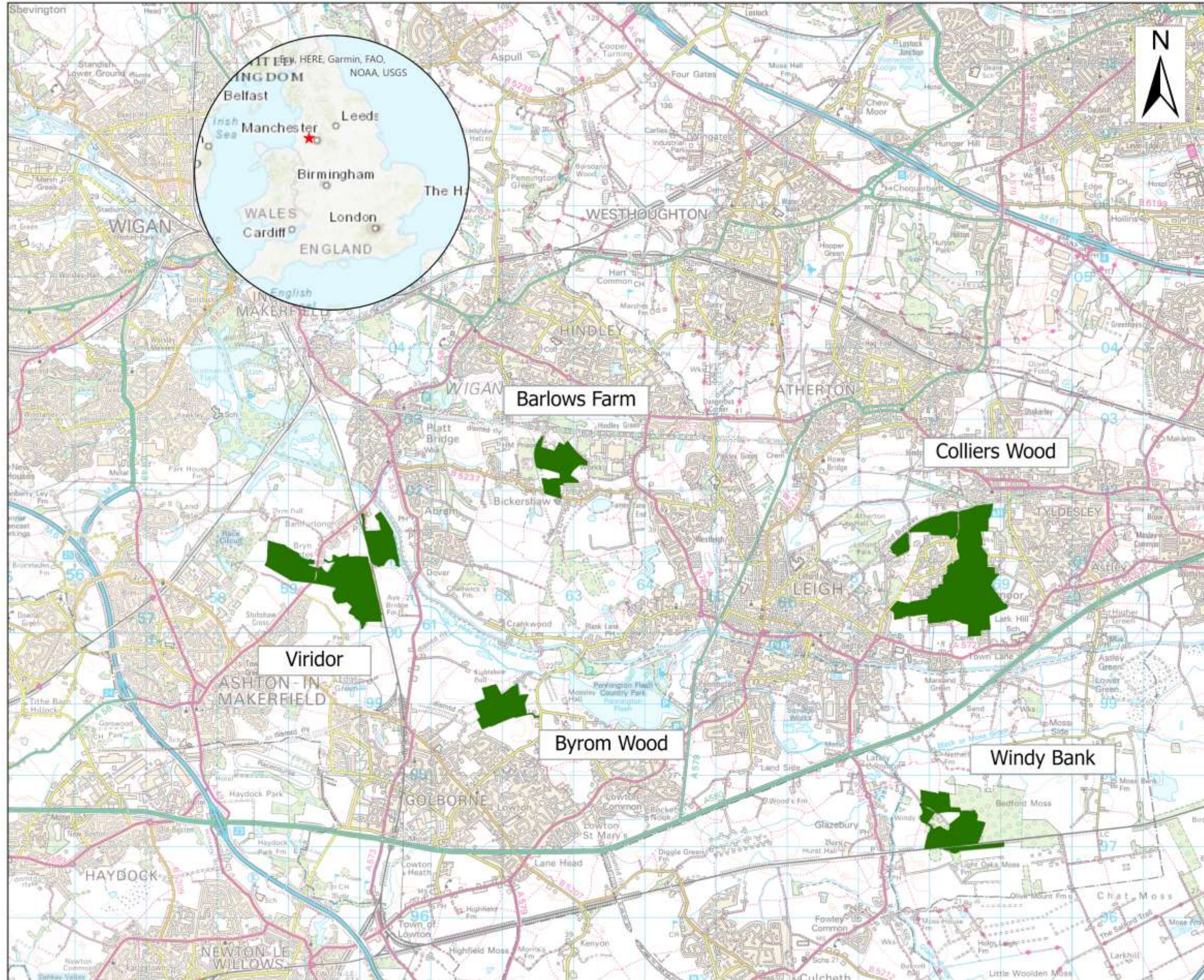
The removal of a proportion of trees in a forest after canopy closure, usually to promote growth and greater value in the remaining trees.

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.



Central Forest District

Location Map

The woodlands were designed as part of the Red Rose Forest. This project aimed to improve the economic, social and environmental regeneration of the countryside around towns and cities through the creation of new woodlands and open spaces.

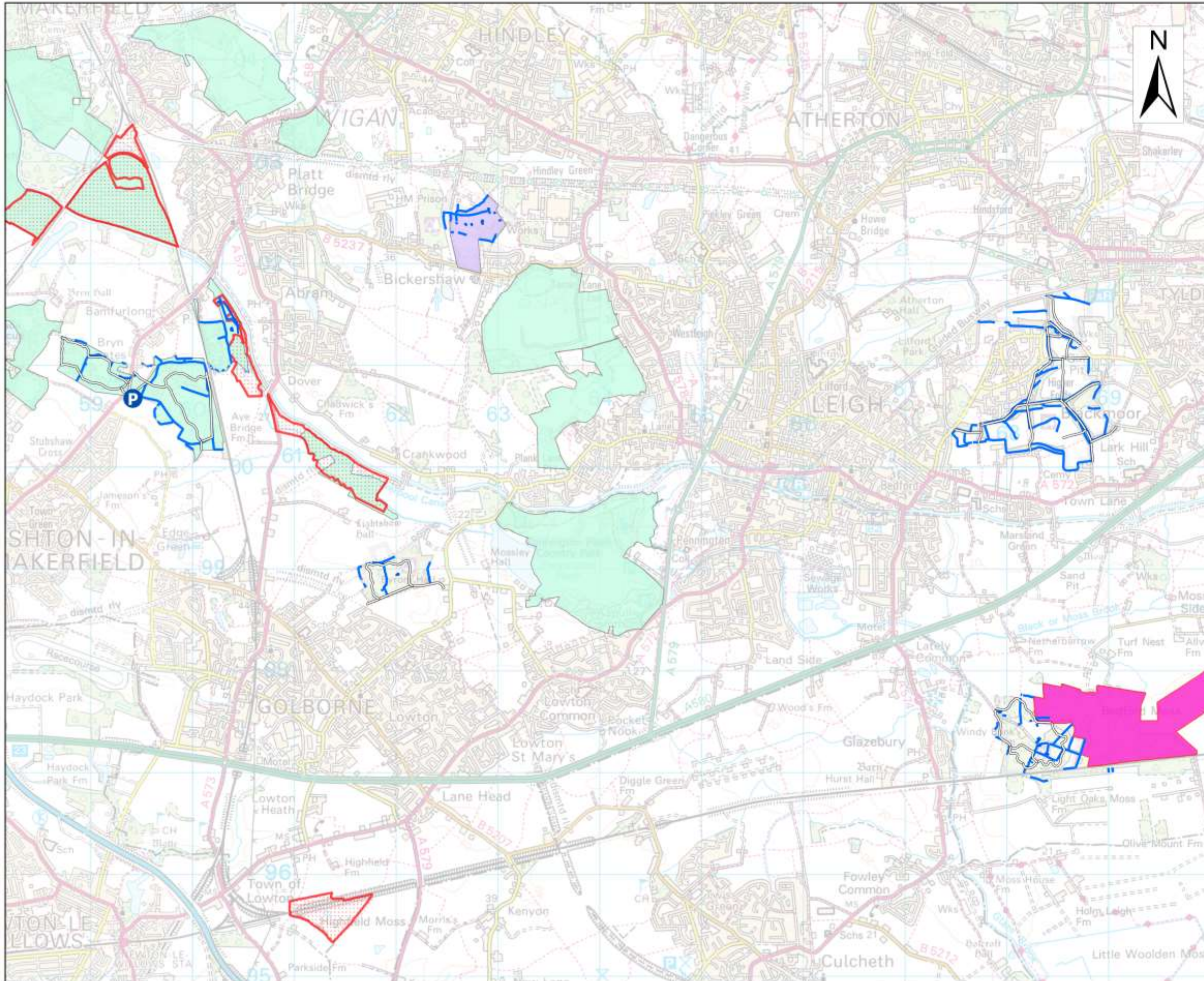
Viridor was the first land acquisition by the Red Rose Forest Trust and the start of a partnership with Forestry England to help manage these woodland sites as they grow. The five woodlands were planted between 2002 and 2005 and have now become fully established.

Scale: 1:50,000



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





Central Forest District

Survey Map

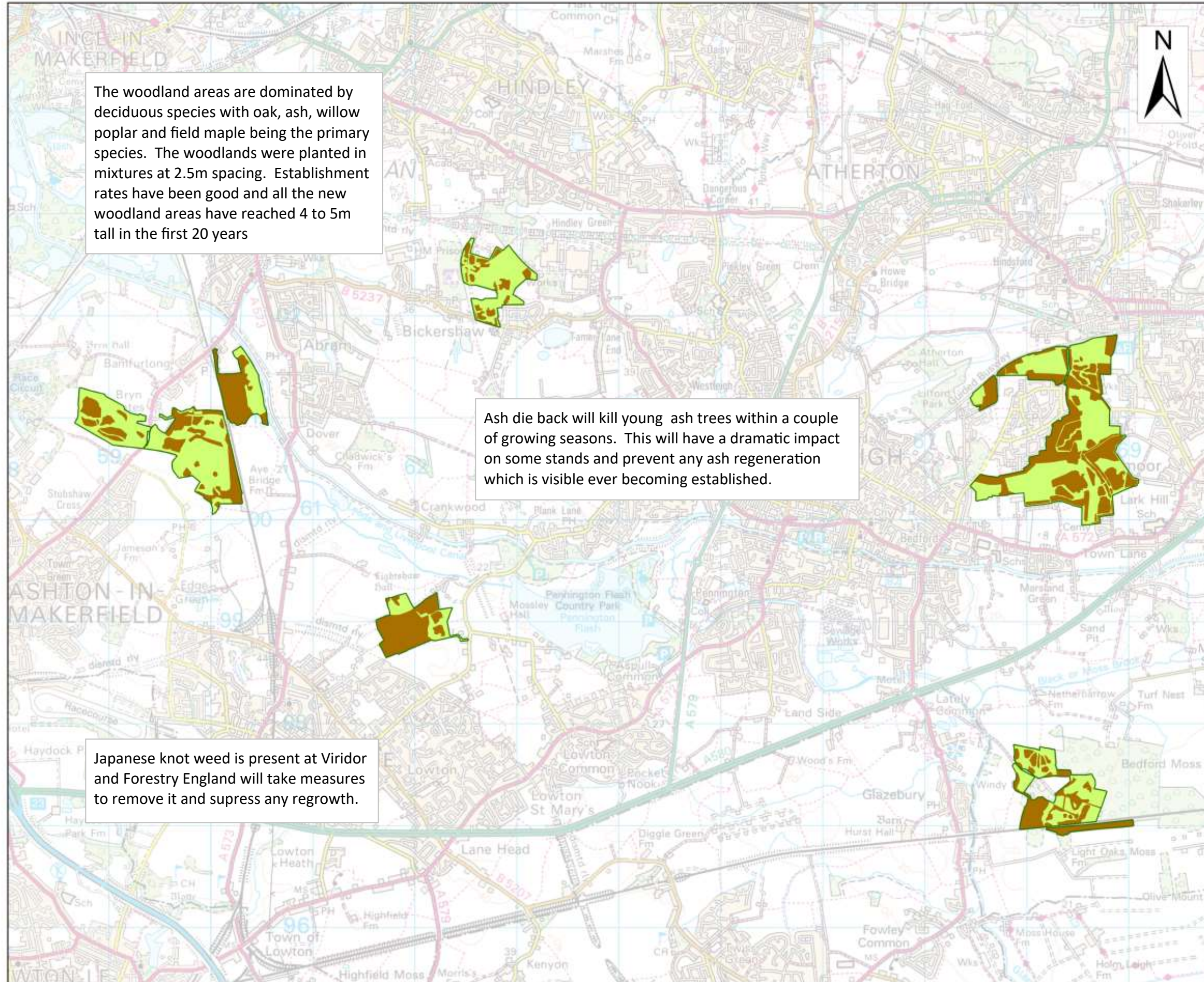
- Car Park
- Surfaced Path
- Open Water
- Ditches and Streams
- Public Rights of Way
- Special Areas of Conservation
- Sites of Special Scientific Interest
- National Nature Reserves
- Site of Special Biological Interests
- Management Boundary



Scale: 1:35,000



Designed by Alastair Semple
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 Ordnance Survey [100021242]
 © Getmapping Plc and Bluesky International 2023



Central Forest District

Current Landuse

- Woodland
- Open Habitats
- Management Boundary

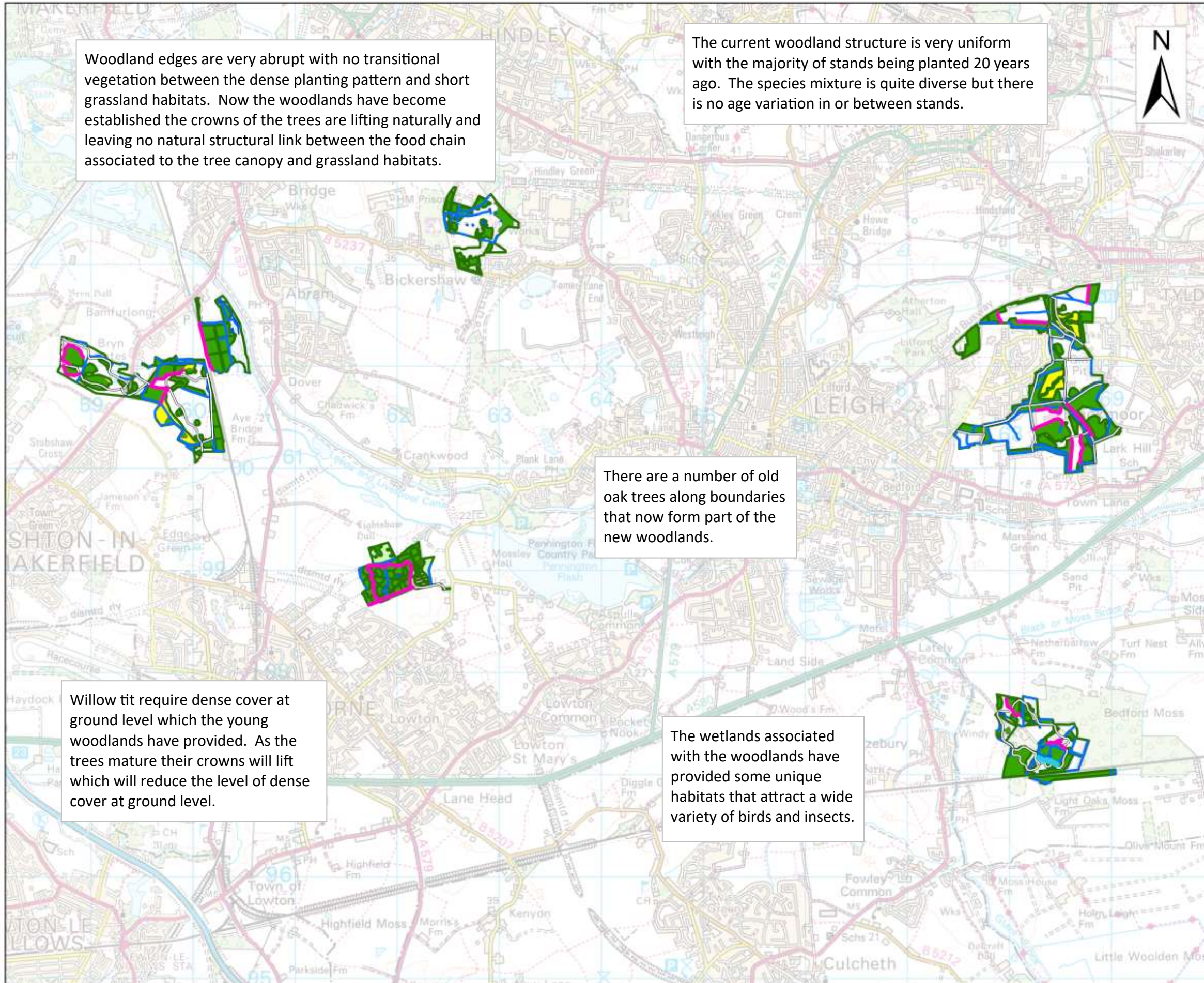


Scale: 1:35,000



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





Central Forest District

Analysis Map

- Surfaced Path
- Open Water
- Ditches and Streams
- Young Woodland
- Woodland Creation
- Hard Woodland Edge
- Management Boundary



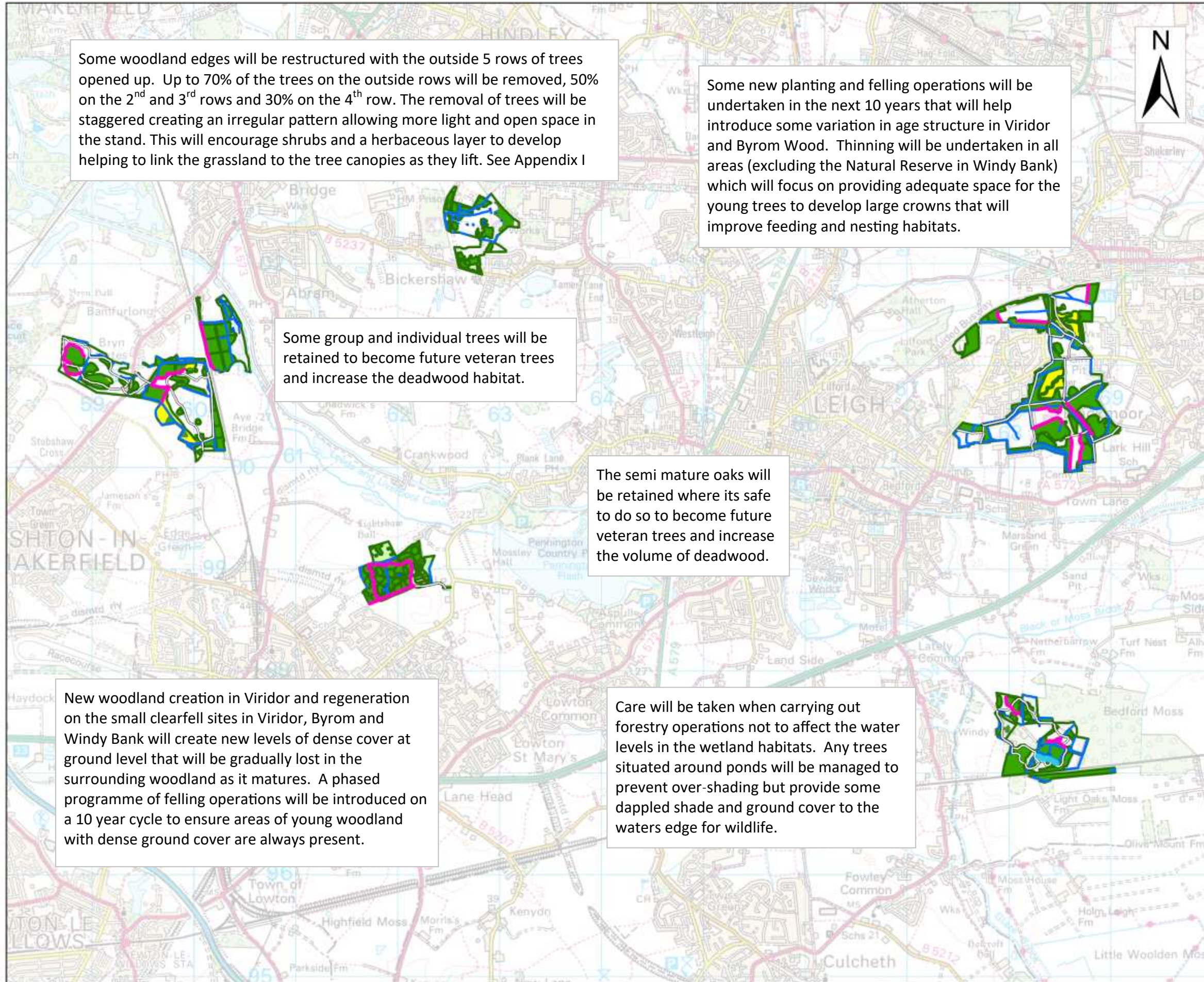
Scale: 1:35,000



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Central Forest District

Concept Map

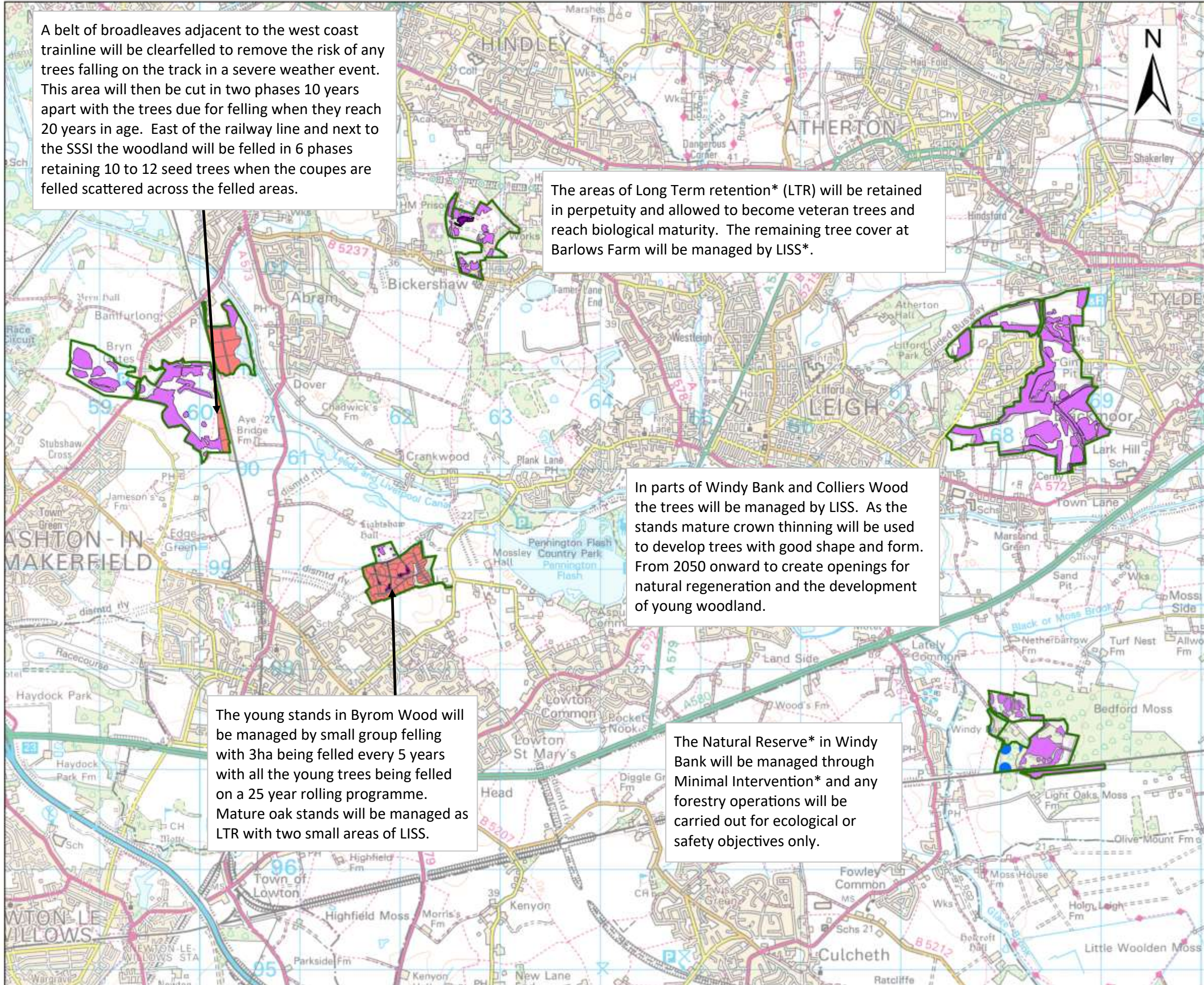
-  Surfaced Path
-  Open Water
-  Ditches and Streams
-  Young Woodland
-  Woodland Creation
-  Hard Woodland Edge
-  Management Boundary



Scale: 1:35,000



Designed by Alastair Sample



A belt of broadleaves adjacent to the west coast trainline will be clearfelled to remove the risk of any trees falling on the track in a severe weather event. This area will then be cut in two phases 10 years apart with the trees due for felling when they reach 20 years in age. East of the railway line and next to the SSSI the woodland will be felled in 6 phases retaining 10 to 12 seed trees when the coupes are felled scattered across the felled areas.

The areas of Long Term retention* (LTR) will be retained in perpetuity and allowed to become veteran trees and reach biological maturity. The remaining tree cover at Barlows Farm will be managed by LISS*.

In parts of Windy Bank and Colliers Wood the trees will be managed by LISS. As the stands mature crown thinning will be used to develop trees with good shape and form. From 2050 onward to create openings for natural regeneration and the development of young woodland.

The young stands in Byrom Wood will be managed by small group felling with 3ha being felled every 5 years with all the young trees being felled on a 25 year rolling programme. Mature oak stands will be managed as LTR with two small areas of LISS.

The Natural Reserve* in Windy Bank will be managed through Minimal Intervention* and any forestry operations will be carried out for ecological or safety objectives only.

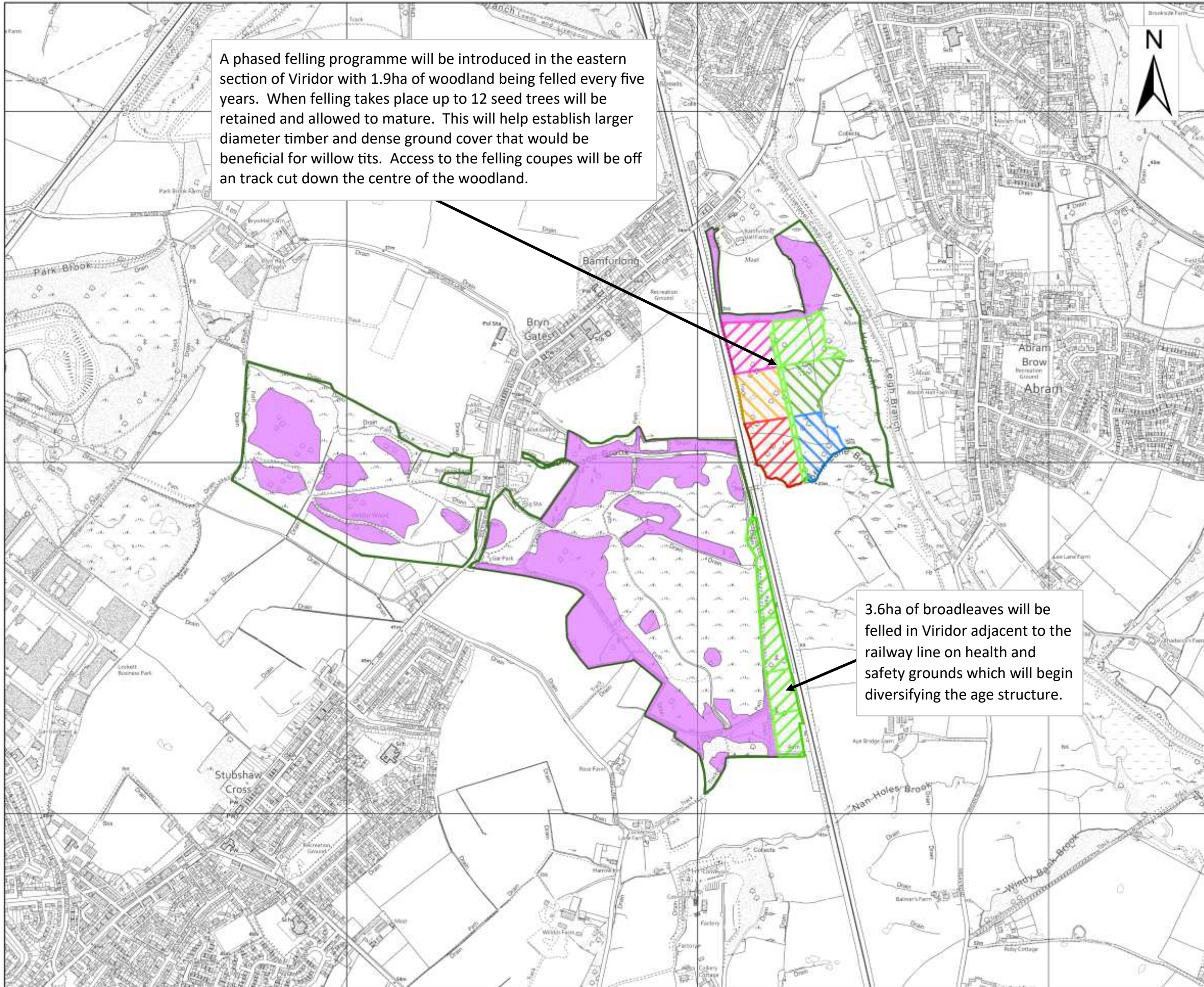
Central Forest District

Silvicultural Systems

- Open habitats
- Clearfell
- Low Impact Silvicultural Systems (LISS)
- Natural Reserve
- Long Term Retention (LTR)
- Management Boundary

Scale: 1:35,000





Central Forest District

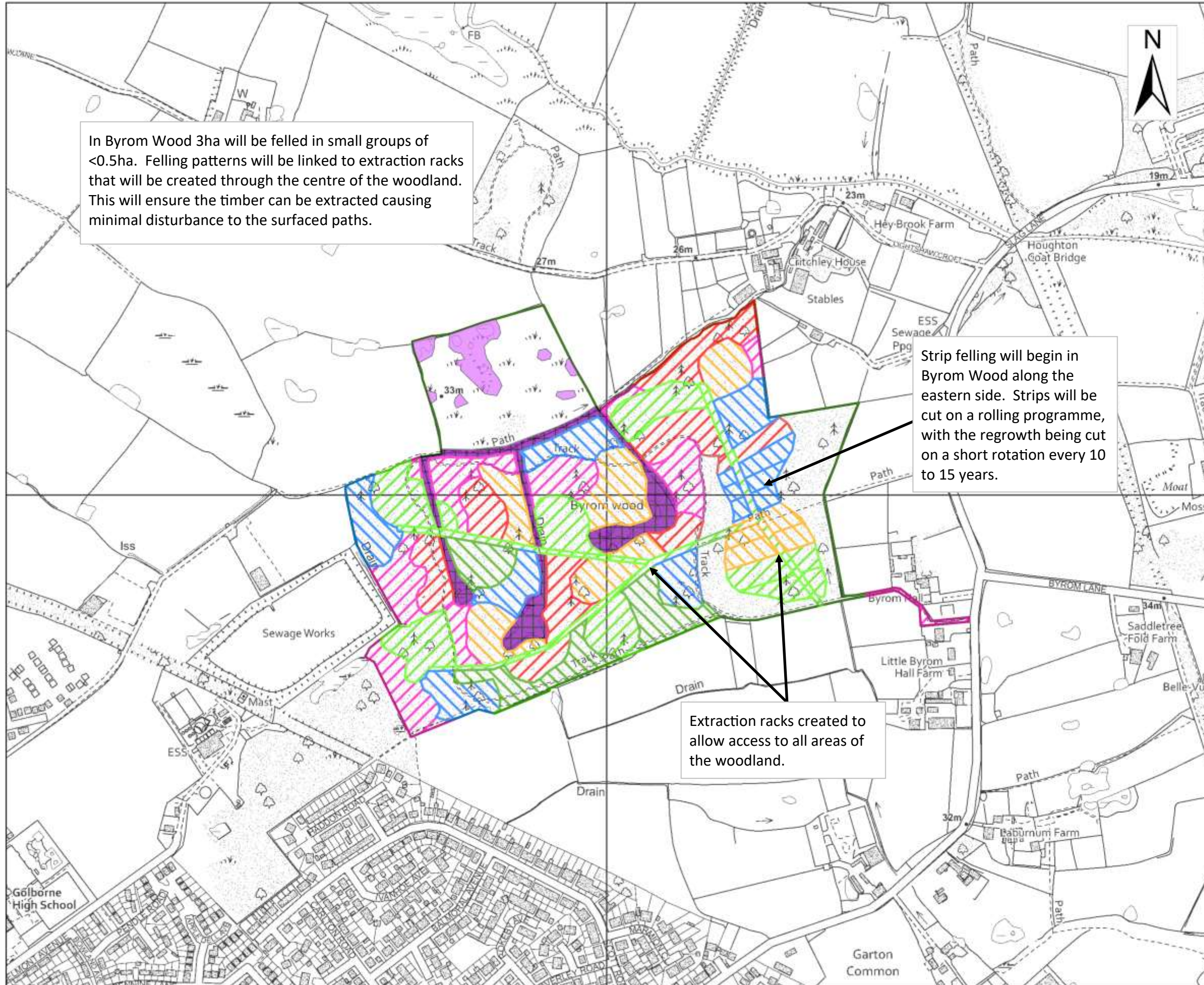
Forestry Operations

- Open habitats
- 2022-2026
- 2027-2031
- 2032-2036
- 2037-2041
- 2042-2046
- 2047-2051
- 2052-2056
- 2057-2061
- Beyond 2062
- Strip Shelterwood
- Natural Reserve
- Long Term Retention (LTR)
- Low Impact Silvicultural Systems (LISS)
- Management Boundary

Scale: 1:10,000



Designed by Alastair Semple



In Byrom Wood 3ha will be felled in small groups of <0.5ha. Felling patterns will be linked to extraction racks that will be created through the centre of the woodland. This will ensure the timber can be extracted causing minimal disturbance to the surfaced paths.

Strip felling will begin in Byrom Wood along the eastern side. Strips will be cut on a rolling programme, with the regrowth being cut on a short rotation every 10 to 15 years.

Extraction racks created to allow access to all areas of the woodland.

Central Forest District

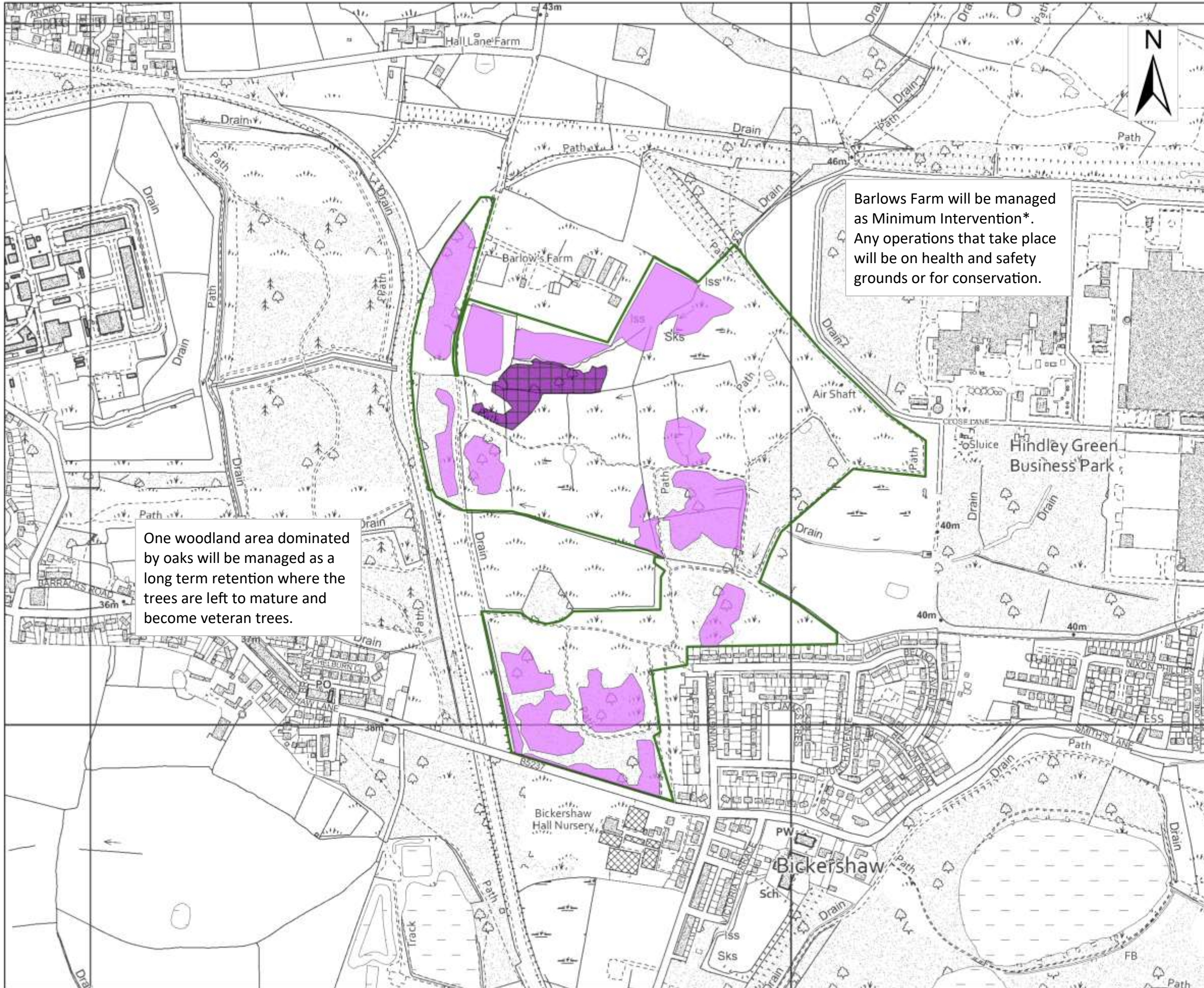
Forestry Operations

- Open habitats
- 2022-2026
- 2027-2031
- 2032-2036
- 2037-2041
- 2042-2046
- 2047-2051
- 2052-2056
- 2057-2061
- Beyond 2062
- Strip Shelterwood
- Natural Reserve
- Long Term Retention (LTR)
- Low Impact Silvicultural Systems (LISS)
- Management Boundary

Scale: 1:5,000



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Central Forest District

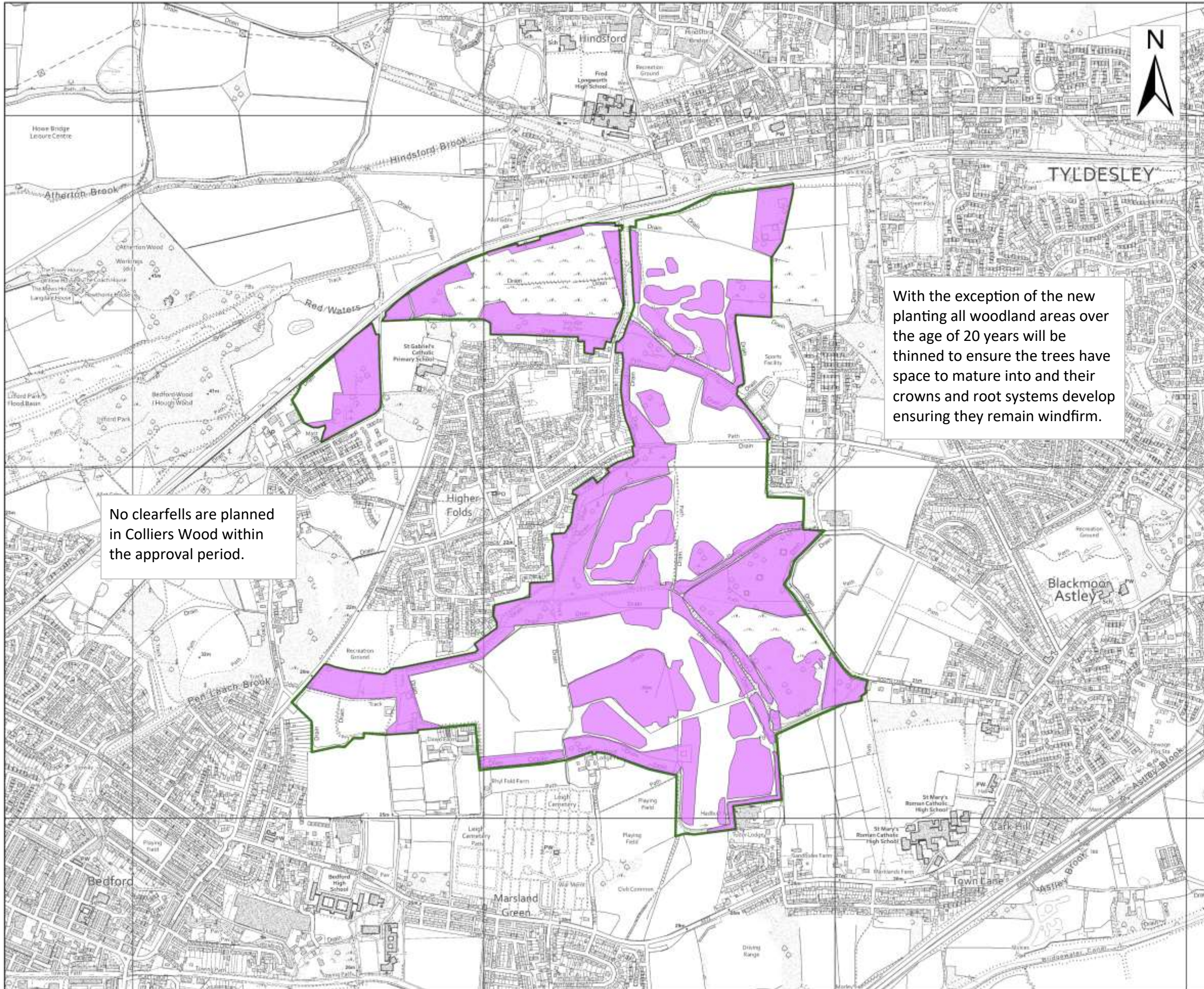
Forestry Operations

- Open habitats
- 2022-2026
- 2027-2031
- 2032-2036
- 2037-2041
- 2042-2046
- 2047-2051
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- 2057-2061
- Beyond 2062
- Strip Shelterwood
- Natural Reserve
- Long Term Retention (LTR)
- Low Impact Silvicultural Systems (LISS)
- Management Boundary

Scale: 1:5,000



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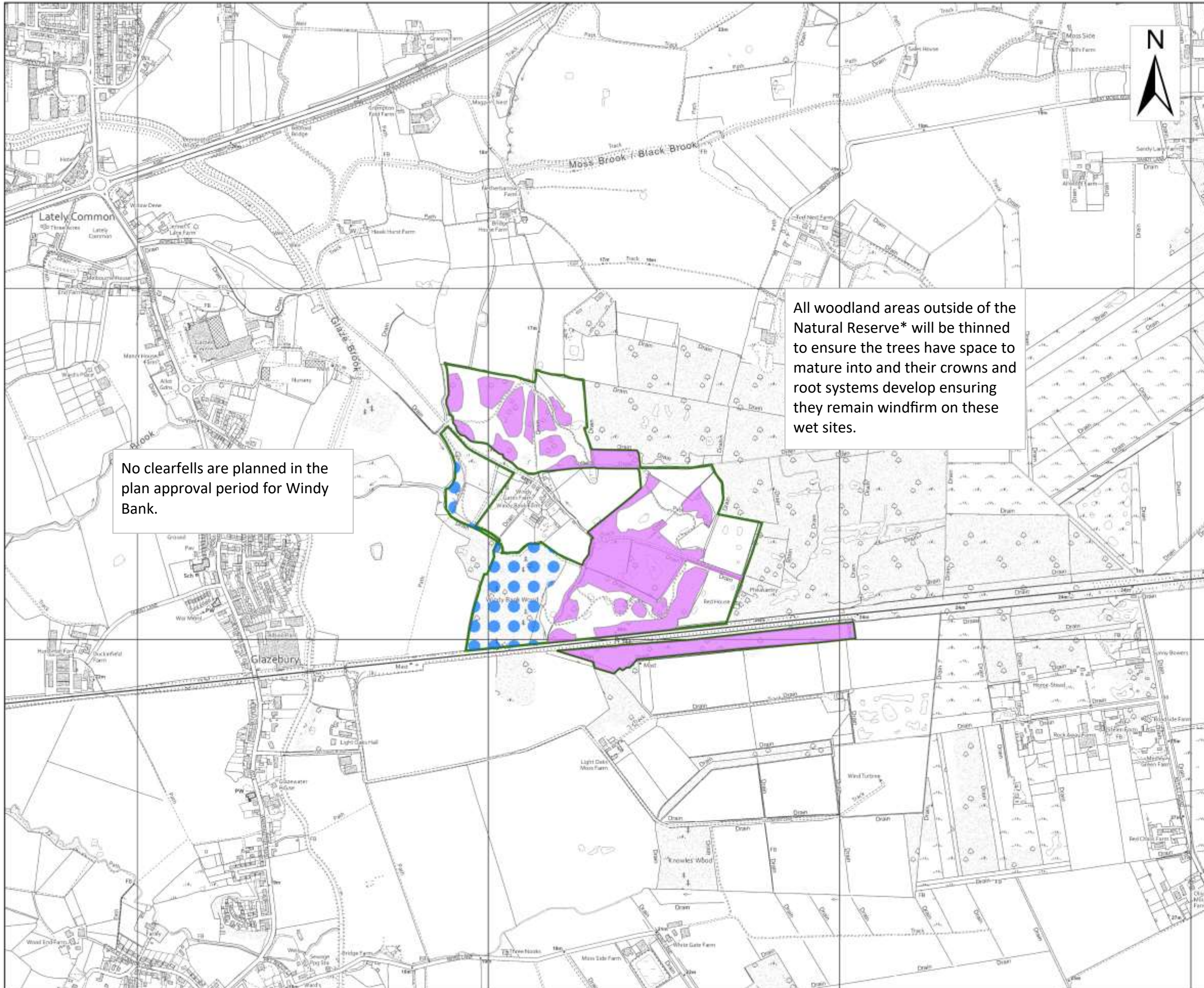
**Central Forest District
Forestry Operations**

- Open habitats
- 2022-2026
- 2027-2031
- 2032-2036
- 2037-2041
- 2042-2046
- 2047-2051
- 2052-2056
- 2057-2061
- Beyond 2062
- Strip Shelterwood
- Natural Reserve
- Long Term Retention (LTR)
- Low Impact Silvicultural Systems (LISS)
- Management Boundary

Scale: 1:10,000



Designed by Alastair Semple



Central Forest District

Forestry Operations

- Open habitats
- 2022-2026
- 2027-2031
- 2032-2036
- 2037-2041
- 2042-2046
- 2047-2051
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- Management Boundary

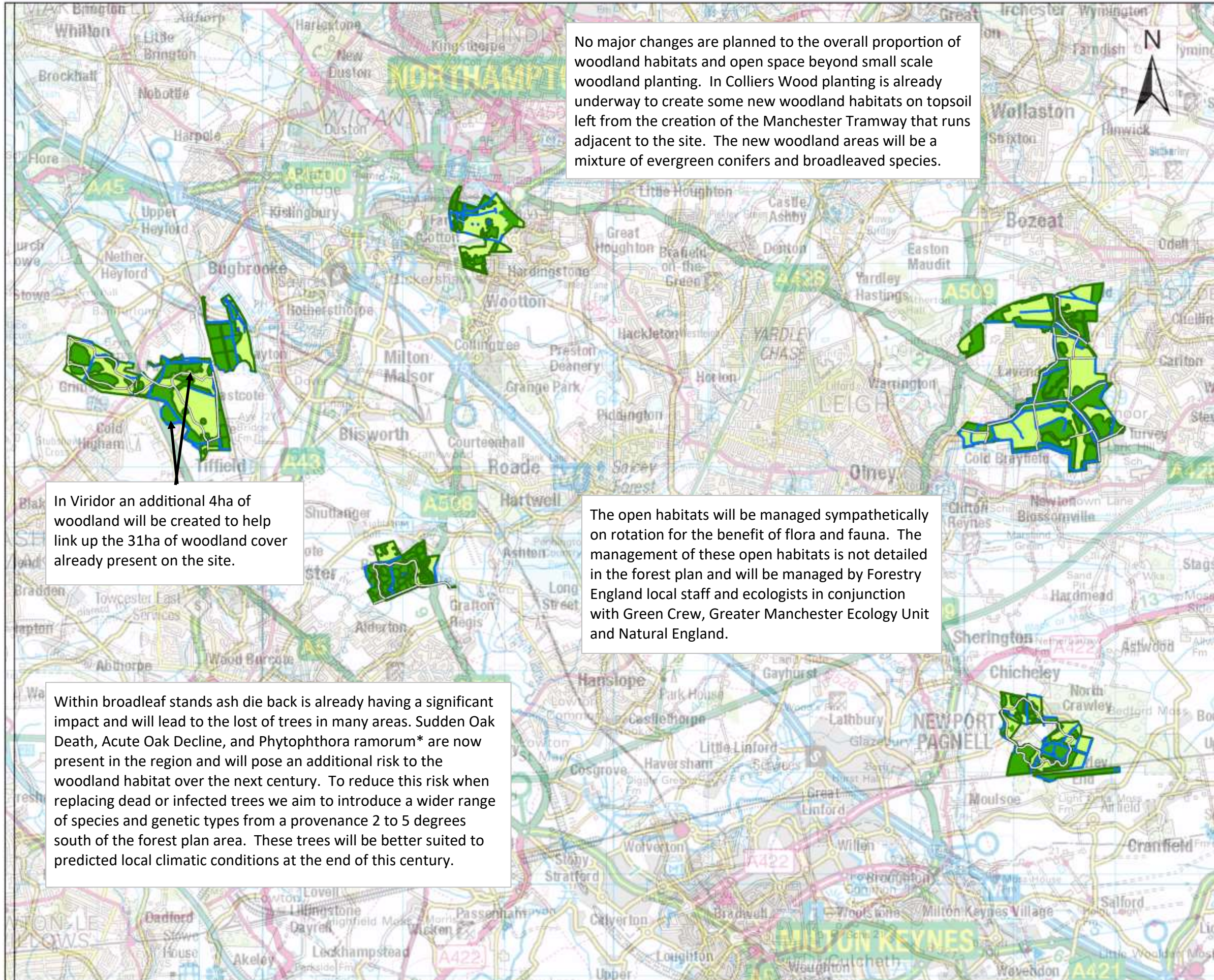
No clearfells are planned in the plan approval period for Windy Bank.

All woodland areas outside of the Natural Reserve* will be thinned to ensure the trees have space to mature into and their crowns and root systems develop ensuring they remain windfirm on these wet sites.

Scale: 1:10,000



Designed by Alastair Semple



Central Forest District

Intended Landuse

- Surfaced paths
- Open Water
- Ditches and Streams
- Woodland
- Open
- ▭ Management Boundary

