

Rosliston Forest Plan 2015-2024



Summary

The Rosliston Forest Plan (FP) consists of 2 new woodlands (Rosliston Forest 59.1ha and Betts Wood 11.9ha) in the National Forest, Derbyshire. Rosliston Forest was the first visitor centre and flag ship site in the National Forest being established in 1994 and Betts Wood acquired and planted in 2005. Both sites are planted on former agricultural land. The FP consists of 41% open land (grassland, water and buildings) and 59% woodland which comprises 65% conifers and 35% broadleaves. The plan details management operations including felling and restocking for the next 10 years with outline proposals for the next 50 years.

The main objectives of this FP are to diversify the forest structure and species that are now being affected by pests and disease, produce sustainable conifer and hardwood timber, manage public access in partnership with stakeholders and to maintain, and wherever possible increase, the biodiversity. This will be achieved through small scale felling operations to remove infected trees which will create space for alternative species to be planted that are better suited to the changing climatic conditions and more resilient to current and future threat from pests and disease. The network of paths have become enclosed and the new FP will gradually open these up as adjacent stands are managed. This will allow a more diverse woodland edge to establish between the short vegetation on the trails and the canopy of adjacent trees. This will create new woodland edge habitat that will diversify the microclimate for wildlife and increase the aesthetic value for visitors.

Rosliston Forest is a busy site with over 200,000 day visitors each year, good public onsite facilities and recreation activities. A network of streams runs through the forest linking two large flight ponds. Betts wood has no formal facilities but a network of paths and on site interpretation.

All of the Forestry Commission's woodlands are assessed against the UK Woodland Assurance Scheme (UKWAS) and as a result, Forestry Commission woodlands now carry the Forest Stewardship Council (FSC) stamp of approval

Forestry Operations 2015 to 2025

Woodland Name	Grid Reference	Total Area (ha)	Felling (ha)	Restocking (ha)	Open Space (ha)
Rosliston Forest	SK 244174	59.1	5.3	8.8	0.8
Betts Wood	SK 308646	11.9			



Forestry Commission England - **Central Forest District**
 - **Rosliston Forest Plan (FP)**

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A Application for Forest Plan Approval

i Plan Area Identification:

Forest District: Central Forest District
 Beat: National Forest
 Name: Rosliston Forest Plan
 Nearest Town: Burton on Trent
 OS Grid Reference: SK 2446 1742
 Local Planning Authority: Derbyshire

ii Designations:

Secondary Woodlands, National Forest Woodland (NF) and lies within the National Character Area Profile 72 Mease/Sence Lowlands.

iii Date of Commencement of Plan

As soon as possible once approved.

Area (ha)	Conifers	Broadleaves
Felling	5.3	0
Restocking	4.1	0.4
Underplanting in Shelterwood stands *	4.3	0
Open Space	0.8	0

** NB The 4.3ha refers to the net area of restocking that will take place within the next 10 years*

Total clear fell area 5.3ha

- Forest Plan maps are attached

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 Atled G

FDM

Approved D. M. M.
Field Manager

District Central

Conservancy East & East Midlands

Date 7/9/15

Date 4/11/15

1. Introduction

This Forest Plan (FP) is updating an older WGS planting plan prepared in 1994 and provides approval for felling and restocking over the next 10 years and sets out our management proposals for the next fifty years. FP's are operational plans and although they do take into account the presence of social and environmental features, their management will be dealt with in separate documentation.

This FP is guided and directed by a number of policies and strategies - the main documents are summarised in Fig.1. Delivering this plan will require the Forestry Commission (FC) to be responsive to shifts in our operating environment and increasingly flexible in our approach, and to sustain this responsiveness over decades to come.

.Fig 1. Forestry Commission England's Planning Strategy

National Forest Policy

The FC sets out its vision and aims for Forestry in England at a **national** level. This is outlined in the Strategic Plan for the Public Forest Estate in England.



Forest District Strategic Plan

The District Strategic plan sits between the national and local planning levels and supports the aims and objectives within the districts, according to the FE England National Policy and gives direction for the management of woodlands at a **District** level.



Forest Plans

Forest Plans are used by the FC to demonstrate sustainable forest management on the public estate in the long term and to define a 10 year programme of approved work. They explain how a **local** area of forest will be managed and why and is produced in consultation with internal and external stakeholders, and following UKWAS, PEFC and UK Forest Standards.



Operational Site Plans (Ops 1's)

Management plan for **specific operations** on site, undertaken in accordance with the above and by following national guidance as set out in the UK Forest Standard.

1.1. Rosliston Forest – Survey Data

Rosliston Forest Plan (71ha) comprises of two areas of new woodland created within the National Forest. The main block (Rosliston Forest 59.1ha) lies on the north side of Rosliston village and adjacent to Rosliston Forest visitor centre. The smaller woodland know as Betts Wood (11.9ha) was planted in and 2005 and is situated on the south side of Rosliston village, 360m south of Rosliston Forest. A small area of trees were planted in Betts Wood and two in Rosliston Forest and form part of a memorial planting undertaken by the local community.

Rosliston Forest plays an important role in the local economy supporting a wide range of jobs directly through leisure and tourism. The demand for public access into the forest for education, recreation and leisure has increased dramatically over the last 20 years and there are now over 200,000 day visitors to Rosliston Forest each year.

The forest lies in a flat low lying landscape dominated by agriculture. Rosliston Forest has become a key feature in the local landscape for the communities in Rosliston, Caldwell, Linton, Walton and Coton in the Elms. Rosliston Forest has a slight northern aspect (70 to 80m above sea level) and Betts Wood lies on level ground. The forest is planted in rich fertile soils created by glacial / river deposits and it sits upon Triassic Mercia Mudstones.

Management Objectives

Economic - produce sustainable timber yields, encourage and support new and existing business activity associated to the public forest estate and to make the economic potential of our forests and woodlands more resilient in the face of a changing climate. Growing and diversifying our income from a wide range of sustainable activity on the estate, including non-forestry activities.



Environmental - To increase where possible the environmental contribution made by the Estate to the range of ecosystem services delivered and to protect and enhance its overall biodiversity and heritage value at both the landscape and local level.

Social - Enable everyone, everywhere to connect with the nation's trees and forests so that they understand their importance and act positively to safeguard forests for the future.



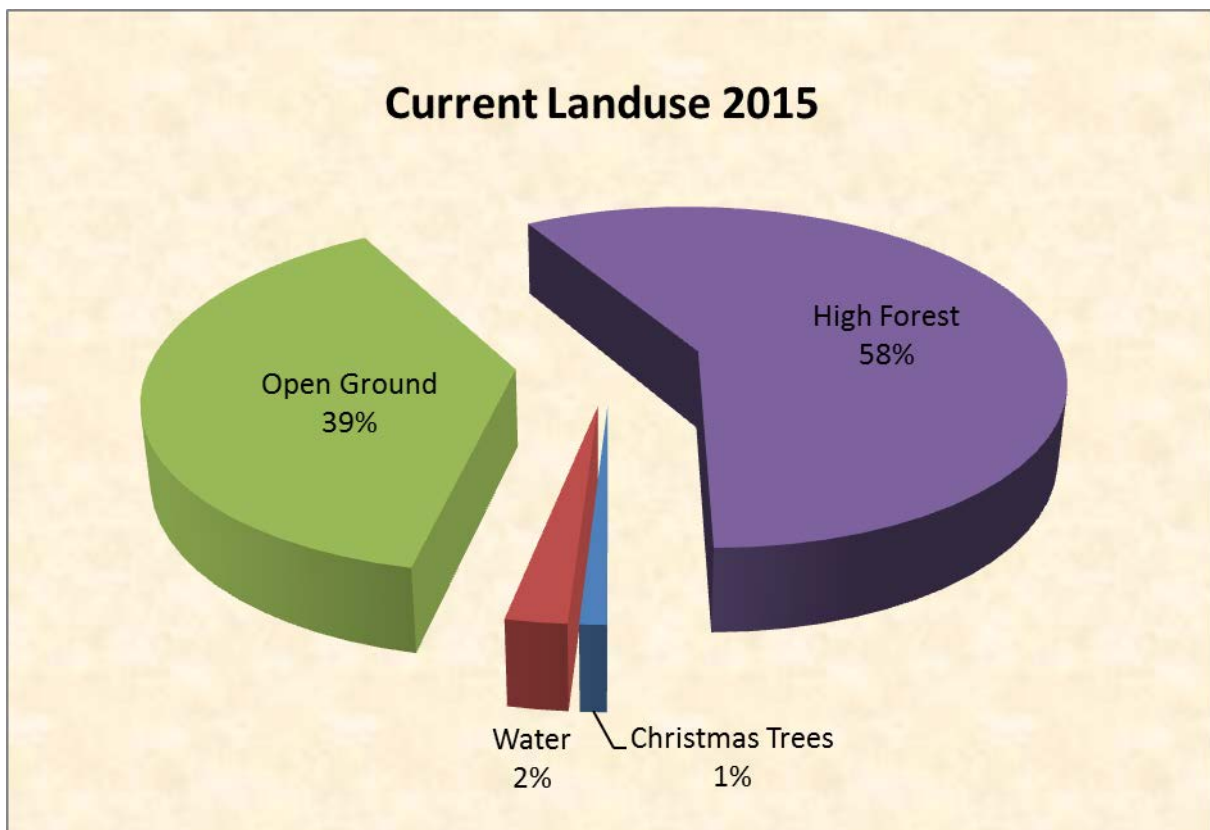
3.0 Forest Plan Objectives

3.1 Woodland

Rosliston forest was first planted in 1994 on former agricultural land. Within its original design it incorporated 55% woodland cover, 3% open water, 5% recreation facilities and buildings and 37% open space, Fig 2.

Corsican pine is the most dominant species covering 14.1ha then Japanese larch 5.9ha, ash 5.5ha, oak 5.4ha and poplar 2.1ha. In total there is 20.7ha of conifers and 19.7ha of broadleaves, Fig 3. All the woodland areas in Rosliston Forest with the exception of 1.2ha of broadleaves were planted in 1995/96 and have a very uniform structure and canopy. These stands are now due for their first thinnings which will take place in 2015/16.

Fig.2 Current Landuse



Corsican pine was the most productive species in the area with an average annual yield of 15m³/annum but the fungal pathogen Dothistroma Needle Blight (DNB) is now affecting the pine stands leading to reduced yields and in a few cases tree mortality. The threat to timber production from climate change and more directly from pest and diseases is already having a major impact on Rosliston Forest. To ensure sustainable timber production the

present tree species will be diversified in future rotations selecting species that are more resistant to the current and increased incidence of pests and disease

Fig.3 Current Species within Rosliston Forest Plan

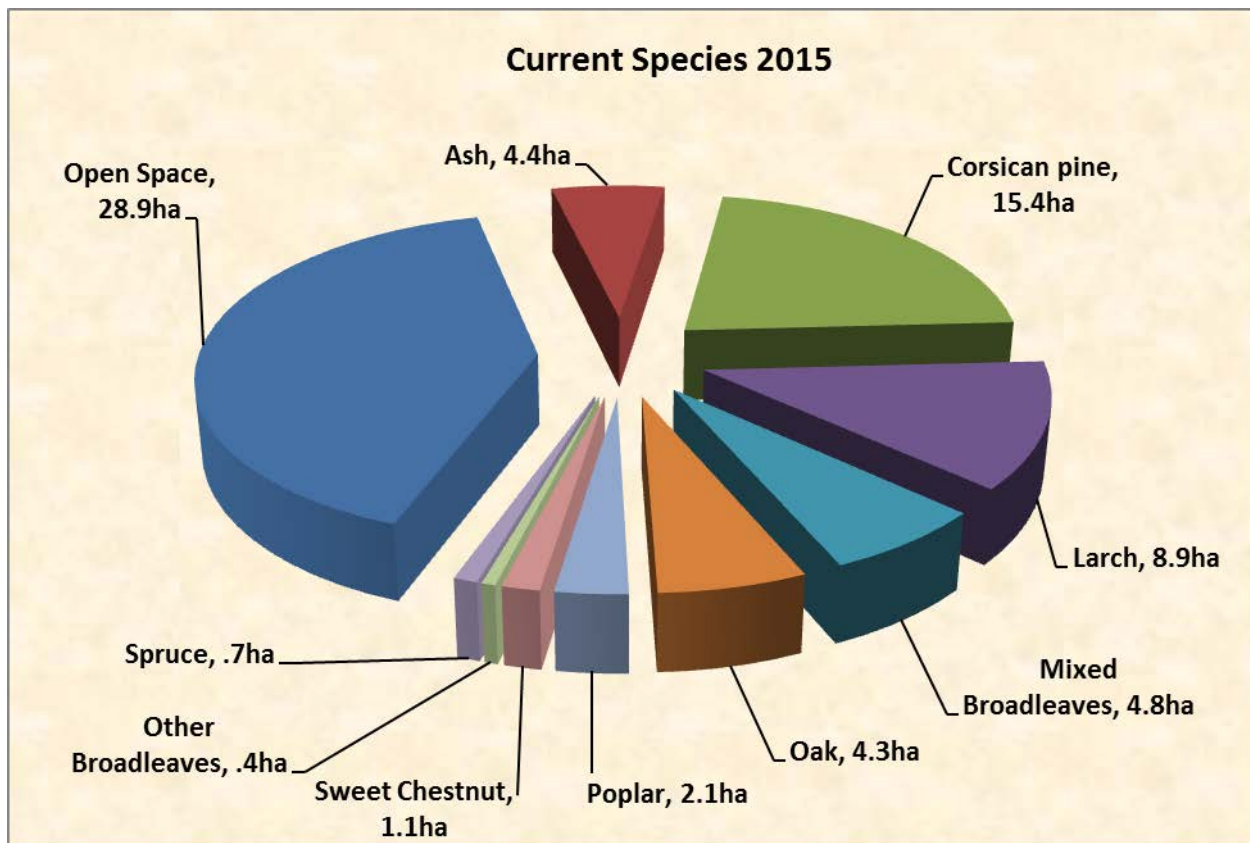


Table 1. Current Species

Species	ha	Percentage
Open Space	28.9	41%
Ash	4.4	6%
Mixed Broadleaves	4.8	6%
Oak	4.3	6%
Poplar	2.1	3%
Sweet Chestnut	1.1	2%
Other Broadleaves	0.4	1%
Corsican pine	15.4	22%
Larch	8.9	12%
Spruce	0.7	1%
Total	71	100%

A combination of small scale felling operations and strip shelterwood cutting operations will be used to break up the current uniform structure within Rosliston Wood and allow for the establishment of a more diverse species mix. The trees within Betts Wood are very young and it will be another 15 years before they are ready for their first commercial thinning operations.

3.2 Environmental

Rosliston FP has a wide variety of habitats including mature broadleaves, water features, trees of cultural significance and open grassland. Despite the lack of deadwood habitats associated with more mature woodlands there is already a wide variety of species found on the site, see Appendix C.

A number of the above habitats and species found in Rosliston FP have been identified in Lowland Derbyshire Local Biodiversity Action Plan (LBAP) and Habitat Action Plan (HAP). The presence of HAP and BAP species (Appendix II) will be taken into account when Operational Site Plans (Ops1) are written up to conserve and enhance these key features wherever possible when forestry operations are undertaken.

Trees of special interest and deadwood habitats will be retained wherever possible across the forest plan to create long-term retentions. Individual and small groups of character trees if identified during management operations will be retained in perpetuity to create future trees of special interest, conserving their landscape value, increase deadwood habitat and diversify the available woodland ecosystems. Due to the heavy public access on such small woodlands there will be no formal areas of Natural Reserve designated in this FP.

3.3 Social

Rosliston Forestry Centre is a flagship site and “gateway to the National Forest” with over 200,000 day visits to the forest centre each year. It was the first forest centre in the National Forest made possible through donations from Toyota, South Derbyshire District Council and the National Forest Company. The Forestry Commission will continue to work with partners, South Derbyshire District Council and local businesses based on the site to encourage and support existing events and new sustainable business and leisure facilities that are in keeping with other objectives laid out in this FP. The site currently provides the following public facilities: woodland walks: multi user access route: bike hire: crazy golf:

classrooms: education resource (South Derbyshire DC): woodland weddings: archery: bird hide: orienteering: guided walks: restaurant: gift shops: toilet facilities. See Recreation Map.

There have been no historic relics or features of cultural significance found within the woodlands. If in the future any were to be identified, these would be conserved wherever possible and where appropriate, in consultation with the Forestry Commissions Historic Environment Adviser, English Heritage and Derbyshire County Council Archaeology team.

3.4 Restocking and Future Management

Sites due to be managed under a strip shelterwood system or small scale clearfells will be assessed to select the most appropriate species for underplanting / restocking that will be best adapted to each site and the impacts of any future climate change whilst maintaining species diversity. No one species will dominate the future forest structure and a wider variety of species will gradually become established over the next 50 years including some mixed stands. Broadleaf stands will use a combination of restocking as well as utilizing natural regeneration where site conditions allow. Management operation will look to develop stands of high quality timber in both the broadleaf and conifer stands and aim to reduce the quantity of ash due the disease *Chalara fraxinea* (ash dieback)

A combination of silvicultural systems will be used to provide the most suitable conditions to diversify and establish future stands. The size, shape, scale and timing of felling coupes have been designed in keeping with the landscape character of the area and will enhance both internal and external views of the forest and surrounding landscape. As thinning and restocking operations are carried out a programme of ride widening operations will be undertaken to help dry the rides and increase the woodland edge habitat. Conifers stands will be thinned every 5 years and broadleaves approximately every 10 years.

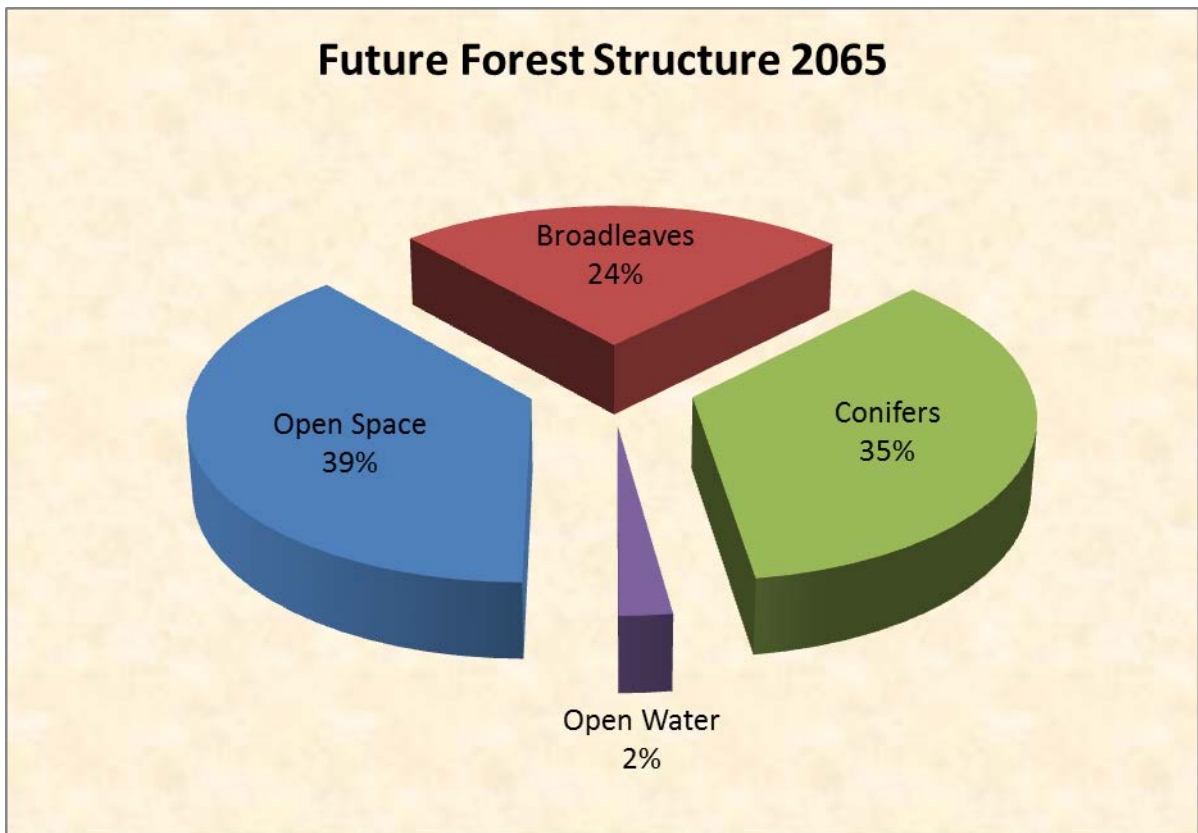
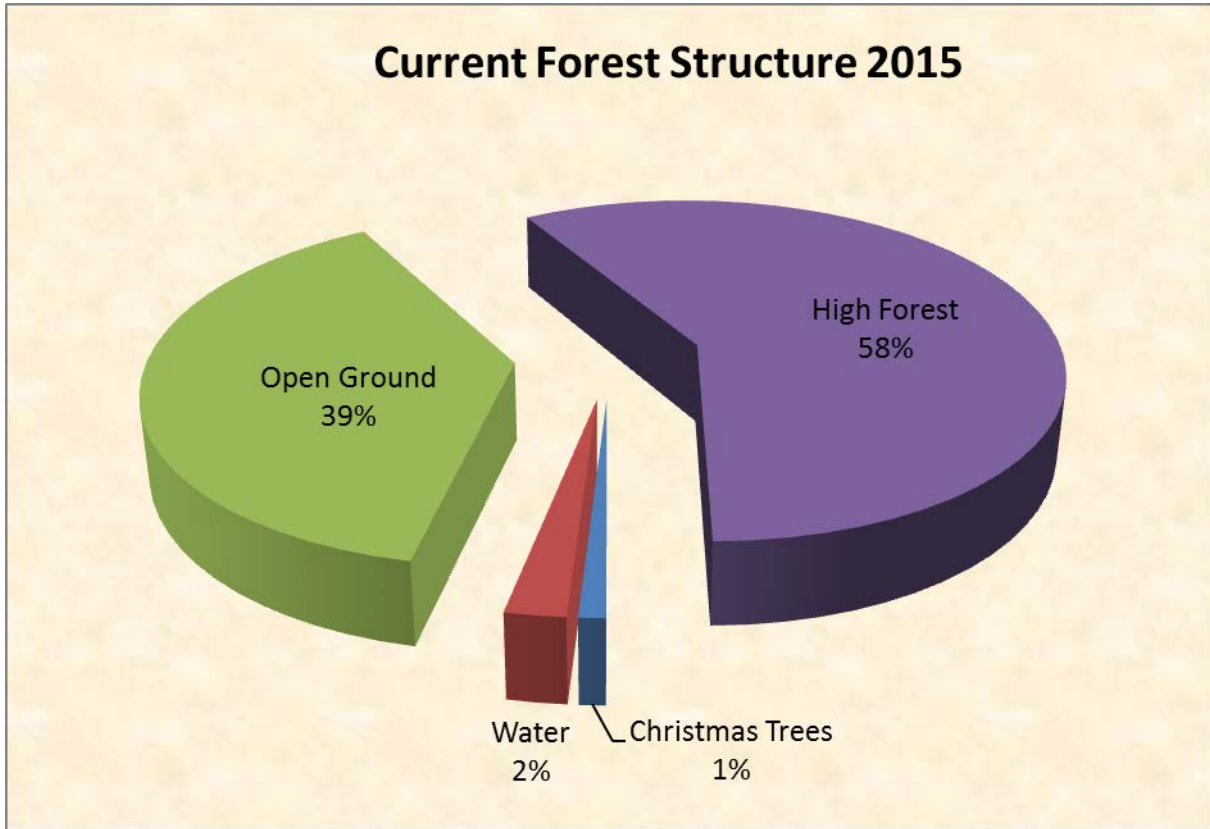
The new species that will be used to diversify the forest will be increasingly palatable to mammals compared to the Corsican pine and larch stands. A greater level of protection may be needed to ensure successful establishment and a combination of mammal control and fencing will be used achieve this in line with the National Forest Deer and Squirrel Strategies. The first phase of planting will include Douglas Fir, Silver Fir, Coastal redwood and Japanese Cedar.

25.5ha (36%) of the FP will be managed as open space, rides, roads and recreation. These habitats will be cut periodically to create a diverse habitat which will create the appropriate micro-climates for the sites biodiversity and public use. Table 2 and Fig.5.

Table 2 Future Species Composition – 2065

Species	ha	Percentage
Open Space	27.3	40%
Broadleaves	17.1	24%
Conifers	25	35%
Open Water	1.6	1%
Total	71	100%

Fig.4 Current / Future Forest Structure



4. Meeting and Monitoring Management Objectives

Objective	Description	Proposals	Methods of Monitoring
<p>Woodland</p>	<p>The woodlands will be managed to produce commercial conifer and broadleaf timber using a variety of silvicultural systems which will be chosen to aid establishment.</p> <p><i>Dothistroma</i> Needle Blight (DNB) is now affecting the Corsican pine stands. <i>Phytophthora ramorum</i> is now present in the West Midlands. Chalara has now been found within 10miles of Rosliston Forest and the spread is likely to increase</p> <p>Restocking and future species.</p>	<p>Conifer stands will be managed to their economic rotation and larch on a 60-80year rotation to maximise production. The planned fell years may have to be reviewed to respond and be reactive to the impacts of pests and disease.</p> <p>Broadleaf stands will generally be managed as high forest using a low impact felling system to produce quality timber.</p> <p>Any stands badly affected by pests and diseases will be felled early and replanted with alternative tree species that will be more resilient. If <i>Phytophthora ramorum</i> is identified, then as a notifiable disease, infected stands will have to be clearfelled within a short timescale. Any infected Ash will be removed when felling/thinning operations take place to reduce the risk of spreading <i>Chalara fraxinea</i> to adjacent trees.</p> <p>Conifer stands will be diversified using a range of species and silvicultural systems best suited to the site conditions and resilience to predicted climate change, pest and disease. Broadleaf stands will use both restocking and natural regeneration.</p>	<p>Monitored through Sub-compartment database.</p> <p>Monitor annually by beat team and at FP review.</p> <p>Monitored through Sub-compartment database</p>

Objective	Description	Proposals	Methods of Monitoring
Biodiversity	<p>Any BAP species and HAP features that lie within the woodlands will be identified and recorded.</p> <p>There is a small collection of trees of special interest (TSI) in the FP area but limited deadwood.</p> <p>Open space.</p> <p>Limited areas of deadwood</p> <p>Small areas to be left unmanaged to create biological retentions and to provide undisturbed areas for wildlife.</p>	<p>Future management operations and planned recreation activities will take into account the presence of these key species/habitats and the associated legislation.</p> <p>The existing TSI will be retained in perpetuity wherever possible. Potential TSI will be identified and conserved to provide future trees of TSI and increase the available deadwood habitat. The current and future TSI will be surveyed and tagged.</p> <p>A varied cutting programme will be used to maintain and gradually diversify open spaces and woodland edge habitats. Felling operations will create transitional open space across the forest. The management of riparian areas will help conserve water quality and wetland habitats.</p> <p>Standing snags will be left and individual and small groups of trees will be retained beyond their economic rotation, to become trees of special interest and provide additional deadwood habitats.</p> <p>In areas with low demand for public access areas of woodland and secondary woodland habitats will be left unmanaged.</p>	<p>Monitor annually by beat team and at FP review.</p> <p>Monitored by wildlife ranger and at FP review.</p> <p>Monitored by wildlife ranger and at FP review.</p> <p>No monitoring required.</p> <p>Monitored through Operational Plans.</p>

Objective	Description	Proposals	Methods of Monitoring
Social & Recreation	The demand for access onto the National Forest has increased over recent years.	The Forestry Commission will continue to work in partnership with local businesses and stakeholders to facilitate the future demand for recreation and tourism.	No monitoring required
Heritage	There are known heritage features within the FP.	Any significant heritage features found will be avoided wherever possible during forest operations.	Monitoring at FP review

5. 2015 Forest Plan comparison against the 1994 WGS planting plan.

The new FP is based on the initial design for the new community woodlands. The main variations in the new FP will be the introduction of harvesting operations, the timing of operations and species that will be used to restock the forest. The new forest plan has been designed to directly deliver many of the policies and actions the Forestry Commission and South Derbyshire Council has for the National Forest and the hundreds of thousands of visitors who visit each year. The plan also helps deliver the Strategic Environmental Objectives as set out in National Character Area Mease/Sense Lowlands Profile 72 - ensuring multiple benefits for people and place.

The expected yields from the forest has also dropped due to the impact of *Dothistroma* Needle Blight and the expected income generated from harvesting operations will be reduced.

The future forest management will incorporate management patterns that are sympathetic to the sustainable recreation and leisure interests of our partner and local businesses. Through the active forestry management the FC has practiced in Rosliston and Betts Wood the woodland ecosystem now supports a diverse range of wildlife and the new FP will continue to diversify the forest structure and available woodland habitat.

8. Consultees

The consultation undertaken in the preparation of this plan has been wide ranging and extensive. Full documentation including letters, notes of conversations etc. are held at our District Offices.

Consultee	Date Contacted	Date Response Received	Issues Raised	Forest District Response to Issues
Simon West – National Forest Company	24 July 2015	3 September 2015	Pleased with FP but suggested more detail on mammal control, future species, thinning and suggested more BL in northwest of Rosliston Forest.	The FP has been amended to give more detail on mammals, thinning and future species. The intended landuse maps haven't been amended as these are a landscape scale map. Some broadleaves will be incorporated into the stands of conifers along the north western edge of Rosliston but these areas would be too small to map.
Mr D Owen – local resident	24 July 2015	Online consultation	Concerned about the choice of investment in facilities around visitor centre and lack of maintenance.	Mr Owen's comments were to do with visitor centre assets managed by South Derbyshire Council. His comments will be forwarded to them
Mr J Gilbert	24 July 2015	Online consultation	Concerned about lack of grass cutting in Betts Wood and was willing to volunteer.	FC in communication with Mr Gilbert and it is hoped that a volunteer project can be established to help managed Betts Wood grassland and adjacent habitats.
Kate Allies – South Derbyshire Council	24 July 2015	24 July and Drop in Day	Wanted more detail of cutting programme for grassland and removal of nettles and thistles in Rosliston, supplied details of ancient hedgerows and trails.	The FP is a felling and restocking plan and does not details annual management of rides or hedgerows. Kate's comments have been passed to the beat team to take into consideration when planning grass mowing.

As part of the local consultation letters were sent to stakeholder, copies of the plan made available via the FC website, visitor centre and local libraries, notices placed on site and a public 'drop in' meeting held at the visitor centre. 289 letters were sent to local residents who live locally. Comments received and the Forestry Commission's responses are recorded above.

9. Glossary

Biological Diversity

The richness and variety of wildlife and habitats.

Biodiversity Action Plan (BAP)

Describes the UK's biological resources and details the protection of these resources, including 391 Species Action Plans, 45 Habitat Action Plans and 162 Local Biodiversity Action Plans.

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.

Continuous Cover Forestry (CCF)

Silvicultural systems where the forest canopy is maintained at one or more level, e.g. Shelterwood, Group Regeneration, Selective Felling, Regeneration Thinnings.

Coupes

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

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 Commission Guidelines

Outline the principles and standards of good management practices in forests and woodlands to enable landowners, land managers and their advisors to satisfy

Forest Plan (FP)

An approved plan that outlines felling operation over a 10 year period, outlining proposals over the next 50 years. The FDP'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.

Habitat Action Plans (HAP)

Habitat recognised as internationally important, for example those designated under the EU Habitats Directive; nationally or locally important.

Historic Environment

These are the physical remains of every period of human development 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 economic rotation.

National Character Areas (NCAs)

England is divided into 159 distinct natural areas. Each is defined by a unique combination of landscape, biodiversity, geodiversity and cultural and economic activity.

Natural regeneration

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

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 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 as a term, it is more usually associated with replanting.

Ride

Forestry term for unsurfaced roads, paths and tracks within a woodland.

Scheduled Monuments

Nationally important archaeological sites which are protected under the Ancient Monuments and Archaeological Areas Act, 1979.

Secondary Woodland

Woodlands that have been established on land that was formally used as pasture, meadows, 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 its aims 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 and time scale.

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.

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 Scheme (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. It has been designed to ensure that it reflects the requirements of both the Government's UK Forestry Standard - and through this the guidelines adopted by European Forestry Ministers at Helsinki in 1993 - and the Forest Stewardship Council's (FSC's) GB Standard.

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.

Appendix I

Rosliston Forest Design Brief

Introduction

This Forest Plan summarises proposals by the Forestry Commission for the management of Rosliston and Betts Wood which lie 6km south of Burton on Trent, Derbyshire. The plan area of 71ha comprises of new woodland created within the National Forest for public access, recreation and education. The National Forest was established in 1995 to regenerate the area after mining and to show the benefits of woodlands near to where people live and work. The overall aim is to blend new and maturing woodland within a wide variety of landscapes. Rosliston was the first key site to be established in the National Forest and has a visitor centre, shops, holiday cabins, lakes and a number of outdoor activity attractions. Rosliston Wood was planted between 1994 and 1996 with the woodlands now being well established creating a beautiful attraction around the visitor centre and lakes. The site is managed in partnership with South Derbyshire Council and a private management company.

Betts wood is a much younger woodland being planted in 2005 and lies on the south side of Rosliston village (360m south of Rosliston Wood) and forms part of the Friends of Rosliston Wood Memorial woods (2 additional sites in Rosliston Forest). There are a network of paths and open spaces for the public to use but there is no formal infrastructure on the site.

Landscape setting

The woodlands lie within the Mease/Sence Lowlands Natural Character Area which is dominated by a gently rolling agricultural landscape. Elevation ranges from just 70 to 80m above sea level which limits landscape views. Triassic Mercia Mudstones underlie this area and give rise to productive clay soils mainly Grade 2 and Grade 3 agricultural land. The surrounding landscape is mostly dominated with strong rectangular patterns of low hedgerows and scattered hedgerow trees associated with the 18th and 19th century enclosures. Woodland cover in the area is generally confined to copses and spinneys on the clay ridges and occasional groups of trees on stream sides. The woodlands are mainly deciduous, and hedgerow trees are often mature ash and oak. Willow and alder are frequently found along the streams and next to field ponds, but main river courses are very open. Many of these small woodlands are relatively young in, having benefited from the creation of the National Forest in 1995.

Economic Issues

Planting within Rosliston Forest commenced in 1994 and was completed in 1996 and comprised of a mixture of pine, larch, spruce and broadleaves which are predominantly oak and ash. Yield classes are typically 14 amongst the conifers and 4 to 6 amongst the broadleaves. Dothistroma Needle Blight (DNB) and Phytophthora ramorum are fungal pathogens that are affecting the Corsican pine in Rosliston Wood and larch within the midlands and which will lead to reduced yields and in some cases tree mortality of both young and more mature stands of trees. Chalara is another disease killing ash trees and there are now confirmed infected sites within the National Forest which puts Rosliston Forest in a high risk zone. The FP will look try to address the problem of disease through a combination of premature removal, heavy thinning and underplanting with less susceptible species. Age structure is relatively even and all the stands are now due for their first thinning operations.

- Ensure felling operations are carried out at scale that is sympatric to the other business interests on the site.
- Develop a programme to restructure stands and reduce the current and future risk from pest, disease and climate change.
- Create a felling programme that is sustainable and produces marketable timber products.
- Increase the area of woodland cover where appropriate.

Ecological Issues

The creation of new woodland and wetland habitats in the agricultural landscape has created a wide variety of new woodland edge and aquatic habitats. In addition 37% of the site is managed as open space dominated by grassland habitat that is cut periodically to create a diverse grasslands sward beneficial for Lepidoptera and insects. Bat and bird boxes have been positioned in the new woodlands as roost sites are currently limited. As stands begin to be thinned each stand will be restructured to create a more diversify canopy structure within the woodland and the diversity of species will help maximize future habitats for the local flora and fauna. The Forestry Commission will continue to work in partnership with South Derbyshire District Council to facilitate a woodland management programme that can be interpreted their education material and on site information.

- Incorporate measures to accommodate the conservation of key BAP habitats and species.
- Develop more diverse habitats within woodland

- Incorporate opportunities to retain native trees to biological maturity and increase deadwood habitats.

Social Issues

Rosliston Forest is a key site within the National Forest and is now enjoyed by over 200,000 day visitors each year. The visitor centres café, shops and recreation activities have become well established and attract regular visits from the local community as well as tourists to the area. The most recent developments have been 6 forest cabins designed for short stay easy access and several small business units. The visitor centre and café is also used by local cycling and walking groups as a meeting point on a weekly basis. Annually large events such as country craft fairs, Christmas trees sales and cycling spotives take place at Rosliston and bring new user groups to the site.

- Ensure forest management proposals are in keeping with the business interests of the site.
- Make allowance for informal access in design proposals.
- Incorporate a new forest rides/racks into the existing stands to reduce the impact forest machinery has on the public access routes

Consultation

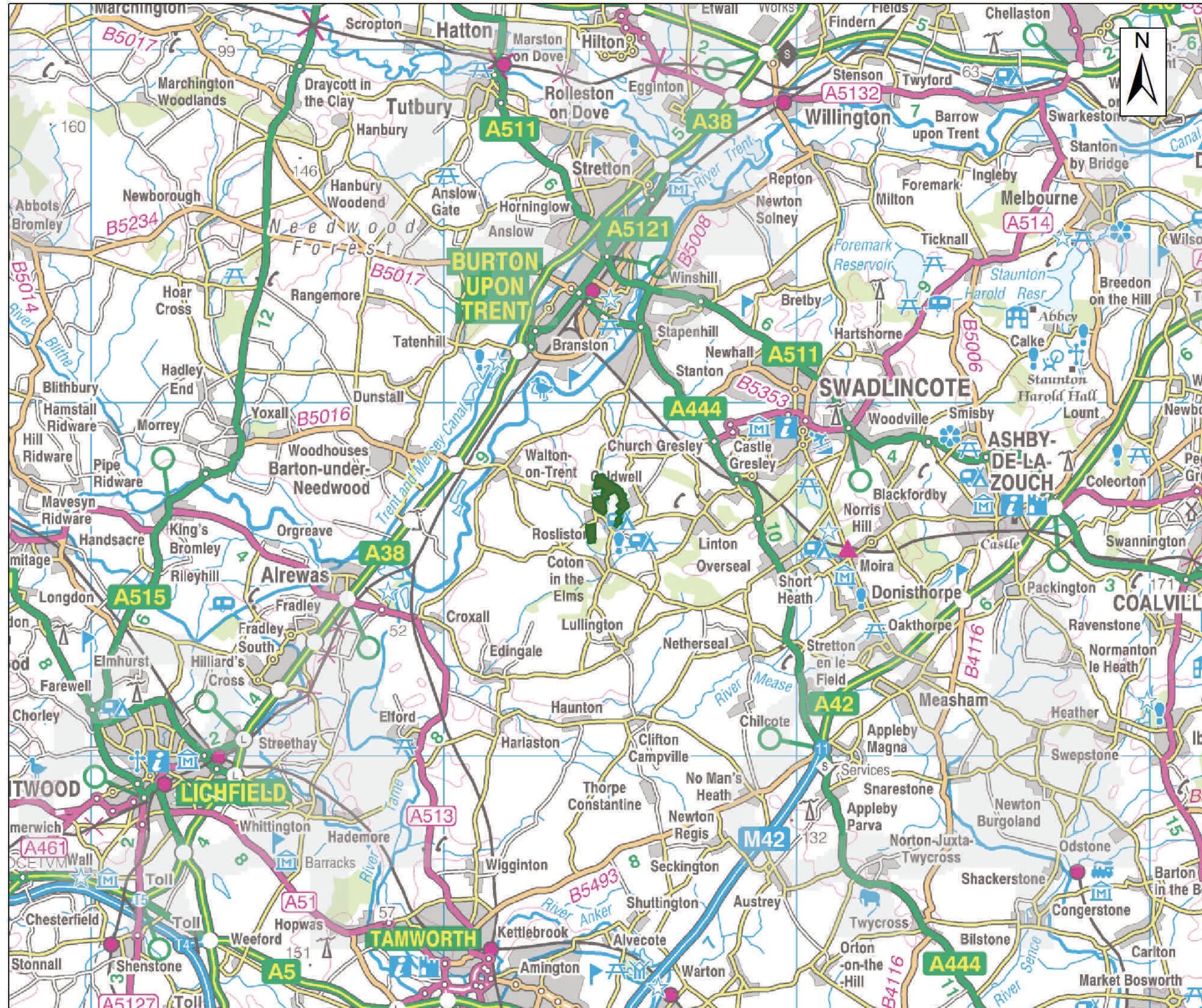
- Due to high levels of public use and stakeholders involvement consultation will be carried out using a combination of; on-site notices; public information drop in meeting; letters to key stakeholders and the Forestry Commissions web site.
- The Forestry Commissions Woodland Officer will be closely involved in the plan development.
- The consultation period will run from 25 July through to 30 August 2015 after which time the Forest Plan will be finalised and submitted onto the public register for approval.

Appendix II

Key Features Habitats and Wildlife

The table below identifies a number of the key features found in Rosliston Forest, their status and stakeholders who have been involved in the surveillance and management.

Key Feature	Status
Bats (piperstrelle & daubenton)	EPS
Trees of special interest	HAP



Central Forest District

Location Map

Rosliston Forest Plan (71ha) comprises of two areas of new woodland created within South Derbyshire in the National Forest.

Rosliston Forest (59ha) was planted in 1994-96 and Betts Wood (12ha) in 2005. Rosliston is a mixture of conifers and broadleaves whereas Betts wood is all broadleaved. The woodlands lie in a flat low lying landscape dominated by agriculture.

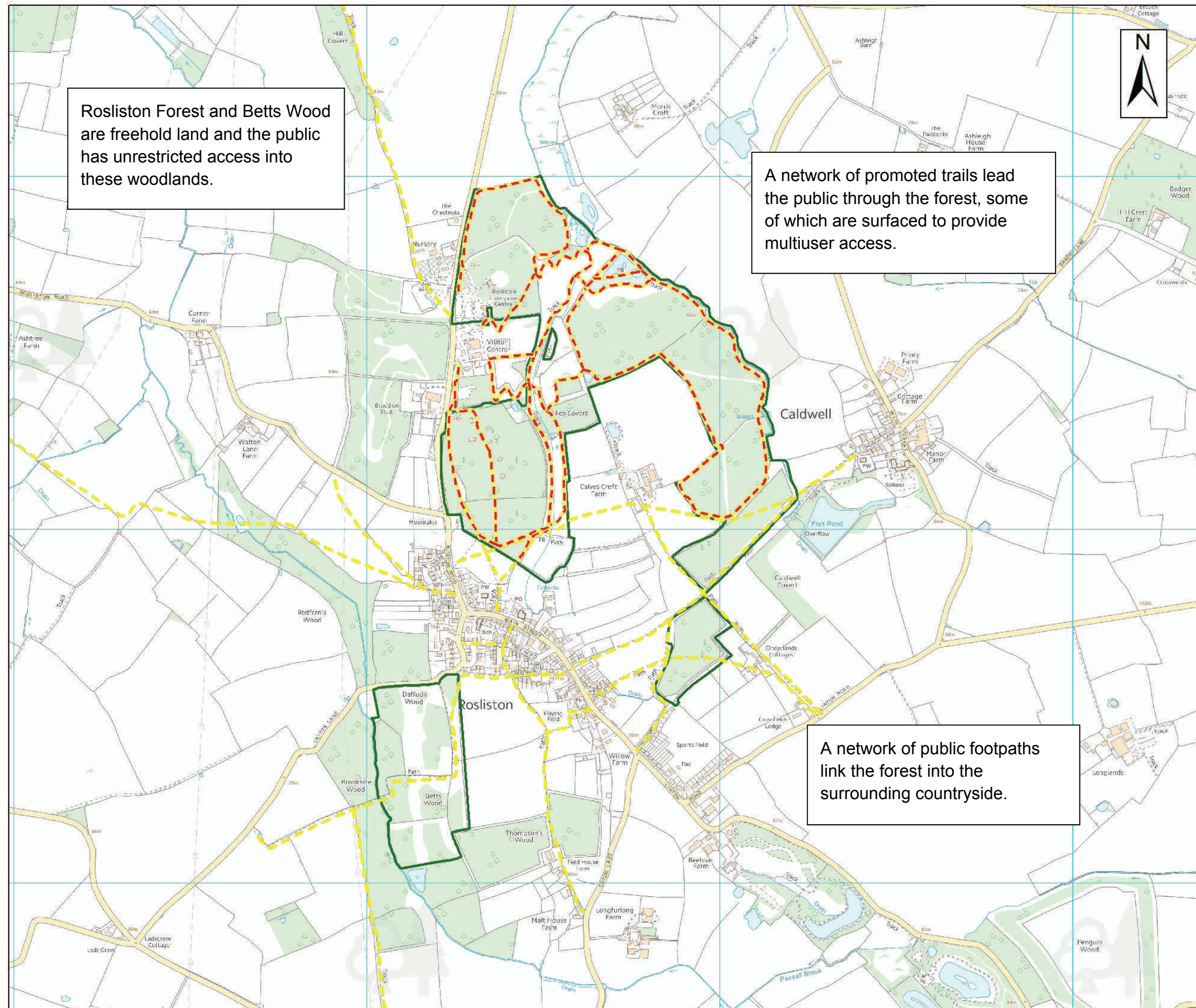
Rosliston Forestry Centre attracts over 200,000 visitors each year and is a key access point into the



Forestry Commission
England

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Rosliston Forest and Betts Wood are freehold land and the public has unrestricted access into these woodlands.


A network of promoted trails lead the public through the forest, some of which are surfaced to provide multiuser access.

A network of public footpaths link the forest into the surrounding countryside.


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Public Access

-  Forestry Commission Trail
-  Public Footpath
-  Management Area

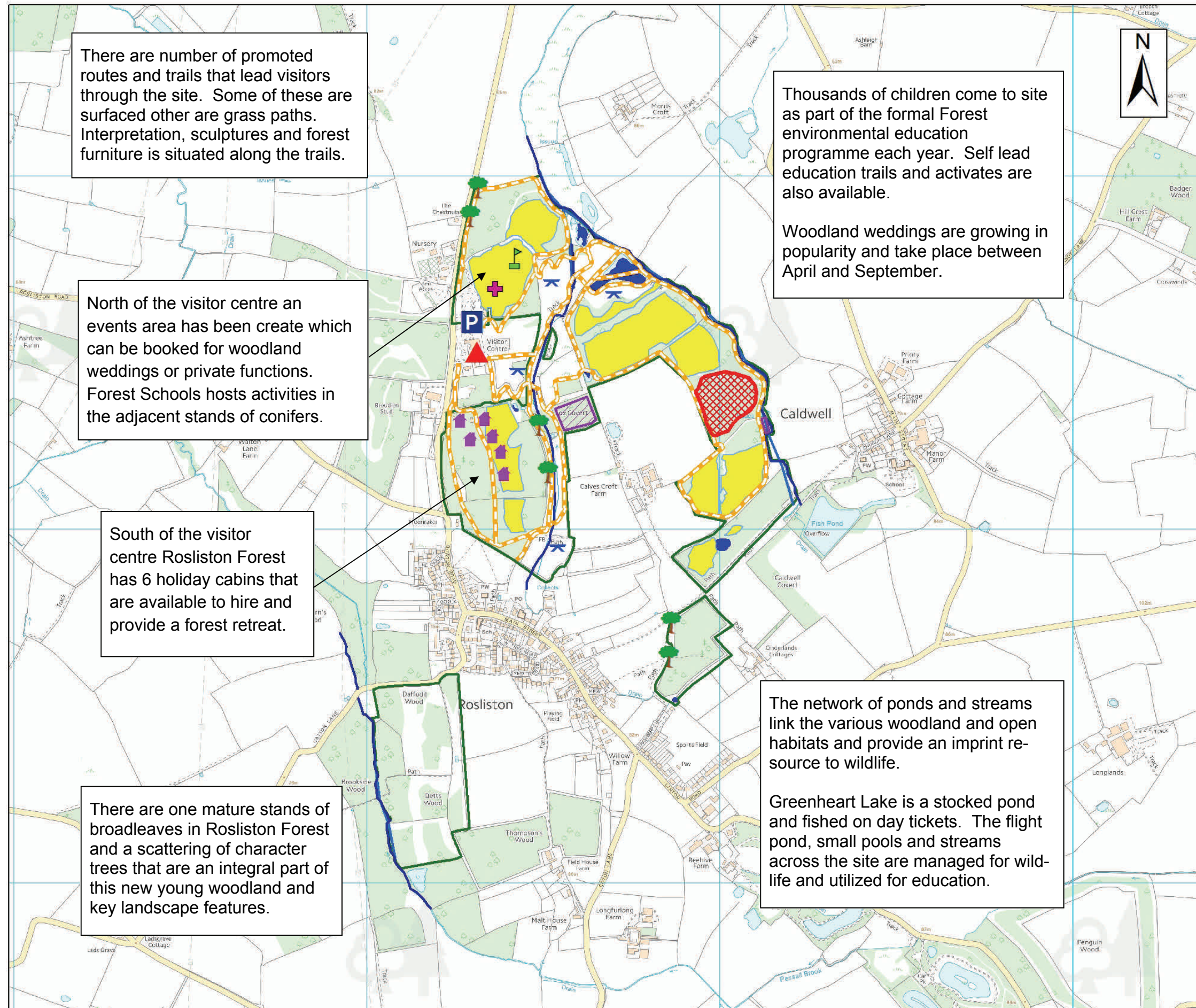

Forestry Commission
England

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 Forestry Commission woodlands have been certified in accordance with the rules of the Forest Stewardship Council.

 PEFC

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There are number of promoted routes and trails that lead visitors through the site. Some of these are surfaced other are grass paths. Interpretation, sculptures and forest furniture is situated along the trails.

North of the visitor centre an events area has been create which can be booked for woodland weddings or private functions. Forest Schools hosts activities in the adjacent stands of conifers.

South of the visitor centre Rosliston Forest has 6 holiday cabins that are available to hire and provide a forest retreat.

There are one mature stands of broadleaves in Rosliston Forest and a scattering of character trees that are an integral part of this new young woodland and key landscape features.

Thousands of children come to site as part of the formal Forest environmental education programme each year. Self lead education trails and activates are also available.














Woodland weddings are growing in popularity and take place between April and September.

The network of ponds and streams link the various woodland and open habitats and provide an imprint resource to wildlife.

Greenheart Lake is a stocked pond and fished on day tickets. The flight pond, small pools and streams across the site are managed for wild-life and utilized for education.

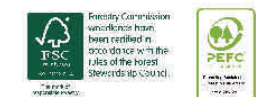
Central Forest District

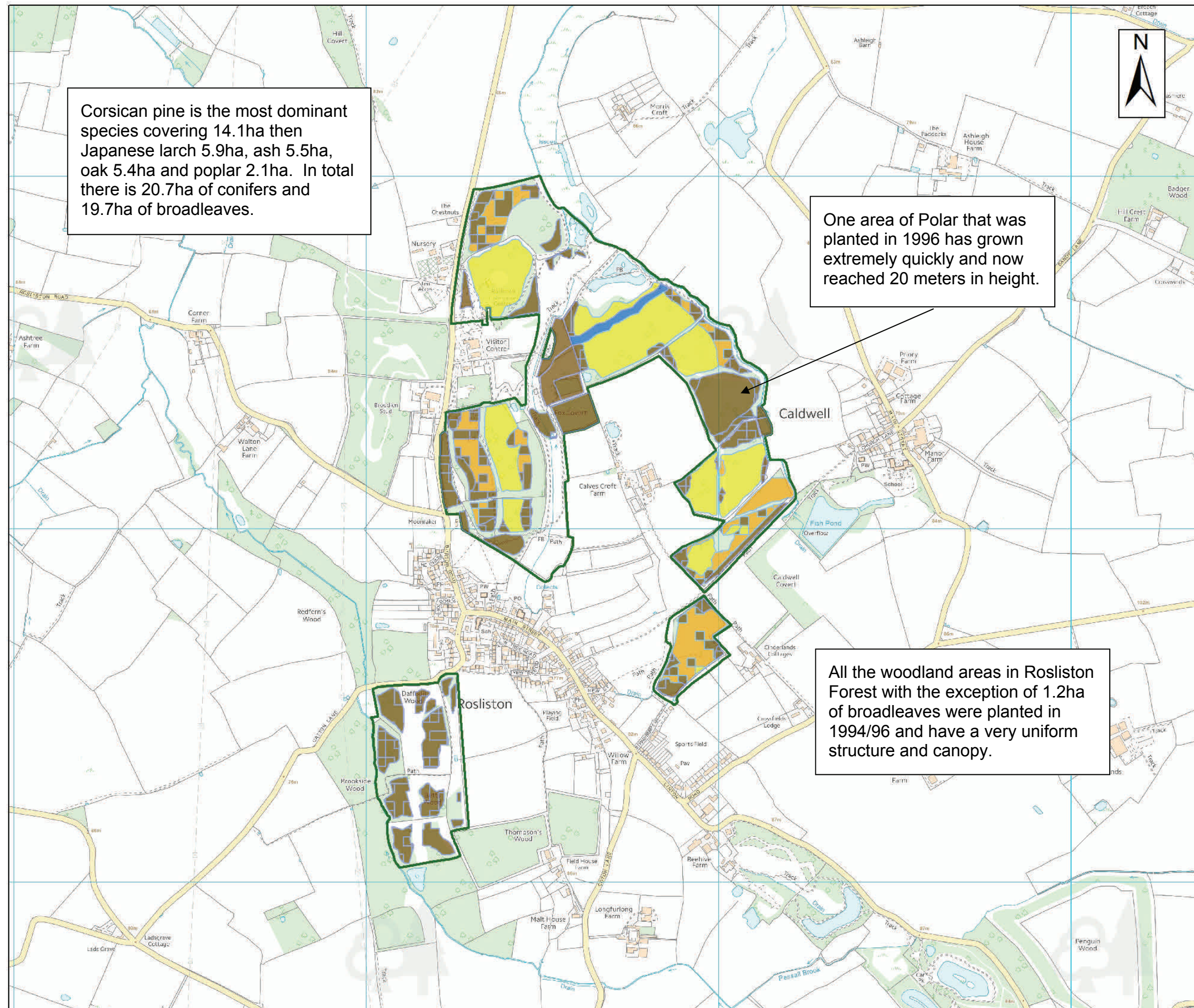
Survey Details

-  Woodland trails
-  Poplar
-  Mature Trees
-  Corsican pine
-  Water
-  Trees of Special Interest (TSI)
-  Visitor Centre, Cafe & Shops
-  Car Park
-  Picnic benches
-  Holiday Cabins
-  Woodland Weddings
-  Forest Schools
-  Management Area



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Central Forest District

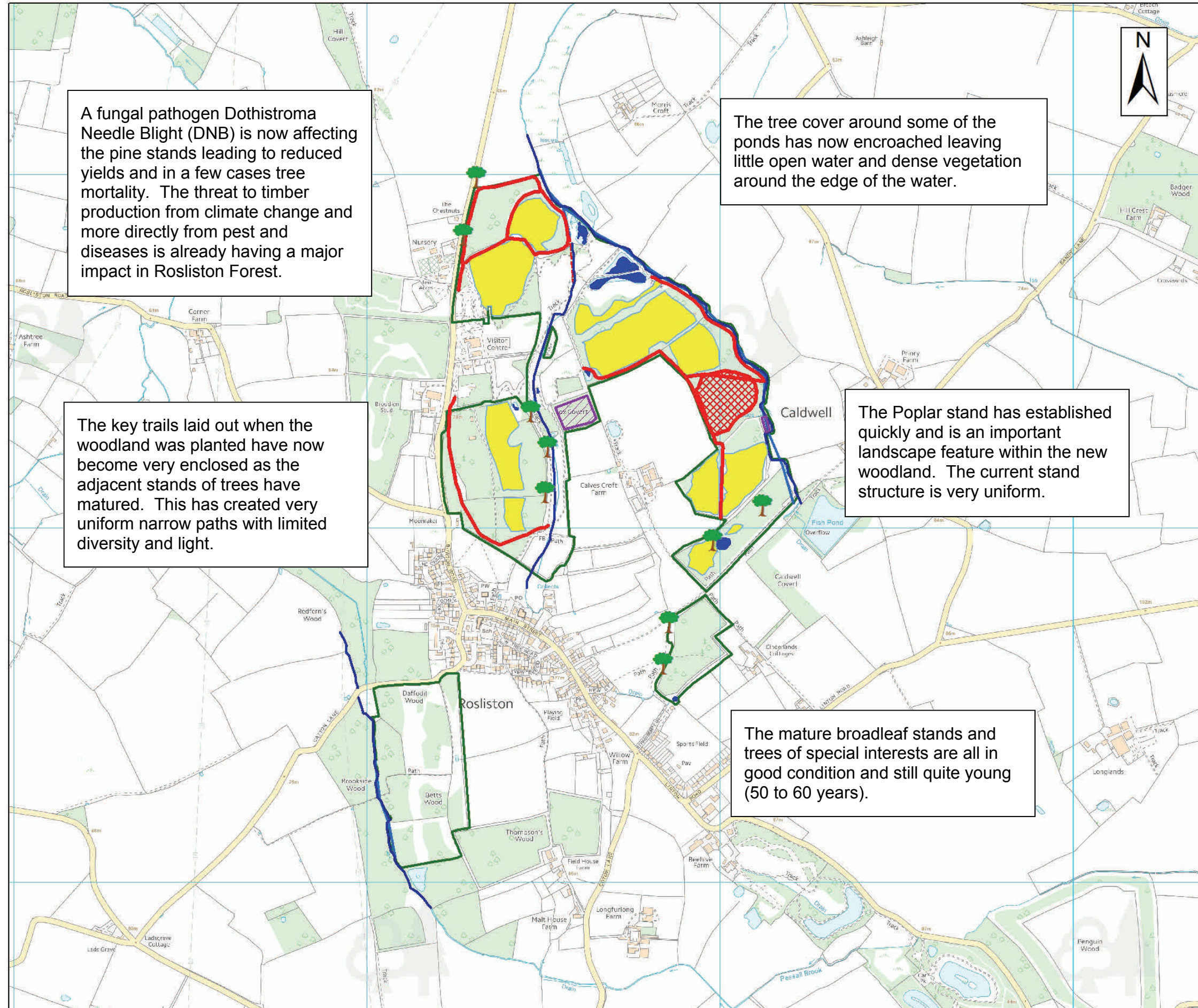
Current Species

- Scots pine
- Corsican pine
- Spruces
- Larches
- Other Conifer
- Broadleaves
- Management Area



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A fungal pathogen Dothistroma Needle Blight (DNB) is now affecting the pine stands leading to reduced yields and in a few cases tree mortality. The threat to timber production from climate change and more directly from pest and diseases is already having a major impact in Rosliston Forest.

The key trails laid out when the woodland was planted have now become very enclosed as the adjacent stands of trees have matured. This has created very uniform narrow paths with limited diversity and light.








The tree cover around some of the ponds has now encroached leaving little open water and dense vegetation around the edge of the water.

The Poplar stand has established quickly and is an important landscape feature within the new woodland. The current stand structure is very uniform.

The mature broadleaf stands and trees of special interests are all in good condition and still quite young (50 to 60 years).

Central Forest District

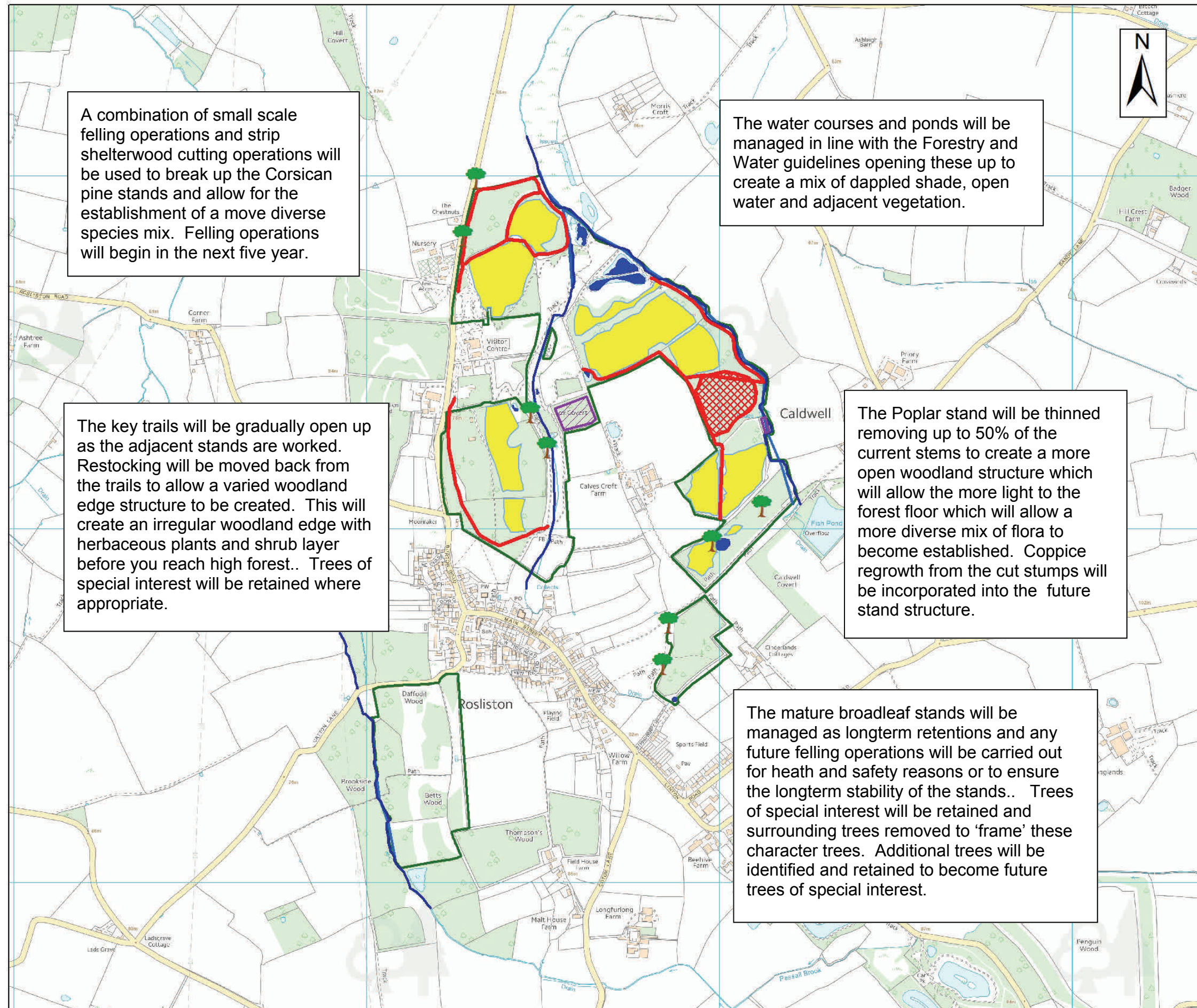
Key Features

-  Woodland trails
-  Poplar
-  Mature Trees
-  Corsican pine
-  Water
-  Trees of Special Interest (TSI)
-  Management Area



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A combination of small scale felling operations and strip shelterwood cutting operations will be used to break up the Corsican pine stands and allow for the establishment of a more diverse species mix. Felling operations will begin in the next five year.

The water courses and ponds will be managed in line with the Forestry and Water guidelines opening these up to create a mix of dappled shade, open water and adjacent vegetation.

The key trails will be gradually open up as the adjacent stands are worked. Restocking will be moved back from the trails to allow a varied woodland edge structure to be created. This will create an irregular woodland edge with herbaceous plants and shrub layer before you reach high forest.. Trees of special interest will be retained where appropriate.

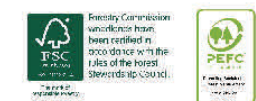
The Poplar stand will be thinned removing up to 50% of the current stems to create a more open woodland structure which will allow the more light to the forest floor which will allow a more diverse mix of flora to become established. Coppice regrowth from the cut stumps will be incorporated into the future stand structure.

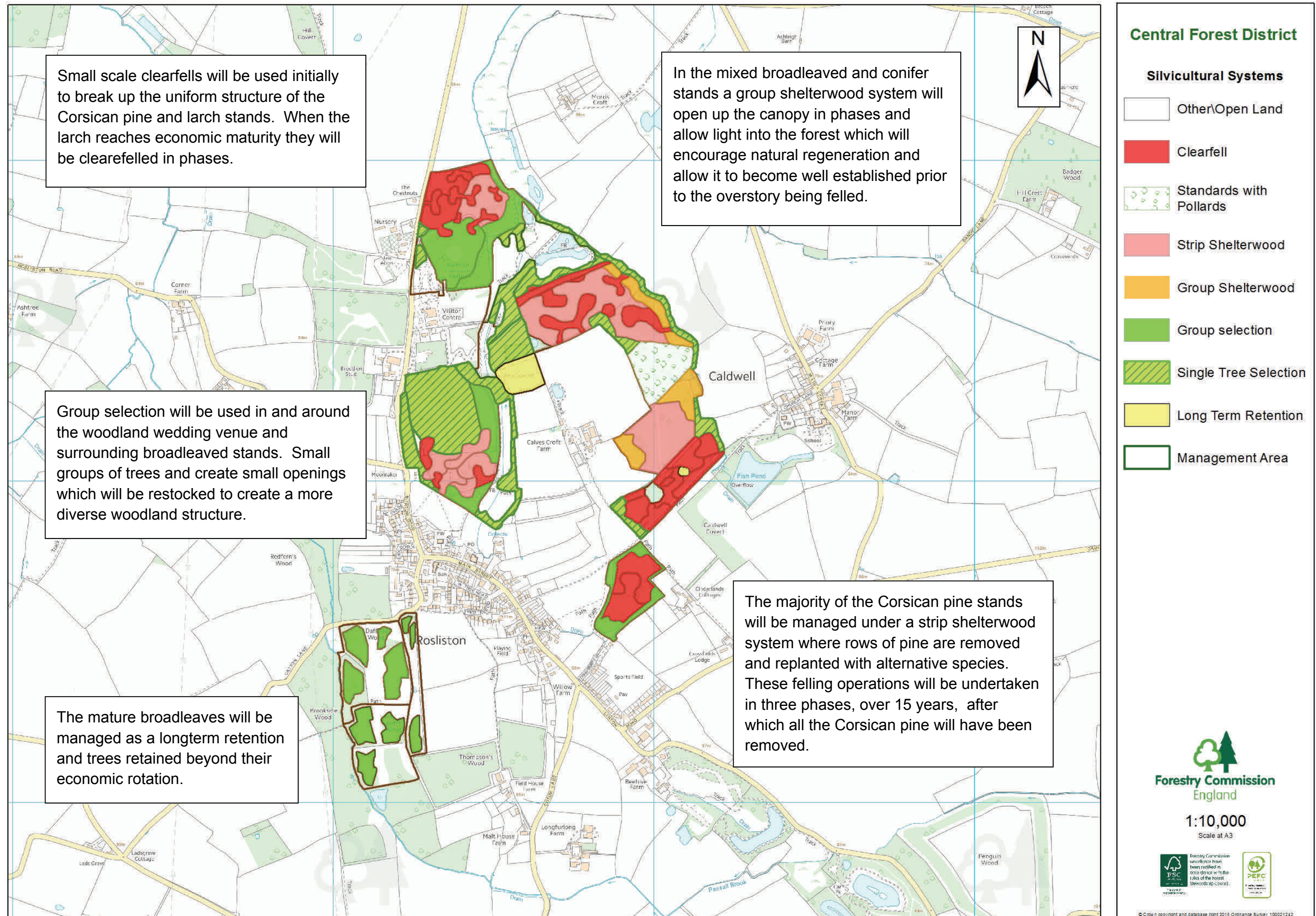
The mature broadleaf stands will be managed as longterm retentions and any future felling operations will be carried out for heath and safety reasons or to ensure the longterm stability of the stands.. Trees of special interest will be retained and surrounding trees removed to 'frame' these character trees. Additional trees will be identified and retained to become future trees of special interest.

- Central Forest District**
- Concept Map**
- Woodland trails
 - Poplar
 - Mature Trees
 - Corsican pine
 - Water
 - Management Area



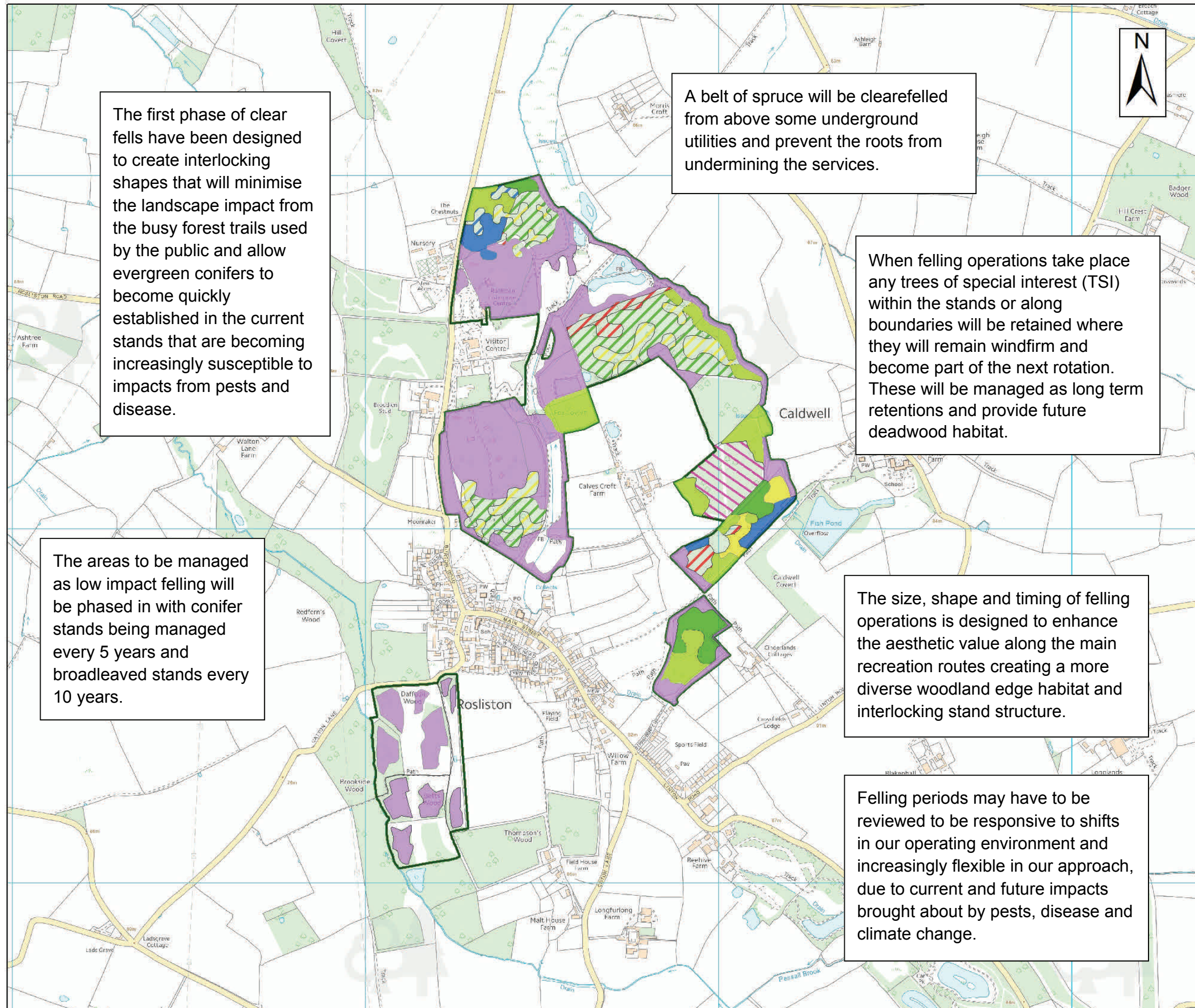
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The first phase of clear fells have been designed to create interlocking shapes that will minimise the landscape impact from the busy forest trails used by the public and allow evergreen conifers to become quickly established in the current stands that are becoming increasingly susceptible to impacts from pests and disease.

A belt of spruce will be clearfelled from above some underground utilities and prevent the roots from undermining the services.

When felling operations take place any trees of special interest (TSI) within the stands or along boundaries will be retained where they will remain windfirm and become part of the next rotation. These will be managed as long term retentions and provide future deadwood habitat.

The areas to be managed as low impact felling will be phased in with conifer stands being managed every 5 years and broadleaved stands every 10 years.

The size, shape and timing of felling operations is designed to enhance the aesthetic value along the main recreation routes creating a more diverse woodland edge habitat and interlocking stand structure.

Felling periods may have to be reviewed to be responsive to shifts in our operating environment and increasingly flexible in our approach, due to current and future impacts brought about by pests, disease and climate change.

Central Forest District

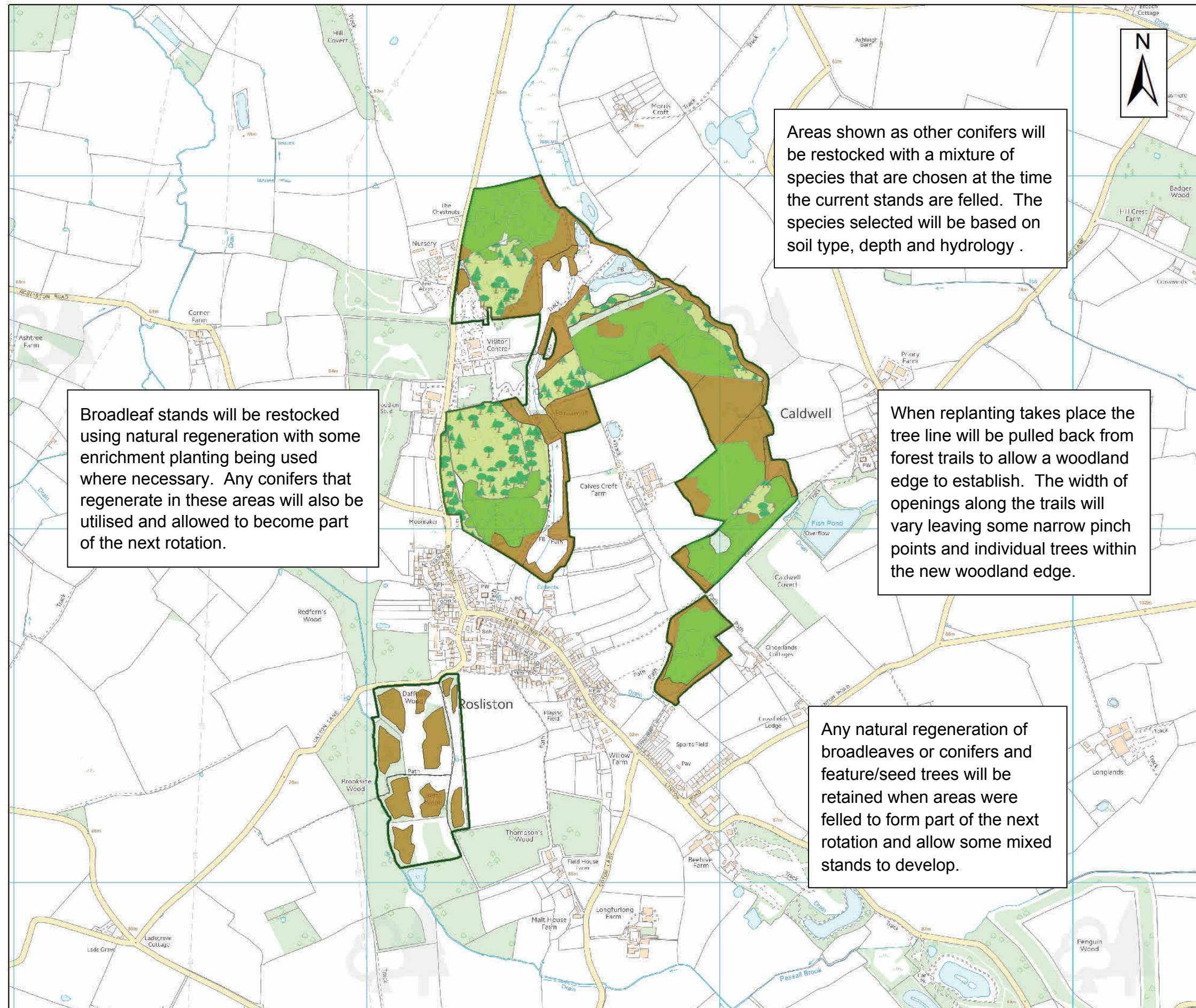
Felling Period

- Open Ground
- 2013 - 2016
- 2017 - 2021
- 2022 - 2026
- 2027 - 2031
- 2032 - 2036
- 2037 - 2041
- 2042 - 2046
- 2047 - 2051
- 2052 - 2056
- 2057 - 2061
- 2062 - 2099
- Low Impact Felling
- Management Area








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Central Forest District

Intended Landuse

-  Open Space
-  Broadleaves
-  Conifers
-  Mixed Broadleaf & Conifer Stands
-  Management Area



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