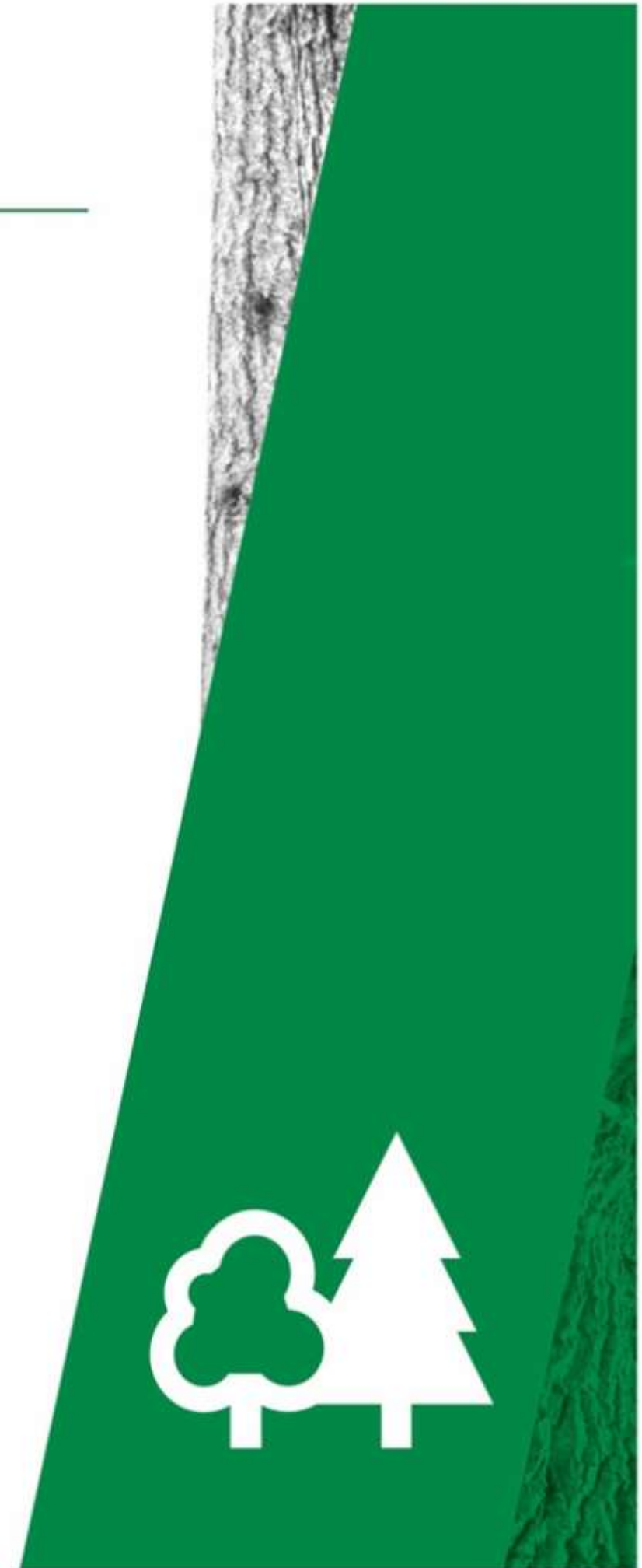


Sefton Forests Plan 2024 – 2034



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



Summary

The Sefton Forests Plan covers 210ha of woodland that lies across Merseyside, with Kew Wood (25ha) in the north, Brooms Cross (47ha), Roughley Wood (26ha) and Jubilee Wood (51ha) in the centre and Bidston Woods (61ha) in the south of the region. 80% of the woodlands are new, planted between 2000 and 2008 on ex-industrial sites with a small proportion of older trees along boundaries. Each of the woodlands now plays an important role in the provision for wildlife, public access and economic regeneration in the area.

The primary management objectives for the woodlands covered in the plan are to maintain and where possible improve habitats; improve the resilience of the woodlands to climate change; facilitate public access; produce timber products; create woodlands that are more favourable to red squirrels; support the local economy and businesses.

The woodlands are popular with walkers, cyclists, horse riders and wildlife watchers and a network of paths provides good access through each of the woodlands. Each woodland supports a wide variety of flora and fauna, with the high levels of diversity in birds and dragonflies associated with wetland habitats at Lunt Wood and Bidston Moss Local Nature Reserve.

The health of the existing woodlands is now being impacted by Ash Dieback and Dothistroma Needle Blight (DNB) which is present in all the woodlands, killing the ash and defoliating the Corsican pine trees. Larch is also at risk from a Phytophthora ramorum which is present in many areas locally. The loss of ash, Corsican pine and possibly larch will have the greatest impact in Jubilee Wood where these species form a major component within the woodland structure.

As part of the government’s commitment to expand Britain’s forests an additional 10ha of woodland was planted in spring 2024 to enlarge Brooms Cross woodland. The woodlands lie within the red squirrel conservation area and as a food source, species chosen recent new planting and future restocking will favour the reds over the greys. The young woodlands are now at an age where thinning operations will commence in the next 10 years and diseased trees will be removed at the same time. This will present further opportunities to modify the species mix further to support red squirrels.

Central Forest District - Sefton Forests Plan

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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.

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:	Sefton Forests Plan	
Nearest Town:	Litherland	
OS Grid Reference:	Kew Wood	SD 3447 1534
	Brooms Cross	SD 3428 0146
	Jubilee Wood	SD 3505 0217
	Roughley Wood	SD 3646 0108
	Bidston Moss	SJ 2923 9107
	Bidston Moss Nature Reserve	SJ 2849 9105
	Cross Lane	SJ 2882 9161

Local Planning Authority Sefton Metropolitan Borough

ii Designations:

Local Nature Reserve (LNR), The Mersey Conurbation (58) and the Sefton Coast (57) National Character Areas (NCA), lies within the Mersey Forest.

iii Date of Commencement of Plan

As soon as possible once approved.

Proposed felling and restocking summary for 10 year FP period:

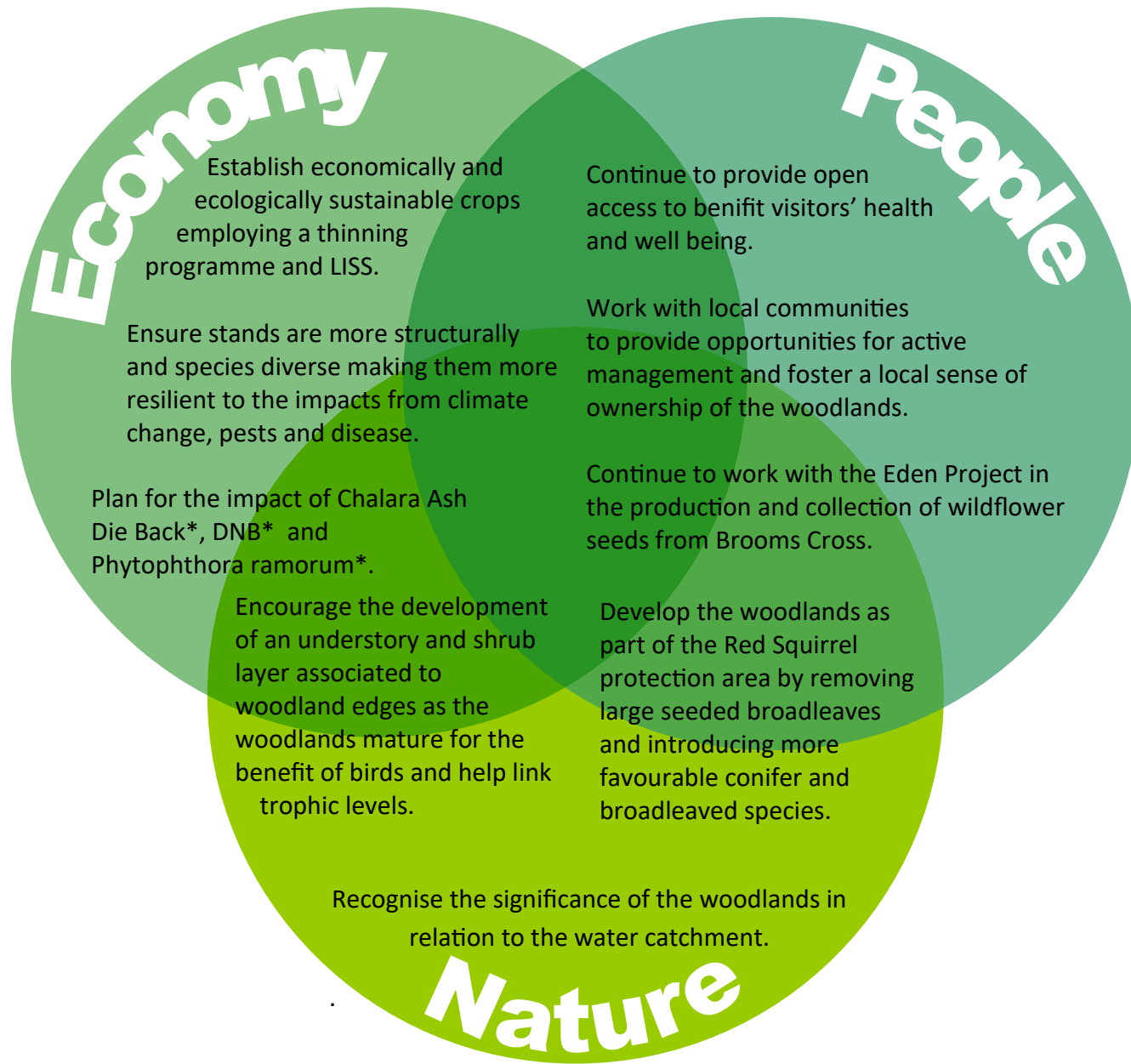
	Conifers	Broadleaves	Total area
Felling & Low Impact Silvicultural Systems* (LISS)	3.4	5.5	8.9
Restocking	8.9	0	8.9
New planting	1	0	1

Total felled area 8.9ha — Forest Plan maps are attached

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

2. Management Objectives

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. We’re able to share and care for amazing places and incredible wildlife because of the timber we produce.*

2.1 Economic

To date no income has been generated from these woodlands. The majority of woodland habitats are young, with 85% being planted since 2000. Over the next 10 years most woodland areas will be managed by respacing the trees (thinning*) and the removal of diseased/dead ash, Corsican pine and large seeded broadleaves which will release timber to the market generating income. There is currently limited provision for access by forest machinery and new access routes will need to be planned.

In Jubilee Wood there is the potential to create an additional 1ha of new woodland as well as replanting the 3.5ha of ash and 2.9ha of Corsican pine that are diseased and dying. This will allow opportunities to introduce a wider variety of species better suited to climate change and lessen the risk from pests and disease. The new woodland and restocking of felled areas will help diversify the current species range and woodland structure. An additional 1ha of ash and Corsican pine are scattered across Brooms Cross woodland will be removed when thinning operations take place, creating small clearings that can be replanted, increasing species and structural diversification. Where possible Forestry England aim to support local markets and contractors in the future management operations.

Grey squirrel damage is visible in every woodland and through the gradual removal of large-seeded broadleaves and the introduction of pine and spruce it is hoped that the grey squirrel population will decline due to a more limited food source.

Due to the small size and remote nature of Kew Wood there will be limited opportunities in the future to generate income from timber sales. The species composition in Bidston Moss and Cross Lane will produce limited commercial timber and these woodlands along with Bidston Moss Nature Reserve will be managed for conservation through minimum intervention*.

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

2.2 Nature

The woodlands support a wide variety of flora and fauna. Some are nationally scarce and others are legally protected due to their international importance.

The diversity of species is partly due to the variety of habitats available in the young woodlands, open habitats and water bodies. 35 species of breeding birds have been recorded, 14 of which are priority species which includes Cetti warblers a schedule 1 species and short eared owl.



Pic.1 Wild flowers at Brooms Cross

Ground flora is diverse and includes some that are of real note including Devil's-bit scabious, Betony, Water avens, Meadow cranesbill, Melancholy thistle and Round-leaved Wintergreen which is found at only 23 locations in the UK. At Brooms Cross Forestry England has been working in partnership with the Eden Project for over a decade to manage a wildflower meadows for seed production.

A number of streams and open water bodies can be found within the woodlands and along boundaries. These provide favourable habitat for otters and sightings of water vole and great crest newts (European Protected Species* (EPS)) have been recorded. The reed beds at Cross lane recently been listed under Natural England's Priority Habitat Inventory due to their importance ecologically.

Rougley's Wood lies adjacent to Lunt Meadows which is managed by the Environment Agency (EA) as a flood storage reservoir. Due to climate change and the predicted increase in frequency of extreme weather events Forestry England will work with the EA in the management of its open land around Roughleys to help mitigate the risk of flooding in urban areas.



Pic.2 Open water and reed beds at Bidston Moss Nature Reserve.

The central and northern woods lie within the Formby Red Squirrel Reserve which is one of the few remaining red squirrel populations in England. Forestry England will manage these woodlands to favour species that are most suitable for red squirrels and less favourable to grey squirrels which are also present in the area, see Appendix I.



Pic.3 Red squirrel

Challenges facing the local team in managing these woodlands include invasive weeds (Giant hogweed, Japanese knotweed and Himalayan balsom) which are being monitored and managed through stem injection and application of herbicides to the leaves. Ash Dieback, DNB and Phytophthora ramorum are now effecting the health of the ash, Corsican pine and larch. These species will be removed prematurely and replanted with species favourable to the red squirrels and more suited to future climate predictions. The impact from recreational disturbance and anti-social behaviour, resulting in pollution is also having an impact.

2.3 People

The woodlands are all situated in or very close to urban areas and have a moderate to high level of footfall each day from locals walking their dogs and exercising. On weekends and during holiday periods the woodlands see a greater use by families and young children. Public rights of way and the national cycle paths link the woodlands into the surrounding countryside. Bidston Moss, Cross Lane and Kew Wood have a good network of surfaced paths, providing good access all year around. In addition to the surfaced paths there are numerous informal paths across all the woodlands that are well used by walkers and cyclists. In 2024 a new community orchard was planted at Brooms Cross with the help of volunteers. 120 fruit trees of traditional varieties were planted, comprising of apple (Blenheim, Cox's orange pippin, Bramley Seedling, Discovery, Lord Derby) pear (Beure Hardy, Conference), damson (Merry weather), Greengage (Old English), Plum (Victoria, Yellow Pershaw), Medlar cherry (Marlow, Stella), almond and Webbs Prize Cob nut.

There are no car parks within the woodlands and visitors usually arrive on foot from neighbouring conurbations. There are no public facilities on site other than picnic areas and seating in and around the woodlands.

3. Harvesting Operations

Thinning operations will commence in Brooms Cross, Roughley and Jubilee Wood in the next 10 year period where the trees will be respaced to give them room to develop and mature. When thinning operations take place the ash and Corsican pine which are now diseased will also be felled. The distribution of Corsican pine and ash within the current woodland are scattered in small groups and their removal will create small clearings within the remaining woodland. These areas will be restocked through natural regeneration and planting with species that will be more resilient to the predicted climate (table 1) and by diversifying the species planted, reduce the possible impact of any future pests or diseases that may affect the health of the woodlands.



Pic.4 Corsican pine infected with DNB.



Pic.5 Ash infected with Chalara Ash Dieback.

The larch stands are at risk from *Phytophthora ramorum* which is present in the area. This is a notifiable disease and if the trees become infected Forestry England will be served with a plant health notice which means they will have to be felled to lower the risk to other woods. To reduce the impact this would have, larch trees will be crown thinned and underplanted with shade tolerant conifers. This will allow the woodland to develop an understory of trees ensuring there is no loss of woodland cover for wildlife if the larch does become infected in the future.

The woodland cover in Kew Wood, Bidston Moss and Cross Lane is mainly comprised of shrub species and a limited number of climax species*. These woodlands will be left to develop naturally and the shrubs and trees present will selectively thin themselves.

Table .1 - Suitable Species for 2080 climatic predictions – Merseyside and west Lancashire

Conifers	Broadleaves
1. Macedonian pine	1. Italian alder
2. Lawsons Cypress	2. Black polar
3. Coastal redwoods	3. <u>Pedunculate oak (must be less than 10%)</u>
4. Western red cedar	4. Hornbeam
5. European silver fir	5. Grey alder
6. Pacific fir	6. Aspen
7. Scots pine	7. Wild cherry
8. Norway spruce	8. Small-leaved lime
9. Serbian spruce	9. Sycamore

The above species were derived using Forest Research Ecological Site Classification Climate Matching tool <http://www.forestdss.org.uk/geoforestdss/#>

N.B The species in Bold will provide a suitable food source for Red squirrels as opposed to grey squirrels. This list is not definitive as its based on generic soil data for the region and should be used as a guide. The soil structure and drainage will vary across and between each woodland, these variations will help decide on the optimum mixtures to be planted.

Areas of mature pine and broadleaves within Roughley Wood and Bidston Moss Nature Reserve will be managed as long term retentions. The trees will be retained beyond their economic rotation to allow them to develop into future veterans creating deadwood habitats which are so important to woodland ecology. Any forestry operations that are undertaken in these areas will be done on nature conservation or health and safety grounds.

4. Intended Landuse

1ha of new woodland is proposed in Jubilee Wood and this will be the only change to the proportion of woodland habitats and open space across the forest plan area. When thinning operations take place any groups of infected ash and Corsican pine will be removed. The removal of ash and Corsican pine will create open glades in the woodlands that will be restocked with a combination of conifers and some broadleaves.

To increase forest-scale resilience to current and future pests, diseases and climatic changes we aim to introduce a wider range of tree species during restock where appropriate. This forms part of our portfolio approach to restock, which also includes accepting natural regeneration and using planting stock of local provenance and/or from 2 to 5 degrees south where possible, see table 1.

Open habitats will be managed sympathetically for the benefit of flora and fauna. The cutting patterns will be varied leaving uncut areas around woodlands allowing woody shrubs and a herbaceous layer to develop which will help link the food chain from the short vegetation to the tree canopies as the woodlands begin to mature. In line with red squirrel guidelines the east and south facing woodland edges will be scalloped to increase the woodland edge and increase tree seed production for the red squirrels. The management of these open habitats and water bodies is not detailed in the forest plan and will be managed by Forestry England local staff and ecologists.

Table.2 The Sefton 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	210.9	100	27,144	100
Total Wooded Area	77.6	36.8	23,461	86
Open Habitat (>10%)	133.3	63.2	3,235	12
Natural Reserves - Plantation (1%)	0	0	251	1.57
Natural Reserves - Semi Natural (5%)	0	0	380.9	4.81
Longterm Retentions & Low Impact Silvicultural Systems (>1%)	77.6	36.8	14,637	55.2
Area of Conservation Value (>15%) including LISS	195	92.4	17,582	64.8

Appendix I

In England, the red squirrel is endangered with the national population is estimated to be around 38,900 individuals. Owing to its rarity and vulnerability to habitat changes, the law protects red squirrels against intentional acts of damage or disturbance. They receive protection under the UK Wildlife and Countryside Act (1981) Schedule 5 and they are listed as a Section 41 species of Principal Importance for Conservation under the Natural Environment & Rural Communities (NERC) Act (2006).

The following tree species are suitable for planting in woodlands with or near to red squirrel populations:	The following trees species should not be planted	Have no direct benefit for red squirrels but also do not benefit grey squirrels:
Norway spruce Scots pine Western red cedar Douglas fir Wild cherry Blackthorn Bird cherry Crab apple Dog rose Guelder rose Hawthorn Holly Yew	Beech Chestnut Hazel Oak Walnut Where these species are present they should be kept below 10% of the woodland area.	Alder Aspen Birch Black poplar Cypress spp Field maple Hemlock Juniper Lime spp Rowan Sycamore Whitebeam spp Willows Wych elm

These lists have been adapted from Forestry Commission Scotland (2006) & Northern Ireland Squirrel Forum (2015) guidance.

Favourable woodland structure—*Ref -Red squirrels and forestry operations in England - operations note 65*

Suggested age class mixes for conifer forests for optimal red squirrel habitat (after Scottish guidance) in Spruce and Larch dominated woodland are:

- ⇒ 20-30% of 0-15 years
- ⇒ 20-30% of 15-30 years
- ⇒ At least 40% or more of 30 plus years

In pine dominated woodland the recommended age class mix is:

- ⇒ 20-30% of 0-20 years
- ⇒ 20-30% of 20-40 years
- ⇒ At least 40% or more of 40 plus years

Appendix II

National Strategy	District Strategy	Forest Plan Objective	Monitoring
<p>Economy:</p> <p>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.</p>	<p>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 clearfelling as a result of disease control to accelerate the diversification of both conifer and broadleaf species appropriate to each local area and site type, and in some areas trialling species which may not have been previously planted in forest conditions, using a range of silvicultural systems.</p>	<ul style="list-style-type: none"> • Plan for the impact of Ash Die Back and Phytophthora with the removal of ash and the phased removal of larch. • Select suitable species to maximise timber production to ensure the woodlands can be managed sustainably. • Increase the area of woodland cover and use a wider variety of evergreen conifer species that will be more resilient to the impacts of climate change, pests and diseases. • Use a variety of silvicultural systems based around the light requirements of the trees present to encourage natural regeneration and help establishment. 	<ul style="list-style-type: none"> • Record changes in the sub compartment data base. • Use the production forecast tool as part of the 10 year forest plan renewal process to ensure harvesting is carried out sustainably. • Record and change of landuse in the sub-compartment database. • Record the silvicultural systems to be used in the management coupe database.
<p>Nature:</p> <p>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.</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. 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.</p>	<ul style="list-style-type: none"> • Recognise the significance of Forestry England’s land holding and management in relation to the water catchment area. • Continue to manage open habitats for flora and fauna. • 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. • Develop Sefton Woodlands as part of the Red Squirrel protection area through the removal of large seeded broadleaves (oak, beech, hazel) and the introduction of pine and spruce (cone bearing trees) and small-seeded broadleaves (birch, alder, willow). 	<ul style="list-style-type: none"> • Work with Environment Agency with regards flood mitigation – no monitoring required. • No monitoring required. • No monitoring required. • Record changes to species composition in the sub-compartment database.

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, 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.</p>	<p>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.</p>	<ul style="list-style-type: none"> • Continue to provide an extensive network of access routes for walkers, horse riders and cyclists. • Continue to promote open access on our freehold woodlands. • Look to develop links with partners to provide a wider range of public services with the focus on physical and mental health, families, children, education. 	<ul style="list-style-type: none"> • Access routes to be monitored and maintained by the beat team in accordance with Forestry England guidelines. No monitoring required. • No monitoring required. • No monitoring required.

Appendix III

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

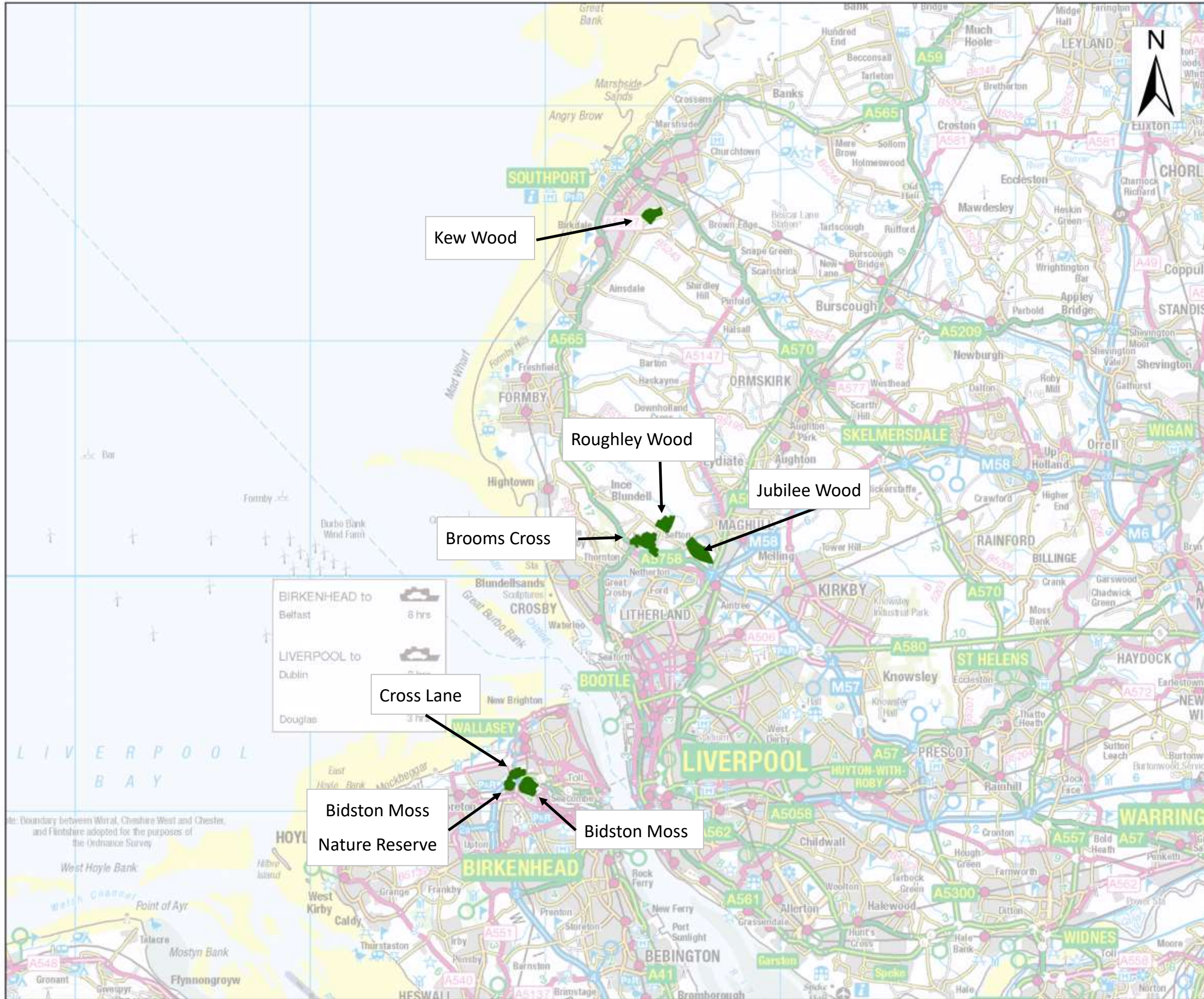
The removal of a proportion of trees in a forest after canopy closure, usually to promote growth and greater value in the remaining trees.

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 Mersey Forest. This project aims to improve the economic, social and environmental regeneration of the countryside around towns and cities through the creation of new woodlands and open spaces.

Forestry England has cared for these woodlands as they have matured, ensuring that they delivered a wide range of ecosystem services*. The woodlands continue to expand and in 2024 an additional 10ha was planted that included a 0.5ha community fruit orchard.

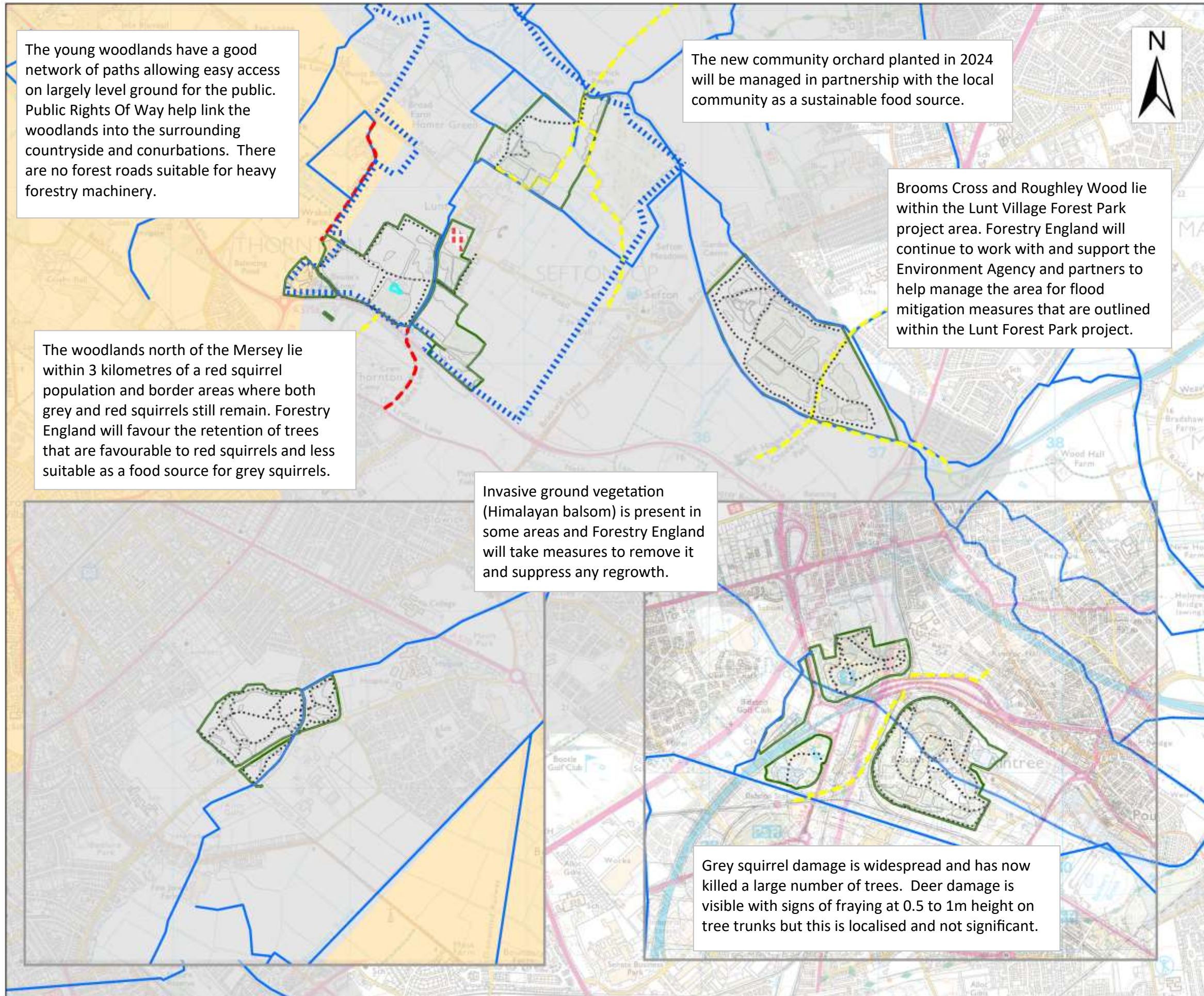
Scale: 1:150,000



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












Designed by Alastair Sample



Central Forest District

Survey Map

-  Orchard
-  Access paths
-  Red & Grey Squirrels
-  Grey squirrels
-  Bridleway
-  Byway
-  Footpath
-  Watercourses
-  Lunt Village Forest Park Project
-  Management boundary

Scale: 1:20,000



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Designed by Alastair Semple

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Central Forest District

Current Species

-  Open habitats
-  Broadleaves
-  Pine
-  Fir
-  Larch
-  Other conifers
-  Mixed Broadleaf & Conifer
-  Orchard
-  Woodland Boundary



The woodland areas are dominated by deciduous species with ash, alder and birch being the primary species. 82% of the woodlands were planted between 2000 and 2008 have established well and will be ready for their first thinning (respacing) in the next 10 years.

5.5 ha of woodland is occupied by ash which is now infected with Cholera Ash Dieback. The young trees have become defoliated and are now dying. 3.4ha of Corsican pine has also been infected with Dothistroma needle blight, a fungal disease that will weaken and defoliate the trees. 6.2 ha of larch remains healthy in 2024 but is at a high risk of infection from Phytophthora ramorum, which is present in the area.

Rooting depth could be a limiting factor in Jubilee Wood and Bidston Moss due to their past land use (landfill). Despite the rapid establishment trees in these two woodlands will be managed on a shorter rotation length (<50yrs) to prevent the trees from becoming too large.

10ha of new woodland planting has taken place in spring 2024 in Brooms Cross woodland which includes a new fruit orchard planted with the help of the local community.

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

The young community woodlands have a high percentage of open space. 101 hectares (22%) is currently managed as open grassland.

Scale: 1:20,000

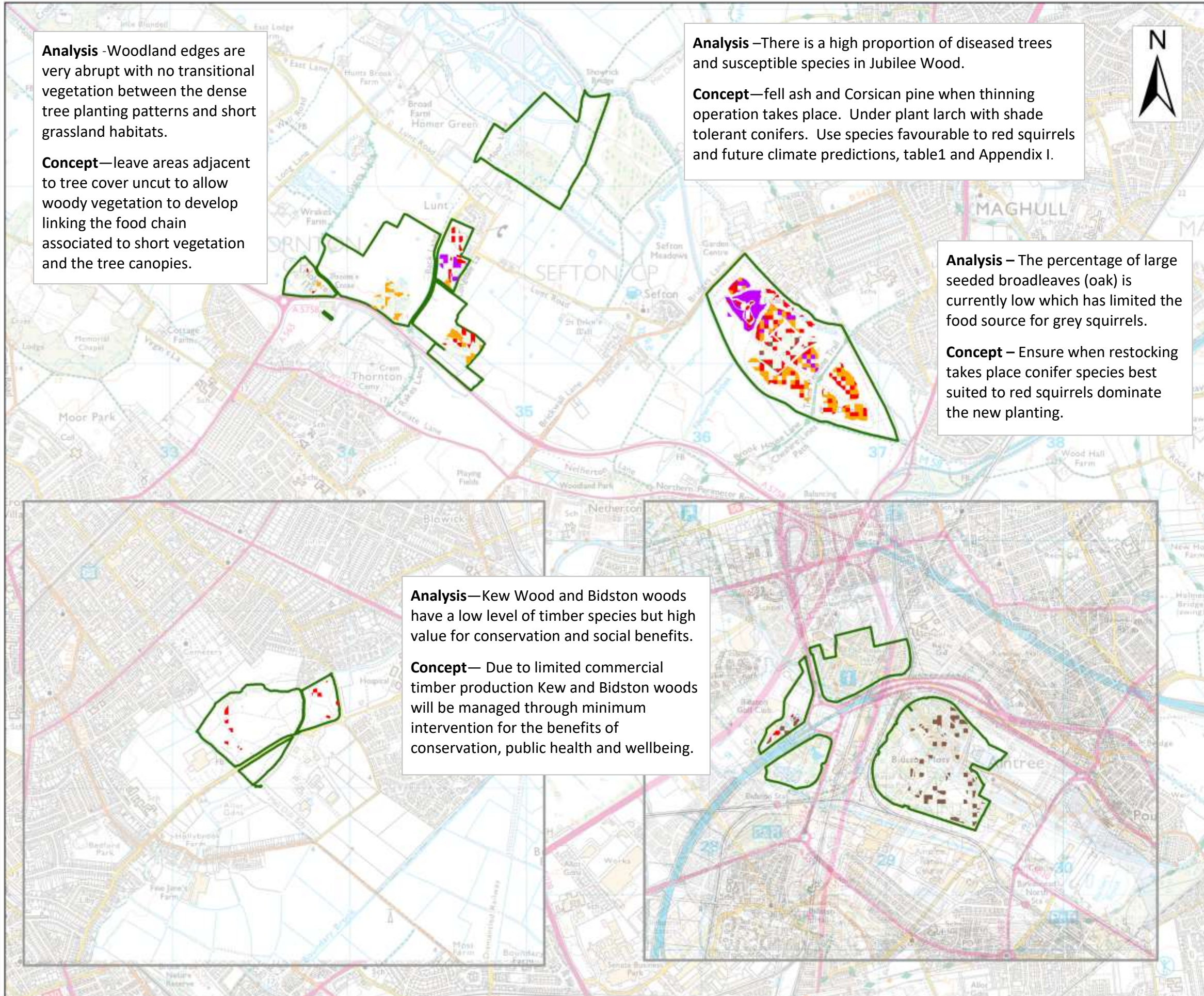


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Central Forest District

Analysis & Concept

-  Corsican pine
-  Hybrid larch
-  Oak
-  Ash
-  Orchard
-  Woodland Boundary

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

Scale: 1:20,000



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Central Forest District

Felling Plan

-  Open habitats
-  Low Impact Silvicultural Systems (LISS)
-  Orchard
-  Long term retention
-  Woodland Boundary



All timber arising from the Forestry England estate represents a negligible risk under the Timber and Timber Products Placing on the Market Regulations (UKTR) and UK FLEGT Regulations.

Areas to be managed as long term retentions will allow the trees to reach biological maturity, developing deadwood habitats for wildlife.

The woodland habitats will be managed using Low Impact Silvicultural Systems (LISS). This will involve small coupe felling <2ha. These operations will allow adequate space for the development of crowns and stem form for quality timber, accelerate individual tree growth and provide sufficient light to boost growth of understorey and ground flora.



Scale: 1:12,500



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Central Forest District



Scale: 1:10,000

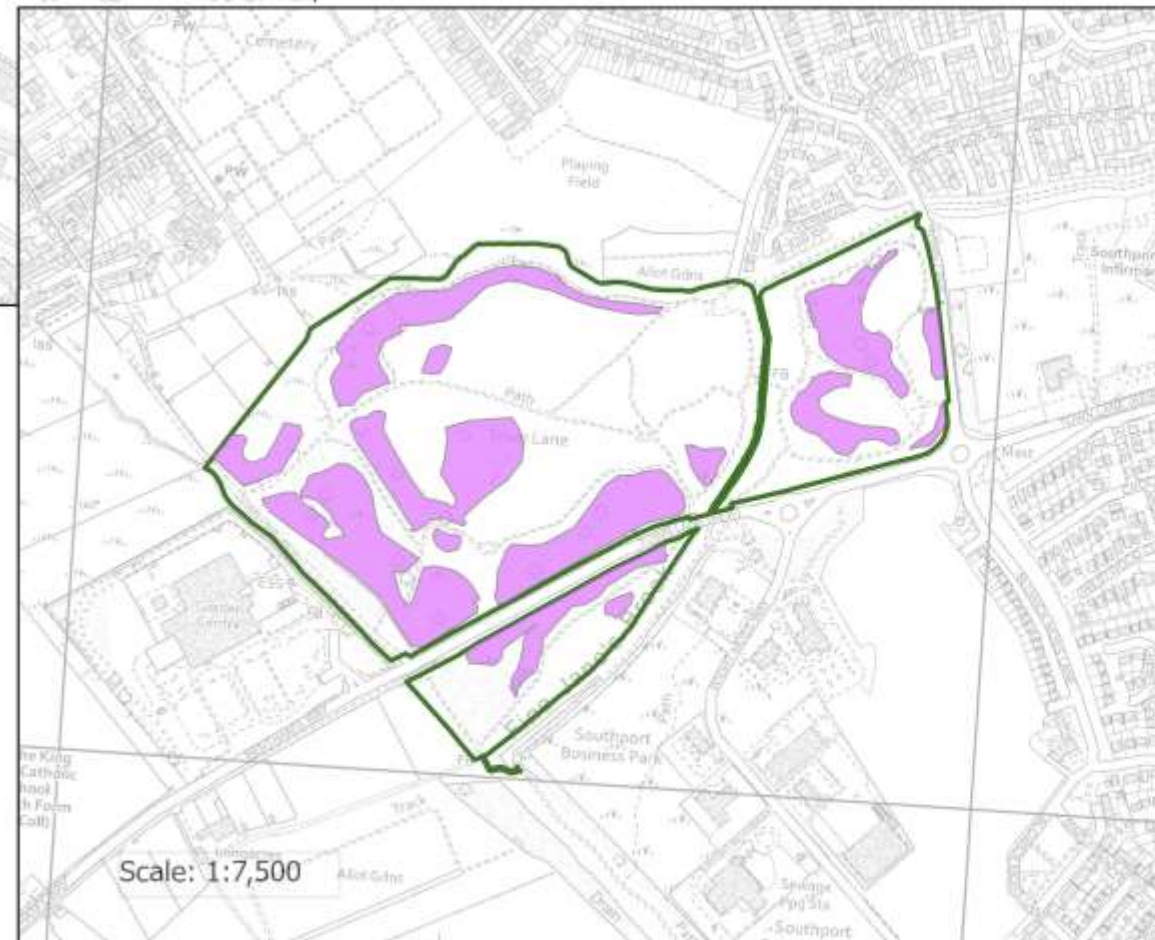
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Felling Plan

- Open habitats
- Low Impact Silvicultural Systems (LISS)
- Long term retention
- Woodland Boundary

Bidston Moss Nature Reserve to be managed as long term retentions will allow the trees to reach biological maturity, developing deadwood habitats for wildlife.



Scale: 1:7,500



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Central Forest District

Intended Landuse

-  Open habitats
-  Conifers with some broadleaves
-  Broadleaves with some conifer
-  Orchard
-  Woodland Boundary



Scale: 1:12,500



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Designed by Alastair Semple

Central Forest District

Intended Landuse

-  Open habitats
-  Conifers with some broadleaves
-  Broadleaves with some conifer
-  Woodland Boundary



Scale: 1:10,000

Within each woodland a mixed stand structure will be developed comprising of a variety of evergreen and deciduous species.

Vegetation associated to open water and grassed areas will be managed sympathetically for wildlife, allowing a more structured scrubby edge to develop adjacent to woodlands.



Scale: 1:7,500



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