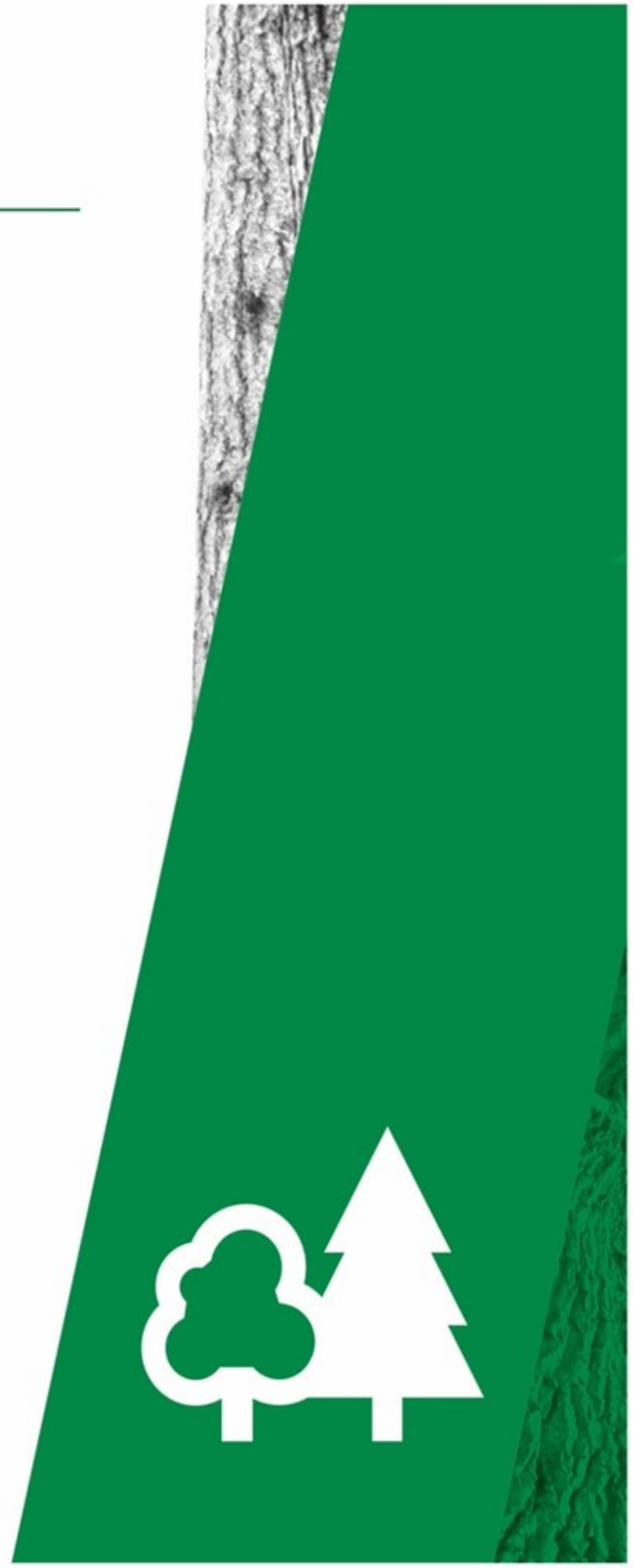
Forestry England

Bourne Woodlands Forest Plan

2024 – 2034



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Pic.1: A view along part of the forest path network in Bourne Wood

Contents

Summary

This Forest Plan (FP) summarises proposals by Forestry England for the management of the Bourne Woodlands in South Kesteven, Lincolnshire. The Bourne Woodlands FP area totals 717.5ha and comprises the majorities of Bourne Wood (282ha) and Temple Wood (242.5ha) and the entireties of Gunborough Wood (43.8ha), Spring Wood (48.5ha) and Callan's Lane Wood (100.7ha). Tenure is split 77% freehold and 23% leasehold *(see Location, Tenure and Access Map, p.15).*

The Bourne Woodlands fall wholly within the Kesteven Uplands National Character Area* (NCA) which is characterised by a gently rolling, mixed farming landscape. The scattered woodlands within this area are significant; including semi-natural, ancient and commercial forests. The elevation of the Bourne Woodlands within the undulating landform ranges from 22m (in Bourne Wood) to 76m (in Temple Wood), all woodlands being prominent in the low lying landscape and visible from respective local roads *(see Survey Maps, p.18&19).*

The geology of the area is varied, giving rise to a range of soil types from limestone through to heavy clays. The main soil types of the Bourne Woodlands are pelo-stagnogley and argillic gley *(see Designations and Soil Types Maps, p.16&17),* both of which are poorly draining. Protecting water quality and improving water availability are important issues in the NCA, since there is a principal aquifer in the underlying limestone and the Kesteven Uplands form a watershed between multiple adjacent catchments. The forests themselves are predominantly Plantations on Ancient Woodland Sites (PAWS)* and Ancient* and Semi-Natural* Woodland (ASNW), plus a mix of broadleaved and coniferous secondary* woodland.

The primary management objectives for the Bourne Woodlands are to:

- Continue the restoration of PAWS, and maintain and improve the ecological value of the lowland mixed deciduous woodland priority habitat.
- Use Lower Impact Silvicultural Systems* (LISS) where appropriate to protect soils and water.
- Sustainably grow commercial timber using species and systems resilient to the impacts of pests, diseases and climate change to maximise yields and prioritise timber quality.
- Conserve the ecological and heritage features and maintain existing public access.

Pic.2: One of the ponds in Bourne Wood

Application for Forest Plan Approval

i Plan Area Identification:

Forest District:	Central Forest District	
Beat:	North Northants Beat	
Name:	Bourne Woodlands Forest Plan	
Nearest Town:	Bourne	
Grid References:	Bourne Wood	TF 0774 2113
	Gunborough Wood	TF 0679 2325
	Spring Wood	TF 0650 2416
	Callan's Lane Wood	TF 0626 2626
	Temple Wood	TF 0566 2869
Local Planning Authorities:	South Kesteven	

ii Designations:

NCA* Kesteven Uplands (Profile 75)
Ancient Woodland* and PAWS*

iii Date of Commencement of Plan: On approval.

Bourne Woodlands FP approved on 26/03/24

Proposed felling and restocking summary for 10 year FP period:

	Conifers	Broadleaves	Total
Clearfelling	21.5ha	35.2ha	56.7ha
Restocking	0.7ha	63.7ha	64.4ha
Regeneration Felling (LISS*)	0ha	Up to 214.4ha	Up to 214.4ha

The above figures refer to the gross area and exclude routine thinning operations. Restocking includes both planting and natural regeneration, and incorporates the restock of two felled coupes in addition to the planned clearfells.

Forest Plan maps are attached

In addition to the proposed clearfelling, 536ha will be managed using 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/compartment over the plan period. This operation will provide sufficient light to boost growth of the understorey and ground flora, allow adequate space for the development of crowns and stem form for quality timber and accelerate individual tree growth; and will also be supported, where necessary, by planting.

All of our forests and woodlands 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.

All Forestry England forests and woods are independently certified as sustainably managed, to continue to benefit future generations.

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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 felling and restocking management proposals for the first 10 years in order to obtain 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 *(see Appendix I, p.12-14).*

A FP is a 'felling and restocking' plan and is written at a landscape scale. It does not set out the detailed yearly management operations for each small area in 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 work is undertaken. These plans outline the site specific features and constraints, and the measures in place to account for these during the work. This FP does not deal with the specific management of recreation, ecological or archaeological features. Planning for these elements follows a different management cycle and process.

Terms of Reference *(see p.11)* set out Forestry England's management objectives for the plan area, how these relate to national and district 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 is such that the FP 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 10 years and outline approval for the medium term vision (10 years to 50 years).

2. Review of Previous Forest Plans

The Bourne Woodlands FP area was previously covered by separate plans for each wood:

- Bourne and Auster
- Spring and Gunborough
- Callan's Lane
- Temple

These individual FPs were originally approved in May 2006 and subsequently extended to July 2021. Given the close alignment of objectives across these woodlands it is appropriate to combine their management under a single FP.

The former plans were written against different criteria from recent FPs. Whilst they provide a valuable summary of the ecological and historical records, they are light on detail regarding specific management objectives. This limits the reviewable elements of these former plans for the Bourne Woodlands FP area.

- **Forest Operations:**

A total of 10.2ha of woodland has been clearfelled since 2006. This is in addition to regular thinning operations and LISS* interventions during this time period. Of this area, 2.5ha has been restocked by natural regeneration and 7.7ha is awaiting planting (having been felled within the last two years under felling licences).

- **PAWS* Restoration:**

The gradual reduction in conifers and reversion to broadleaf species has been ongoing since 2006. To date, 53% of PAWS has now been restored to over 80% native species cover. *Fig.1* displays this progress since 2013.

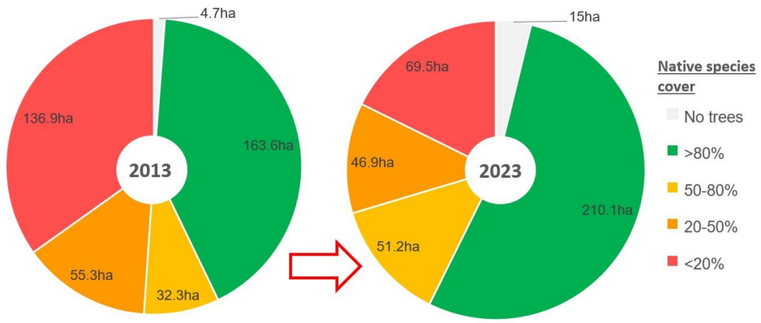


Fig.1: Bourne Woodlands PAWS area classified by native species cover

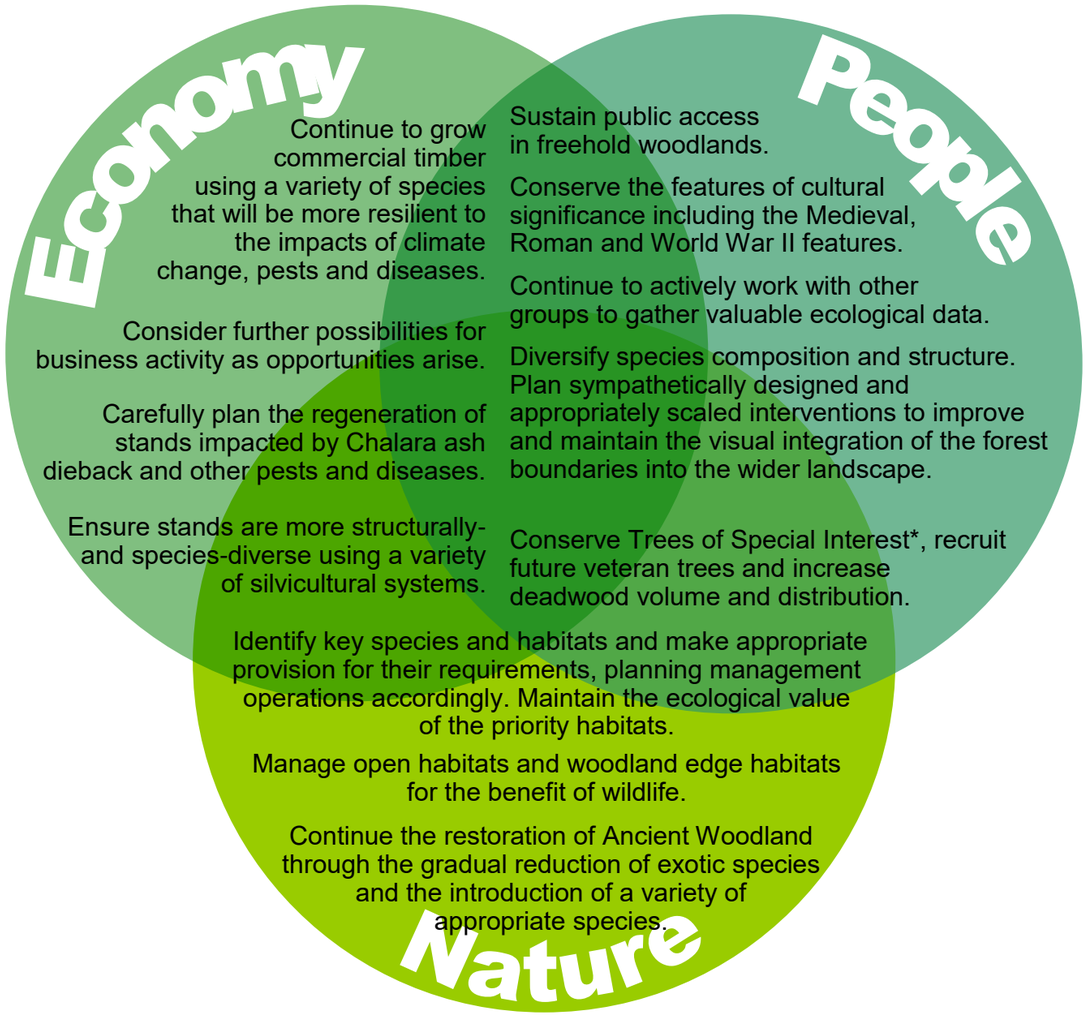
- **Chalara Ash Dieback*:**

European ash is the second largest component in the Bourne Woodlands, representing 30% of the total species mix *(see Fig.2, p.7)*. Chalara ash dieback is present throughout these stands and is already having a major adverse impact on woodland cover within the Bourne Woods. Previous FPs did not consider ash dieback since the disease was not confirmed in the UK until 2012.

3. Management Objectives

Forestry England's mandate is to protect and expand England's forests and woodlands and increase their value to society and the environment. Our mission is to connect everyone with the nation's forests by creating and caring for our forests for people to enjoy, wildlife to flourish and businesses to grow.

In the Bourne Woodlands FP area we aim to achieve the following management objectives:



3.1 Nature

Ancient* and native woodlands support high levels of biodiversity and host many priority species. They also deliver important ecosystem services including water and soil regulation, carbon storage, and support for people's wellbeing and cultural values. Bourne Wood itself features fragments of ancient wood: combinations of seminatural communities including mixed wych elm wood, limewood, oakwood with hazel, and mixed hazelwood. Over 80% of the Bourne Woodlands FP area is classified as Ancient Woodland *(See Fig.6 & Designations and Soil Type Maps, p.16&17).* Continuing to protect and restore Ancient Woodland is a priority for this plan.

Pic.3: Hobby

The Bourne Woodlands host a number of important species. These include great crested newt and Liesler's bats. The woodlands offer an excellent habitat for birds. 49 bird species have been recorded in the woodlands, included long-eared owl, crossbill, lesser spotted woodpecker, nightingale, nuthatch and six species of warbler. Other notable birds include hobby and peregrine.

Pic.4: Hairy Dragonfly
Pic. 5: Red-eyed Damselfly

Another priority for Forestry England is the management of open land and associated woodland edge habitat for the benefit of wildlife. 8.2% of the Bourne Woodlands is open space *(see Current Species Maps, p.20&21*), providing excellent habitat for many species of Lepidoptera and Odonata. Remarkable butterfly species include white admiral, purple hairstreak, white-letter hairstreak, brown argus and Essex skipper. 295 species of moth have been recorded in Bourne Wood, plus 15 dragonfly and damselfly species including hairy dragonfly and red-eyed damselfly.

There are many notable plant species, including greater butterfly, common spotted and early purple orchid; adder's-tongue, wood and lady fern; broad-leaved helleborine; Devil's-bit scabious; moschatel; herb paris; common twayblade; sanicle; thin-spiked wood sedge; nettle -leaved bellflower; greater burnet saxifrage and narrow-leaved everlasting-pea. Diverse flora is important in its own right, but the botanically-rich rides, glades and woodland edges in the Bourne Woodlands also provide valuable nectar sources for invertebrate populations. Ride widening is anticipated during the FP period to expand and enhance this open habitat and improve pest management.

There are currently 88 Trees of Special Interest* (TSI) recorded throughout the Bourne Woodlands, which are to be retained for generations to come. We will continue to record TSI and future TSI as they are identified, so they can be conserved and protected during management operations. These ancient, veteran and notable trees are highly important for biodiversity and an irreplaceable part of our natural heritage, providing unique ecological conditions and supporting entire ecosystems.

A previous fungi survey recorded 104 species in Bourne Wood. Species identified included yellow fan, humpback inkcap, fenugreek stalkball, common rustgill (found on oak but normally associated with conifers), golden scalycap and green elfcup.

As previously mentioned, Chalara ash dieback* is having a significant adverse impact in the Bourne Woodlands. The majority of ash is heavily infected and already exhibits significant canopy decline. Proactive removal of ash in the vicinity of roads, carparks and the most popular trails has already commenced to mitigate the risk from falling dead trees and branches. Ash dieback fundamentally threatens woodland cover in ash-dominated stands *(see Current Species Maps, p.20&21).* These stands will be managed using LISS* or clearfell as appropriate, using both restock and natural regeneration to increase the proportion of other species into the future. Individual ash trees displaying tolerance and potential resistance may be retained where safe to do so. Again, where appropriate, dead and dying trees may be retained to increase ecologically-valuable deadwood habitat. Oak stands are also under threat; being impacted by chronic oak decline* and with examples of acute oak decline* in Temple Wood.

Other challenges for the woodlands include the high incidence of grey squirrel and deer, which are proactively managed by Forestry England. The appetite of non-native grey squirrels for bark stripping increases the susceptibility of young trees (especially beech, oak, sycamore and birch) to secondary infections and can often lead to tree death. Further adverse effects include stunted tree development and inhibited form, plus reduced carbon-capture potential and yield. Fallow and muntjac deer move freely across the region which, without a coordinated approach by all local landowners, dilutes the direct benefit of Forestry England's deer management. We would welcome the opportunity to engage in a broader local deer strategy. Browsing pressure means most restock coupes will likely need fencing except for the least-palatable species. Deer damage is not restricted to young trees and also impacts ground flora (a recent ecological survey in Temple Wood found deer-browsed orchids prior to flowering).

Wood small-reed *(Calamagrostis epigejos)* poses an additional complication during establishment by rapidly covering felled areas (plus those badly affected by ash dieback canopy loss) and out-competing regenerating and newly-planted tree saplings.

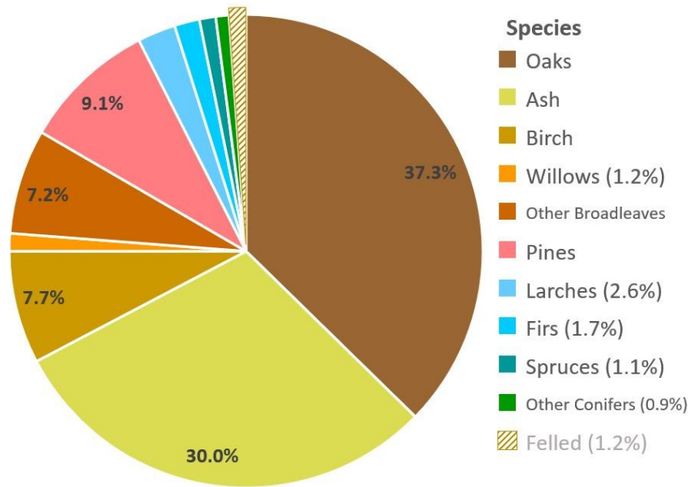


Fig.2: Current species mix the Bourne Woodlands

3.2 Economy

83% of the wooded area in the Bourne Woodlands is broadleaf (*Fig.2)*; this being dominated by oak (37%) and ash (30%). *Fig.3* below shows the current structural diversity. There is a significant peak of broadleaves in the 81-90yrs age class, highlighting a need to restructure these stands. A regular programme of LISS* interventions such as small-coupe felling* will maintain timber production during the next 50+ years and improve the spread of younger broadleaves through restocking and regeneration. The majority of coniferous areas are PAWS*, so the phased felling schedule will support a gradual reduction in the overall coniferous component as these coupes are harvested and restored to predominantly broadleaved woodland.

Fig.3: Current structural diversity

Timber production will be managed on a sustainable basis, improving future revenues by focussing on quality broadleaf and conifer sawlogs in both ancient* and secondary* woodland areas respectively, and by maximising yield. Emerging markets, such as biomass on shorter 15-20yr rotations, will also be considered for suitable crops. During restock, Forestry England will continue to introduce compatible species and species-mixes into the Bourne Woodlands to improve resilience against future pests and diseases and to ensure the woodland habitats can be adapted to the rapid climate change we are now seeing. This will enable us to continue to provide sustainable timber resources needed by society while maintaining other woodland ecosystem services*.

Table 1: Timber volumes and clearfell areas

Forecast Period	Average annual timber volume (m^3)	Average annual clearfell area (ha)
2024-2026	1105	4.1
2027-2031	971	5.4
2032-2036	937	4.8
3037-2041	898	3.9
2042-2046	696	4.3
2047-2051	599	4.3

Table 1 displays the predicted average annual timber production (from clearfelling, selective felling and thinning combined) alongside the average annual clearfell area for the next six five-year periods. The annual combined volumes are split approximately 67% from broadleaf & 33% from conifer. In response to ash dieback Forestry England will target ash during thinning and bring forward the felling of the worst affected ash-dominated stands.

Any opportunities to engage with third party partners or businesses to generate secondary income sources will be considered where there is alignment with wider FP objectives.

3.3 People

Access to the Bourne Woodlands is mixed and dependant on tenure: the freehold woodlands (most of Bourne, Callan's Lane and Temple Wood) are dedicated open access under CRoW (Countryside and Rights of Way Act, 2000), whereas there is no public access to the leasehold woodlands beyond the public footpaths *(see Location, Tenure and Public Access Map, p.15 & Survey Maps, p.18&19).* Bourne Wood is the most popular site for locals and other visitors alike, who use the large carpark, forest roads and network of informal paths to enjoy the woods.

Forestry England values and will continue to engage with groups who share our interest in conserving the ecological and cultural value of the Bourne Woodlands through our permissions system. For example the Bourne Community Orchard managed by the Friends of Bourne Wood.

The Kesteven Uplands NCA has a rich historic environment with parts of the Bourne Woodlands able to be traced back to the 1088 Domesday Survey. Accordingly there are many heritage features within the Bourne Woodlands FP area such as woodbanks and banked enclosures, preserved bank and ditch systems along parish boundaries, ridge and furrow, trackways and more recently WWII features. The bomb store bunds of RAF Folkingham are still visible in Temple Wood. There is also a Roman ride passing through Callan's Lane Wood and an unscheduled medieval moated enclosure in the south-west corner.

All known features of historic and cultural significance are recorded *(see Survey Maps, p.18&19)* to ensure forest operations in their vicinity can be conducted sensitively to preserve and protect them. Similarly any new findings will also be recorded.

4. Harvesting Operations

A range of silvicultural systems* will be adopted in the Bourne Woodlands, designed to create ideal conditions to establish the next rotation of trees *(see Fig.4 overleaf & Silvicultural Systems Maps, p.26&27)*.

Over 21% of the wooded area will still be managed under a traditional clearfell and restocking programme during this rotation, providing cost-effective timber production and transitional open space for wildlife. This clearfell proportion will reduce over future rotations as PAWS* areas are restored to native species which will then be managed predominantly through LISS*. A total of 56ha of clearfell will be undertaken during the 10 year FP approval period comprising 20 coupes throughout the woodland area *(see Felling Phases Maps, p.28-32).* These felling coupes involve PAWS* restoration, short rotation biomass production and management for ash dieback.

The management of broadleaf stands will be predominantly through LISS* group felling systems (group selection and small coupe felling), wherein small clearings of up to 2ha are created to restructure the crops and diversify their age- and species-composition. The size and shape of the clearings will be designed around the light requirements of the trees to become established (considering aspect* and shade cast by adjacent stands), helping create optimum growing conditions. For the benefit of wildlife larger clearings will be elongated to maximise edge habitat. It is hoped the use of LISS will also offer greater protection to soils and ground flora by maintaining canopy cover; thus reducing the likely impacts of extreme weather events and variation in micro climates throughout the day and between seasons.

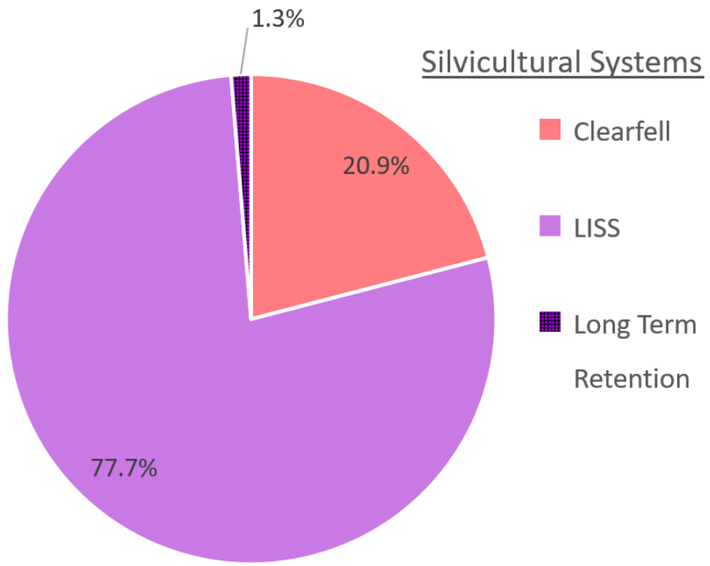


Fig.4: Silvicultural systems by forested area

In addition to the aforementioned felling programme, thinning assessments will be made every 5 years and thinning operations planned accordingly. Managing stand density and light availability through thinning is essential for each tree's crown and root system to develop fully, helping ensure the trees remain stable in the wind as they mature. Thinning operations are also an important source of timber and timber revenue.

As part of our Operational Planning* process, all forest operations are carefully considered beforehand and are conducted sensitively regarding the ecology, heritage, and constraints of the site. Operations will be carried out in line with all relevant regulations and best-practice guidance as summarised in the UKWAS*. Forestry operations may take place at any time of the year. This is necessary to strike a balance between the greatly increased risks of damage to flora and increased soil compaction associated with working during the wetter winter months (the gley soils of the Bourne Woodlands are prone to waterlogging) and the need to minimise disturbance to designated habitats, species and breeding birds.

5. Intended Landuse

The species composition within the Bourne Woodlands is currently split approximately 83% broadleaves to 16% conifers by area *(see Fig.5 below)*. PAWS* restoration during the next rotation will result in broadleaf woodland increasing to an estimated 99% of the forested area. 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.

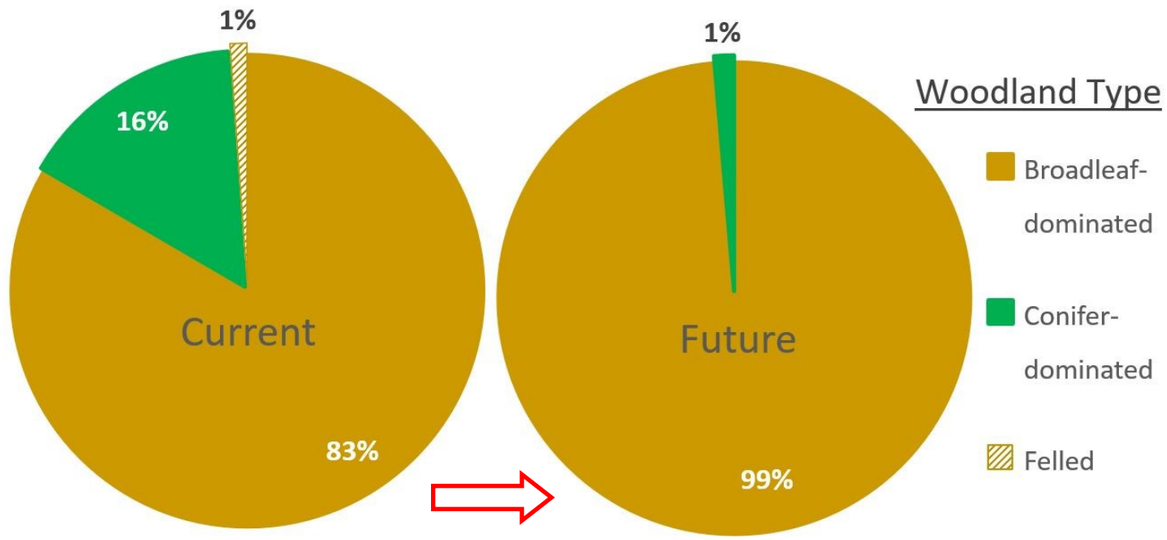


Fig.5: Species change over the next rotation

Ash stands will be restocked with alternative broadleaved species (through natural regeneration and planting), enhancing the woodlands' resilience and adaptive capacity in the wake of ash dieback. Similarly opportunities to increase the species diversity of oak-dominated areas will be taken following LISS interventions in response to chronic oak decline* and acute oak decline*.

6. Contribution towards Forestry England Central District's commitments to UKWAS and UKFS from the Bourne Woodlands FP

	Forest Plan Area (ha)	Forest Plan Percentage	Forest District Area (ha)	Forest District Percentage
Total Area	717.5	100%	27,144	100%
Total Wooded Area	658.8	91.8%	23,909	88%
Open Habitat (>10%)	58.7	8.2%	3,235	12%
Natural Reserves* - Plantation (1%)	0	0%	251	1.57%
Natural Reserves - Semi Natural (5%)	0	0%	381	4.81%
Long-term Retentions* & LISS (>1%)	557.3	77.7%	14,637	54%
Area of Conservation Value (>15%) *including designations, Ancient Woodland*, PAWS,* Natural Reserves, Long Term Retentions & LISS*	710.8	99.1%	17,582	64.9%

Pic.6: Spring in Temple Wood

7. Terms of Reference

National Strategy	District Strategy	Forest Plan Objective	Monitoring
Economy: 1) Maintain the land within our stewardship under UKWAS certification, 2) Improve the economic resilience of our woods and forests, 3) Encourage and support business activity on and around the Estate.	1) Adapting our management practices to suit the character and requirements of local woodlands whilst satisfying national standards and business requirements. 2) We will use the opportunity presented by additional, unscheduled 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.	• Continue to grow commercial timber using a variety of species that will be more resilient to the impacts of climate change, pests and diseases to maximise yields. • Use a variety of silvicultural systems based around the light requirements of the trees to be established. • Carefully plan the regeneration of stands impacted by Chalara ash dieback and other pests and diseases. • Ensure stands are more structurally diverse, actively managing the woodland to promote age- and species-diversity. • Consider further possibilities for business activity as opportunities arise.	• Forestry operations and restocking will be recorded in the Forestry England sub-compartment database and monitored at 5 year mid-term review and 10 year renewal. • Record the silvicultural systems used in the Forestry England GIS system. • Record the changes in species composition in the Forestry England sub-compartment database. • Monitor as part of the 10 year forest plan renewal. • No monitoring required.
Nature: 1) Improve the resilience of the natural environment of the Estate under our Stewardship, 2) Realise the potential of the Public Forest Estate for nature and wildlife, 3) Maintain and improve the cultural and heritage value of the Estate.	1) Adapting more 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.	• Continue the restoration of Ancient Woodland through the gradual reduction of exotic species and the introduction of a variety of appropriate species that will be better suited to the impacts of climate change, pests and disease. • Identify key species and habitats and make appropriate provision for their requirements. Maintain the ecological value of the priority habitats. • Management operations will be planned to consider the habitat requirements of European Protected Species associated with Forestry England's land. • Manage open and woodland edge habitats for the benefit of flora and fauna. • Identify existing locations of TSI and demonstrate appropriate management to recruit future veteran trees and increase the volume and distribution of deadwood.	• Ancient Woodland restoration will be monitored as part of the 10 year forest plan renewal. • Monitored as part of the operational planning process. • Monitored as part of the operational planning process. • Existing and future TSI to be recorded on the conservation database, reviewed as part of operational planning process, at the 5 year mid -term review and as part of the 10 year forest plan renewal.
People: 1) Encourage communities to become involved in the Estate, its management and direction, 2) Provide high quality woodland-based recreational opportunities for people and business, 3) Enable everyone, everywhere to connect with the nations' trees and forests so that they understand their importance and act positively to safeguard forests for the future.	1) Provide safe and accessible woodlands. 2) Offering opportunities for quiet recreation and adventurous activities, to enable people to experience the potential health and wellbeing benefits. 3) Developing partnership with private businesses and public bodies to expand and improve recreational opportunities across the estate. 4) Creating a wide variety of opportunities for schools, groups, families and individuals to engage with and learn about trees and forests in accordance with the National and District Strategies. 5) Encouraging third party environmental educators and other partners to offer learning opportunities on the public forest estate.	• Diversify species composition and structure. Plan sympathetically designed and appropriately scaled interventions to improve and maintain the visual integration of the forest boundaries into the wider landscape. • Conserve the features of cultural significance including the Medieval, Roman and World War II features. • Sustain informal public access in all freehold areas. • Continue to actively work closely with local volunteer groups.	• Species composition, age structure and coupe design reviewed at 5 year mid-term review and as part of the 10 year forest plan renewal. • Monitored as part of the operational planning process. • No monitoring required. • No monitoring required.

Appendix I

Glossary

Acute Oak Decline
Acute 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. Symptoms include characteristic weeping cankers/ lesions in the bark.

Ancient Woodland
Areas of semi-natural native woodland that have had continuous woodland cover since at least 1600. They are particularly rich in biodiversity and this is often notable in their characteristic ground flora.

Aspect
The direction a slope faces. This can have a strong influence on the microclimate, ground vegetation, soils and hydrology.

Canopy
The mass of foliage and branches formed collectively by the crowns of trees. The shade it casts has a strong influence on the plants, trees and shrubs beneath it.

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

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.

Chronic Oak Decline
Chronic oak decline is a complex disorder of oak trees which several damaging agents interact either simultaneously or sequentially to bring about a serious, long term decline in tree health and condition. It differs from acute oak decline (above), which causes a much faster, and usually fatal, decline in tree health.

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.

Coppice
Coppicing is a Lower Impact Silvicultural System (LISS) based on regeneration by regrowth from cut stumps (coppice stools). The same stool is used through several cycles of cutting and regrowth. Coppice can also refer to an area of woodland in which the trees or shrubs are periodically cut back to ground level to stimulate growth and provide wood products. 'Coppice with standards' refers to coppice with a scatter of trees grown on a long rotation to produce larger-sized timber and to regenerate new seedlings to replace worn out stools.

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

Dothistroma Needle Blight (DNB)
DNB is a fungal disease affecting mainly pine species. The fungus affects the needles of the infected tree, which are eventually shed. This can continue year on year and gradually weaken the tree, significantly reducing timber yields. It can also eventually lead to mortality.

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).

England Trees Action Plan
Sets out the Government's long-term vision for the treescape it wants to see in England by 2050 and beyond.

Forestry England
Forestry England is the executive agency of the Forestry Commission that is responsible for managing the Nation's Forests 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.

Glossary (continued…)

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.

the Nation's Forests
The woodlands managed by Forestry England. These include both freehold and leasehold land. (Previously referred to as the Public Forest Estate.)

National Character Area (NCA)
Broad divisions of landscape form the basic units of cohesive countryside character, on which strategies for both ecological and landscape issues can be based. There are 159 Character Areas, each of which is distinctive with a unique 'sense of place'.

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.

Nest Planting
Trees planted in small groups which are distributed across the restock site with remaining unplanted areas left to naturally regenerate. A useful way to introduce new species or provenances to a site.

Notifiable Disease
Some tree pests and diseases are notifiable, which means that, in England, they must be reported to the Forestry Commission or Animal & Plant Health Agency. Notifiable tree pests and diseases are typically those with the potential to cause greatest damage to our trees, woods and forests.

Open Grown Trees
Trees that have been given space to develop a large crown and natural shape. In comparison trees planted closely in a plantation managed for timber or biomass tend to have a more uniform shape.

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.

Phytophthora ramorum* and *P.pluvialis
P.ramorum is a very destructive pathogen affecting over 150 plant species, particularly larch trees. Some broadleaved plants (such as sweet chestnut and rhododendron) can also host *P.ramorum*. *P.pluvialis* was first recorded in the UK in 2021 and affects a range of species including Douglas fir and western hemlock.

Plantation on Ancient Woodland Site (PAWS)
Ancient Woodland areas where semi-natural woodland has been cleared and replaced by plantation, often including non-native species. PAWS sites can include both broadleaved and conifer woods and often retain remnant ancient woodland features like species-rich ground flora or undisturbed soils. Also known as Ancient Replanted Woodland.

Pollarding
A form of pruning where the upper branches of a tree are removed, promoting a dense head of foliage and branches. Cutting is usually around 2.4 metres above ground – the height that wild animals or domesticated stock could reach. Traditionally, trees were pollarded for fodder or for wood. Fodder pollards are generally pruned every two to six years, wood pollards at longer intervals, usually of eight to 15 years, to produce upright poles for eg: fence rails and posts.

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.

Restocking
The 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.

Scheduled Ancient Monument (SAM)
A scheduled monument is a site that is legally protected because of its historical importance.

Secondary Woodland
Woodland that has been established on land formerly used for another purpose (eg: as pasture, arable fields, quarries, etc.). Unlike ancient woodland it has not been continuously wooded in the past.

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.

Glossary (continued…)

Selective Felling (Regeneration Felling)
Where individual trees of varying sizes are selected and removed from a stand. The whole stand is worked and the aim is to maintain full stocking of all tree sizes and ages, from seedlings to mature trees, in any one area.

Semi-natural woodland
Those woodlands which are comprised mainly of locally native trees and shrubs, and have some structural characteristics of natural woodland**.**

Shade Tolerant Species
Trees that have adapted to lower light levels and will regenerate and establish freely under the shade of the surrounding tree canopy, as opposed to light demanding species which require full sun/high light levels to establish and grow.

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.

Special Protection Area (SPA)
SPAs are protected areas selected to protect one or more rare, threatened or vulnerable bird species listed in Annex I of the Birds Directive, or specific regularly occurring migratory species. They form an internationally important network of high-quality conservation sites that make a significant contribution to conserving important habitats and species.

Strategic Plan
Forestry England's guide to the management of woodland in Central England Forest District. It divides the district into zones for the purpose of management and ensures forestry activities reflect the local ecological, social and cultural individuality of each woodland.

Strip Felling
Strip felling involves removal of some trees in rows, leaving strips of mature trees in place rather than clearfelling a crop in one operation. This creates space between remaining trees suitable for planting new trees (especially species that require sheltered growing conditions) and maintains woodland cover while new trees are established. The width of strips may vary and multiple strips are removed from one stand at a time.

Sub-compartments
Areas of forest that form a homogeneous crop in terms of age, species composition and condition. They may be split across several locations and their boundaries may change as the forest develops after felling and restocking.

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.

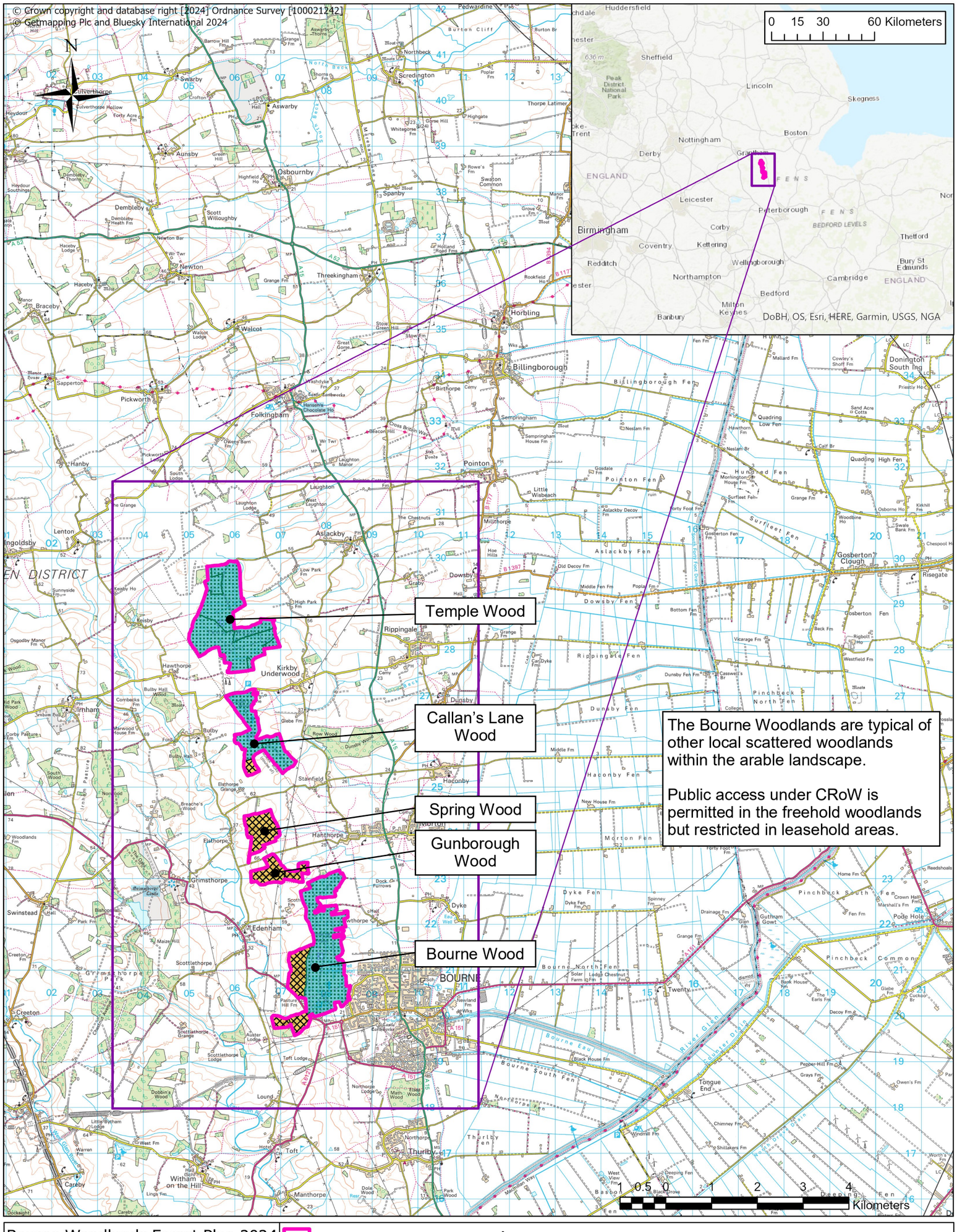
Trees of Special Interest (TSI)
Trees that are of interest biologically, aesthetically or culturally because of their age, or trees that are in the ancient stage of their life, or trees that are old relative to others of the same species. Also referred to as Veteran or Ancient trees.

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.

Understorey Woodland Species
Minor tree species that live under top canopy trees or are 'pioneer' species that arrive in clearings before climax species become established. Once the overstorey is established understorey species are more common on woodland edges and clearings where light levels are higher.

Yield Class
Yield class is a measure of the growth rate of a tree crop on a given site. It describes the maximum average volume increase that a particular crop can achieve on 1 ha of land each year. For example, a crop capable of a maximum annual growth of 14 m3 per hectare has a yield class of 14. Yield Class varies depending on factors including the species, how it is managed and local site conditions.



Bourne Woodlands Forest Plan 2024

Location, Tenure and Public Access Map

Date: January 2024
Main map scale @ A3: 1:75,000

Bourne Woodlands FP Area

FE Ownership Status
- Freehold
- Leasehold

Access
- Dedicated open access
- No public access

Forestry England

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

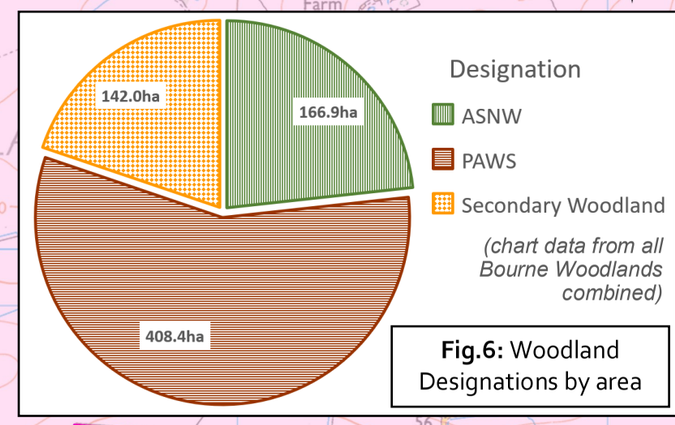


Fig.6: Woodland Designations by area

Over 80% of the Bourne Woodland area is designated Ancient Woodland; either ASNW or PAWS. Of the PAWS area, more than half already been restored to >80% native species. *(see Fig.1, p.5)*

The majority of the Bourne Woodlands are sited on gley soils over the underlying Lincolnshire Limestone ridge. These gley soils are prone to waterlogging which can limit species choice and the operational window for forest work.

The map displays Ancient Woodlands within the Bourne Woodlands FP Area and in nearby or adjoining non-FE woodland.

0.25 0.13 0 0.25 0.5 0.75 1 Kilometers

Bourne Woodlands Forest Plan 2024

Designations & Soil Types Map

for Temple & Callan's Lane Woods

Date: January 2024
Scale @ A3: 1:15,000

Bourne Woodlands FP Area

Ancient Woodland
- Ancient & Semi-Natural Woodland
- Ancient Replanted Woodland
- Undesignated Secondary Woodland

^ Soil Type Classification
- Brown rendzinas (343a&c)
- Gleyic brown calcareous earth (512a)
- Pelo-stagnogleys (712b&g)
- Typical argillic gley (841a)

^ Soil data from the National Soil Map and Soil Classification (Copyright Cranfield University, 2018)

Forestry England

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

Site of the former Bourne Castle; a Norman castle from the 1100s which is thought to have been destroyed after being used by Cromwell's troops in 1645.

The map displays Ancient Woodlands within the Bourne Woodlands FP Area and in nearby or adjoining non-FE woodland.

0.25 0.13 0 0.25 0.5 0.75 1 Kilometers

Bourne Woodlands Forest Plan 2024

Designations & Soil Types Map

for Bourne, Gunboro' & Spring Woods

Date: January 2024
Scale @ A3: 1:15,000

- Bourne Woodlands FP Area

Ancient Woodland
- Ancient & Semi-Natural Woodland
- Ancient Replanted Woodland
- Undesignated Secondary Woodland
- Scheduled Monuments

^ Soil Type Classification
- Brown rendzinas (343a&c)
- Gleyic brown calcareous earth (512a)
- Pelo-stagnogleys (712b&g)
- Typical argillic gley (841a)

^ Soil data from the National Soil Map and Soil Classification (Copyright Cranfield University, 2018)

Forestry England

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

The primary external views of the woodlands are from local roads.

There are 88 TSI* recorded in the Bourne Woodlands. Species include wild service tree, oak, aspen, beech, poplar and willow.

There are many heritage features throughout the woodlands, especially concentrated in Callan's Lane Wood and areas of Temple Wood.

0.25 0.13 0 0.25 0.5 0.75 1 Kilometers

Bourne Woodlands Forest Plan 2024

Survey Map

for Temple and Callan's Lane Woods

Date: January 2024
Scale @ A3: 1:15,000

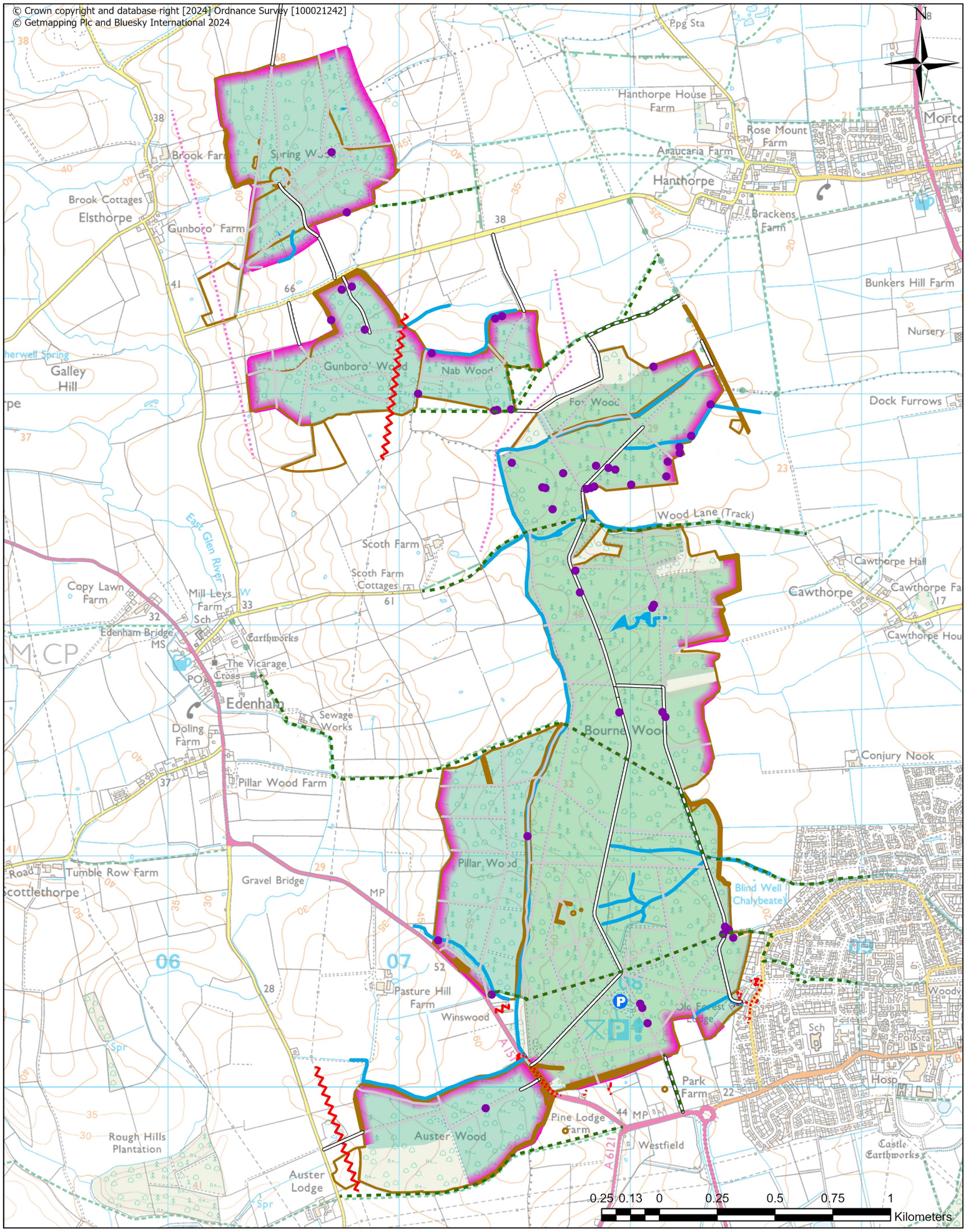
- Bourne Woodlands FP Area
- Visually sensitive boundaries
- Heritage features
- TSI
- Ponds
- Watercourses

Access
- Forest Roads
- Rides
- Carparks
- Public Rights of Way

Utilities
- Overhead powerlines
- Underground powerlines
- Gas pipelines

Forestry England

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



Bourne Woodlands Forest Plan 2024

Survey Map

for Bourne, Gunboro' & Spring Woods

Date: January 2024
Scale @ A3: 1:15,000

- Bourne Woodlands FP Area
- Visually sensitive boundaries
- Heritage features
- TSI
- Ponds
- Watercourses

Access
- Forest Roads
- Rides
- Carparks
- Public Rights of Way

Utilities
- Overhead powerlines
- Underground powerlines
- Gas pipelines

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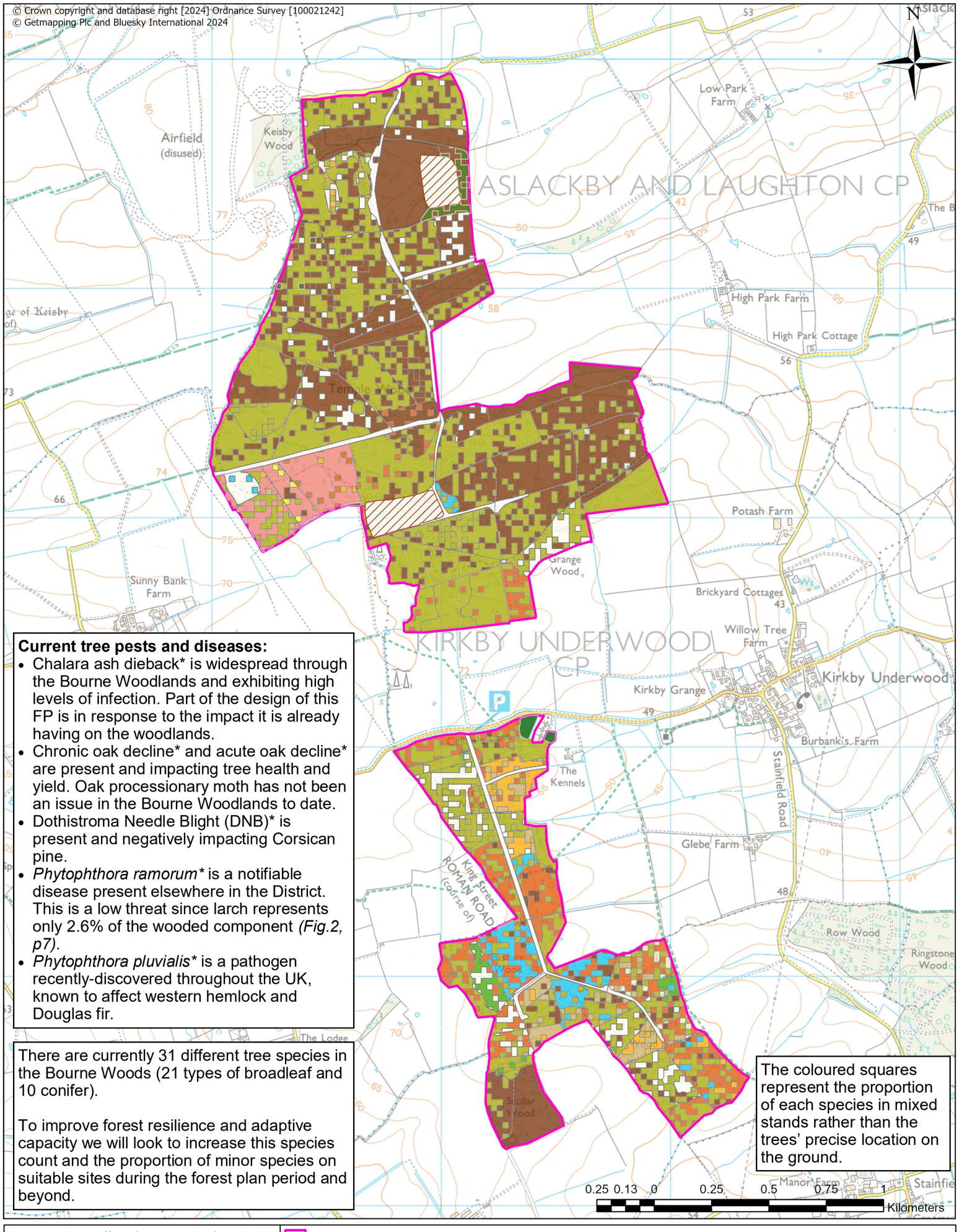
Forestry England forests and woodlands have been certified in accordance with the UK Woodland Assurance Standard (UKWAS)



Current tree pests and diseases:

- Chalara ash dieback* is widespread through the Bourne Woodlands and exhibiting high levels of infection. Part of the design of this FP is in response to the impact it is already having on the woodlands.
- Chronic oak decline* and acute oak decline* are present and impacting tree health and yield. Oak processionary moth has not been an issue in the Bourne Woodlands to date.
- Dothistroma Needle Blight (DNB)* is present and negatively impacting Corsican pine.
- *Phytophthora ramorum** is a notifiable disease present elsewhere in the District. This is a low threat since larch represents only 2.6% of the wooded component *(Fig.2, p7).*
- *Phytophthora pluvialis** is a pathogen recently-discovered throughout the UK, known to affect western hemlock and Douglas fir.

There are currently 31 different tree species in the Bourne Woods (21 types of broadleaf and 10 conifer).

To improve forest resilience and adaptive capacity we will look to increase this species count and the proportion of minor species on suitable sites during the forest plan period and beyond.

The coloured squares represent the proportion of each species in mixed stands rather than the trees' precise location on the ground.

Bourne Woodlands Forest Plan 2024

Current Species Map

for Temple & Callan's Lane Woods

Date: January 2024
Scale @ A3: 1:15,000

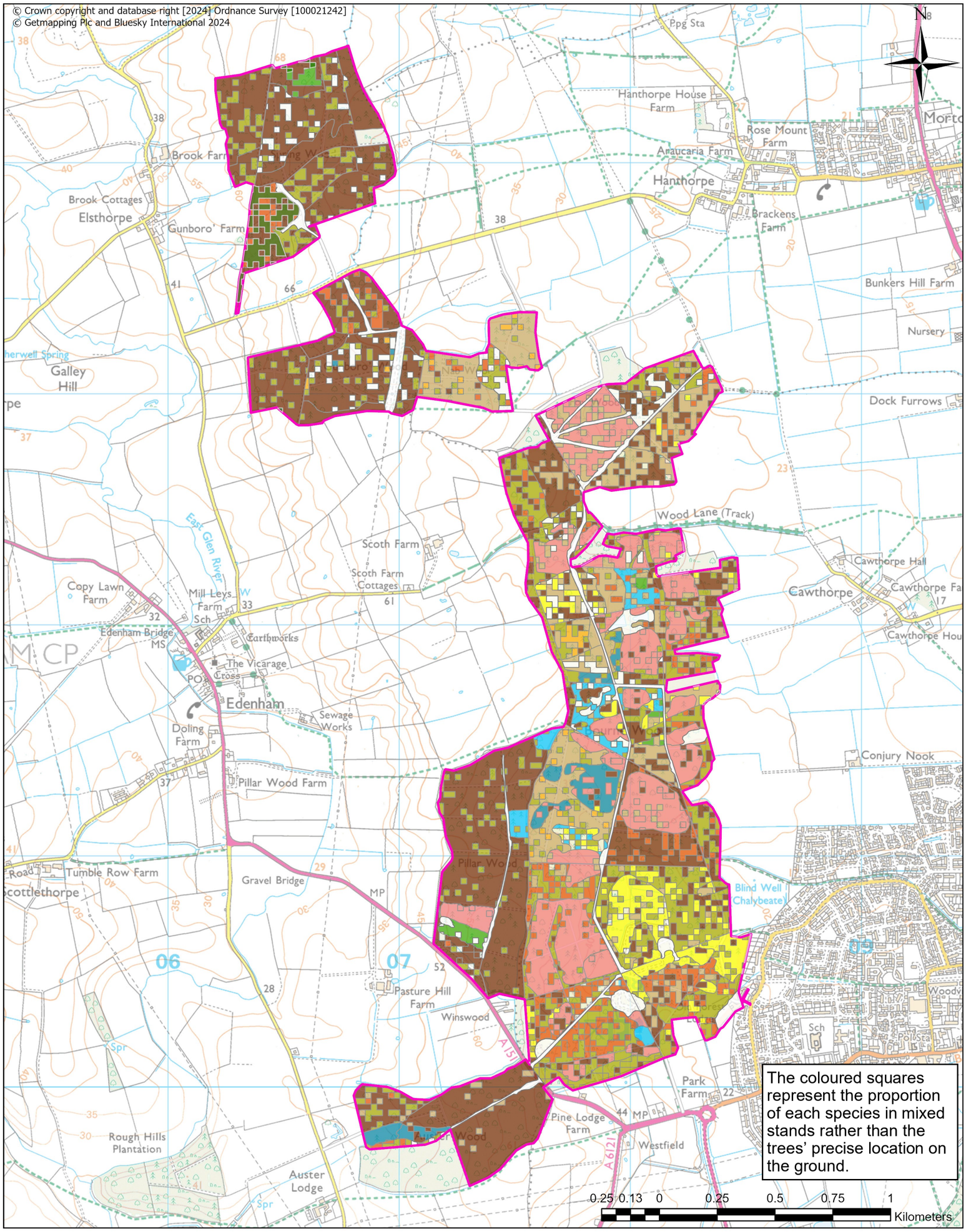
Bourne Woodlands FP Area
Forest Roads
Open
Felled

Species Group

Oaks	Pines
Ash	Firs
Birch	Larches
Willows	Spruces
Other Broadleaves	Other Conifers

Forestry England

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



The coloured squares represent the proportion of each species in mixed stands rather than the trees' precise location on the ground.

Bourne Woodlands Forest Plan 2024

Current Species Map

for Bourne, Gunboro' & Spring Woods

Date: January 2024
Scale @ A3: 1:15,000

- Bourne Woodlands FP Area
- Forest Roads
- Open
- Felled

Species Group

- Oaks
- Ash
- Birch
- Willows
- Other Broadleaves
- Pines
- Firs
- Larches
- Spruces
- Other Conifers

Forestry England

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

Forest Design
The woodlands are visible within the local landscape, mainly from nearby roads. Internal coupe design is also important as most of the woodlands offer access to the public and are enjoyed by visitors.

Water
There are a number of ponds and minor watercourses within the Bourne Woodlands; their riparian zones also being important habitats and corridors for wildlife.

Ash and Ash Dieback
Ash comprises over 30% of the component species in the Bourne Woodlands and is heavily infected with Chalara ash dieback. Woodland cover is threatened in ash-dominated stands which represent significant areas of Temple & Callan's Lane Woods.

Chronic and Acute Oak Decline
Oak is the largest component species of the Bourne Woodlands. Chronic oak decline is apparent across the woods and there are known examples of acute oak decline in Temple Wood.

Bourne Woodlands Forest Plan 2024

Analysis Map

for Temple & Callan's Lane Woods

Date: January 2024
Scale @ A3: 1:15,000

Bourne Woodlands FP Area
Ponds
Watercourses
Forest Roads
Rides
Ash
Oak
Unrestored PAWS
Coniferous secondary woodland

Forestry England

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

0.25 0.13 0 0.25 0.5 0.75 1 Kilometers

Coniferous Secondary Woodland
The dark green mapped areas signify conifer crops located outside of designated Ancient Woodland habitat.

Ongoing PAWS* Restoration
The yellow mapped areas represent PAWS where there is still work to do to restore these stands to appropriate, predominantly native species.

Bourne Woodlands Forest Plan 2024

Analysis Map

for Bourne, Gunboro' & Spring Woods

Date: January 2024
Scale @ A3: 1:15,000

- Bourne Woodlands FP Area
- Ponds
- Watercourses
- Forest Roads
- Rides
- Ash
- Oak
- Unrestored PAWS
- Coniferous secondary woodland

Forestry England

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

Forest Design
Where windfirm, external broadleaf edges will be retained during operations and enhanced during restock to provide consistent views of the woodlands in the local landscape.

Again, where possible, individuals and small groups of windfirm trees will be retained in clearfell areas as song posts and to provide additional food sources for birds. In addition to utilising windfirm edges, the shape and scale of coupes have been influenced by landform and the immediate wooded landscape to manage their visual impact.

Water
Opportunities to improve riparian areas to benefit biodiversity will be taken during forest operations in the area. For example, reducing canopy cover to about 50% to achieve the optimal balance of light and broken shade.

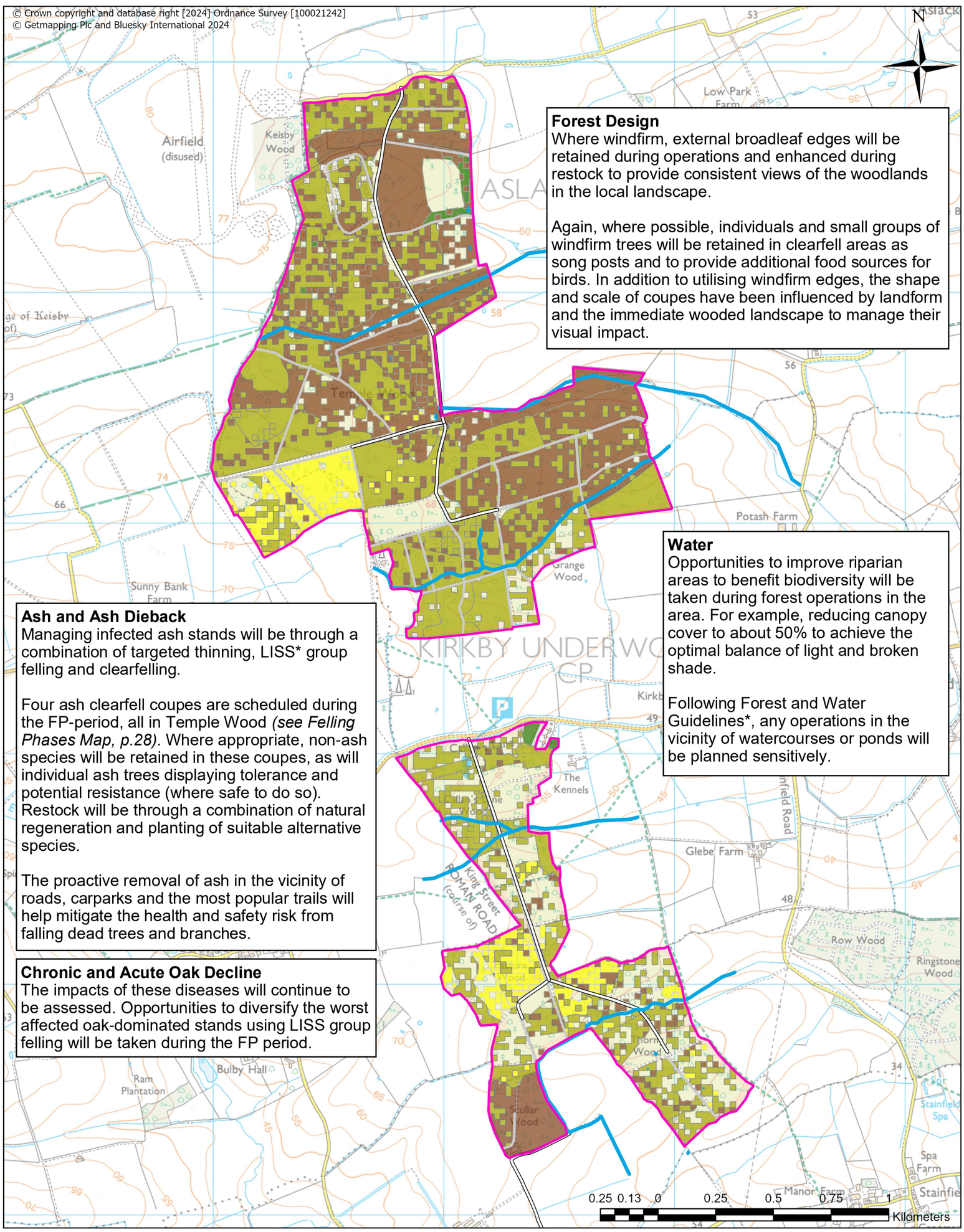
Following Forest and Water Guidelines*, any operations in the vicinity of watercourses or ponds will be planned sensitively.

Ash and Ash Dieback
Managing infected ash stands will be through a combination of targeted thinning, LISS* group felling and clearfelling.

Four ash clearfell coupes are scheduled during the FP-period, all in Temple Wood *(see Felling Phases Map, p.28)*. Where appropriate, non-ash species will be retained in these coupes, as will individual ash trees displaying tolerance and potential resistance (where safe to do so). Restock will be through a combination of natural regeneration and planting of suitable alternative species.

The proactive removal of ash in the vicinity of roads, carparks and the most popular trails will help mitigate the health and safety risk from falling dead trees and branches.

Chronic and Acute Oak Decline
The impacts of these diseases will continue to be assessed. Opportunities to diversify the worst affected oak-dominated stands using LISS group felling will be taken during the FP period.



Bourne Woodlands Forest Plan 2024

Concept Map

for Temple & Callan's Lane Woods

Date: January 2024
Scale @ A3: 1:15,000

- Bourne Woodlands FP Area
- Ponds
- Watercourses
- Forest Roads
- Rides
- Ash
- Oak
- Unrestored PAWS
- Coniferous secondary woodland

Forestry England

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

Coniferous Secondary Woodland
Within the Bourne Woodlands, appropriate area for softwood timber production is limited since the majority of the forest is either Ancient Woodland* or existing native broadleaves. Maintaining the coniferous secondary woodland into the next rotation is important for cost-effective timber production, to improve species-diversity and forest resilience, and also to provide habitat for species which favour conifers (such as crossbill).

Ongoing PAWS* Restoration
Concentrated in Bourne Wood, these remaining coniferous areas will be gradually restored to native broadleaf-dominated woodlands through successive thinning and scheduled felling operations. Restock prescriptions will include planting and natural regeneration of acceptable species.

Bourne Woodlands Forest Plan 2024

Concept Map

for Bourne, Gunboro' & Spring Woods

Date: January 2024
Scale @ A3: 1:15,000

Bourne Woodlands FP Area
Ponds
Watercourses
Forest Roads
Rides
Ash
Oak
Unrestored PAWS
Coniferous secondary woodland

Forestry England

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

The clearfell coupes involve PAWS* restoration, conifer clearfell/restock on secondary woodland areas, short rotation biomass production and species diversification in some infected ash-dominated areas.

Most of the broadleaf-dominated areas on Ancient Woodland sites will be managed using LISS*; predominantly group selection and small coupe felling systems. This will promote natural regeneration by creating the optimum growing conditions for young trees; developing a more diverse woodland structure comprising trees of varying age and species within the same stand. The timings of LISS operations will be aligned to the thinning cycle in the respective woodland.

Bourne Woodlands Forest Plan 2024

Silvicultural Systems Map

for Temple & Callan's Lane Woods

Date: January 2024
Scale @ A3: 1:15,000

Bourne Woodlands FP Area
Forest Roads

Silvicultural System
Clearfell
LISS* / Open
Long Term Retention

Forestry England

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

Three coupes (one in Temple Wood and two in Bourne Wood) will be managed as Long Term Retention*. These stands will be retained beyond their normal economic age/size for the benefit of wildlife.

Bourne Woodlands Forest Plan 2024

Silvicultural Systems Map

for Bourne, Gunboro' & Spring Woods

Date: January 2024
Scale @ A3: 1:15,000

Bourne Woodlands FP Area
Forest Roads

Silvicultural System
Clearfell
LISS* / Open
Long Term Retention

Forestry England

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

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.

These four coupes are ash-dominated and scheduled for felling at different points during the FP 10yr approval period.

This coupe is part of a larger Corsican pine stand where the PAWS restoration planned in two stages, the first during 2032-36. The interlocking coupe shapes follow a windfirm edge.

Keisby Wood
Temple Wood
Grange Wood

0.1 0.05 0 0.1 0.2 0.3 0.4 Kilometers

Bourne Woodlands Forest Plan 2024

Felling Phases Map for Temple Wood

Date: January 2024
Scale @ A3: 1:7,500

Bourne Woodlands FP Area
Forest Roads

Other Silvicultural System
LISS* / Open
Long Term Retention

Felling Phase
2024-2026
2027-2031
2032-2036
2037-2041
2042-2046
2047-2051
2052-2056
2057-2061
2062 & beyond

Forestry England

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

This small coupe of Norway spruce borders the dwellings off Callan's Lane. Felling is planned for the first FP phase.

These coupes of birch and willow natural regeneration are to be managed on 15-20yr biomass rotations. The green- and orange -striped coupes fall within the 10yr FP approval period (phases #1 and #2 respectively).

0.1 0.05 0 0.1 0.2 0.3 0.4 Kilometers

Bourne Woodlands Forest Plan 2024

Felling Phases Map for Callan's Lane Wood

Date: January 2024
Scale @ A3: 1:7,500

Bourne Woodlands FP Area
Forest Roads

Other Silvicultural System
LISS* / Open
Long Term Retention

Felling Phase
2024-2026
2027-2031
2032-2036
2037-2041
2042-2046
2047-2051
2052-2056
2057-2061
2062 & beyond

Forestry England

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

The two birch and willow coupes beyond the powerline are to be managed as biomass on 15-20yr rotations.

Bourne Woodlands Forest Plan 2024

Felling Phases Map
for Spring & Gunboro' Woods

Date: January 2024
Scale @ A3: 1:7,500

Bourne Woodlands FP Area
Forest Roads

Other Silvicultural System
LISS* / Open
Long Term Retention

Felling Phase
2024-2026
2027-2031
2032-2036
2037-2041
2042-2046
2047-2051
2052-2056
2057-2061
2062 & beyond

Forestry England

FSC www.fsc.org FSC® C123214 The mark of responsible forestry

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

PEFC PEFC/16-40-1001 Promoting Sustainable Forest Management www.pefc.co.uk

This coupe comprises young birch, willow and ash. As with the other biomass coupes it will be managed on 15-20yr rotations.

PAWS restoration In the northern half of Bourne Wood involve felling of both Corsican pine and Douglas fir coupes during the approved FP-period.

0.1 0.05 0 0.1 0.2 0.3 0.4 Kilometers

Bourne Woodlands Forest Plan 2024

Felling Phases Map

for Bourne Wood (North)

Date: January 2024
Scale @ A3: 1:7,500

Bourne Woodlands FP Area
Forest Roads

Other Silvicultural System
LISS* / Open
Long Term Retention

Felling Phase
2024-2026
2027-2031
2032-2036
2037-2041
2042-2046
2047-2051
2052-2056
2057-2061
2062 & beyond

Forestry England

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

In the southern half of Bourne Wood, all of the felling coupes scheduled during the FP 10yr approval period involve PAWS restoration. The species to be felled include Corsican pine, Norway spruce, European larch and Douglas fir.

0.1 0.05 0 0.1 0.2 0.3 0.4 Kilometers

Bourne Woodlands Forest Plan 2024

Felling Phases Map

for Bourne Wood (South)

Date: January 2024
Scale @ A3: 1:7,500

Bourne Woodlands FP Area
Forest Roads

Other Silvicultural System
LISS* / Open
Long Term Retention

Felling Phase
2024-2026
2027-2031
2032-2036
2037-2041
2042-2046
2047-2051
2052-2056
2057-2061
2062 & beyond

Forestry England

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ESC* analysis indicates the following species to be suitable in many areas of the Bourne Woodlands under predicted 2080 climate conditions:

Broadleaves: pedunculate oak, hornbeam, sycamore, red oak, alder, willow, small-leaved lime and wild cherry.
Conifers: Macedonian pine, Scots pine, Norway spruce, western red cedar and coast redwood.

ESC is a useful broad guide but does not account for all aspects of suitability. Species choice for restock will be determined by the Forestry England Beat team and conform to the requirements of underlying land designations.

Consideration will also be given to site-specific factors including hydrology, browsing pressure, pests and diseases, competition from ground vegetation, planting stock provenance and availability.

Bourne Woodlands Forest Plan 2024

Intended Landuse Map

for Temple & Callan's Lane Woods

Date: January 2024
Scale @ A3: 1:15,000

Bourne Woodlands FP Area
Forest Roads

Intended Landuse
Broadleaf-dominated woodland
Conifer-dominated woodland
Open

Forestry England

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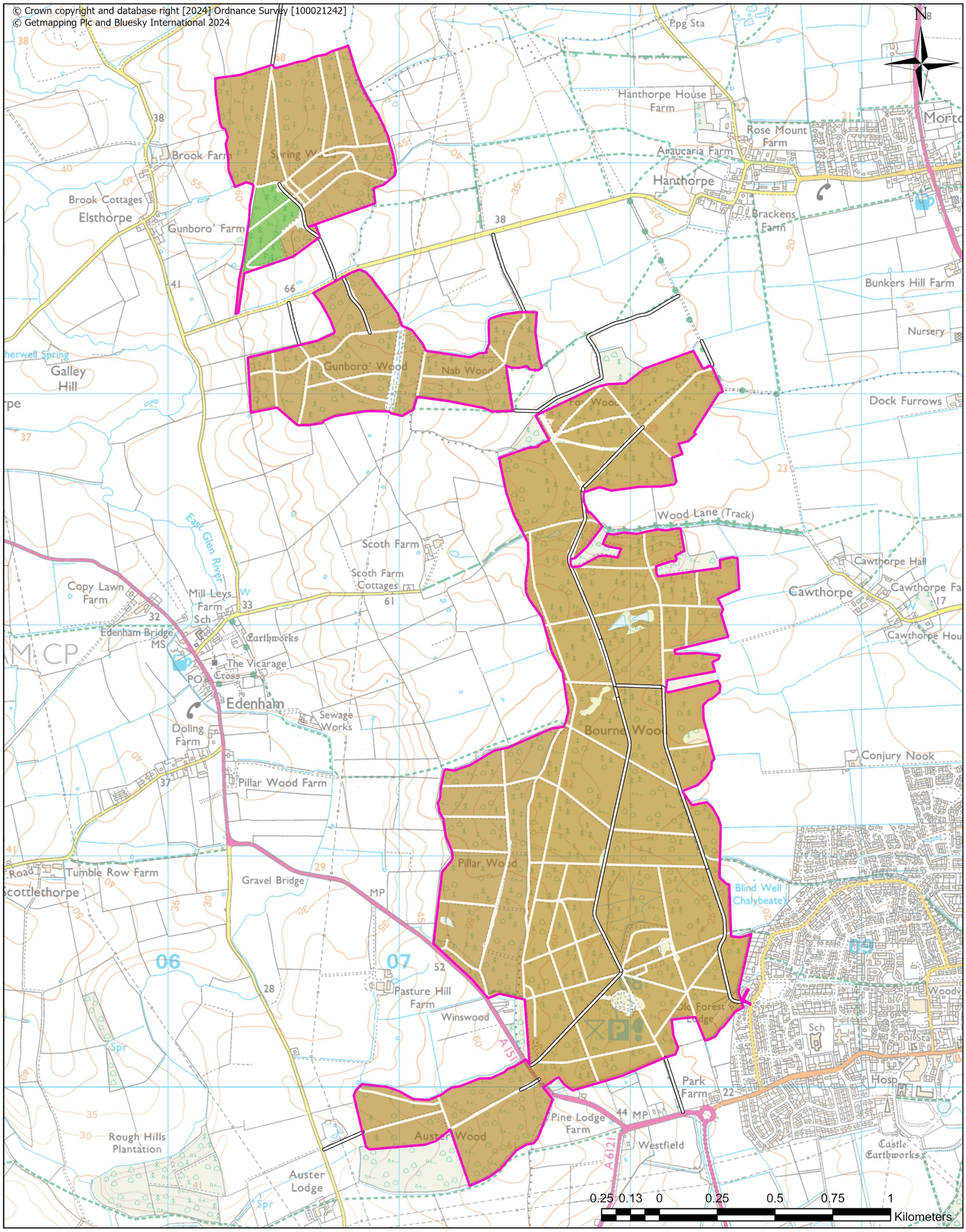
0.25 0.13 0 0.25 0.5 0.75 1 Kilometers



Bourne Woodlands Forest Plan 2024

Intended Landuse Map

for Bourne, Gunboro' & Spring Woods

Date: January 2024
Scale @ A3: 1:15,000

- Bourne Woodlands FP Area
- Forest Roads

Intended Landuse
- Broadleaf-dominated woodland
- Conifer-dominated woodland
- Open

Forestry England

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