

Wyre Outliers Forest Plan 2024 - 2034

West England Forest District

FE Reference: OP10/22

Abby Parravani



The mark of
responsible forestry

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



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Application for Forest Plan Approval

Forest District:	West England Forest District
Woodland or property name:	Birchen Park Kinver Shatterford Wood Shrawley Wood
Nearest town, village or locality:	Bewdley, Kidderminster
OS Grid reference:	Birchen Park - SO 6998 8003 Kinver - SO 8405 8955 Shatterford - SO 8041 8286 Shrawley - SO 8005 6640
Local Authority:	Kinlet Parish Council (for Birchen Park) Enville Parish Council (for Kinver) Upper Arley Parish Council (for Shatterford) Shrawley Parish Council (for Shrawley)

Plan area:	260.9ha
Conifer felling:	25.3ha
Broadleaf felling:	11ha



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



- 1) I apply for Forest Plan approval for the property described on this page and in the enclosed forest plan.
- 2) I confirm that the scoping, carried out and documented in the Consultation Record attached, incorporated those stakeholders that FE agreed must be included. Where it has not been possible to resolve specific issues associated with the plan to the satisfaction of consultees, this is highlighted in the Consultation Record.
- 3) I confirm that the proposals contained in this plan comply with the UK Forestry Standard.
- 4) I undertake to obtain any permissions necessary for the implementation of the approved Plan.

Signed
Forest Management Director

Date

Signed
Area Director

Date of approval

Date approval ends

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Forestry England's Vision

We are Forestry England

We are the country's largest land manager, caring for the nation's forests for people, nature, and the economy. The foundation of our organisation is our world-class sustainable management of the nation's forests.

Our vision **for wildlife**: The nation's forests provide the most valuable places for wildlife to thrive and expand in England.

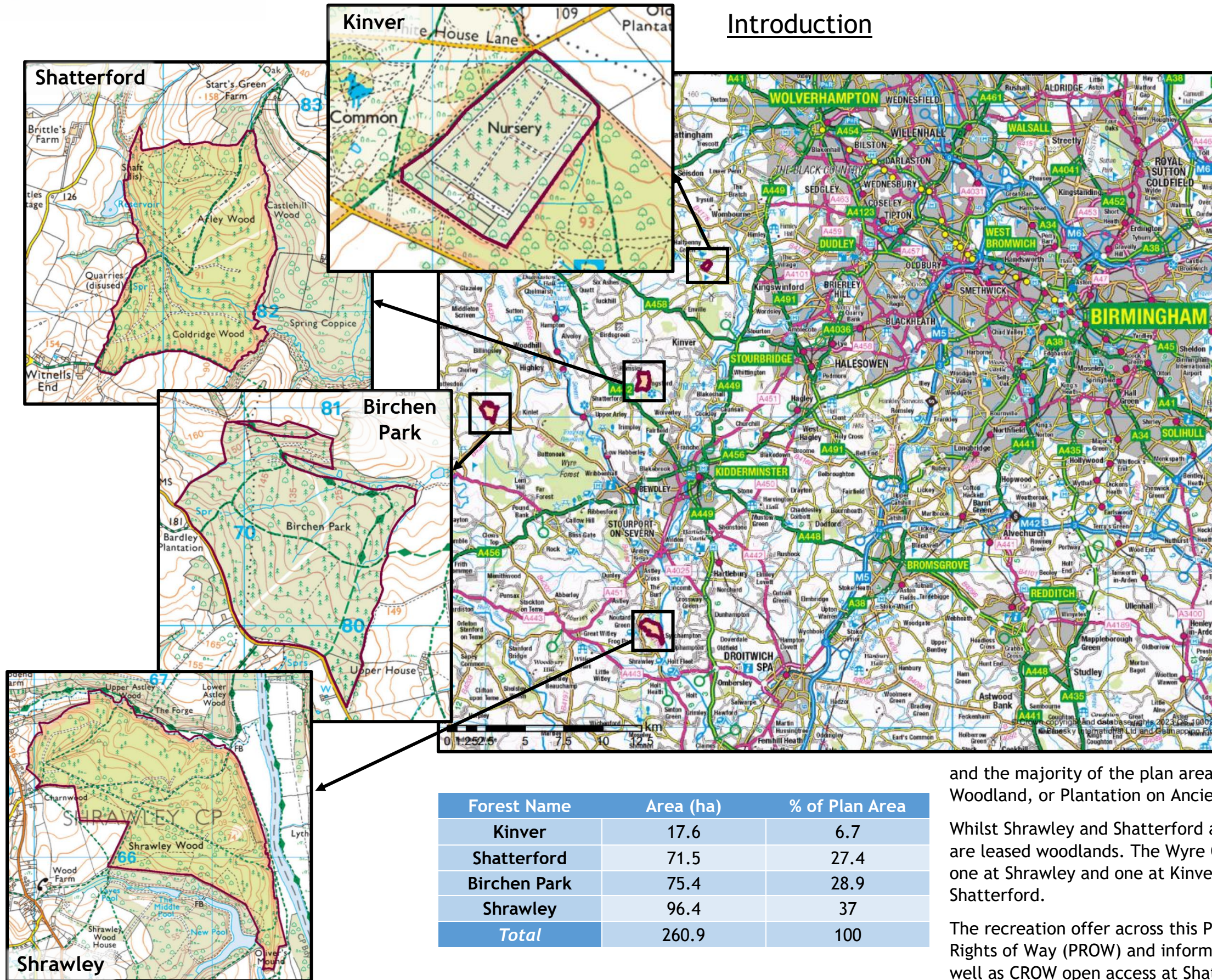
Our vision **for people**: The nation's forests are a living treasure for all, deeply connected to people's lives improving the health and wellbeing of the nation.

Our vision **for the climate**: The nation's forests are resilient to climate change, increasing their value for communities by producing high-quality, sustainable timber and absorbing carbon emissions.

Read more about our Growing the Future plan [here](#), or search online for "Growing the Future".



Introduction



The Wyre Outliers Forest Plan area consists of four separate woodlands, all located within a 9-mile radius of the town of Kidderminster. The woodlands are Kinver, Shatterford, Birchen Park and Shrawley, and they are divided between three counties: Shropshire (Birchen Park), Staffordshire (Kinver) and Worcestershire (Shatterford and Shrawley). The woodlands are in close proximity to the Wyre Forest main block, which is a large and predominately Ancient Semi-Natural Woodland of national significance, being the largest woodland National Nature Reserve (NNR) in the country. The Outlier woodlands were previously managed under the same Forest Plan as the Wyre Forest main block, however from this point onwards they will be managed under their own Forest Plan, which is this document.

The Forest Plan area is largely flat, with gentle undulations in landform in places and a maximum height above sea level of approximately 170m at Birchen Park. To the east lies the major urban hub of Birmingham, and to the west the Shropshire Hills. Covering a total area of 260.9ha, the Wyre Outlier woodlands are a mix of broadleaf and conifer species, and the majority of the plan area is either classed as Ancient Semi-Natural Woodland, or Plantation on Ancient Woodland Sites (PAWS).

Whilst Shrawley and Shatterford are publicly owned, Birchen Park and Kinver are leased woodlands. The Wyre Outliers contain two areas of SSSI designation, one at Shrawley and one at Kinver, and one Scheduled Monument at Shatterford.

The recreation offer across this Plan area is minimal, consisting of Public Rights of Way (PROW) and informal footpaths within all four woodlands, as well as CROW open access at Shatterford.

Forest Plan Objectives

<u>Forestry England Vision</u>	<u>Forest Plan Objective</u>	<u>Actions We'll Take</u>	<u>Monitoring Achievement</u>
<div style="background-color: #5cb85c; color: white; padding: 5px; font-weight: bold; margin-bottom: 10px;">For wildlife</div> <p>Our vision: The nation's forests provide the most valuable places for wildlife to thrive and expand in England.</p>	<ul style="list-style-type: none"> ❖ To protect and enhance areas of Ancient Semi-Natural Woodland and restore areas of PAWS (Plantation on Ancient Woodland Sites). 	<ul style="list-style-type: none"> • Areas of clearfell and group felling at Birchen Park, Shatterford and Shrawley will be restocked with a majority of broadleaves, utilising conifer nurse crops where appropriate, with the aim of achieving a mature canopy composed of at least 80% native species. 	<ul style="list-style-type: none"> ➤ Analysis of naturalness scores at Plan review stage.
	<ul style="list-style-type: none"> ❖ The protection and enhancement of trees of special interest (TSIs) including veteran trees, and recruitment of future generations of both. 	<ul style="list-style-type: none"> • TSIs will be recorded during the planning stages of forestry operations, and contractors undertaking operations will be made aware of any TSIs in the vicinity of the operations, to enable them to protect the tree(s) and rooting zones. • Potential future veteran trees with favourable features will be identified and provided with sufficient space to allow for unhindered crown development. 	<ul style="list-style-type: none"> ➤ TSI survey at Plan review stage, and ongoing action by the beat team to highlight TSIs to contractors before commencing forestry operations.
	<ul style="list-style-type: none"> ❖ Protect and enhance woodland and open habitats and their associated species. 	<ul style="list-style-type: none"> • Opportunities will be taken to increase and enhance areas of open space in all four woodlands. For example, ride-widening will be carried out at the same time as other forestry operations where opportunities arise. • At Kinver, we will work with Staffordshire Wildlife Trust to gradually diversify an area of high forest through heavy thinning and grazing, aiming towards the development of wood pasture habitat. 	<ul style="list-style-type: none"> ➤ Open space creation and wood pasture development to be analysed at Plan review stage.

For people

Our vision: The nation’s forests are a living treasure for all, deeply connected to people’s lives improving the health and wellbeing of the nation.

<ul style="list-style-type: none"> ❖ To deliver woodlands with social amenity value. 	<ul style="list-style-type: none"> • Through implementing Low Impact Silvicultural Systems (LISS), the structure of woodland stands will become more diverse which will increase the aesthetic value of the woodlands for visitors. 	<ul style="list-style-type: none"> ➤ Analysis of planned felling completion at Plan review stage.
<ul style="list-style-type: none"> ❖ To conserve, maintain and enhance cultural and heritage assets. 	<ul style="list-style-type: none"> • Implementation of a new Scheduled Monument management plan alongside this Forest Plan for Arley Wood Camp. • Felling of conifers where the Arley Wood Camp enclosure is situated. • Maintenance of SM condition though following the actions outlined in the SM management plan. • Maintenance of the open area at Oliver’s Mound, Shrawley, to ensure continued visibility of the heritage feature. 	<ul style="list-style-type: none"> ➤ Regular reviews of Scheduled Monument condition by the beat team, and a formal review of the Scheduled Monument management plan to be carried out at the half-way point (2027).
<ul style="list-style-type: none"> ❖ Deliver well-designed forests that both protect and enhance the internal and external landscape, in keeping with the local landscape character. 	<ul style="list-style-type: none"> • Felling coupe design will be carefully considered to ensure the resulting loss of trees does not negatively impact internal or external views of the woodlands for visitors. Note that due to the relatively flat topography of the area, long-reaching views of the woodlands from high vantage points are not a concern. 	<ul style="list-style-type: none"> ➤ Monitor any landscape impact resulting from scheduled felling.

For the climate

Our vision: The nation’s forests are resilient to climate change, increasing their value for communities by producing high-quality sustainable timber, and absorbing carbon emissions.

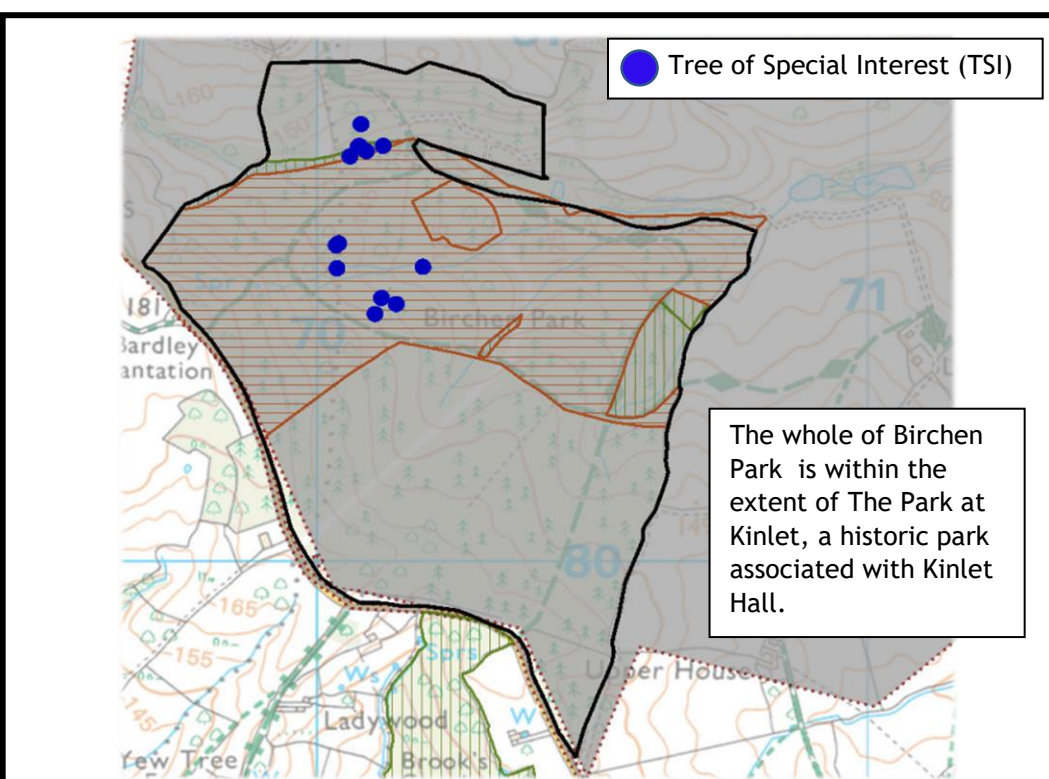
<ul style="list-style-type: none"> ❖ The continued production of sustainable and marketable woodland products. 	<ul style="list-style-type: none"> • Stands of productive conifer in plantation (secondary) woodland areas will continue to be managed on a clearfell and restock basis. • Thinning on a regular cycle will contribute to timber production. • Coppicing, shelterwood and selection systems will also be employed. 	<ul style="list-style-type: none"> ➤ Comparison of the production forecast yield (approximately 1,600m³ (2024 - 2028) and 4,000m³ (2024 - 2034) to actual production at the five and ten-year review stage.
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Conservation, Ecology and Heritage

The Wyre Outlier woodlands contain numerous features of conservation and heritage importance. Two designated sites, both Sites of Special Scientific Interest (SSSI) are found within the Plan area at Kinver and Shrawley. Areas of Ancient Woodland, both semi-natural and replanted (PAWS) occur across three of the four woodlands, and Trees of Special Interest (TSIs) can be found at Shrawley and Birchen Park. The Plan area contains one Scheduled Monument, which is Arley Wood Camp located at Shatterford. Numerous un-scheduled heritage features can also be found across the plan area.

Legend

- Site of Special Scientific Interest (SSSI)
- Heritage feature
- Ancient & Semi-natural Woodland
- Ancient Replanted Woodland

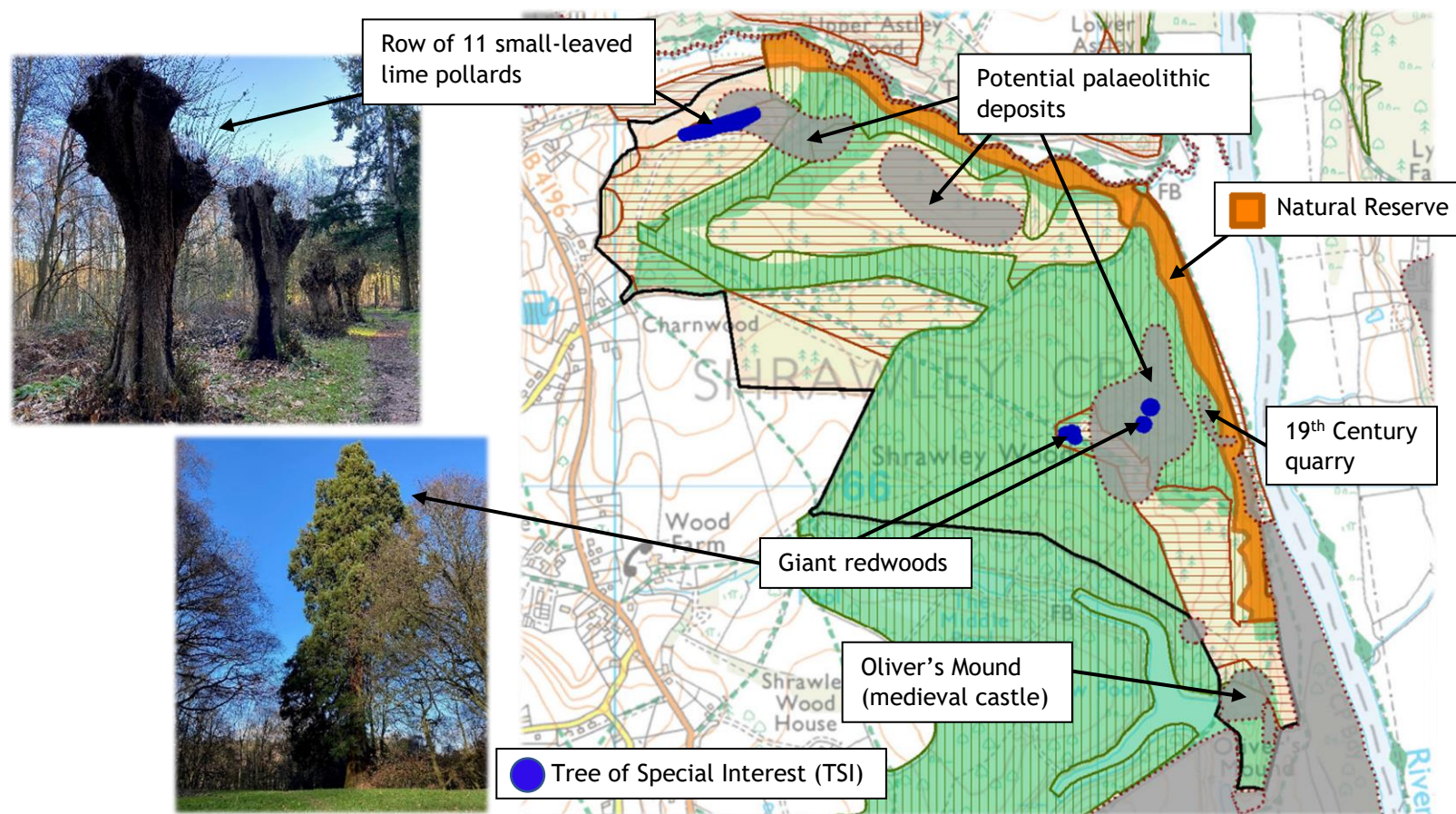


Birchen Park

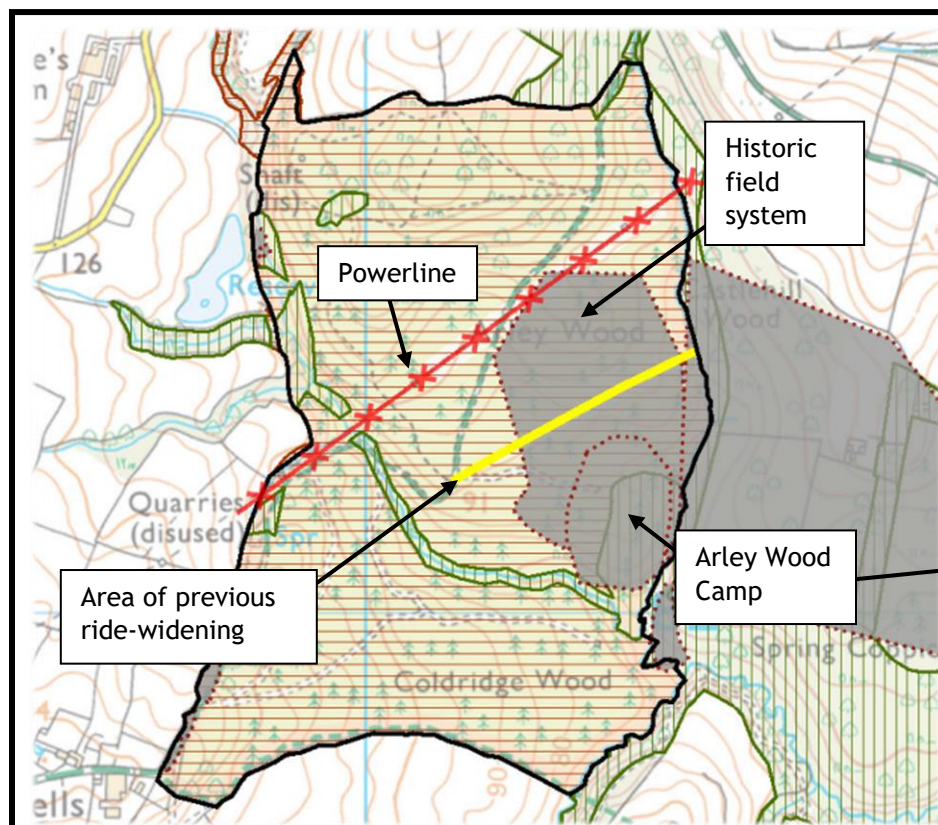
A band of PAWS woodland runs laterally through the upper-middle of Birchen Park, and consists of a mixture of native broadleaves and non-native conifers. There are also small areas of Ancient Semi-Natural Woodland on the eastern and northern edges of the PAWS band. Above and below this band are some of the only areas of secondary woodland within this Forest Plan area, and therefore commercial conifer production is focussed in these areas. Birchen Park has a notable number of Trees of Special Interest (TSIs), which are predominately veteran oaks with impressive diameters. Forestry contractors are made aware of these trees when machinery use is likely to be in close proximity to TSIs.

Shrawley

Shrawley Wood SSSI covers approximately 60% of the woodland under Forestry England’s management at Shrawley, and encompasses the majority of small-leaved lime coppice in the woodland. Shrawley is one of the largest small-leaved lime coppice woodlands in the country, and an Ancient Woodland site with both semi-natural and PAWS areas. The rarity of small-leaved lime coppice in this part of the country was a significant factor in the designation of the SSSI. Shrawley contains a number of Trees of Special Interest, including multiple giant redwoods and a row of 11 small-leaved lime pollards. Other features of conservation interest include numerous badger setts, recorded goshawk nests, and floral ancient woodland indicators such as herb Paris. A Natural Reserve is present along the eastern edge of the woodland, and encompasses riparian woodland along Dick Brook. In regard to heritage features, Shrawley is home to Oliver’s Mound, a non-scheduled but nationally significant site. The Mound is a medieval castle thought to have been constructed between the 11th and 14th centuries. In 2008, an archaeological excavation was carried out on behalf of Shrawley Local History and Archaeology Society, uncovering sandstone structural remains, a possible internal cobbled surface, and pottery. Other heritage features of interest include areas of potential palaeolithic deposits, as well as the site of a 19th Century quarry.



Conservation, Ecology and Heritage

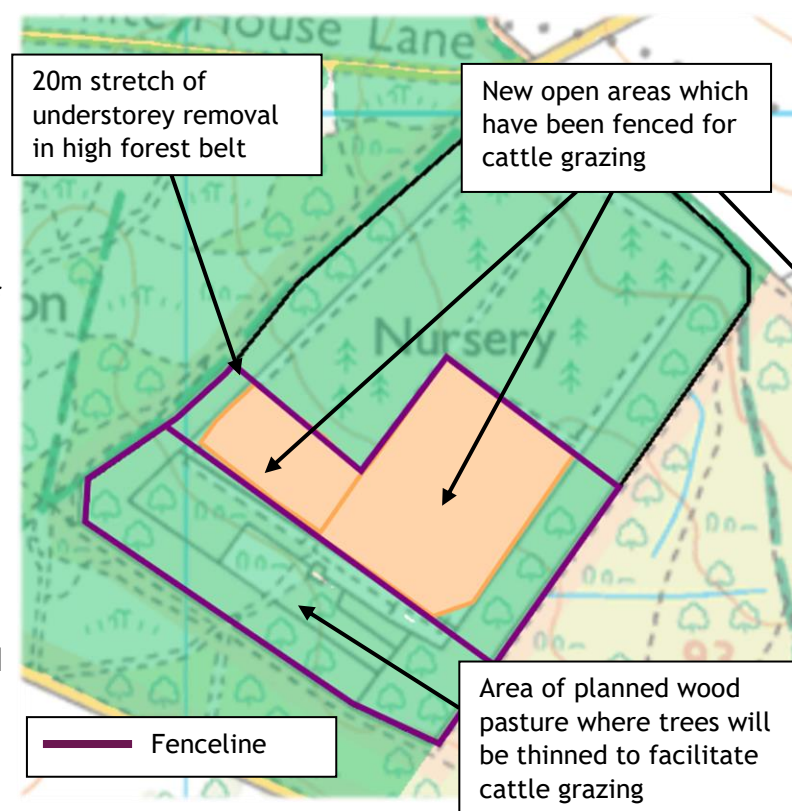


Shatterford

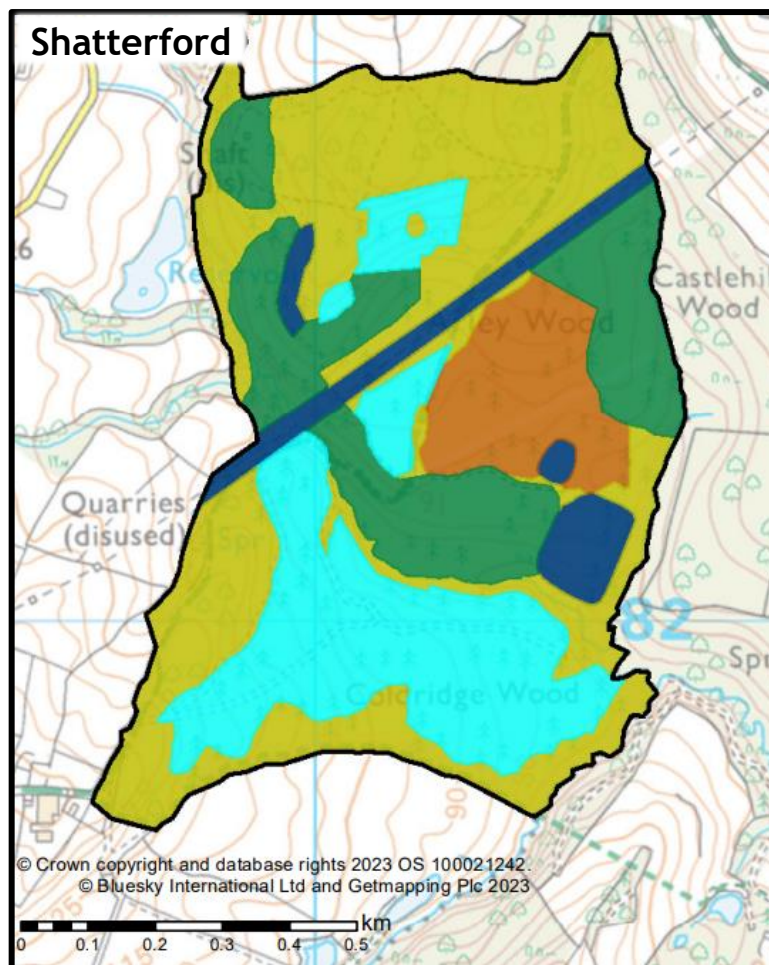
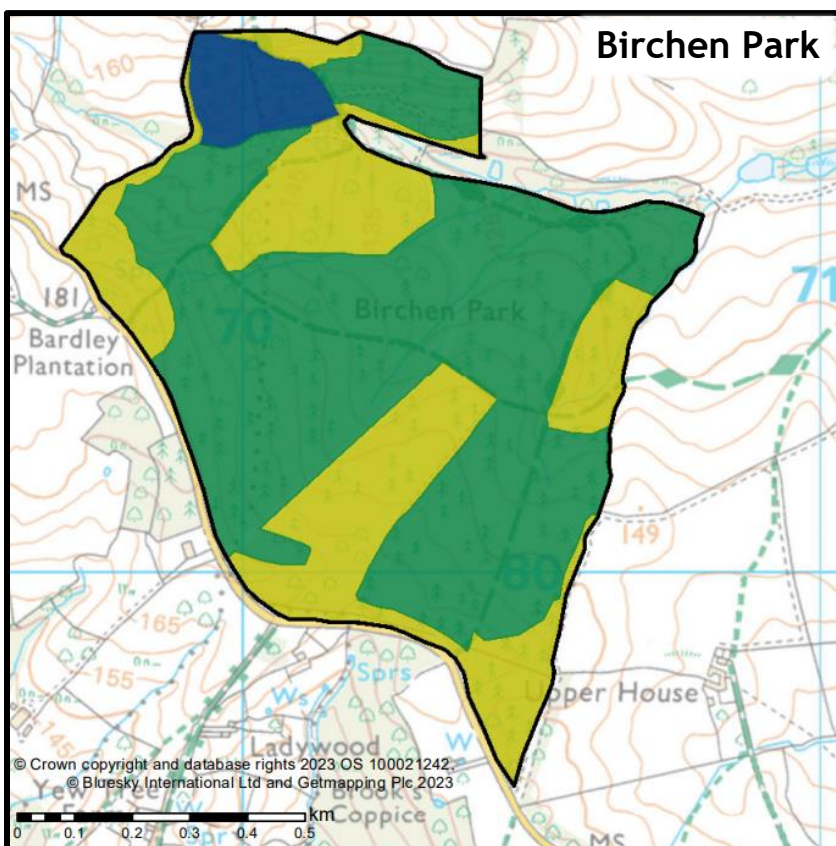
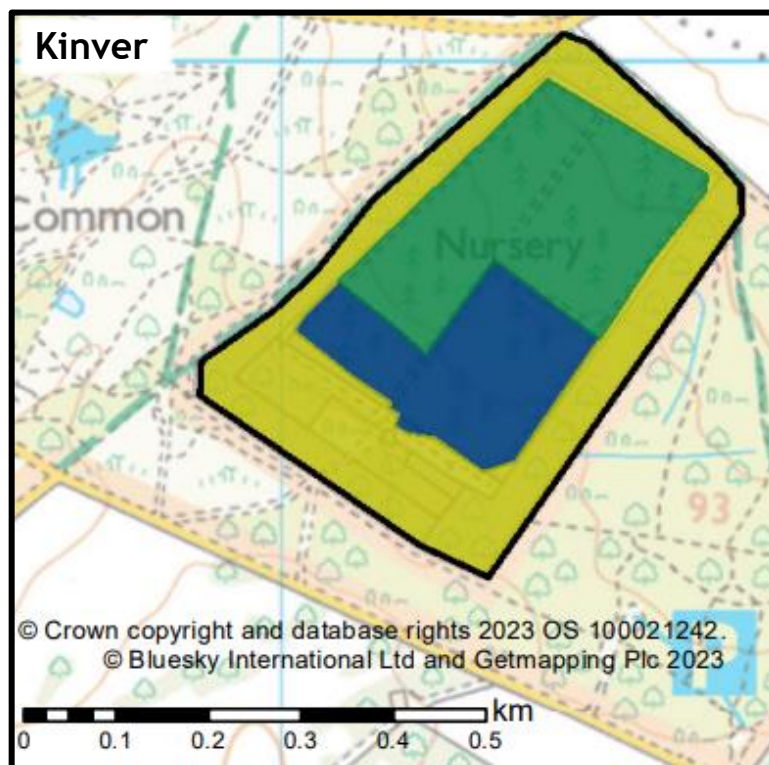
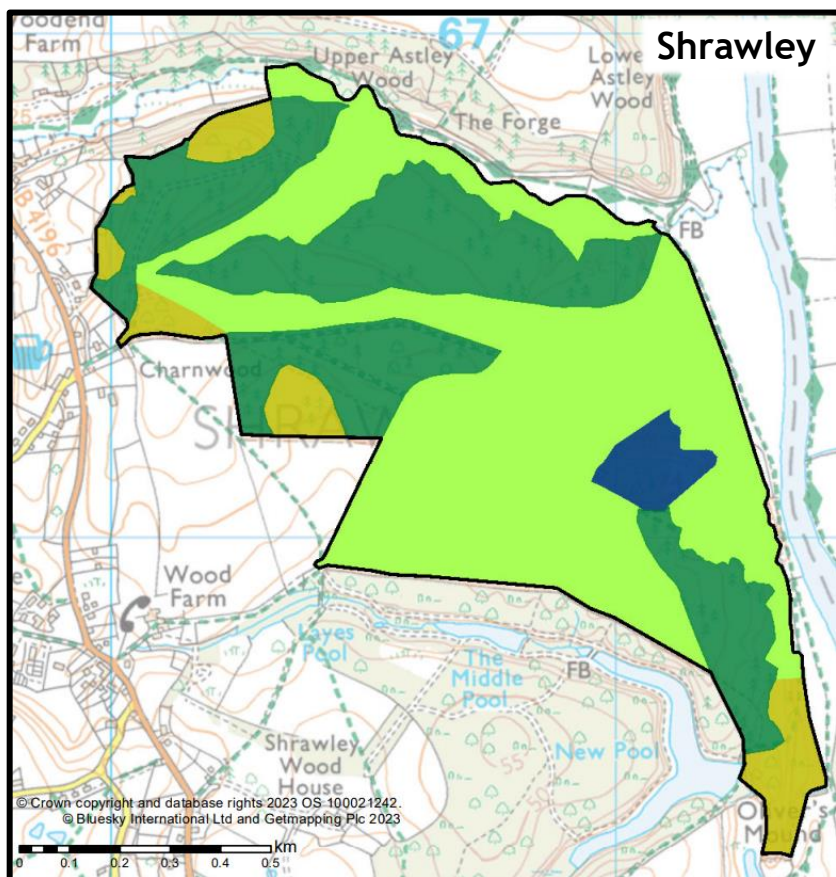
Shatterford Wood consists almost entirely of PAWS woodland, with small areas of Ancient Semi-Natural woodland too. A powerline runs diagonally through the wood, resulting in a wide corridor of open habitat beneath the line. In addition, ride widening has taken place in recent years to further add to the area of open habitat for wildlife. Arley Wood Camp is a Scheduled Monument (SM) located within Shatterford, consisting of an Iron Aged hillfort measuring 130m x 70m, and an enclosure to the north west of the hillfort. As outlined in the SM management plan which runs concurrently with this Forest Plan, key management actions for this SM over the next ten years will include removing the Japanese larch currently covering the enclosure. Coppicing of overstood stools on the hillfort is also recommended in the management plan, as is the felling of large mature trees on the edge bank of the hillfort, which have the potential to cause damage to the monument if they fall.

Kinver

Highgate Common SSSI covers Kinver seed orchard as well as the surrounding grassland and heathland of the wider common. The SSSI is designated for its nationally important assemblage of invertebrates associated with free-draining grassland, heathland, early successional habitat, scrub and woodland edge habitats. In particular, Highgate Common is estimated to have 140 species of solitary bees and wasps, and is one of the best sites in the West Midlands for bees and wasps. Unit 3 of the SSSI covers Kinver, and is currently classed as being in “unfavourable recovering” condition. The recent introduction of grazing cattle into fenced enclosures within the newly felled areas of the seed orchard should help to improve the condition of this SSSI unit by increasing the diversity of the sward and encouraging heathland vegetation. On the western edge of the high forest belt, a selection of understorey trees within a 20m stretch will be felled to open up the flight path for bees and wasps between the wider open common and the new open areas. In the southern end of the high forest belt, cattle fencing has been installed to prepare for future grazing, but cattle haven’t been introduced here yet. A heavy thin will allow more space for cattle to graze and more light for ground flora to grow, with the aim of creating wood pasture habitat.



Current Species Composition



Legend

Largest Component Species

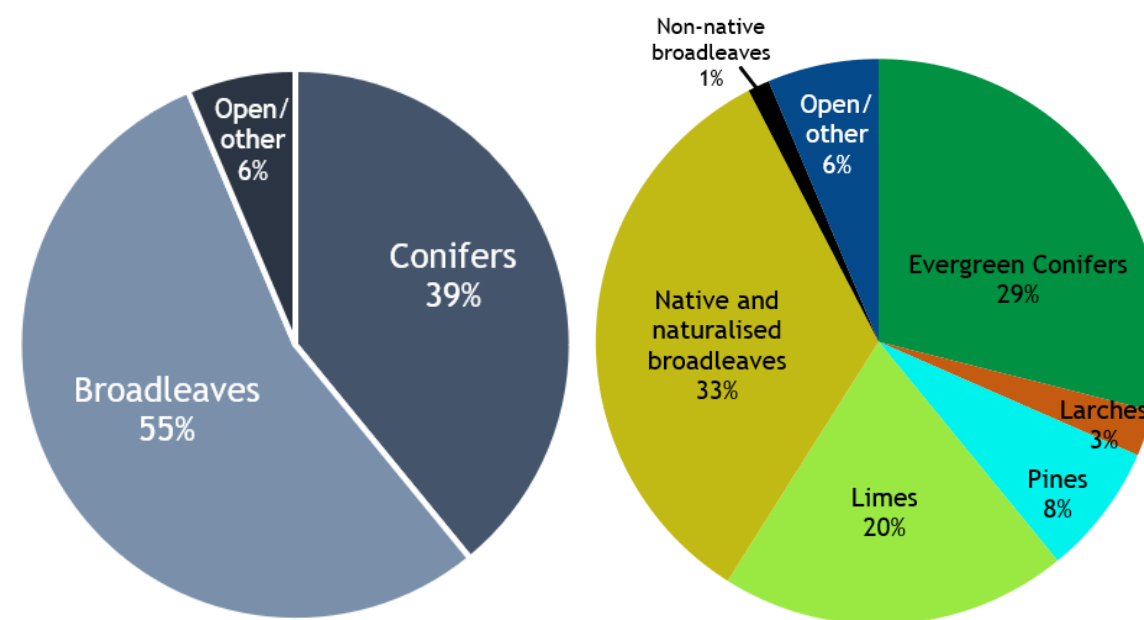
- Evergreen conifers
- Larches
- Pines
- Limes
- Native/naturalised broadleaves
- Open/other

Notes:

- Beech, sycamore, and sweet chestnut are not considered to be within their native range, but are considered to be 'naturalised'
- Open/other includes felled areas and archaeological sites

The Wyre Outliers Forest Plan area consists of a mix of conifer and broadleaf species, with broadleaves making up the majority at 55%. The most abundant broadleaf species by area is small-leaved lime, which covers an extensive portion of Shrawley, one of the largest small-leaved lime coppice woodlands in England.

Norway spruce and Douglas fir are the two most abundant conifer species. The majority of the plan area is PAWS or Ancient Semi-Natural Woodland, and therefore increasing the proportion of broadleaf cover over time is a key aim, and this will be achieved through implementing LISS systems.

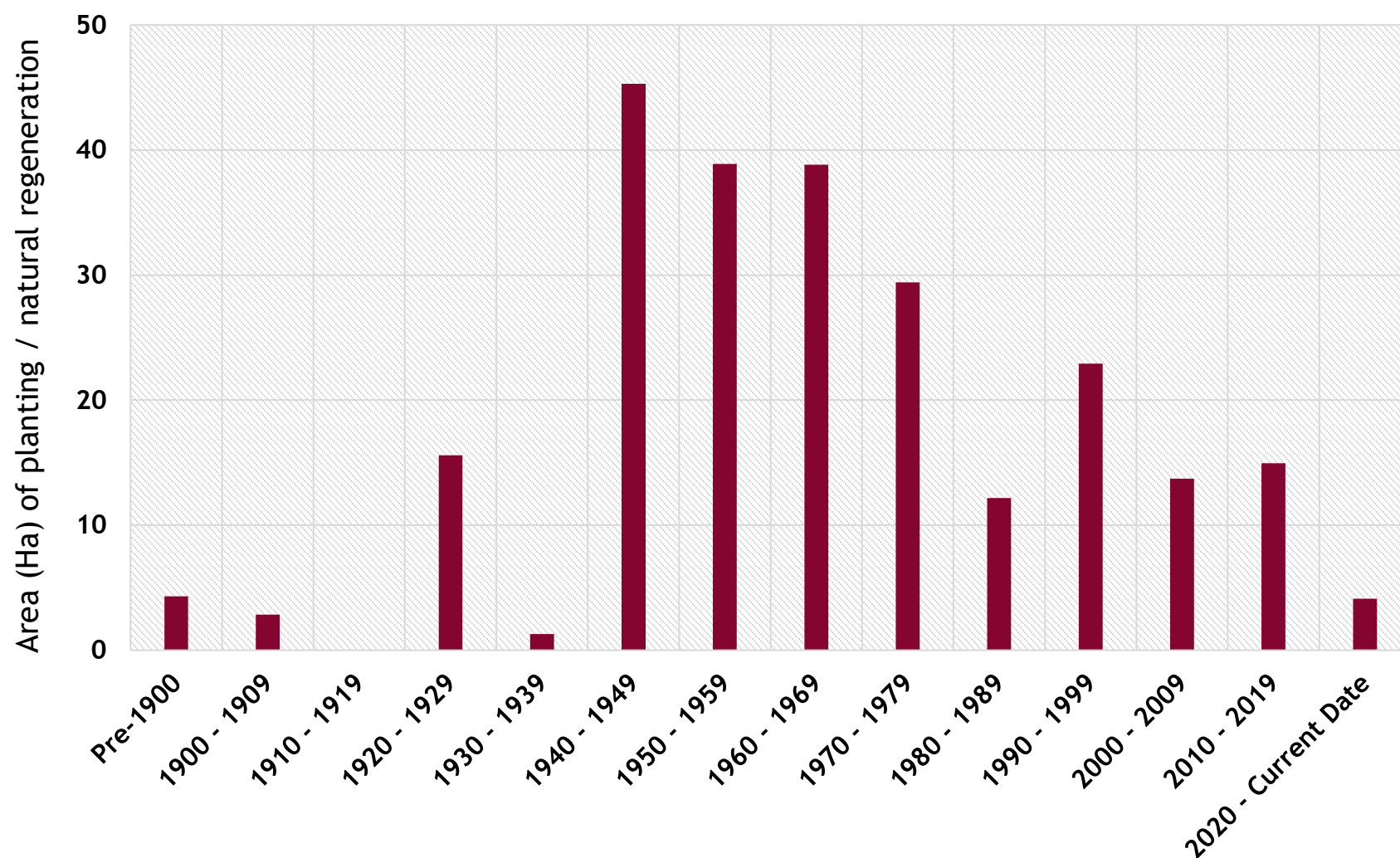


Total Species Component Area Across the Wyre Outliers

Structural Composition

As shown in the graph below, the majority of planting and natural regeneration of trees in the Plan area has occurred since 1940. Up until the 1940s, the only planting or natural regeneration that took place was of native broadleaf species. In the 1940s, commercial planting of non-native conifers began, with peak planting occurring in the 1940's and high levels of planting continuing through to the 1970s.

The move away from simple clearfell/restock management and the implementation of LISS will help to diversify the age structure of the woodlands in the Wyre Outliers Plan area.



Area (Ha) of planting or natural regeneration per decade in the Wyre Outliers Plan area

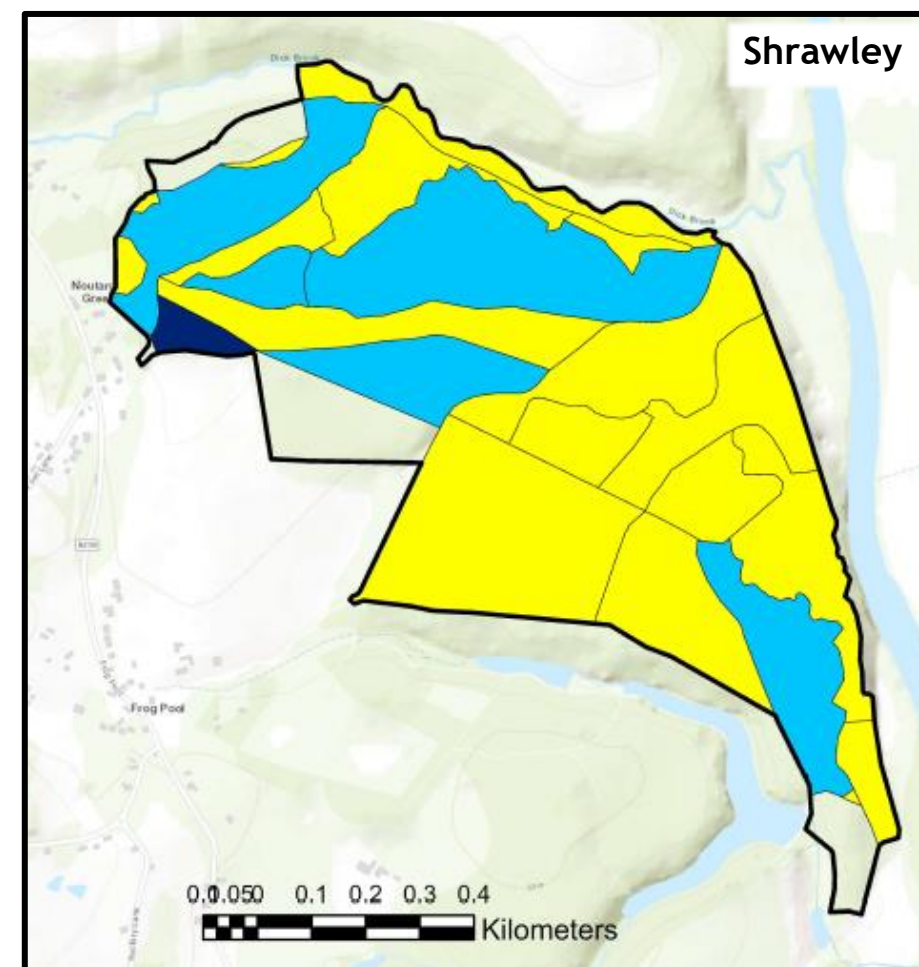
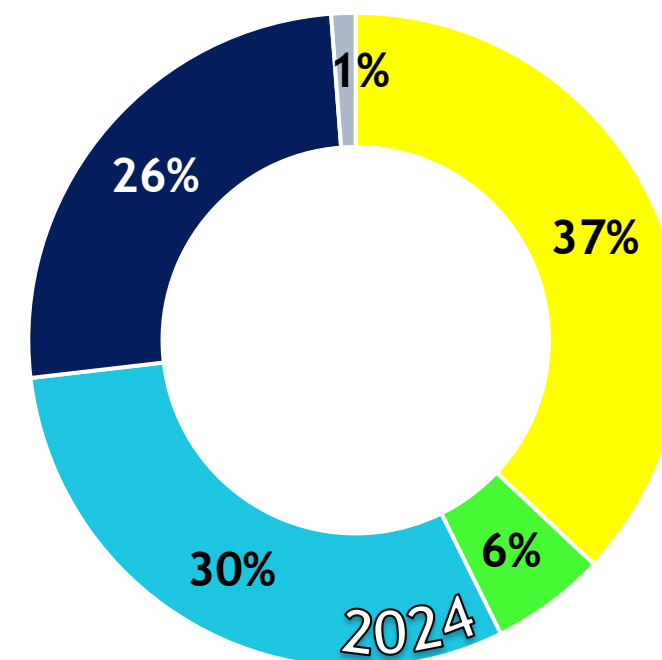
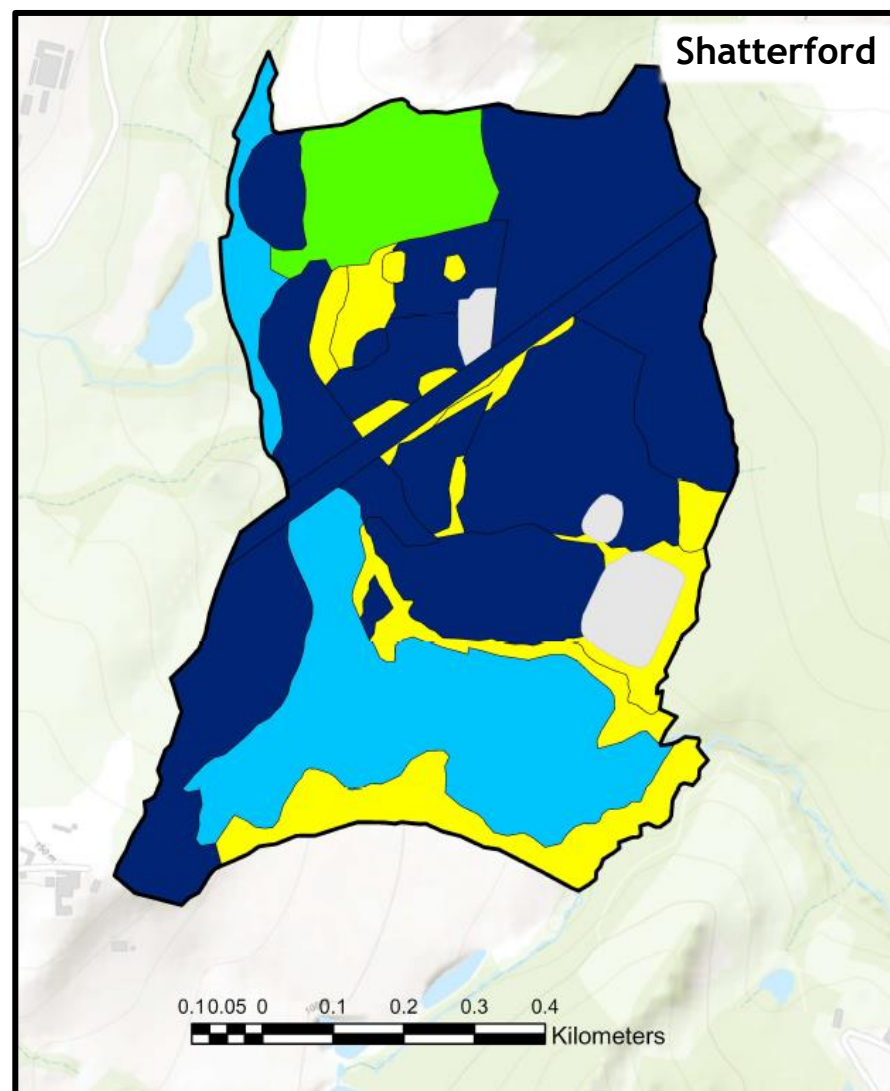
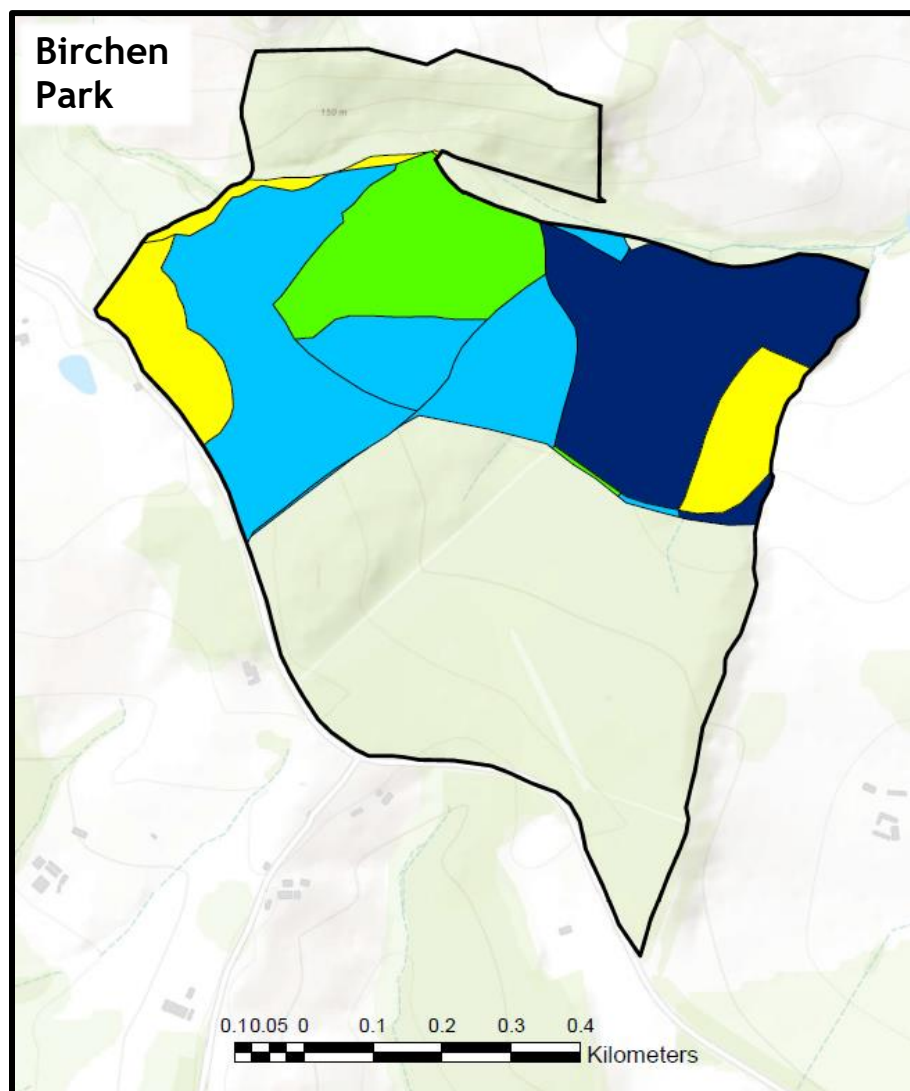


Norway Spruce at Birchen Park planted in the 1950s



Douglas Fir at Birchen Park planted in the 2010s

Naturalness on Ancient Woodland



Naturalness scores are a measure used to show the percentage of site native tree species in a particular area. The maps on this page show the naturalness scores for the areas of Ancient Woodland in the Wyre Outliers Plan area, which are in Birchen Park, Shatterford and Shrawley. Kinver contains no Ancient Woodland. 75% of the Wyre Outliers plan area is designated as Ancient Woodland. And of this area, 33% is classed as Ancient Semi-Natural Woodland, i.e. areas largely composed of species native to the site, and 67% is classed as Plantation on Ancient Woodland Sites (PAWS), i.e. areas which have been replanted with conifer or broadleaved trees. Class 1 indicates the highest level of nativeness, and Class 4 the lowest. The measure of naturalness is used to monitor the condition of Ancient Semi-Natural Woodland, and scrutinise progress in the restoration of PAWS sites back to native broadleaf cover. The restoration of naturalness classes 2, 3 and 4 back to class 1 is a key objective of this Forest Plan.

Legend

- Class 1 - >80% Site Native Species
- Class 2 - 50% - 80% Site Native Species
- Class 3 - 20% - 50% Site Native Species
- Class 4 - <20% Site Native Species
- Open/Other

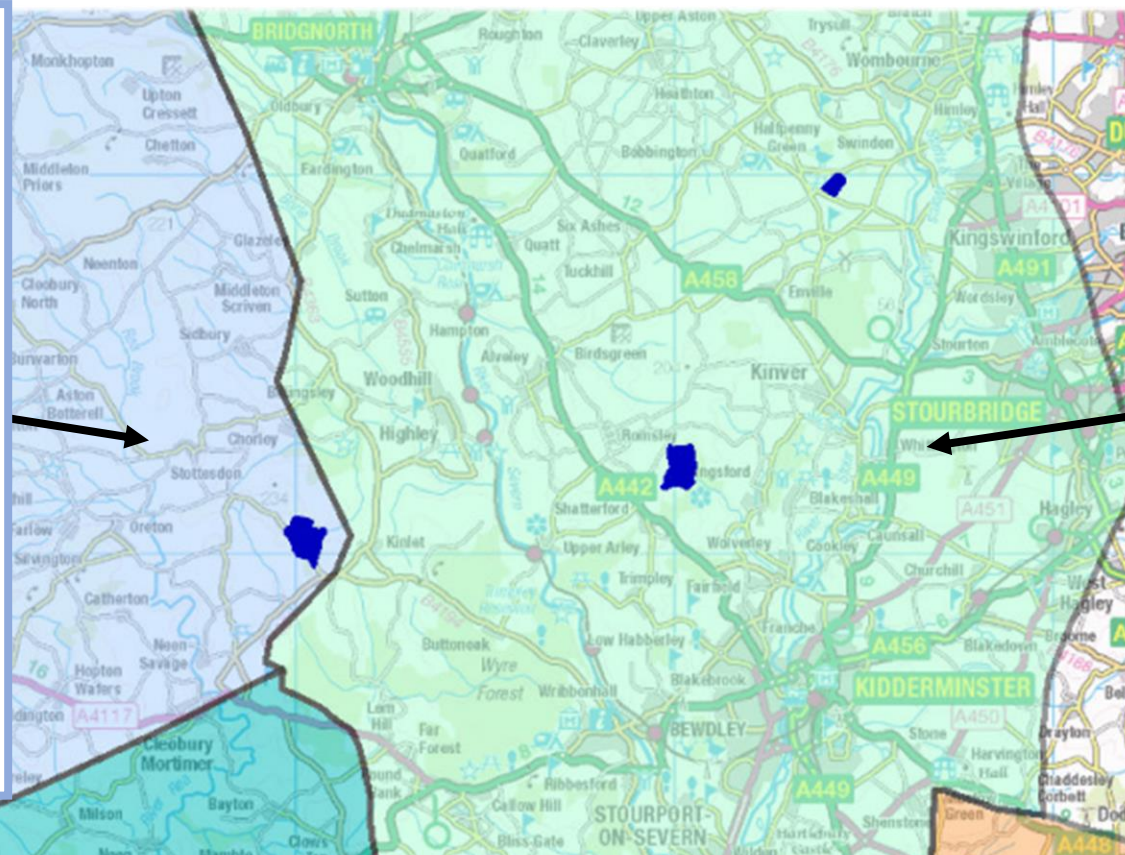
Note: despite beech and sweet chestnut being considered “naturalised” species in this area of the UK, they are outside of their native range and therefore contribute to the non-native score (with the exception of beech in the lower half of Shrawley, which is just within the “beech zone”, i.e. the area in the UK where beech is considered native).

Landscape Character

Shropshire Hills National Character Area (NCA 65)

Natural England, 2015

- Birchen Park woodland sits just within this National Character Area, in the south-eastern corner
- Semi-natural woodlands are scattered across the Character Area, although many are largely confined to the slopes of the Shropshire Hills, where ash, elm and oak stands occur. There are numerous conifer and mixed plantations
- This area is very popular with locals and is growing in recognition with visitors for walking and riding, as it offers an extensive rights-of-way network and open access land
- Our work to expand broadleaved woodland at Birchen Park and restore areas of PAWS will contribute to the characteristic of the landscape



Mid Severn Sandstone Plateau National Character Area (NCA 66)

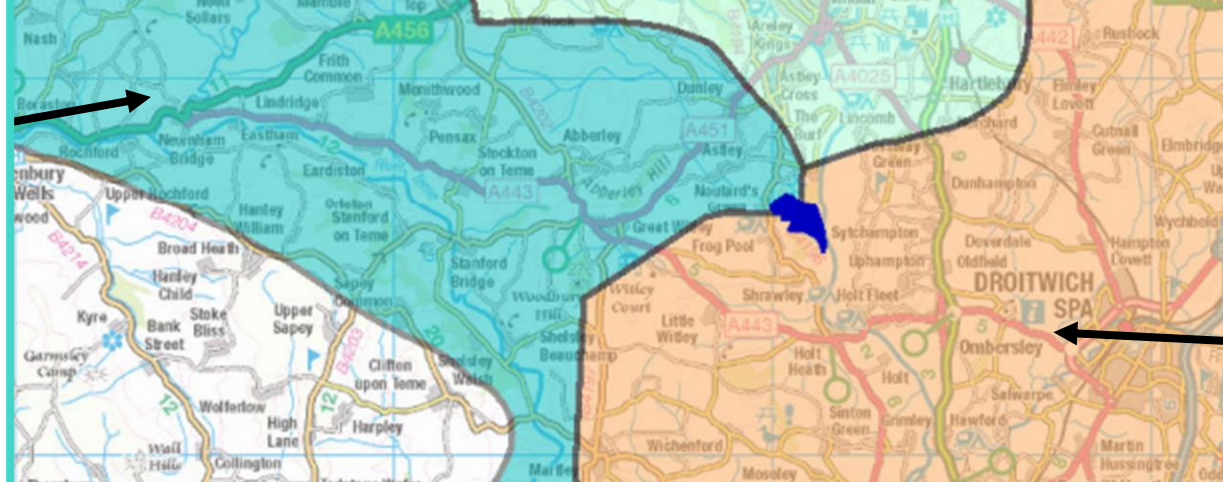
Natural England, 2015

- Shatterford and Kinver are both located within this National Character Area
- Extensive sandstone plateau in the core and east of the Character Area underpins an undulating landscape with tree-lined ridges
- Interlocking blocks of mixed woodland and old orchards provide a well-wooded landscape and conifer plantations combine with parklands to give an estate character
- Characteristic lowland heathland associated with acid grassland and woodland supports nationally important populations of flora and fauna
- A characteristic feature of the Character Area is the heathland and associated grassland, notably at Kinver and Hartlebury

Teme Valley National Character Area (NCA 102)

Natural England, 2014

- The southern most woodland in the Wyre Outliers block, Shrawley Wood, partly sits within this National Character Area
- Tranquil ancient oak woodlands characterise the steep valley sides with occasional blocks of coniferous plantation. Wild service tree and small leaved lime occur in woodlands and hedgerows
- Woodland, one of the most important habitats in the Character Area, covers 17 per cent of the total area. Of this, 40 per cent is Ancient Semi-Natural Woodland or PAWS



Legend

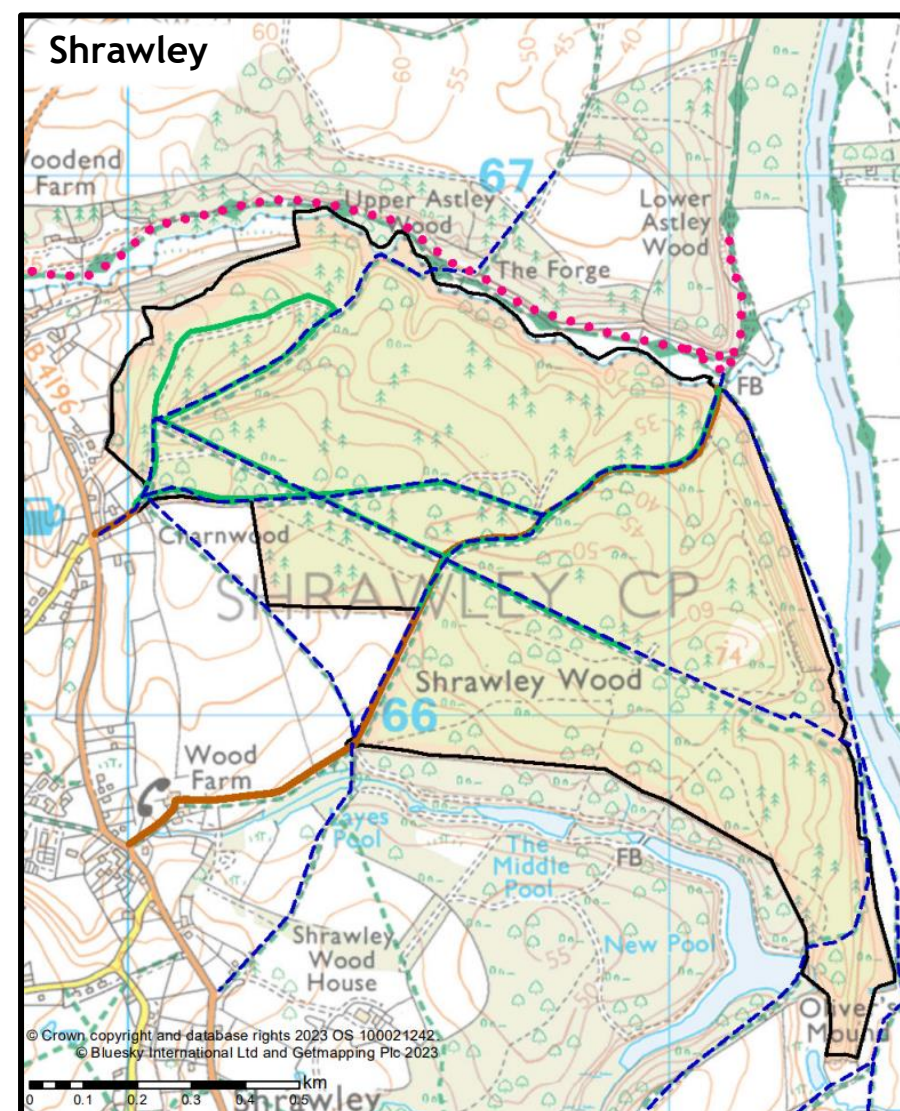
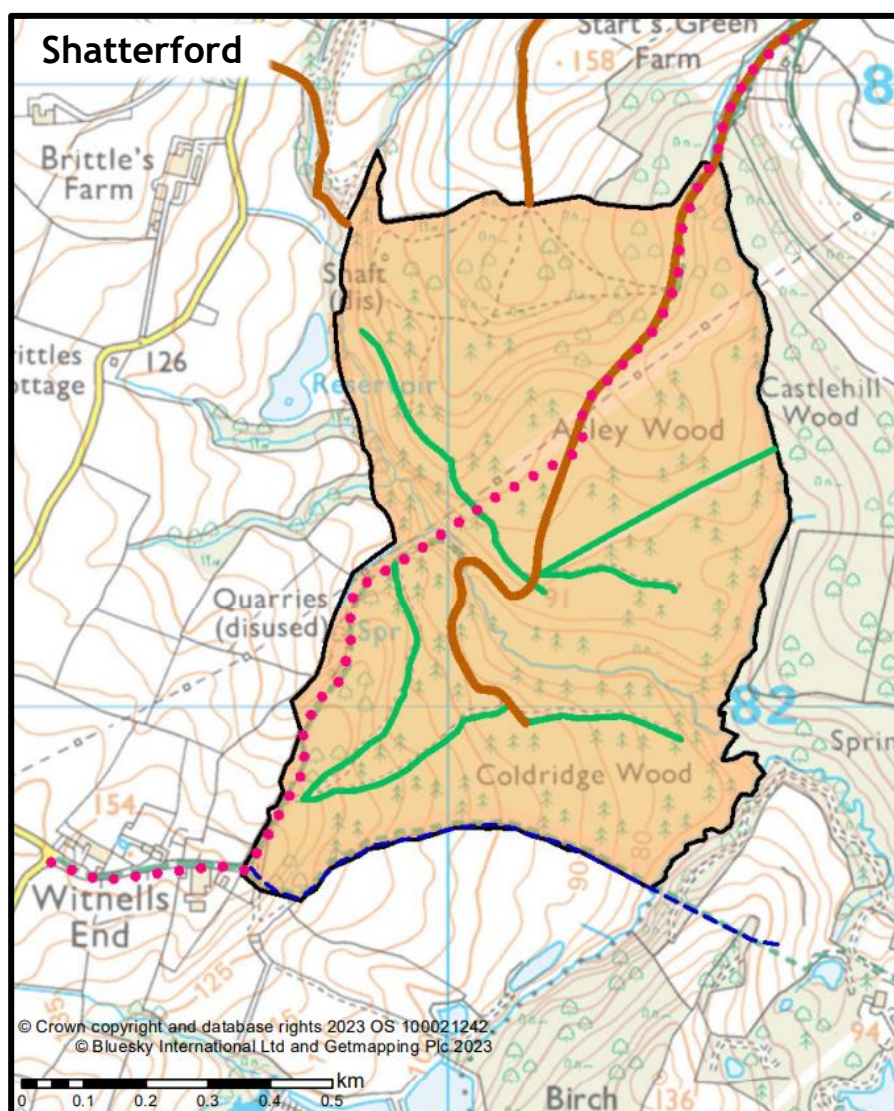
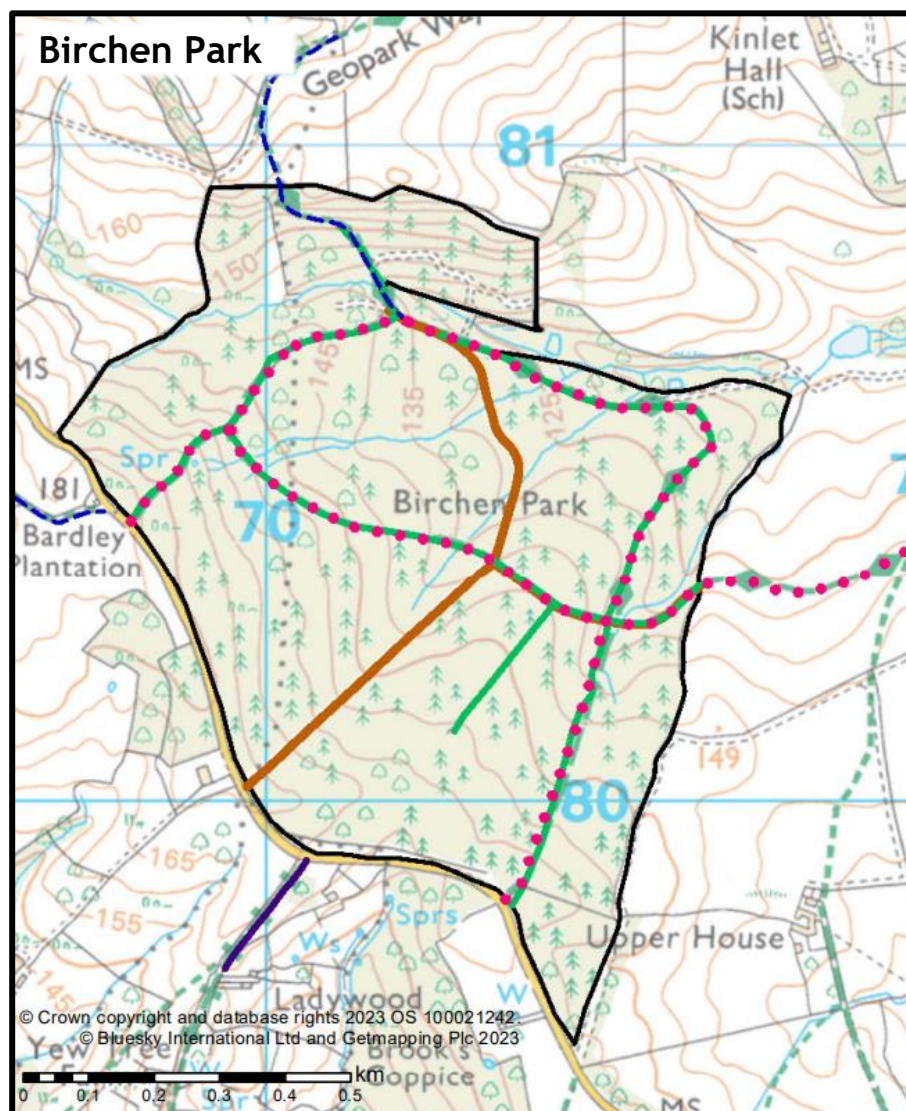
- Woodlands in the Wyre Outliers block
- Shropshire Hills NCA
- Mid Severn Sandstone Plateau NCA
- Teme Valley NCA
- Severn and Avon Vales NCA

Severn and Avon Vales National Character Area (NCA 106)

Natural England, 2014

- The majority of Shrawley Wood is located on the northern edge of this Character Area
- Although woodland is an infrequent feature across the Character Area, there are important pockets in the north-west to the east of Worcester and west of Pershore, where a series of ancient semi-natural woodlands occur, containing important fauna and flora. Shrawley Wood SSSI in the north of the area is one of the most important small-leaved lime woodlands in England
- A strong historic time line is visible in the landscape, from the Roman influences centred at Gloucester, earthwork remains of medieval settlements and associated field systems through to the strong Shakespearian heritage at Stratford-upon-Avon

Recreation and Access



Legend

- CROW designated land
- Forest road
- Ride

Public Rights of Way:

- Bridleway
- Footpath
- Byway

Despite lacking formal recreation facilities such as car parks, toilets or cycle trails, the Wyre Outlier woodlands still provide a valuable recreational and wellbeing facility for people in the local area. Out of the four woodlands, only Kinver does not contain any Public Rights of Way (PROW) or open access land (CROW). However, there is a network of informal footpaths across Highgate Common, including within the seed orchard at Kinver, meaning local walkers are still able to access the site. At Birchen Park, walkers, cyclists, and horse-riders can enjoy a network of bridleways which cross the wood, and there is also a short stretch of footpath in the northern end of the wood. At Shrawley, a bridleway passes in close proximity on the north-eastern edge of the wood, but within the wood itself there are purely footpaths. In Shatterford, the entirety of the woodland is designated as open access under the Countryside and Rights of Way Act 2000 (CROW). As well as this access, a footpath follows the southern edge of the wood, and a well-used bridleway crosses the woodland diagonally.



Analysis & Concept - Shrawley

Analysis:

A row of historic pollarded small-leaved limes are designated as Trees of Special Interest (TSIs), and have recently been re-pollarded. Nearby, a number of younger lime pollards have been created to ensure that pollarded limes will be a feature of the wood for many years to come.

Concept:

The condition of the limes will be monitored, and pollarding will be completed again when judged necessary by the team.



Analysis:

A network of forest rides is present across Shrawley Wood, with many being Public Rights of Way (PROW) enjoyed by local visitors.

Concept:

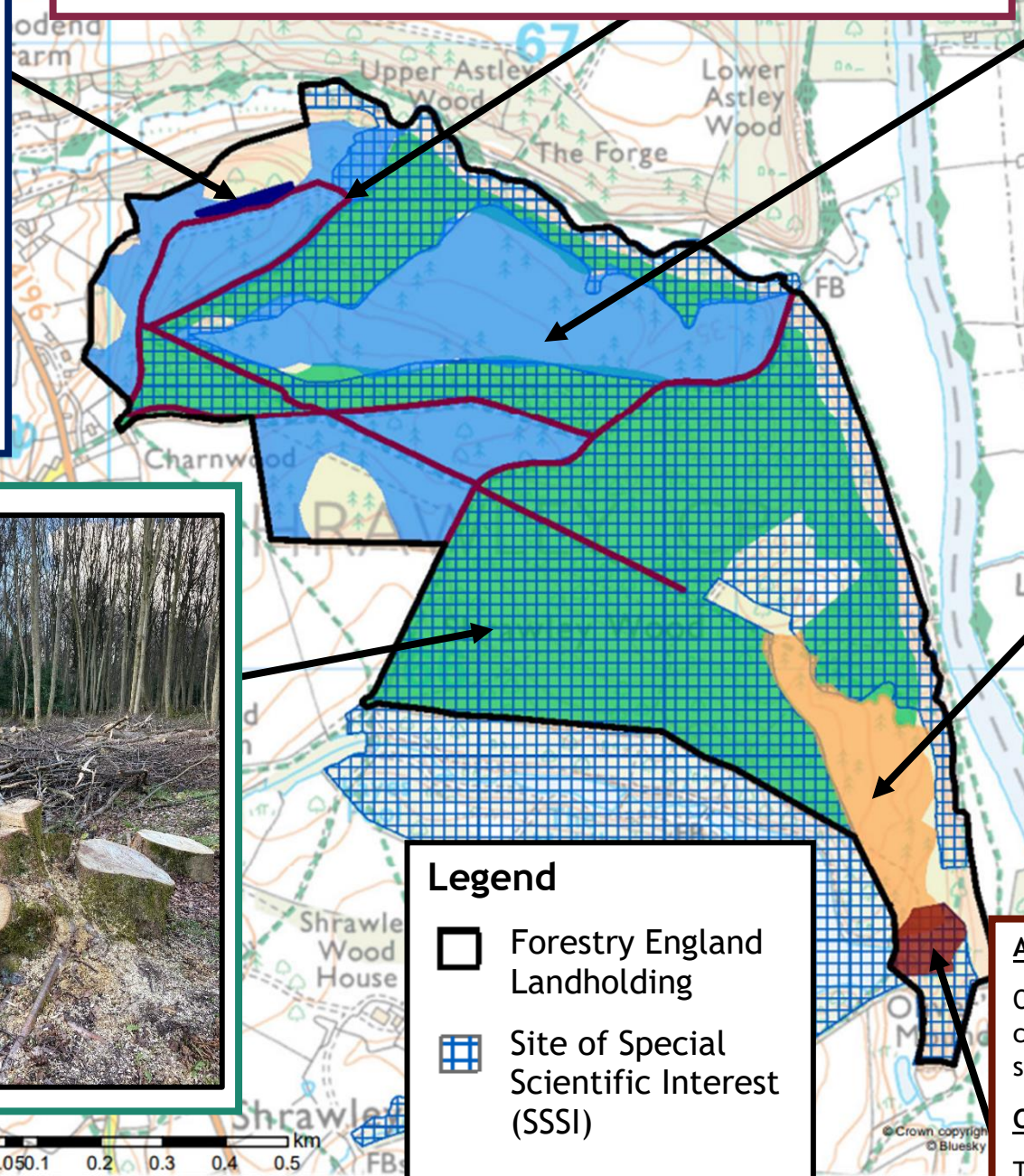
Ride widening operations will be integrated with other forestry work occurring in the wood. With more sunlight able to reach the rides, ground conditions will become drier for visitors and vehicles, and the rides will also provide greater ecological value for invertebrates and woodland flora.

Analysis:

Douglas fir is prevalent in the northern half of the wood, much of which is PAWS woodland. It is managed through group selection in order to create gaps and encourage broadleaf regeneration.

Concept:

Douglas fir will continue to be extracted gradually through group selection until it is removed entirely from the woodland, restoring the native composition of this area of Ancient Woodland. Diversifying the composition of stands currently dominated by one non-native species is important for climate resilience.



Analysis:

This stand of mainly Douglas fir is situated within ancient woodland, making this a PAWS area. A key focus of this Forest Plan is to take pro-active steps in restoring areas of PAWS woodland.

Concept:

The Douglas fir will be clearfelled in the first half of the Plan period, and the small-leaved lime stools within the stand will be coppiced. Restocking will prioritise native species in order to achieve a minimum of 80% native cover at maturity.

Analysis:

Shrawley Wood is one of the largest small-leaved lime coppice woodlands in the country, and it is an ancient woodland site. The relative rarity of small-leaved lime coppice in this part of the country was a significant factor in the designation of Shrawley Wood SSSI, which covers approximately 60% of the woodland under Forestry England's management at Shrawley.

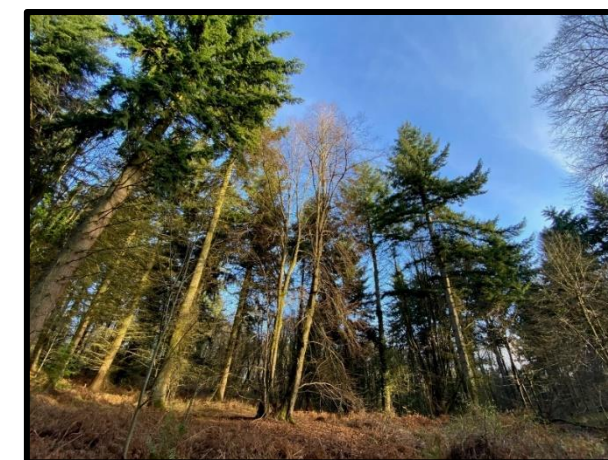
Concept:

In line with the SSSI plan, areas of lime will be managed either as pure coppice, coppice with standards, or high forest. Coppicing occurs on a roughly 30 year rotation.



Legend

-  Forestry England Landholding
-  Site of Special Scientific Interest (SSSI)
-  Rides



Analysis:

Oliver's Mound is a non-scheduled medieval castle thought to have been constructed between the 11th and 14th centuries. Located near the southern tip of Shrawley, the site occupies approximately half a hectare.

Concept:

The castle will continue to be maintained as open ground, largely free of tree cover and scrub encroachment.

Analysis & Concept - Shatterford

Analysis:

This 2003 Norway Spruce has struggled to establish successfully since being planted, possibly due to the relatively wet localised ground conditions.

Concept:

The stand will be thinned early on in the Plan period. Any gaps in the stand will be restocked with broadleaves in order to restructure this struggling stand and improve its condition.

Analysis:

A bridleway crosses the woodland diagonally, enabling the public to enjoy walking, horse riding and cycling access through the wood.

Concept:

Managing the woodland largely through group selection to gradually produce an irregular structure will result in greater aesthetic value for visitors.

Analysis:

Ride-widening work was carried out here during the previous Forest Plan period. An additional two rows of larch from either side of the ride were felled and mulched for the benefit of invertebrates.

Concept:

This grassy area is now part of the mowing regime and will continue to be maintained as valuable open space.

Analysis:

A powerline managed by Western Power crosses the wood between the north-eastern and south-western edges. The presence of the powerline necessitates the maintenance of open area beneath it.

Concept:

The grassy corridor beneath the powerline will continue to be maintained through the existing mowing regime. It is an ecologically beneficial feature of the woodland due to its potential use by wildlife such as invertebrates as a corridor.



Analysis:

The wood contains significant areas of Corsican pine which are suffering from *Dothistroma* Needle Blight. Currently, the stands are managed through thinning which improves the airflow around the trees and reduces the humidity, meaning conditions for the disease are less favourable. This approach appears to be working well, with no severe decline in stand condition observed during the last Forest Plan period.

Concept:

The stands will continue to be managed on a thinning regime, with the option available to carry out a heavy thin where 50% of the crop is removed if the disease appears to be worsening.



Legend

□ Forestry England Landholding

— Powerline

— Public Right of Way (PROW)

Analysis:

Almost the entirety of Shatterford is classed as PAWS woodland, with the key conifer species present being Corsican pine, Norway spruce and Japanese larch.

Concept:

Thinning and clearfelling operations over the duration of the Plan period will reduce the cover of non-native species. Restocking will be predominately with native broadleaves, in order to gradually restore the woodland to a native composition.

Analysis:

Arley Wood Camp is a Scheduled Monument consisting of an Iron Aged hillfort and enclosure.

Concept:

A Scheduled Monument management plan has been created to run concurrently with the Forest Plan. The most immediate action required is the clearance of larch trees from the enclosure part of the monument (smaller red shape on the map). Following felling, the enclosure will be maintained free of trees. Coppicing of overstood stools on the hillfort is also recommended in the management plan, as is the felling of large mature trees on the edge bank of the hillfort, which have the potential to cause damage to the monument if they fell.



Analysis & Concept - Birchen Park

Analysis:

Immediately adjacent to the watercourse is a stand of mature Norway spruce.

Concept:

To allow more light to reach the watercourse and encourage broadleaf regeneration along the riparian corridor, a small section (<0.5ha) of the Norway spruce stand will be felled, with the shape of the felled area to be carefully planned to avoid exposing a non-windfirm edge of the stand.

Analysis:

A good network of Public Rights of Way and forest roads provide the public with valuable recreational access within the wood.

Concept:

Ongoing management of stands through shelterwood and selection systems will continue to increase the diversity of stand structure, improving aesthetic interest for visitors.

Analysis:

This predominately broadleaf area has a high density of birch regeneration with stems under 7cm in diameter.

Concept:

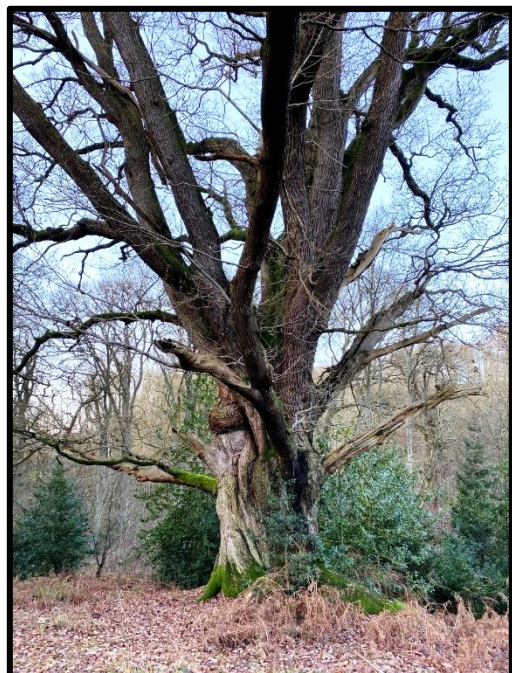
Re-spacing of this regeneration will be undertaken, and once planting gaps have been created, restocking with a diversity of broadleaf species will be carried out.

Analysis:

Birchen Park contains a number of Trees of Special Interest (TSIs), including numerous veteran pedunculate oaks.

Concept:

TSIs will be retained in perpetuity for their ecological value and the deadwood they generate, and will be protected from potentially harmful forestry operations with buffer zones.



Analysis:

This stand of predominately uniform-aged Norway spruce, oak and birch has suffered from windblow incidents, and is notably within the band of ancient woodland making this a PAWS area.

Concept:

Multiple small group fellings will be carried out, and the gaps will be restocked with broadleaves. Windblown trees will be removed.

Analysis:

This stand of 1988 sessile oak has been heavily damaged by squirrels, resulting in stunted trees and a low stocking density.

Concept:

Stunted/failing trees will be selected for removal, with gaps to be replanted with broadleaves.

Analysis & Concept:

The middle band of Birchen Park is Ancient Semi-Natural or PAWS woodland, with the areas above and below this band being secondary woodland. The secondary woodland areas are where commercially focussed clearfell and restock operations have been carried out to date. Going forward, clearfelling in these areas will still be employed where suitable, though LISS will also be utilised to diversify stand structure.

Analysis:

This area has experienced significant windblow, with Norway spruce particularly affected. Some noticeable gaps have opened up.

Concept:

Group fellings will be carried out in the worst-affected windblow areas, and the gaps will be restocked with broadleaves.

Analysis:

This secondary woodland stand is composed of mostly uniform-aged Douglas fir, oak and Norway spruce.

Concept:

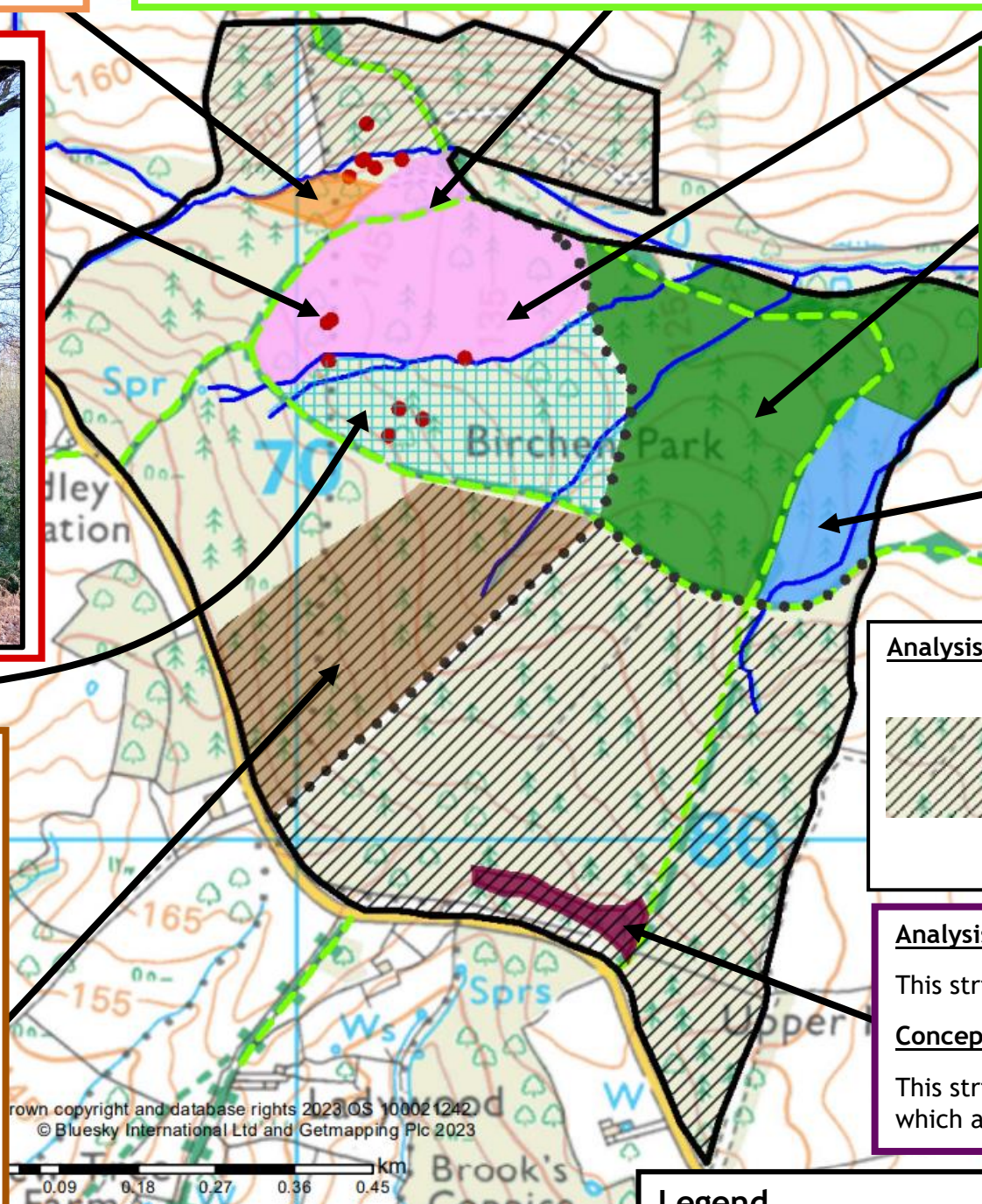
To increase climate resilience and aesthetic value for visitors, the structure of this stand will be diversified through completing strip fellings, starting from the north-eastern edge of the stand progressing gradually towards the road on the western edge of the wood, to protect the windfirm edge along the road on the western side.

Analysis:







This strip of Norway spruce is an isolated remnant from a once larger stand.

Concept:

This strip will be removed and will allow better access to the roadside trees which are currently difficult to reach when tree safety work is required.



Legend

-  Forest Roads
-  Watercourses
-  Forestry England Landholding
-  Public Right of Way (PROW)
-  Tree of Special Interest (TSI)
-  Secondary woodland

Analysis & Concept - Kinver

Analysis:

Highgate Common SSSI covers Kinver as well as the surrounding grassland and heathland of the wider common. The SSSI is designated for its nationally important assemblage of invertebrates associated with free-draining grassland, heathland, early successional habitat, scrub and woodland edge habitats. Unit 3 of the SSSI covers Kinver, and is currently classed as being in “unfavourable recovering” condition.

Concept:

Cattle grazing managed by Staffordshire Wildlife Trust will help to improve the SSSI unit condition by increasing sward diversity.

Analysis:

A significant proportion of Kinver is occupied by Corsican pine seed stands, managed by Forestry England’s Plant and Seed Supply unit (PSS).

Concept:

No forestry operations will take place within the seed orchard. It will continue to be managed by PSS going forward.

Analysis:

In 2021, the decision was taken to fell two sections of seed trees in the seed orchard due to them having reached a size where they were too large to collect seed from, and also due to them suffering from *Dothistroma* Needle Blight.

Concept:

The newly felled areas will not be restocked and will instead be managed as open habitat to help improve the condition of Unit 3 of Highgate Common SSSI. Staffordshire Wildlife Trust have recently fenced these areas and grazing cattle are now on site.



Analysis:

Surrounding the seed orchard is a belt of high forest, largely consisting of birch and red oak, but with minor conifer components as well. The belt is currently managed under minimum intervention.

Concept:

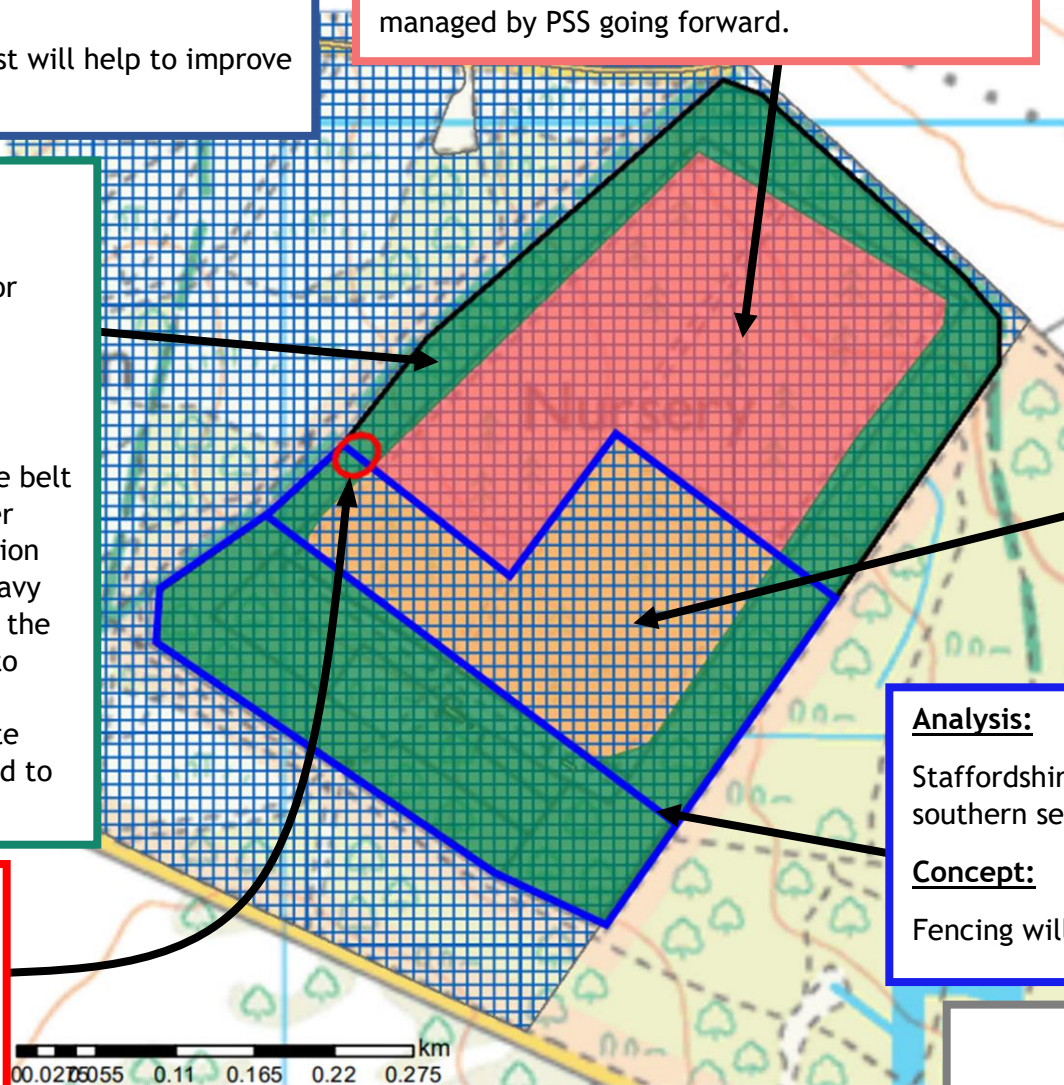
Very little work will be required in the top half of the belt in the new Plan, it will continue to be managed under minimum intervention. However in the southern section within the new cattle fencing, we will carry out a heavy thin (not exceeding 30%) in order to create space for the cattle to graze amongst the trees and to allow light to reach the woodland floor and promote ground flora growth for the cattle to eat. The aim here is to create wood pasture habitat. Bracken and bramble may need to be manually controlled.

Analysis:



The new open areas within the seed orchard are only separated from the wider open common by the belt of high forest.

Concept:

Selected understorey trees of small diameter in the area indicated by a circle will be removed in order to increase connectivity between the wider common and the new open areas, by opening up the flight path for solitary bees. Highgate Common has over 140 species of bees and wasps, which is one of the core reasons for its designation as a SSSI.



Legend

-  Forestry England Landholding
-  Site of Special Scientific Interest (SSSI)

Analysis:

Staffordshire Wildlife Trust have installed fencing around the new open areas, as well as the southern section of the high forest belt.

Concept:

Fencing will facilitate cattle grazing, which will aid the restoration of the open areas to heathland.

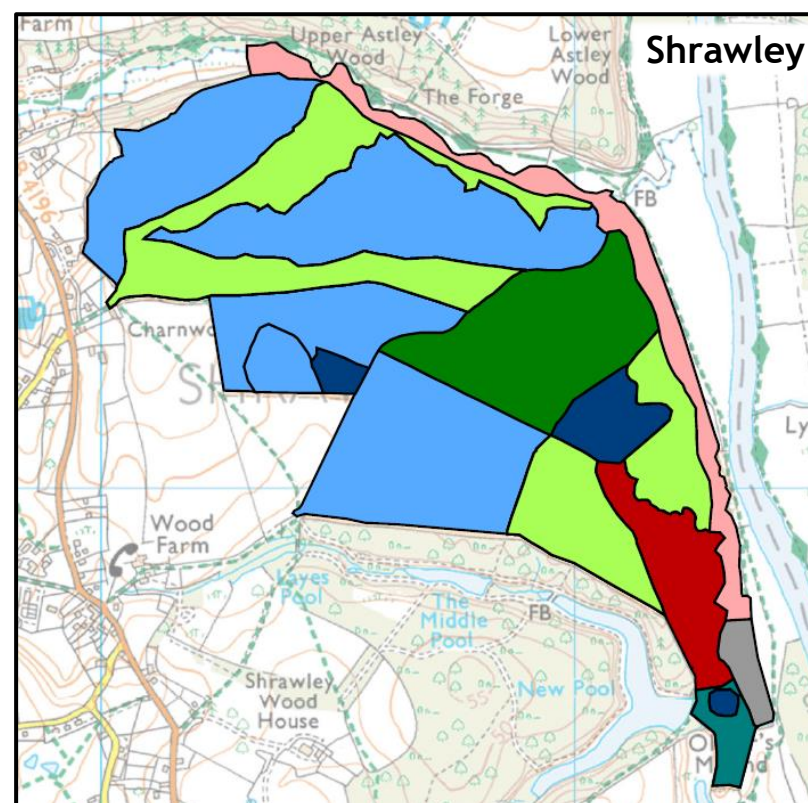
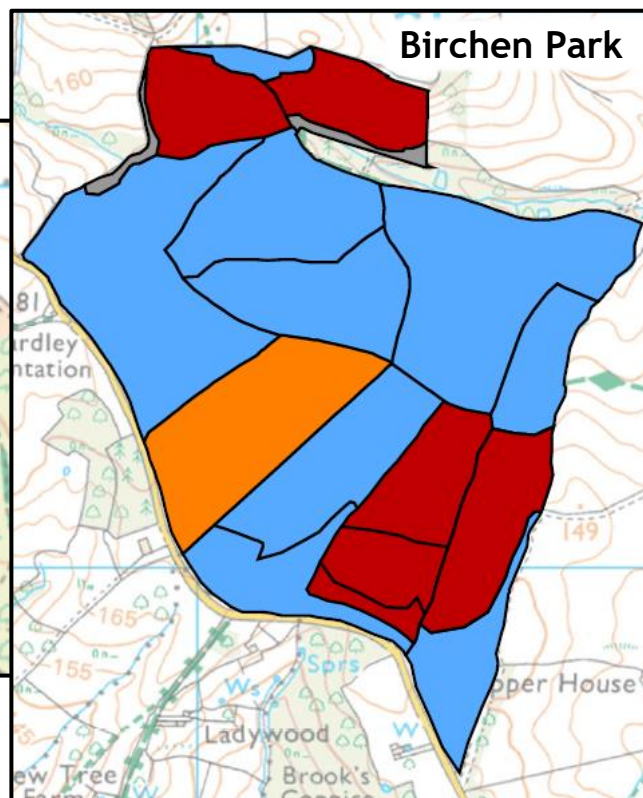
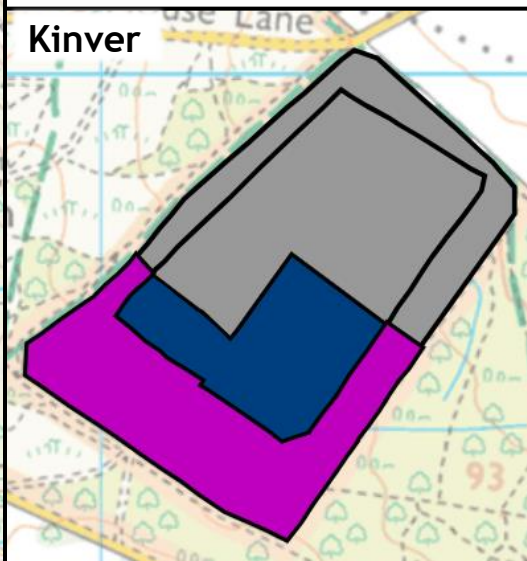
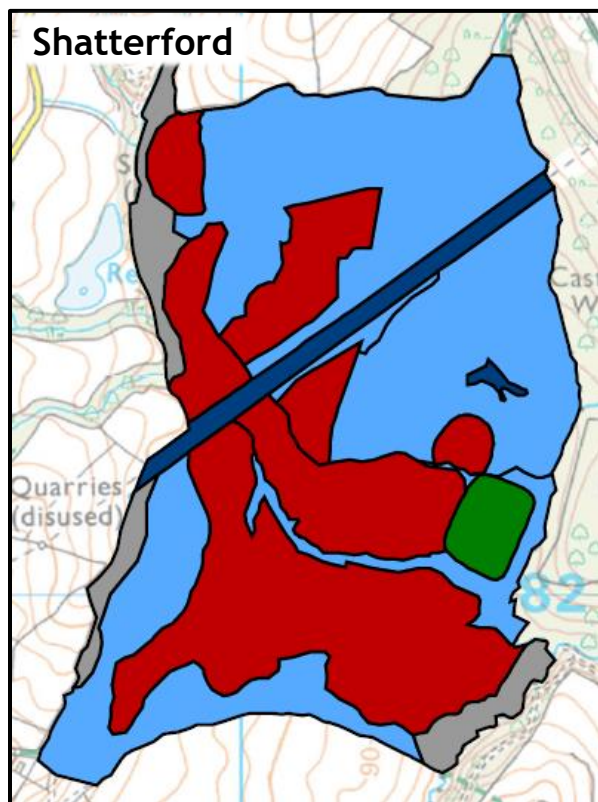
Analysis:

Despite there being no Public Rights of Way or CROW access within Kinver, informal access is enjoyed by the public.

Concept:

Informal access will continue; however the new fenced grazing paddocks will restrict access to parts of the seed orchard when stock are in situ, and it will be possible for PSS and Staffordshire Wildlife Trust to control access by locking gates when required.

Silviculture



Legend

- Clearfell
- Group Selection
- Open/Other
- Coppice
- Coppice with standards
- Minimum intervention
- Minimum intervention (natural reserve)
- Single tree selection
- Long term retention
- Strip shelterwood

Clearfell coupes will be managed by cutting and removing all trees, and will be restocked through either replanting or natural selection, or a combination of both. At Shatterford and Shrawley, clearfelling of conifers and subsequent restocking with a majority of broadleaves will contribute to the restoration of PAWS woodland. At Birchen Park, clearfell coupes are located within areas of plantation (secondary) woodland, and restocking will comprise of conifer species for commercial timber production.

Group selection fellings will be carried out with the intention of diversifying woodland composition and structure. The gaps created will either be planted up or allowed to naturally regenerate.

Open space will be maintained as valuable habitat for wildlife, adding to the diversity of the overall woodland structure. A regular mowing regime is in place to ensure forest cover in open areas remains less than 2m in height.

Coppicing will predominately take place at Shrawley, where coppiced small-leaved lime covers a significant proportion of the woodland, and coppiced sweet chestnut is also present. At Shatterford, coppicing of broadleaves on the hillfort at Arley Wood Camp will help to encourage a ground cover of woodland grass and bluebell, which will suppress other ground vegetation.

Minimum intervention areas are primarily areas which are very wet or otherwise inaccessible, making forestry operations unfeasible. Or, in the case of natural reserves, they are areas of high ecological value where the only interventions will be to protect and/or promote the development of habitat.

Single Tree Selection will be implemented at Kinver, where a heavy thin will take place in order to work towards a wood pasture habitat with grazing cattle.

Long term retention will apply to the broadleaves surrounding the heritage feature of Oliver's Mound at Shrawley.

A **strip shelterwood** will be implemented at Birchen Park, for the purpose of restructuring a conifer stand alongside the main forest road. Diversifying the age classes in this strip will increase aesthetic value for visitors and climate resilience. For wind stability reasons, the stand will be worked from northeast to southwest to ensure felling occurs on the leeward edge.

Felling and Restocking 2024 - 2034: Shrawley

Coupe 22050 (6.19ha)
Group Selection

Group felling of conifer totalling a maximum of 2ha

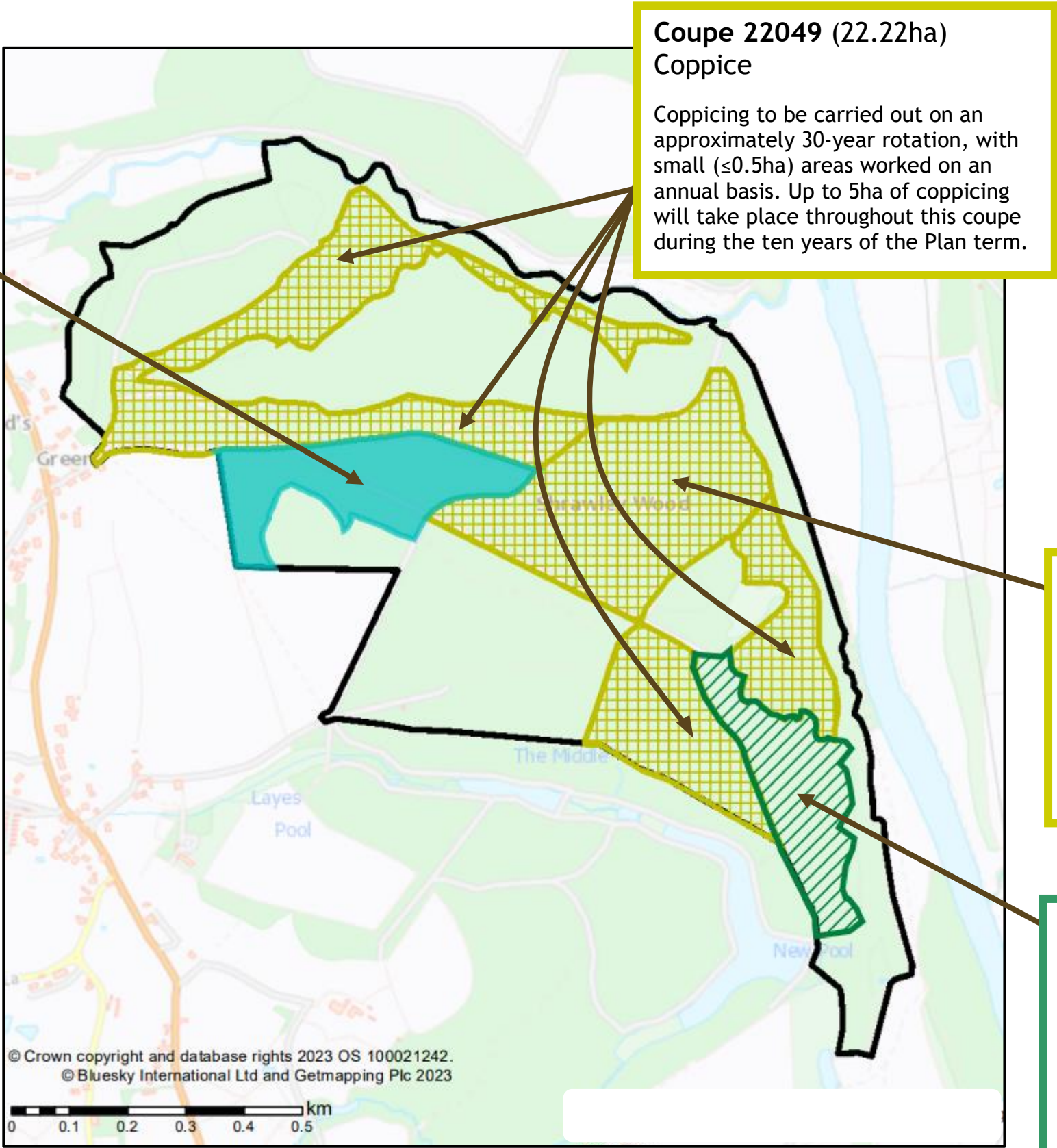
Restock
80% Native broadleaves
20% Evergreen conifers

Species Choice for Restocking Across the Plan Area

Where natural regeneration of desirable species occurs, it will be accepted and later respaced (thinned) if necessary. The advantage of natural regeneration is that the new generation of trees will be well-adapted to the site conditions.

Where natural regeneration is not forthcoming or is of an undesirable species, planting will be used to restock felled areas. To help guide species choices for restocking, Forest Development Types (FDTs) will be utilised. Current and future projected climate information will help to inform the choice of FDT, as will the soil type and management objectives of the site.

On areas of PAWS, restocking will prioritise broadleaves with the aim of achieving a mature canopy consisting of at least 80% native broadleaves. Conifers may be utilised as nurse crops where appropriate. On areas of plantation (secondary) woodland, conifers will continue to be planted and harvested as a valuable source of sustainable timber and economic income.

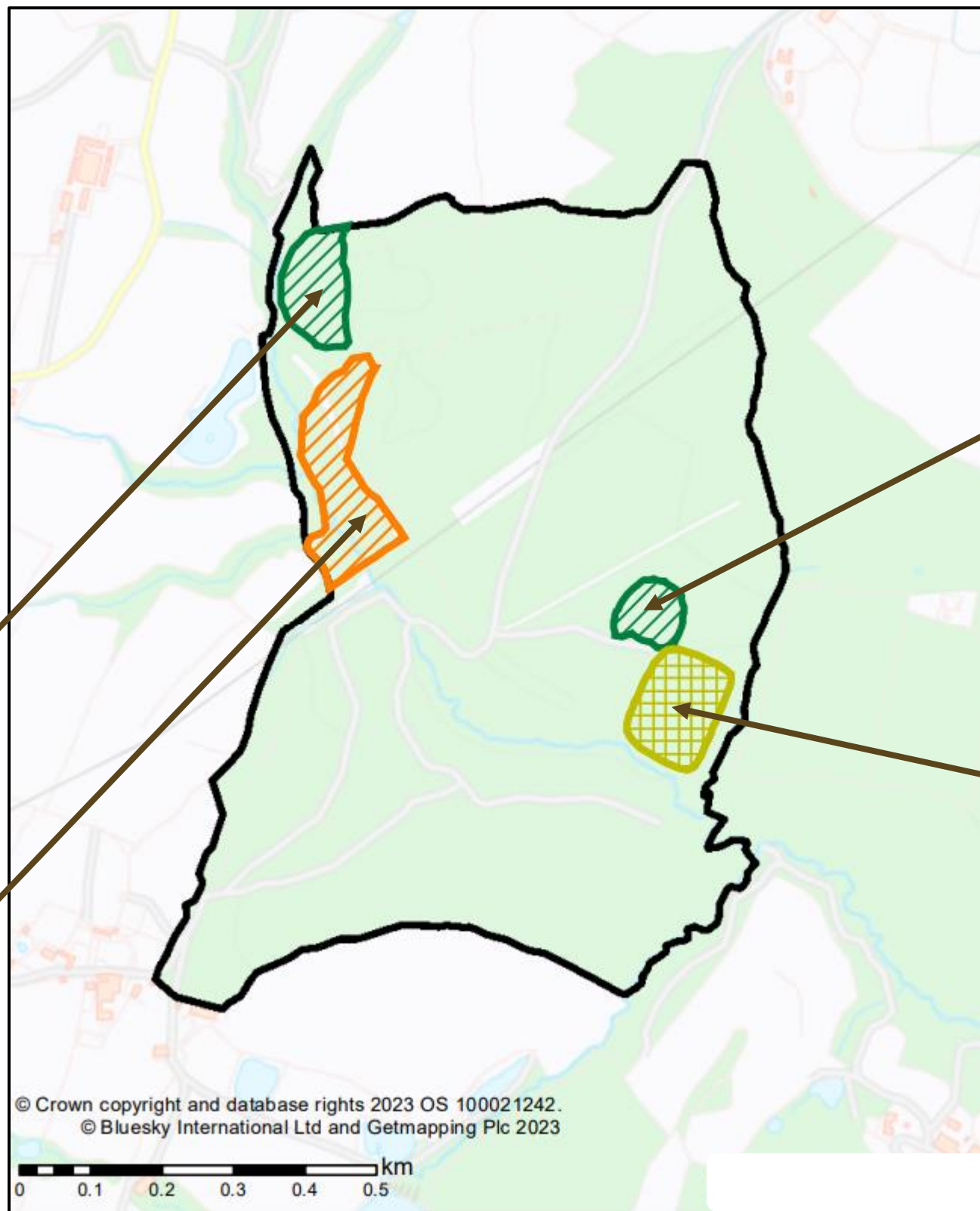


All timber arising from the Forestry England estate represents a negligible risk under the Timber and Timber Products Placing on the Market Regulations (UKTR) and UK FLEGT Regulations

Felling and Restocking 2024 - 2034: Shatterford

Legend

-  Fell 2024 - 2026
-  Fell 2027 - 2031
-  Coppice
-  Group felling
-  Strip felling



Coupe 22008 (1.25ha)
Fell 2024 - 2026 (Norway Spruce)

Restock
70% Native broadleaves
20% Evergreen conifers
10% Open
To achieve a minimum of 80% native cover at maturity

Coupe 22007 (2.25ha)
Fell 2027 - 2031 (Norway Spruce)

Restock
70% Native broadleaves
20% Evergreen conifers
10% Open
To achieve a minimum of 80% native cover at maturity

Coupe 22001 (0.69ha)
Fell 2024 - 2026 (Japanese larch)

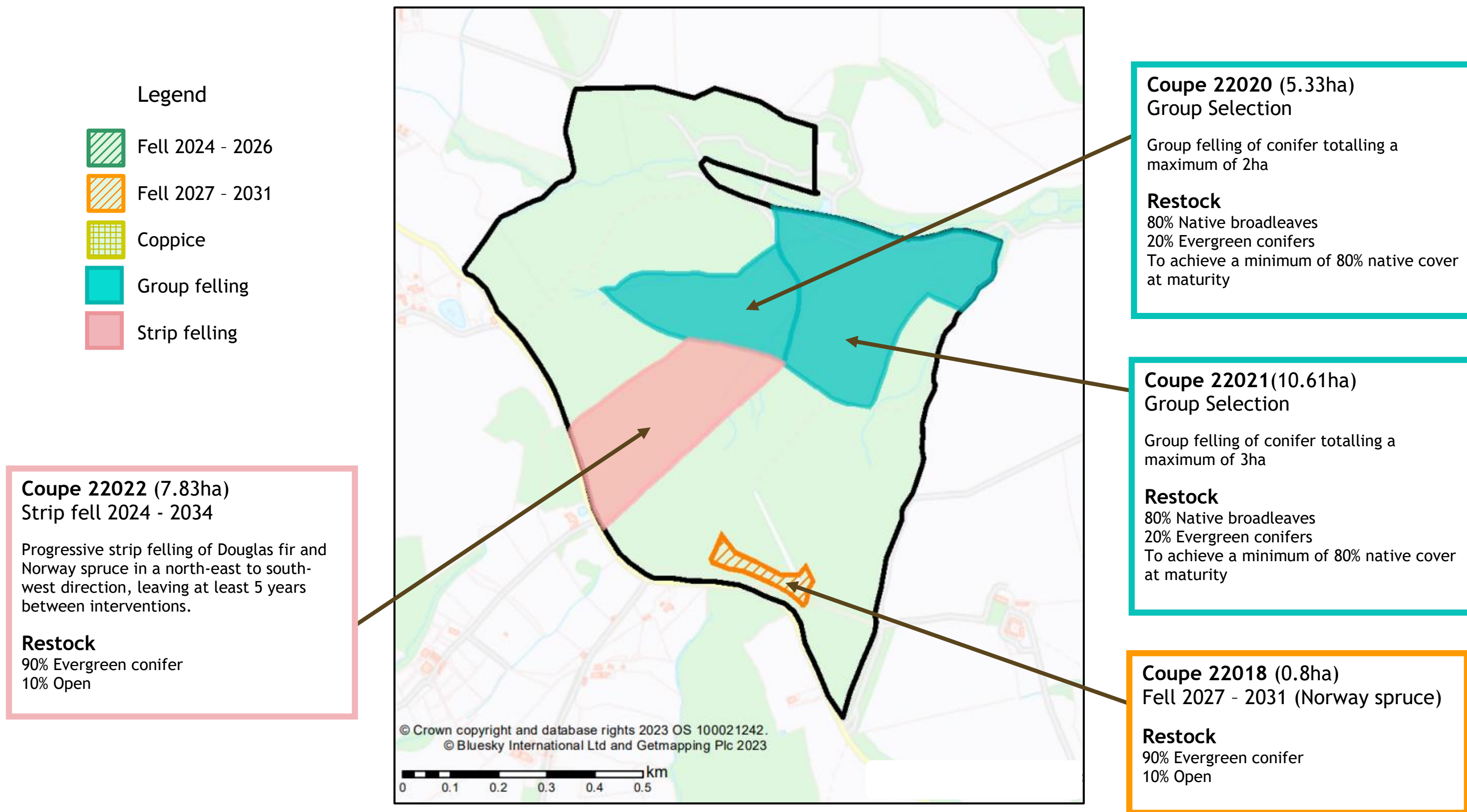
Restock
100% Open (archaeological site)

Coupe 22043 (1.64ha)
Coppice with Standards

Coppicing or pollarding of broadleaf regrowth on the hillfort to be carried out on a 10-year cycle (approximately), with a maximum of 20% of stools cut per intervention. A maximum of 1ha of coppicing/pollarding will take place within the Plan term in this coupe.

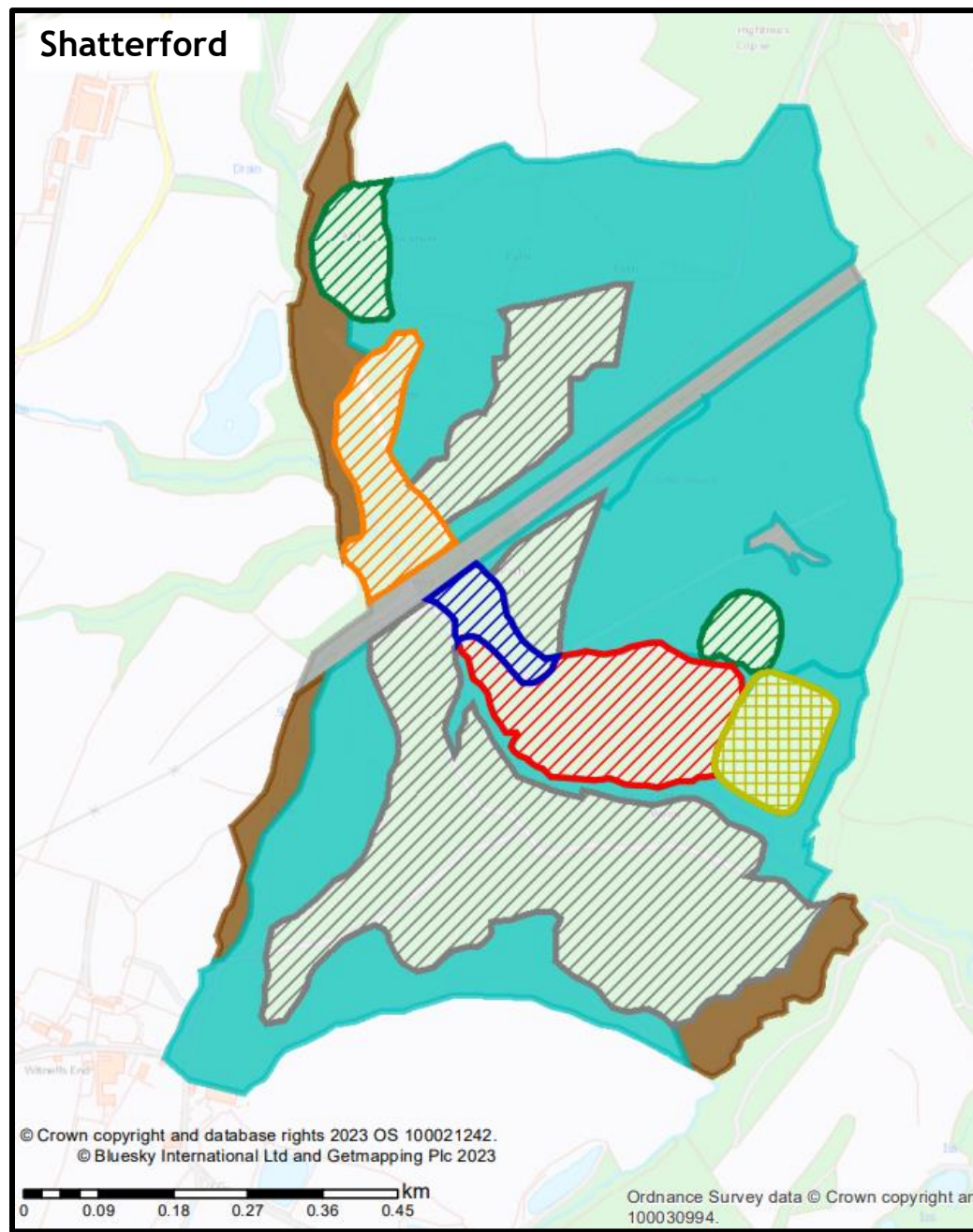
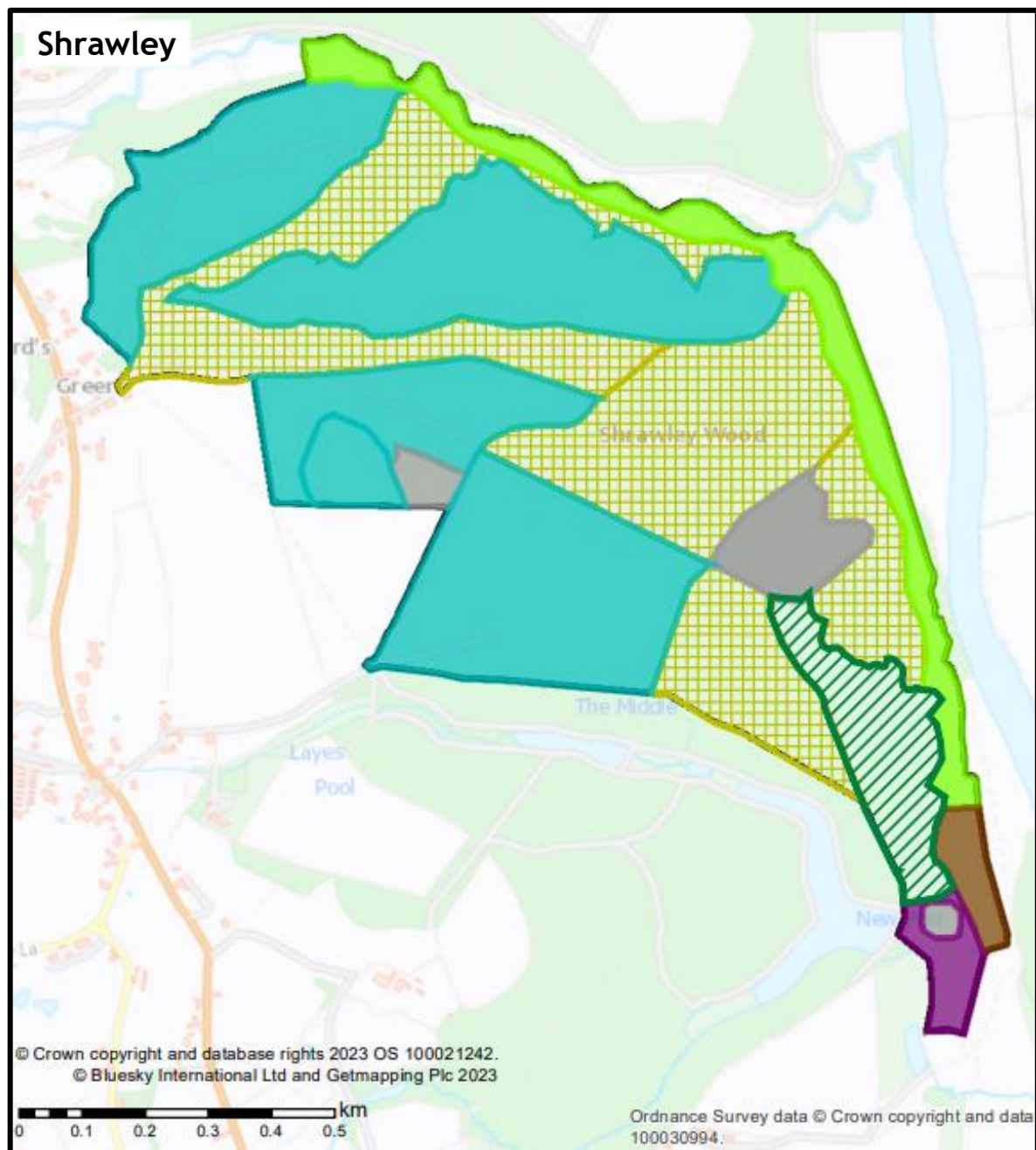
All timber arising from the Forestry England estate represents a negligible risk under the Timber and Timber Products Placing on the Market Regulations (UKTR) and UK FLEGT Regulations

Felling and Restocking 2024 - 2034: Birchen Park



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

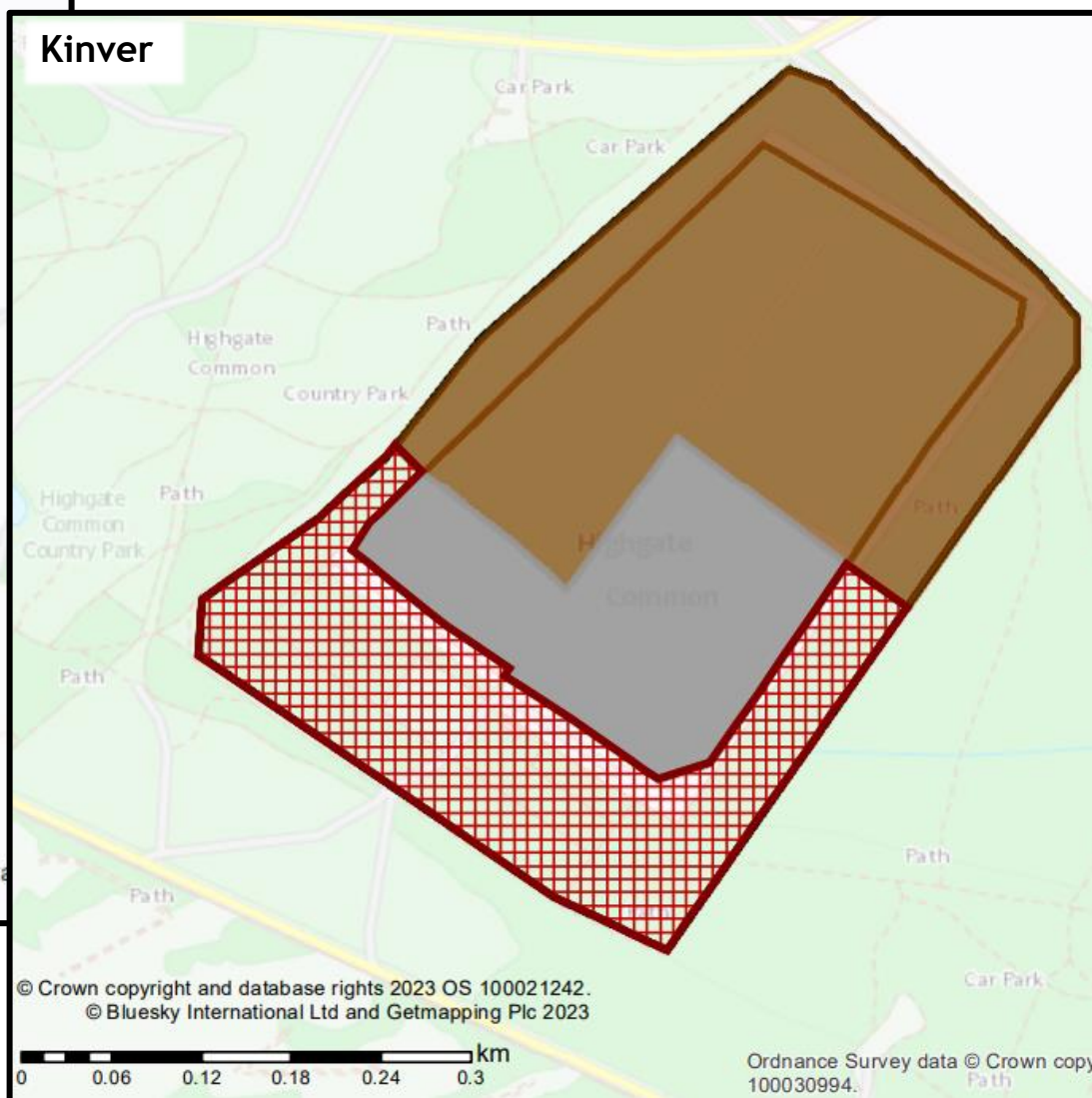
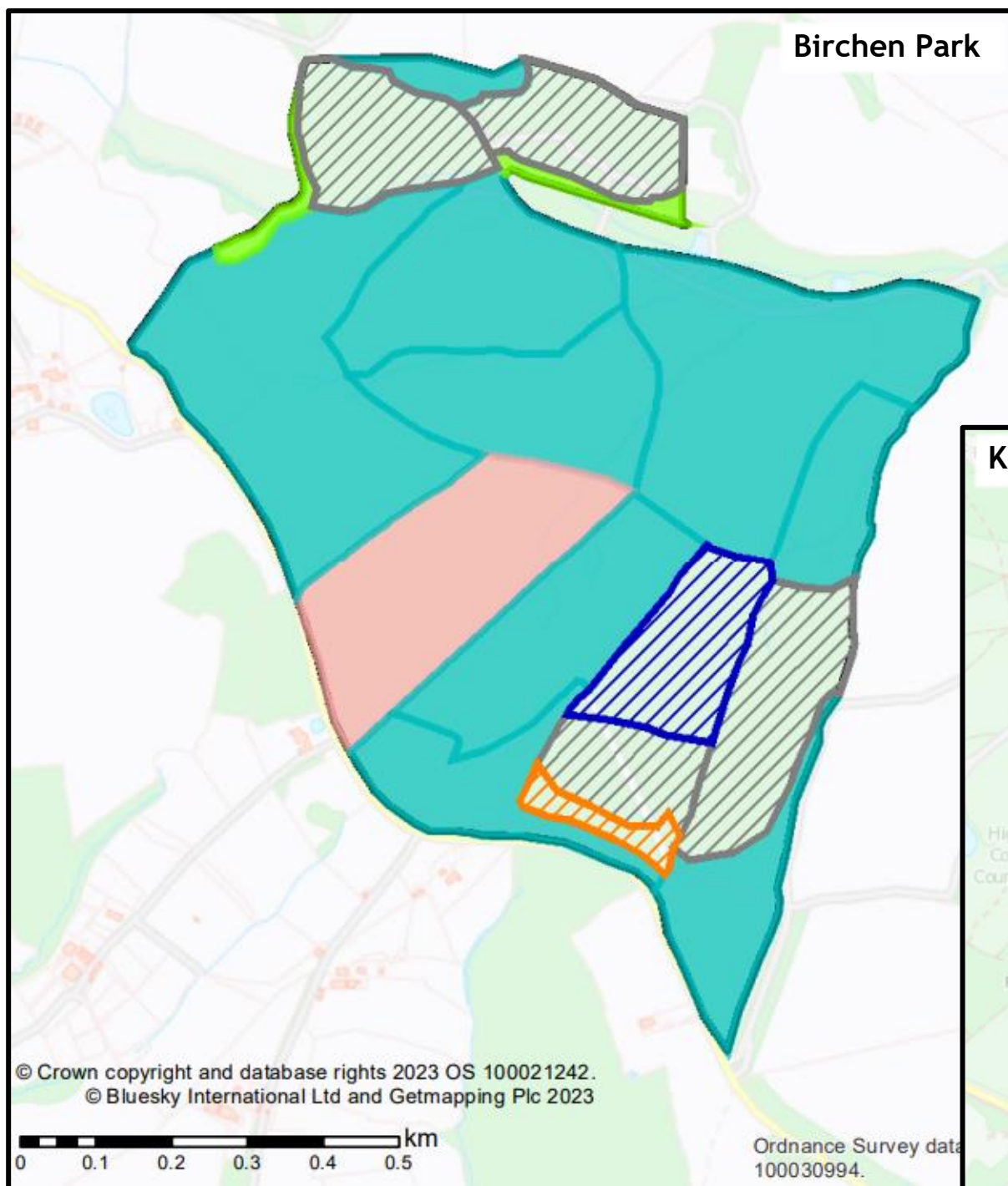
Management Prescriptions 2024 - 2051



Legend




-  Fell 2024 - 2026
-  Fell 2027 - 2031
-  Fell 2032 - 2036
-  Fell 2037 - 2041
-  Fell 2042 - 2046
-  Fell 2047 - 2051
-  Fell beyond 2051
-  Coppice
-  Group felling
-  Strip felling
-  Minimum intervention
-  Minimum intervention (Natural Reserve)
-  Long term retention
-  Open/other
-  Wood pasture

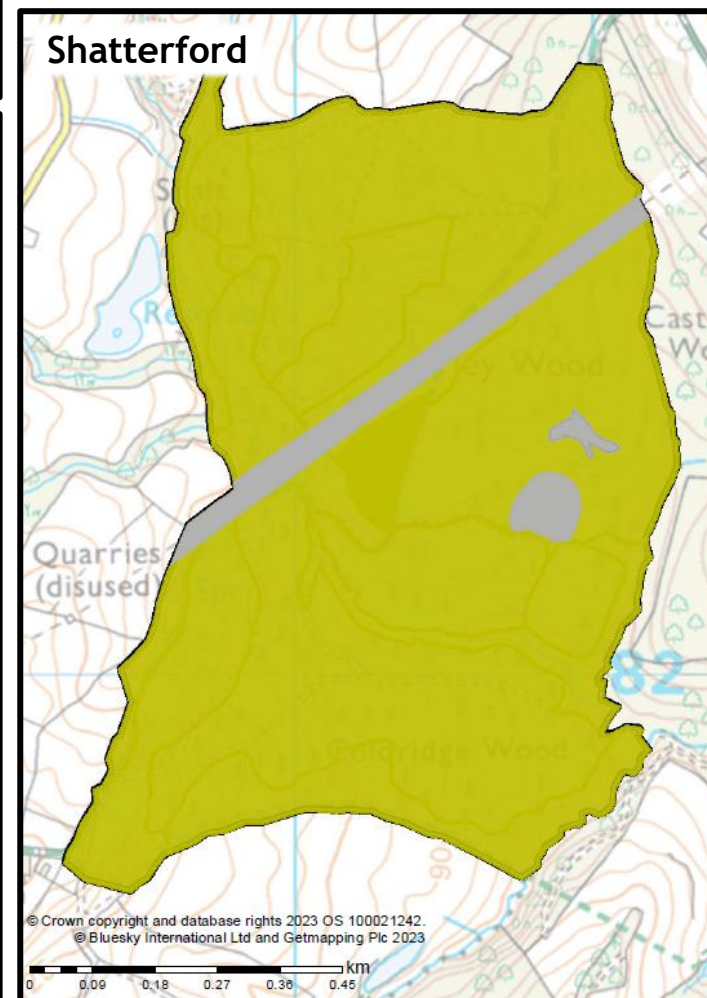
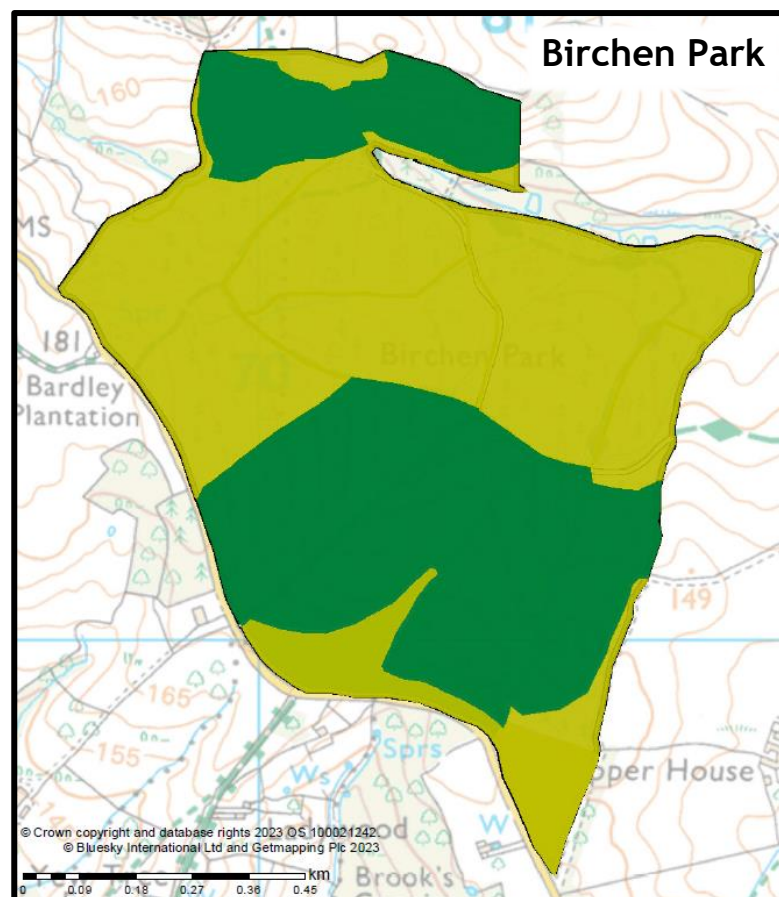
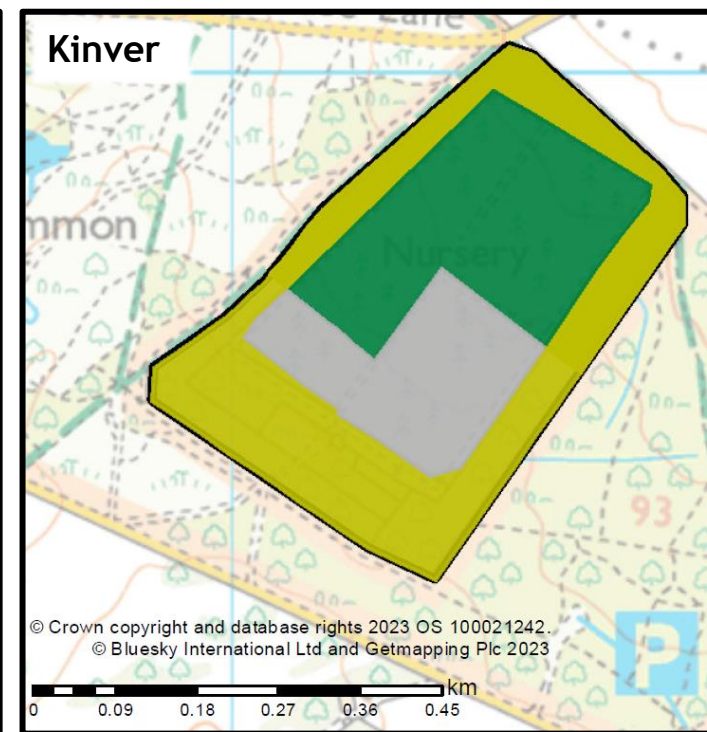
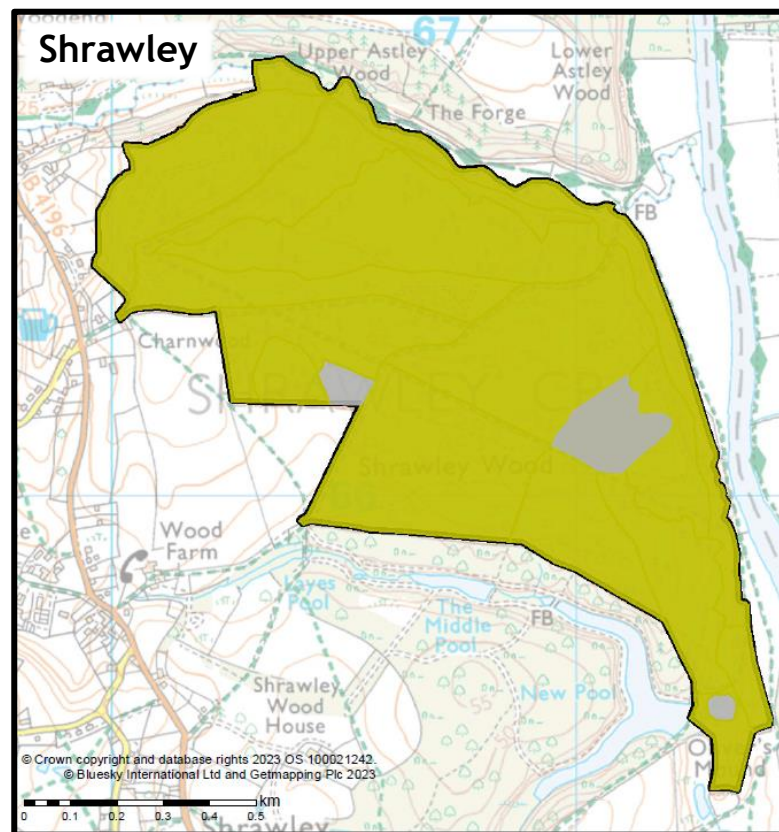
Management Prescriptions 2024 - 2051



Restock Prescriptions

Legend

-  Broadleaf dominated
-  Conifer dominated
-  Open



The maps to the left show the intended restocking prescriptions for the next rotation, following the removal of the current stock.

Restocking will utilise both natural regeneration and planting, and the decision on broadleaf versus conifer restocking largely relates to the presence or absence of Ancient Woodland. Where Ancient Woodland is not present, conifers will continue to be grown for commercial income and to provide a valuable supply of sustainable timber.

Open space will continue to be maintained, both for safety reasons (in the case of the open strip beneath the electricity powerline at Shatterford), and for ecological reasons. The inclusion of pockets of open space within a woodland diversifies the range of habitats present for various species to thrive, and increases the area of ecotone (areas of transitional vegetation between two differing habitats) which again can be valuable niches for certain woodland species.

Appendix 1: Glossary of Terms

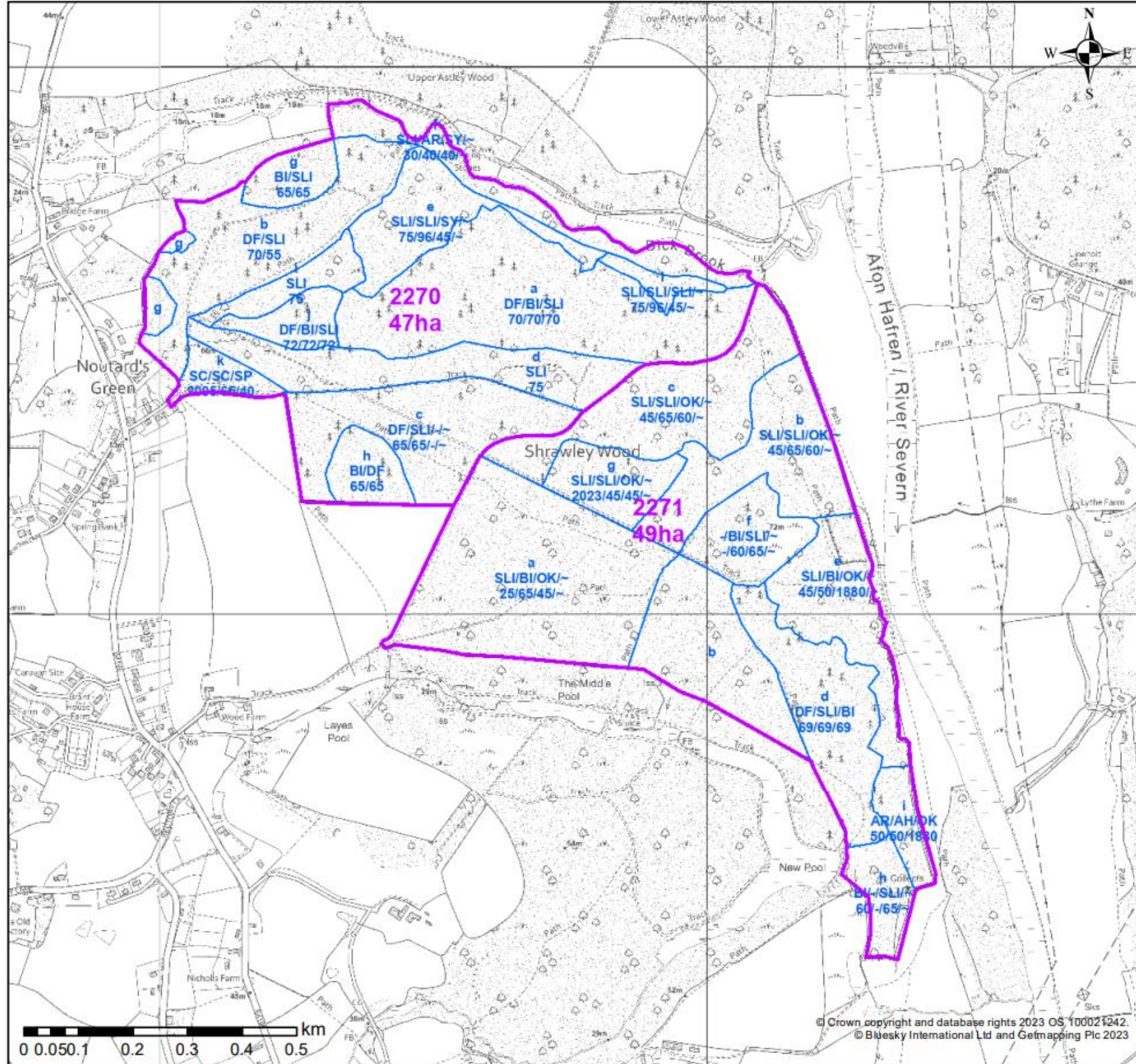
Term	Abbreviation	Description
Ancient Semi-Natural Woodland	ASNW	An ancient woodland site, where trees and other plant species appear to have established naturally rather than having been planted. Predominantly these sites will contain at least 80% site native species or species native to the surrounding area.
Ancient Woodland Site	AWS	A site that has been wooded since 1600AD and is unlikely to have been converted to farmland in the last few centuries.
Clearfelling	CF or C/F	To cut and remove all trees from a certain area of woodland.
Coppicing		A traditional method of woodland management where trees are felled near their base to leave a stump (or “stool”). New shoots regrow from the stool, creating numerous thin stems or “poles”. Areas of coppice are usually managed on a rotation system, so that each area gets cut on a regular cycle after a certain number of years. Traditionally woodlands were managed this way to produce a sustainable source of wood suitable for many uses (such as firewood, fencing and basket-making). Today, coppicing is mostly implemented for its ecological benefits as it provides a variety of habitats and periodically allows light to reach the woodland floor.
Coupe		Woodlands are divided up into delineated areas of management called coupes, which can be any size. The trees within each coupe are managed under particular prescriptions.
Crop		A stand of trees. Often associated with stands completely or partially managed for timber.
Forest Development Types	FDT	A management tool developed by Forest Research which helps to set the long-term vision for a stand and increase its future resilience. It provides guidance on various different species mixtures, the required site conditions for each mixture, and advice on management in order to achieve the desired stand transformation.
Group felling		This is where small areas of woodland are felled, and then either allowed to develop through the use of natural-regeneration or planted (“group planting”). These techniques can help to develop a diverse structure* within a wood over a given length of time. *Either in terms of age or the number of tree species present, since shelter and shade are provided by the remaining upper storey a larger number of tree species can be considered when deciding what to plant.
Hectare	Ha	Unit of area equating to 2.47 acres.
High forest		Stands of mature trees forming a closed canopy.
Irregular structure		When a stand contains trees of a variety of ages, meaning there is a diversity of tree sizes and forms and the canopy is not uniform.
Long term retention		When a stand of trees is retained in a woodland beyond their economic peak (the age/size when they would usually be felled for optimum financial return), for ecological, cultural or aesthetic reasons.
Low Impact Silvicultural Systems	LISS	Woodland management practices which result in a less severe impact on the woodland environment than a traditional clearfelling regime. LISS can help build structural diversity and resilience into a woodland, and can help to maintain the soil health and microclimate of the woodland. LISS management systems include single tree and group selection, shelterwood or under-planting, small coupe felling, coppicing and minimum intervention systems.
Minimum intervention		Areas of woodland where forestry operations rarely take place. This may be because these areas of woodland are difficult to access with machinery, too wet or boggy to safely carry out operations, or otherwise unsafe or impractical to regularly intervene. Or, it may be because the area has been designated as a Natural Reserve (see definition below).
National Character Area	NCA	There are 159 National Character Areas in England as defined by Natural England. They are natural areas not defined by administrative boundaries, that embody the landscape, ecology, geology and/or culture of that area.
Native/naturalised		The trees making up the woodland are part of England’s natural, or naturalised flora. Determined by whether the trees colonised Britain without assistance from humans since the last ice age (or in the case of ‘honorary natives’ were brought here by people but have naturalised in historic times); and whether they would naturally be found in this part of England.
Naturalness		The measure to show the percentage of site-native tree species in a given area.
Natural Regeneration	Nat regen	When trees grow on a site as a result of natural seed fall, as opposed to having been planted by humans. Natural regeneration of desirable species is often encouraged and promoted through careful thinning of the surrounding woodland over a number of years. This provides more light and space in order to ensure the young trees can establish themselves into larger trees, eventually allowing them to be incorporated (‘recruited’) into the main crop for the next rotation at some point in the future.
Natural Reserve		Areas of woodland which are managed under a minimum intervention (see definition above) approach, specifically for ecological/wildlife benefit.

Open access land	CROW	Land designated under the Countryside and Rights of Way Act 2000 (CROW Act), which gives the public a right of access on foot to land mapped as “open country”, and these areas are known as “open access land”. This access can be used to walk, run, climb, sight-see and bird-watch.
Plant and Seed Supply	PSS	Forestry England’s Plant and Seed Supply unit, who facilitate the supply of high-quality tree seedlings for planting on Forestry England sites
Plantation on Ancient Woodland Site	PAWS	Areas of ancient woodland where the original semi-natural woodland has been cleared and replaced with a plantation of either native or non-native species, resulting in a decline in ecological value. Many PAWS sites retain remnant ancient features.
Pollarding		A method of pruning in which the upper branches of a tree are cut back to the trunk, which controls the height of the main stem and encourages the growth of a dense head of branches.
Public Right of Way	PROW	A linear route over land which the public have a right to pass over at all times. There are four types of Public Right of Way, which are footpaths, bridleways, restricted byways, and byways open to all traffic.
Ride		A track through a woodland/forest.
Rotation		Generally a commercial term used to describe the length of time an area of trees is growing for, from the time of planting to the time of felling. For broadleaves, a rotation is generally a lot longer than that of conifer species and can broadly speaking be anywhere between 80 years to 3-400 years, as opposed to conifer crops whose rotation is generally shorter but can vary from 20-25 years to 120 years plus. Coppiced broadleaves are an exception, as rotation length can vary from 5 years up to 30 years plus, depending on management objectives. “First rotation” would refer to an area of wood planted on open ground not previously wooded. And so “second rotation” is where woodland has been cleared and replanted.
Scheduled Monument	SM	A nationally important heritage site which has been selected by Historic England for protection.
Scrub		Vegetation dominated by low woody plants such as shrubs and bushes, which can be a successional/transitionary habitat between open or grassy habitat and woodland. Examples of scrub species include blackthorn, hawthorn, alder and gorse.
Secondary woodland		Woodland located on a site which has not been continuously wooded throughout history (unlike Ancient Woodland).
Selection system		A silvicultural system where single trees or small groups are felled with the aim of achieving and maintaining an uneven age structure within the woodland. Trees of all age classes and sizes may be selected for removal, and continuous canopy cover is maintained.
Shelterwood		A management system that is applicable to conifer or broadleaf trees, where the tree canopy is maintained at one or more levels without the need to clearfell the whole site. Felling generally occurs in small groups, whose size, shape and spatial distribution will vary depending on site conditions. By removing mature trees in this way, a new stand of trees is able to develop underneath the remaining mature trees. The gaps where groups have been removed are then either allowed to develop and establish via natural regeneration, are planted, or are established using a mixture of both techniques. This known as a “group shelterwood system”.
Silviculture		A term coined during late 19 th century from the Latin <i>silva</i> meaning 'wood' and the French <i>culture</i> meaning 'cultivation' and so Silviculture is the art and science of controlling the establishment, growth, composition, and quality of forest vegetation to achieve a full range of objectives.
Site of Special Scientific Interest	SSSI	Land that has been designated for protection by Natural England due to features of special interest such as wildlife, geology or landform. Achieving “favourable” condition is the goal for all SSSIs, which means the habitats or features within are being managed appropriately and as a result are in a healthy state.
Stand		A group or area of trees that are more or less homogeneous with regard to species composition, density, size, and sometimes habitat.
Thinning		Selective removal of trees from a wooded area, giving the remaining trees more space to grow into larger trees.
Tree of Special Interest	TSI	An outstanding tree that is of particular note and interest for one of many reasons, including its age, size, form, cultural or historic significance.
Underplanting		When shade-tolerant tree species are planted beneath an existing mature woodland canopy, for the purpose of diversifying the stand structure and facilitating the growth of the next generation of trees which will eventually replace the current canopy trees.
Understorey		A layer of tree or shrub vegetation beneath the forest canopy.
Veteran tree		A tree of particular interest due to its significant age, size, history, and because it has characteristics which make it aesthetically, ecologically or culturally valuable. Although such trees may not be old enough to be classed as ancient, they have some “ancient” features that are valuable to wildlife such as deadwood, decay, hollows or fungi, and may have acquired these features through physical damage or stress.
Windblow		When trees are uprooted as a result of wind.
Windfirm		When trees are not at a high risk of windblow because they are securely rooted and are able to withstand strong winds.
Wood pasture		Sometimes also referred to as parkland. Areas of open grazed pasture characterised by the presence of mature trees, which are either spaced sporadically, in groups, or form a fairly uniform canopy cover. Wood pastures are often the result of long-established grazing regimes and can be historically significant.

Appendix 2: Stock Data December 2023

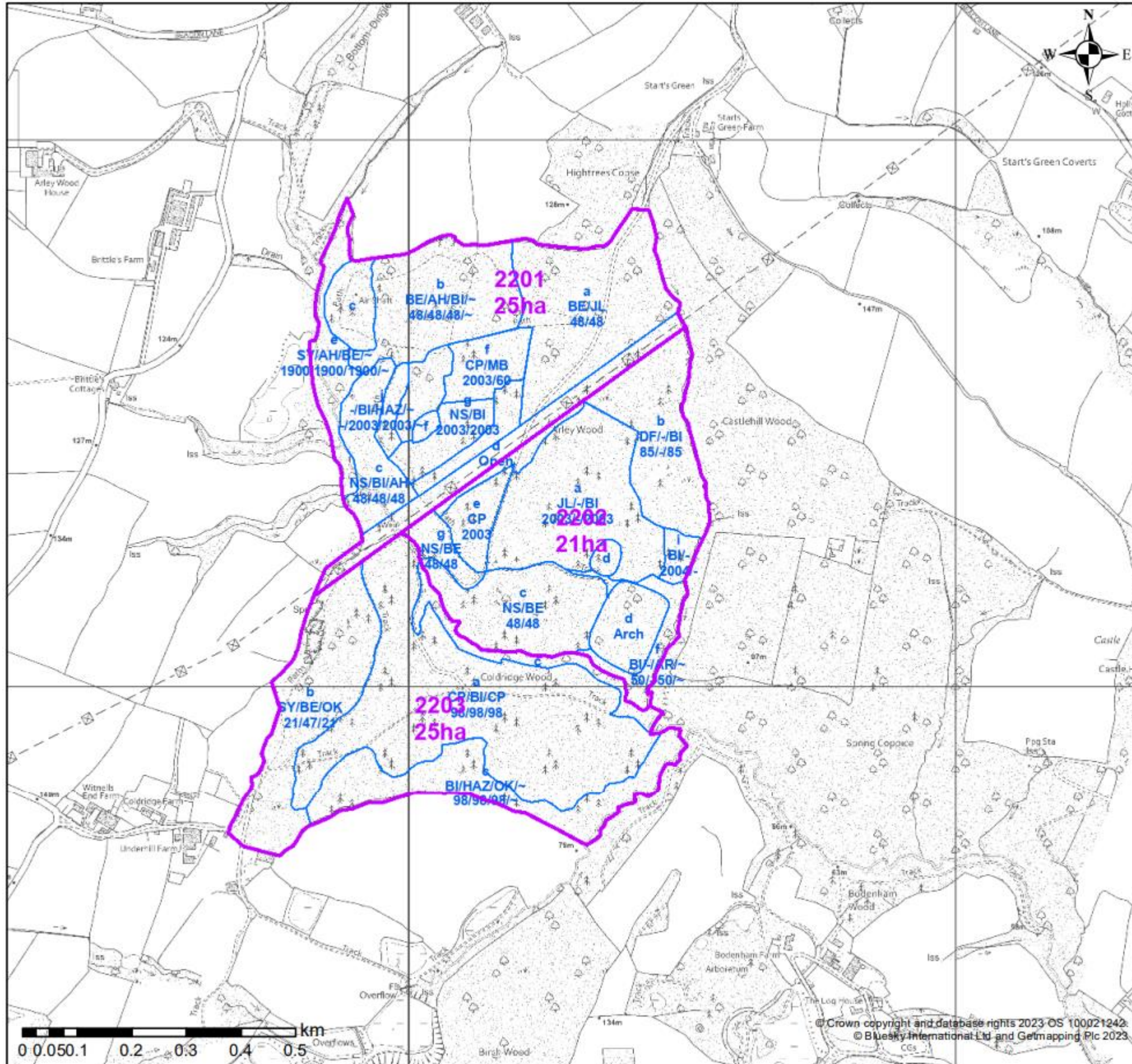
Shrawley Wood

- Compartments
- Sub-Compartments



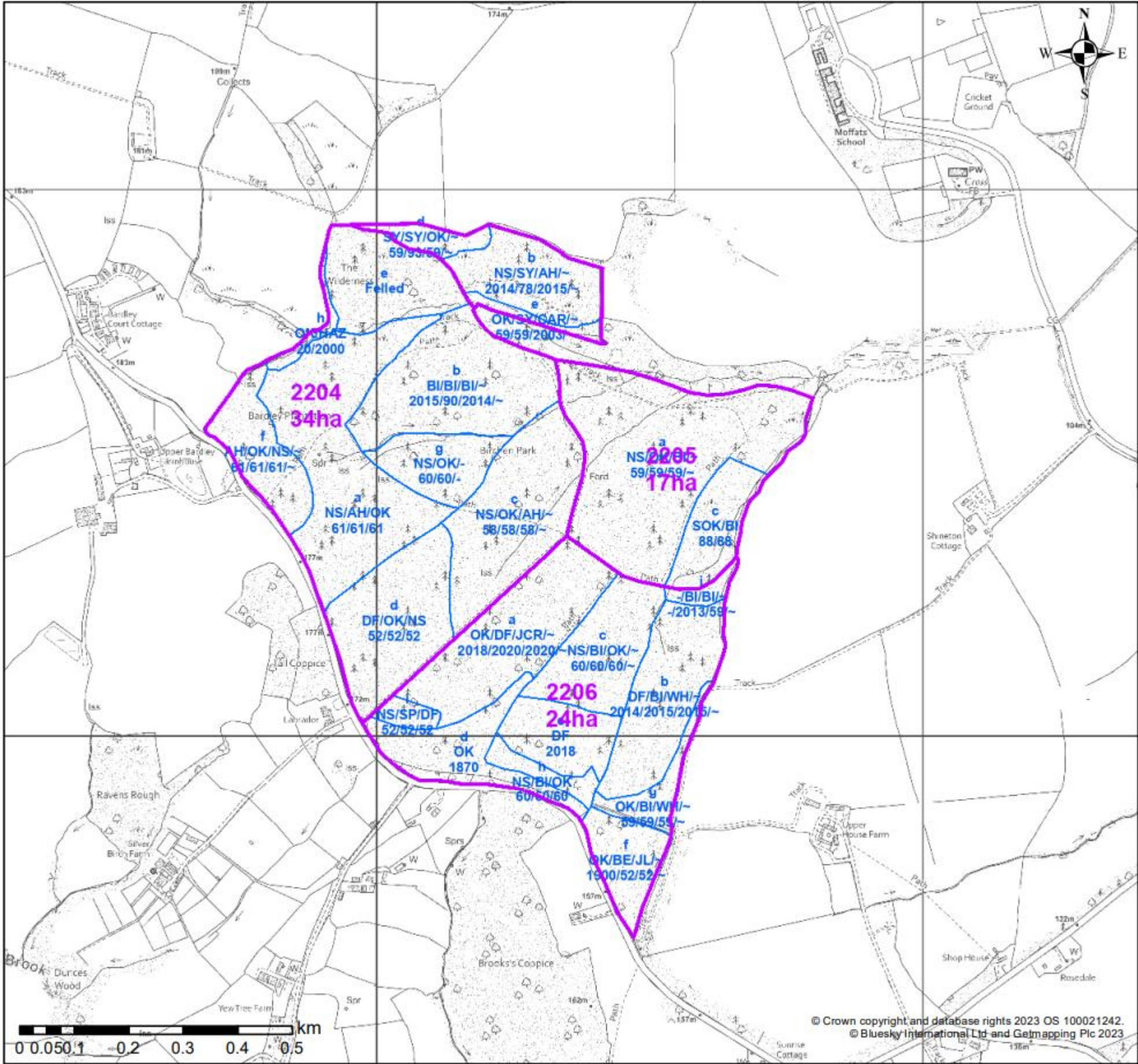
Shatterford Wood

- Compartments
- Sub-Compartments



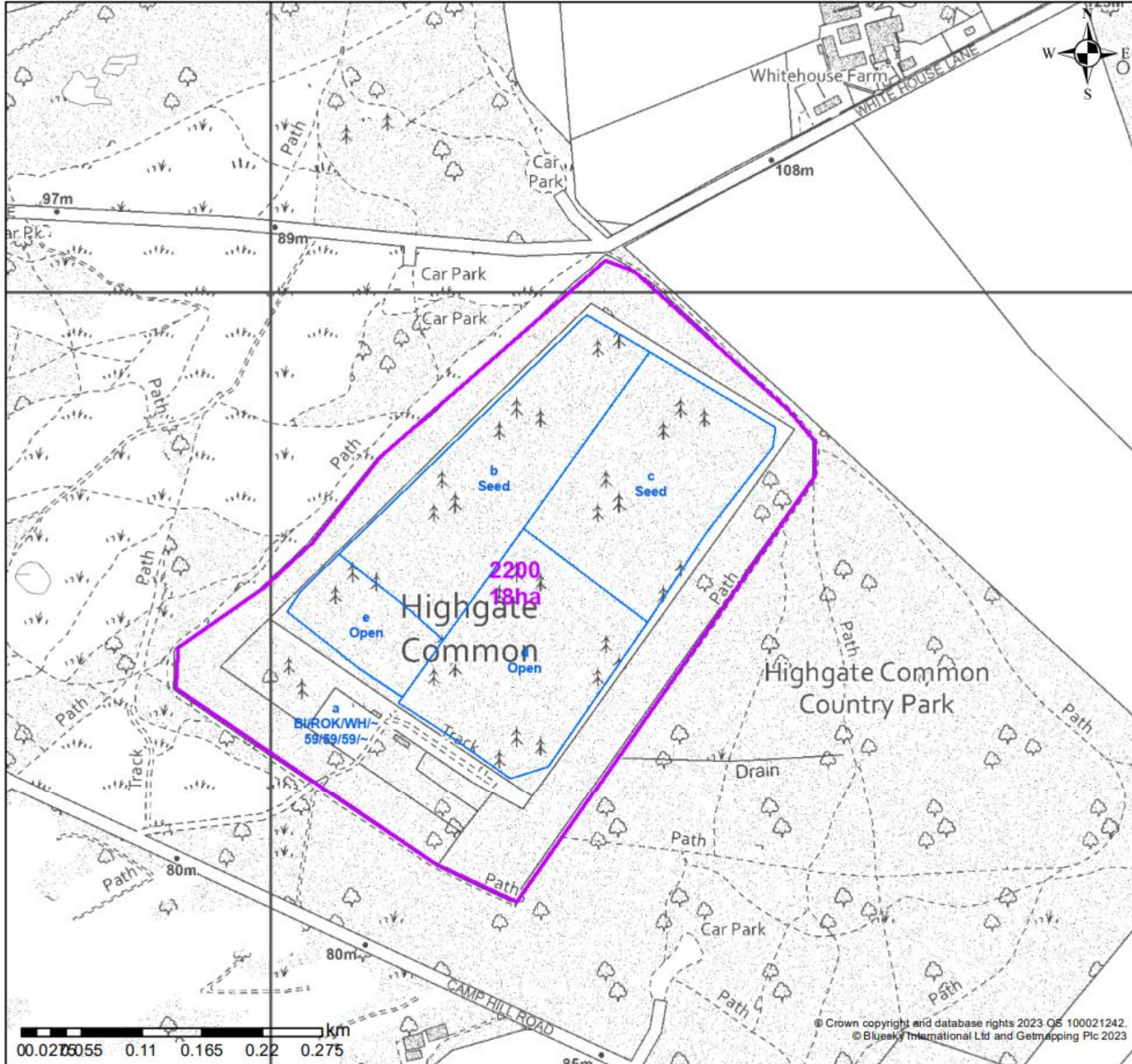
Birchen Park

- Compartments
- Sub-Compartments



Kinver

- Compartments
- Sub-Compartments



Appendix 3: Arley Wood Camp Scheduled Monument Management Plan

To be added, consultation not required

Appendix 4: Consultation Record

To be completed following consultation