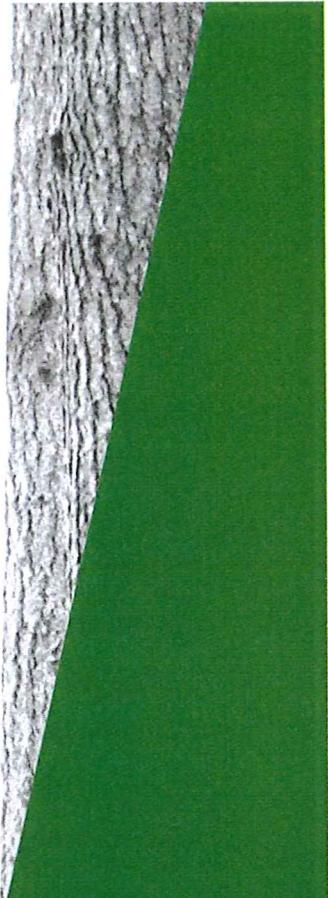




Frith and Conigree Forest plan 2021-2031

Rachel Giles
April 2021



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Vision for the future

In 100 years...

- Frith and Conigree will be predominantly native broadleaf woodlands, with small pockets of conifers remaining to add diversity of structure and habitat, resilience to pests and diseases and opportunities for timber production.
- The majority of the broadleaf areas of the woods will be managed on a variety of coppice rotations, with other areas managed as high forest with understorey, so that Frith and Conigree continue to be dynamic, wildlife-rich woodlands and generate different sized timber for a variety of uses, which may be adapted over the decades to meet the needs of future generations.
- Veteran trees will provide habitats for bats and other wildlife, and future veterans will have been identified and nurtured.

Forestry England - strategic objectives

National vision and overall goal:

To secure and grow the economic, social and natural capital value of the nation's forests for the people of England.

West England Forest District objectives:

Economy:

- Maintain the land within our stewardship to the standards set by the FSC (Forest Stewardship Council®) and PEFC (Programme for the Endorsement of Forest Certification).
- Improve the economic resilience of our woods and forests.
- Encourage and support business activity in the nation's forests.

Environment, nature and history:

- Improve the resilience of the natural environment of the nation's forests under our stewardship.
- Realise the potential of the nation's forests for nature and wildlife.
- Maintain and improve the cultural and heritage value of the nation's forests.

People:

- Engage with consultative bodies such as National Park and AONB Authorities.
- Provide high quality woodland based recreational opportunities.
- Enable everyone, everywhere to connect with the nation's trees and forests so that they understand their importance and act positively to safeguard forests for the future.

For more information about who we are and what we do, please visit:

<https://www.forestryengland.uk/>

Key drivers of management at Frith and Conigree

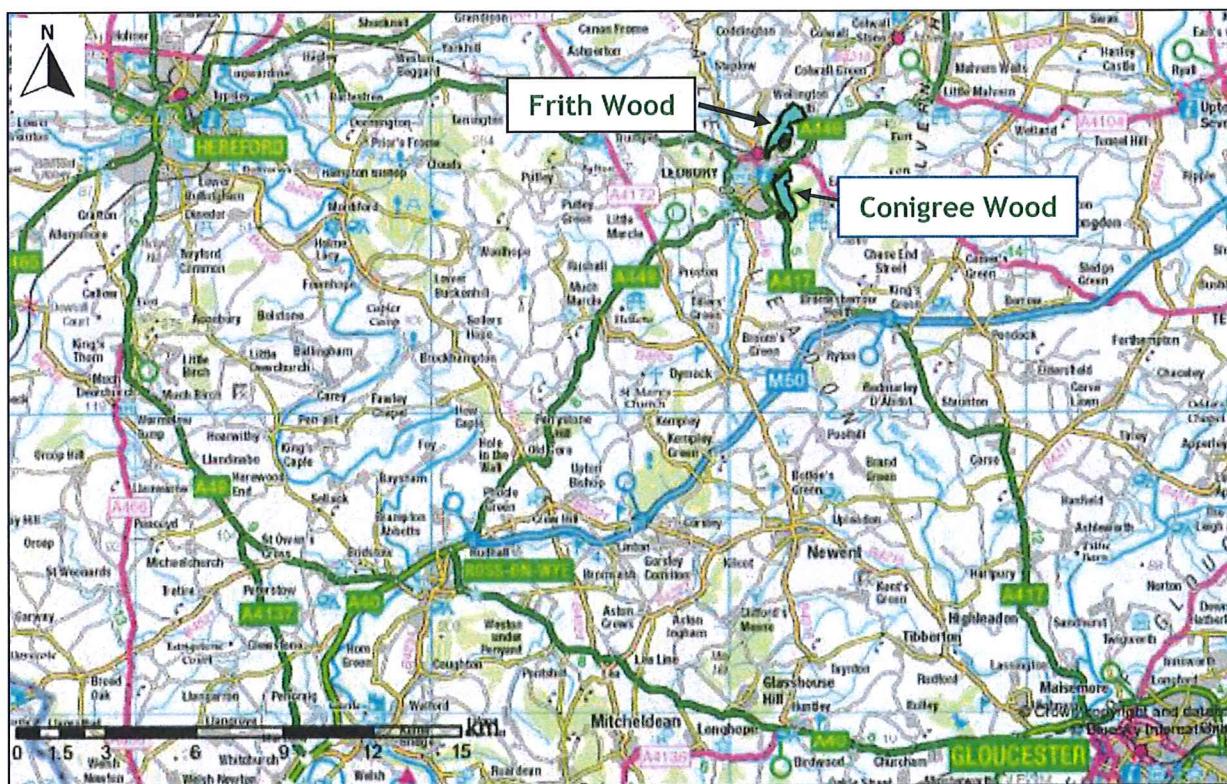
Drivers	Objectives
(see pages 13-17 for how we will achieve and monitor these objectives)	
1. Sustainability	We will practice exemplary forest management in Frith and Conigree, as demonstrated by our continued certification under the UK Woodland Assurance Standard.
2. Biodiversity	Frith and Conigree provide a variety of woodland habitats - we will renew our commitment to coppice management; some areas will be restored as native broadleaved woodland, while others retain mixtures of conifers and broadleaves.
3. Resilience	We will continue to encourage diversification of species and age structure through active management, so that Frith and Conigree thrive in the face of threats of pests and diseases.
4. Productivity	Frith and Conigree will provide timber from both conifer and broadleaf crops, to meet current and future demands.
5. Community	Frith and Conigree are enjoyed by local people for low key recreation and connection with nature and wildlife; we will continue to work with, and value, the contribution of volunteers.

About Frith and Conigree

Location

The Frith and Conigree plan area consists of two woods with a combined area of 137 hectares (ha), a mile or so to the east of Ledbury in Herefordshire (see Figure 1).

Figure 1
Frith and Conigree Woods
location maps

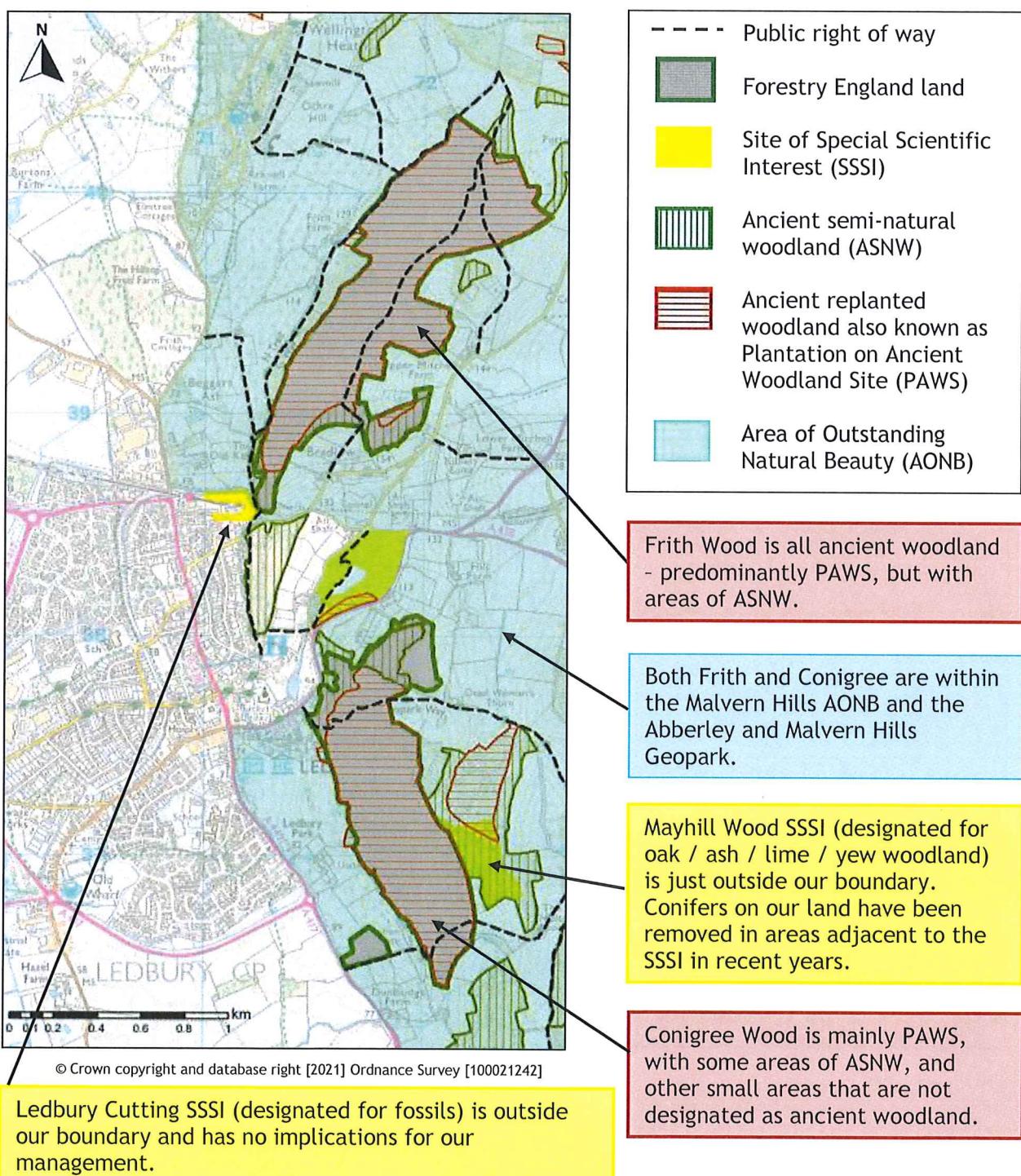


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Landscape and designations

Frith and Conigree Woods are within the Malvern Hills Area of Outstanding Natural Beauty (AONB), and are prominent in a landscape of similar small blocks of steeply sloping woodland, many connected by hedges across fields. 95% of the plan area is recorded as ancient woodland, 89% of which is PAWS - plantation on ancient woodland site (see Figure 2). An archaeological survey (2003) reported the presence of numerous features, including charcoal burning platforms, small quarries, lynchets (ridges) from ancient field systems and holloways (sunken paths). The woodlands are crossed by public rights of way, including the long distance trail - the 'Geopark Way'.

Figure 2 - Frith and Conigree Woods - landscape designations



Conservation and biodiversity

Both woodlands have high conservation value, with bats, dormice and ground flora being important features of Frith, and veteran trees, flora and associated moths, significant in Conigree (see **Figure 3**). Some of the recent coppicing work, and most of the monitoring of bat and dormouse boxes in Frith, has been carried out by volunteers, and the Ledbury Naturalists take a keen interest in the flora and fauna, having carried out extensive surveys of both woods in the early 2000s. There is little open space, but numerous other habitats for wildlife, notably dead wood and prolific understorey.

Figure 3 - Conservation features in Frith and Conigree



Dead wood in Conigree
(above)

Coppiced woodland in Frith
(below)



Veteran oak and
hornbeam avenue in
Conigree (below)



Bat boxes (above) and
dormouse boxes (below) in
Frith



Ancient
woodland
flowers:
spreading
bellflower
(*Campanula*
patula) (top
right);
herb Paris (*Paris*
quadrifolia)
(right);
early purple
orchid (*Orchis*
mascula)
(bottom right)



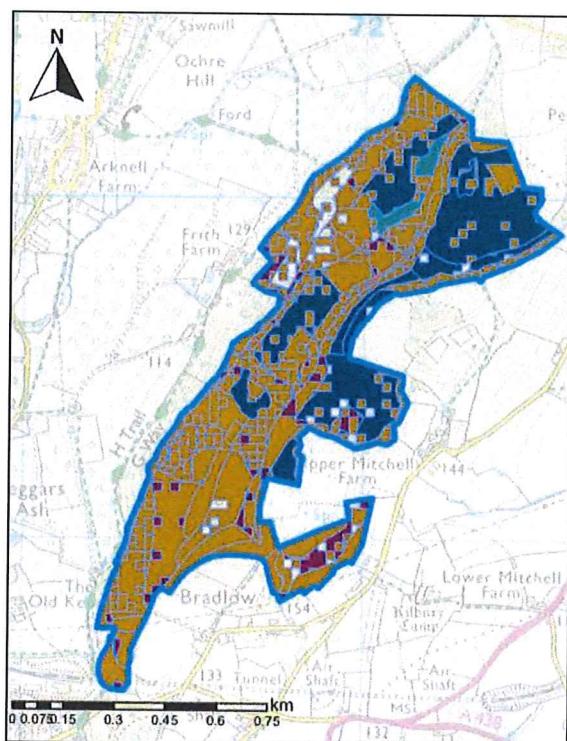
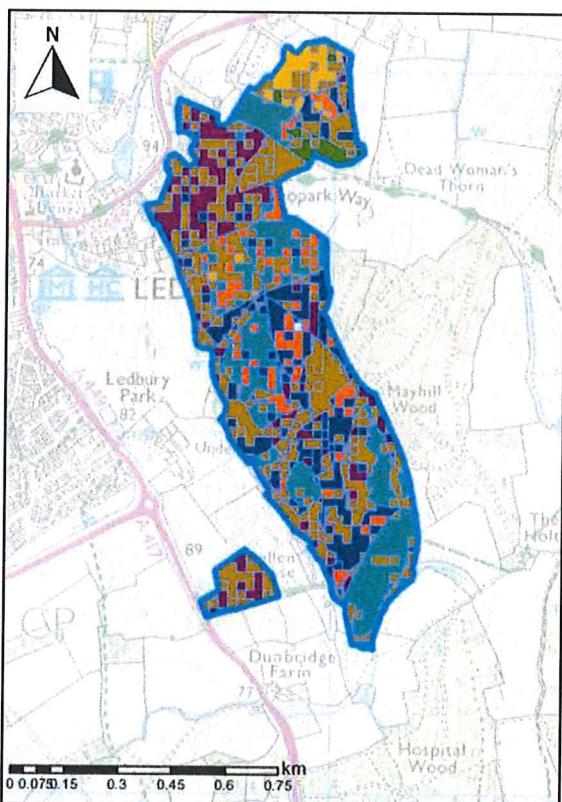
Photos from
plantlife.org.uk

Current tree species and age composition

Frith and Conigree have previously been managed as broadleaf coppice, but conifer planting during the 20th century has resulted in an overall 66% broadleaves and 32% conifers (with 2% of the plan area currently recorded as open space). **Figure 4** shows that Frith, where the remaining conifers are concentrated in the north and east, has a higher proportion of broadleaves than Conigree, where conifers are spread throughout the site.

The woodlands are species diverse (see **Figure 5**), but not necessarily structurally diverse, due to the large proportion of trees that were planted in the 1960s (see **Figure 6**). There are older trees scattered throughout both woods - 5% of Conigree's and 6% of Frith's trees date from before 1900.

Figure 4 - Maps to show distribution of different types of trees in Frith (right) and Conigree (below)



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Figure 5 - Chart to show species proportions in Frith and Conigree

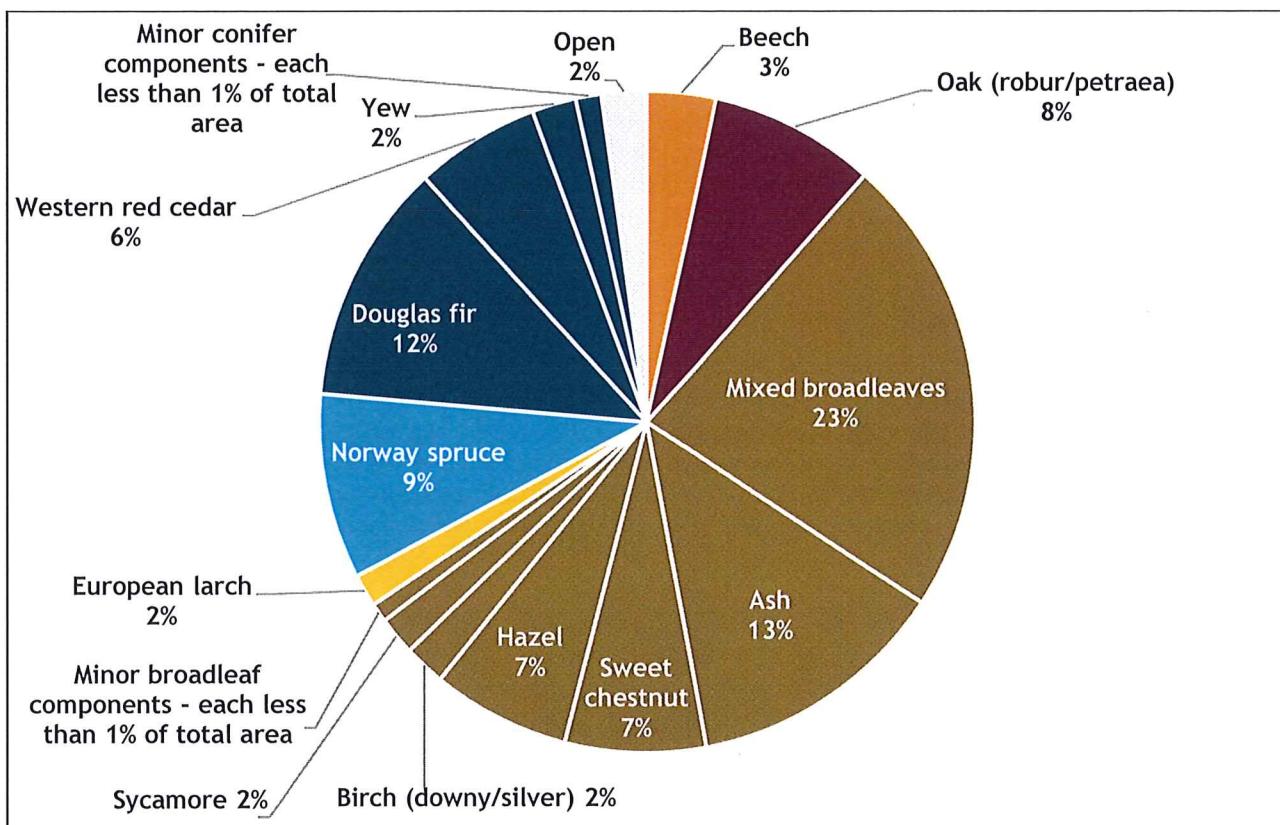
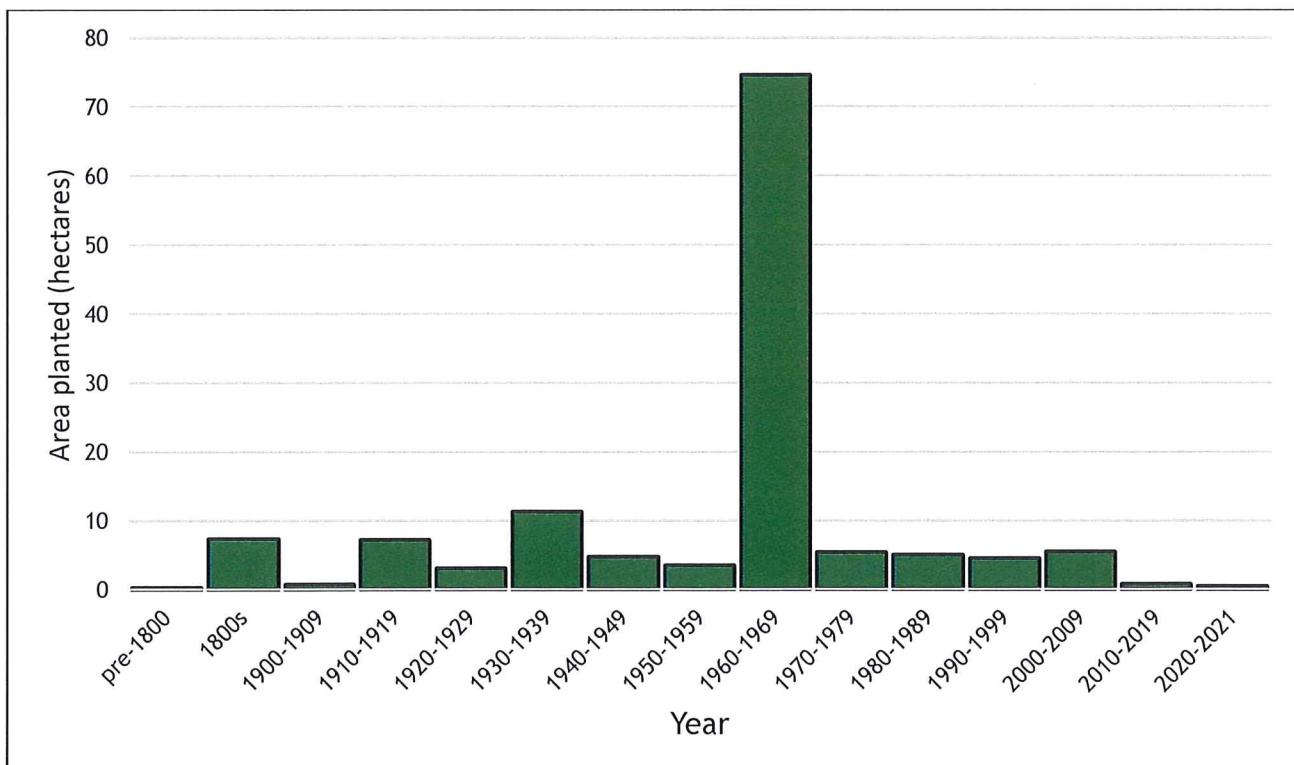


Figure 6 - Chart to show area (in hectares) of Frith and Conigree Woods that was planted in each decade



Recent management

During the past 10-15 years, there has been some rideside coppicing in both woods - in Frith this is to encourage the nationally important spreading bellflower, and in Conigree to improve the habitat for wild privet and other important plants. In terms of larger scale forestry operations, with the goal of PAWS restoration in mind, conifers have been cleared from parts of the northern half of Frith - these areas are now regenerating with native broadleaf trees - but there has been little work in Conigree, where thinning and clearfell contracts have been delayed due to ongoing access issues (steep, wet ground and the presence of protected species such as dormice).

Future aspirations

We are keen to regenerate coppicing as a management method in Frith, on a larger scale than that which has been done in recent years. This will create, and maintain in the long term, a mosaic of habitats for the valuable flora and fauna associated with the wood. Although previous management has focussed on the removal of conifers for PAWS restoration, the relatively small remaining patches of conifers contribute to the diversity of structure and habitat, so these will be thinned, but not clearfelled, meaning that we will have more time to focus on the broadleaf areas.

In Conigree, where there are more conifers and the whole wood is more even-aged, ground flora has been somewhat shaded out, so there will be a series of small-scale conifer clearfalls over the next 30 years, leading to temporary open space and the restoration of native broadleaved woodland. One or two coupes will be re-coppiced, and ridesides opened up. Areas of mixed conifers and broadleaves will continue to be thinned to favour the broadleaves.

Our ‘analysis and concept’ for Frith and Conigree (see Figures 7a and 7b) sums up the plan for the next 10-20 years, and this is expanded in the ‘objectives, actions and monitoring’ on pages 13-17.

Figure 7a - Frith Wood - Analysis and Concept (best viewed at size A3)

References made to forest plan objectives and actions - see pages 13-17

Analysis
An area of Douglas fir, felled in 2016, is naturally regenerating with broadleaves - evidence of successful PAWS restoration and conversion to native woodland.

Concept
Little or no intervention will be needed in this plan period, apart from to ensure that the view in front of the bench is kept clear of trees. Action 1.6.

Analysis
Spreading bellflower has been successfully established on some ridgesides.

Concept
Bellflower areas will be coppiced every 5-7 years to maintain optimum habitat. Action 2.3.

Analysis
The track along the top of the limestone ridge (running north-south) is quite dark, which is important for its flora and as dormouse habitat.

Concept
The woodland on either side of the track will be divided into sections, one or more of which will be coppiced every 1-2 years - this will lighten it up, and provide a mosaic of different aged woodland habitat. Action 2.1.

Analysis
The wood is freehold and open access; it is well-used by local people, who walk in from Ledbury, entering the wood via a permissive path across private land to the south, or who drive and park at the north end of the site; there is evidence of mountain bike activity throughout the wood - in some places through areas with sensitive ground flora.

Concept
Current levels of recreational use (walking) will be maintained; mountain biking activity will be monitored. Action 5.1.

Analysis
Vehicular / machinery access is from a narrow lane to the north (there are other access points which haven't been used for several years); forest operations are challenging due to steep, inaccessible, often wet ground.

Concept
Care will be taken with the timing and scale of forest operations to prevent damage to the soil; inaccessible areas (e.g. band of broadleaves along eastern edge) will receive minimum intervention - this is due to access issues, but will have the benefit of contributing to the diversity of habitats within the wood. Action 1.1 and 2.2.

Analysis
Conifers are mostly in the northeastern part of the wood; they provide diversity in terms of habitat and aesthetics.

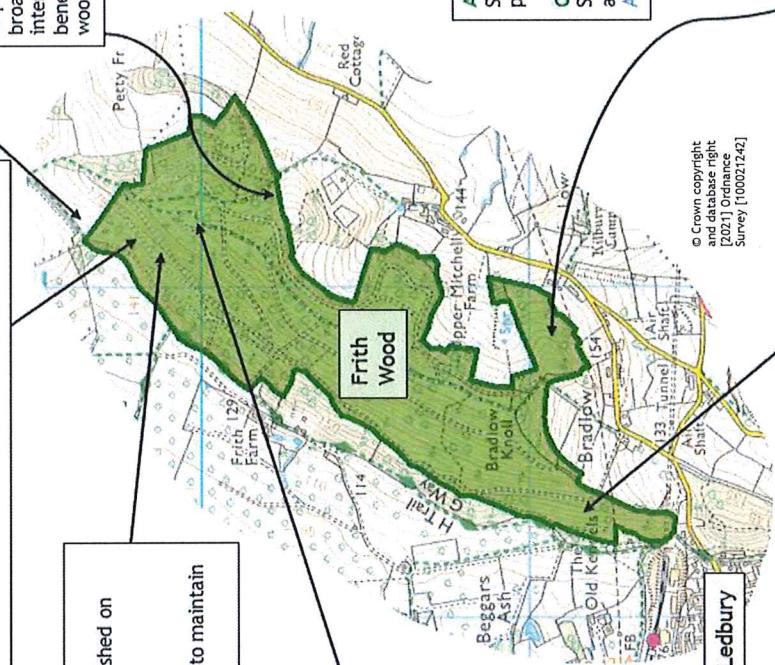
Concept
Conifer crops will be surveyed every five years - if appropriate, they will be thinned to encourage the development of broadleaf trees already growing among the conifers. Action 4.1.

Analysis
Sweet chestnut is common in Frith; it has been coppiced in the past - in some cases, probably for several centuries.

Concept
Sweet chestnut areas ready for coppicing will be identified, and the trees will be cut to make fencing materials. Action 4.3.

Analysis
Frith is valuable for wildlife, being structurally diverse with trees of different ages and sizes, including veterans, and plenty of dead wood; bat boxes have been placed on mature trees, and dormouse boxes are monitored by volunteers.

Concept
Bradlow Coppice will be managed as 'natural reserve' - meaning that it is dedicated for wildlife; other areas will be managed and monitored to ensure that they continue to provide excellent bat habitat. Action 2.2 and 2.3.



Analysis
A section in the south of the wood was coppiced in 2003. It is now quite dense and is ready for further intervention.

Concept
This area will be divided into small coppice 'coupes', one or more of which will be cut every 1-2 years - creating a patchwork of different aged regrowth. Action 2.1.

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Figure 7b - Conigree Wood - Analysis and Concept (best viewed at size A3)

References made to forest plan objectives and actions - see pages 13-17

The map shows the location of Conigree Wood within the Ledbury area. Key features include:

- Conigree Wood:** The main forest area, shaded in green.
- Dead Woman's Thorn:** A prominent feature in the northern part of the wood.
- Geopark Way:** A long-distance path running through the wood.
- HC:** House of Commons logo, indicating a public right of way.
- Ledbury:** The town center.
- Other Woods:** Bullen Coppice, Coneygates Wood, Mayhill Wood, and Underside.
- Roads:** A417, A49, and various local roads.
- Parcels:** Various land parcels labeled with numbers like 113, 89, 82, 81, etc.

Analysis and Concept sections (with callouts from the map):

- Conigree Wood (Top Left):**

Analysis: Vehicles and machines usually enter the wood from the north, although access is also allowed from the south (Bullen); Conigree is wet and muddy and without care, vehicles may cause damage.

Concept: Operations must be carefully planned to avoid the wet months, and conifer clearfalls will coincide with thinning to minimise the need to bring machinery into the wood; when working in the southern end of the wood, access should be sought from Bullen. Action 1.1.
- Conigree (Top Right):**

Analysis: Wild privet - food plant for the protected barred tooth stripe moth - is quite prevalent in Conigree; however, this and other ancient woodland flora - eg herb paris and orchids - have been compromised in the past due to shading from conifers.

Concept: Coppicing and scalloping (clearing small semi-circular areas) adjacent to forest tracks will improve the habitat for ancient woodland plants and create open space. Action 2.1 and 2.3.
- Coneygates Wood (Bottom Left):**

Analysis: Conigree is leasehold woodland, and therefore not open access, although the owners are content with walkers using the wood; there are two public rights of way, one of which is part of the long-distance waymarked Geopark Way; there is evidence of mountain biking in some areas.

Concept: Low-key public use will continue to be accepted; mountain biking activity will be monitored. Action 5.1.
- Bullen Coppice (Bottom Right):**

Analysis: Yew is common across the wood - some of the yews are veterans and classed as TSIs (trees of special interest); an avenue of mature hornbeam in the southwest corner provides habitat for hawfinches.

Concept: Yew trees of all ages are important components of the woodland and will not usually be felled. Trees of special interest are marked on site planning maps, so that they are protected during forest operations. Action 2.3.
- Conigree (Bottom Center):**

Analysis: Bullen Coppice is separate from the main block of Conigree, and is one of the few parts of the wood that is not designated ancient semi-natural woodland - it is, however, almost entirely native broadleaf.

Concept: Along with other broadleaf areas, Bullen Coppice will be surveyed for thinning every ten years; in the rest of the wood, conifer areas will be considered for thinning every five years; mixed areas will be thinned to favour the broadleaves; a previously delayed thinning contract will be carried out in the northern half of the site in 2021. Action 4.1.

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Note: The name 'Conigree' derives from the word conyger, meaning a piece of land set aside for the raising of rabbits. It is sometimes spelt 'Coneygree'.

Forest plan objectives	Actions NB - actions apply to both Frith and Conigree unless stated otherwise	Monitoring
	Actions to achieve this objective will include:	
	<p>1.1 appropriate ways and times of working e.g. taking into account access constraints due to European protected species (EPS) and steep, wet ground;</p> <p>1.2 protection of heritage features through the site planning process;</p> <p>1.3 gradual PAWS restoration - replacement of conifers with native broadleaves;</p> <p>1.4 internal and external consultation and communication of the plan;</p> <p>1.5 improvement of the quality of data on Forester Web, and a trial to set up coupe / scpt records to record what we are working towards in each coupe / scpt;</p> <p>1.6 ensure that forest management work enhances the internal and external landscape.</p>	<p>1.1 - 1.4 to be monitored by the beat team through:</p> <ul style="list-style-type: none"> • ongoing observation • site planning process • contract management <p>and by the forest planner through the forest plan review process</p> <p>1.5</p> <ul style="list-style-type: none"> • planner to set this up during first year of plan ie 2021/22, then to trial it and assess feasibility at mid-plan review <p>1.6</p> <ul style="list-style-type: none"> • planner to identify and resolve potential external landscape issues of planned clearfalls using fixed point photography, and monitor impact with photographs - through plan review process • and ecologist to assess impact of coppicing on internal landscape
Economy		<input checked="" type="checkbox"/>
Environment, history, nature, people		<input checked="" type="checkbox"/>

Forest plan objectives	Actions NB - actions apply to both Frith and Conigree unless stated otherwise	Monitoring
2. Biodiversity Frith and Conigree provide a variety of woodland habitats - we will renew our commitment to coppice management; some areas will be restored as native broadleaved woodland, while others retain mixtures of conifers and broadleaves.	<p>Actions to achieve this objective will include:</p> <p>2.1 conservation coppice - small-scale, short rotation coppice (with standards) of four coupes (areas) - two in each woodland;</p> <p>approx. 0.2ha to be cut annually in each coupe (ie 0.4ha in Frith and 0.4ha in Conigree) - cost operations to improve structural diversity and habitat for dormice and ground flora;</p> <p>2.2 manage Bradlow Coppice (approx. 4.4ha) in Frith as 'natural reserve', and other difficult-to-reach areas of both woods as 'minimum intervention' in order to contribute to habitat diversity;</p> <p>2.3 species / habitat specific projects e.g.: spreading bellflower (Frith - coupe 27002) • bats (Frith - coupe 27004) • mapping of yew and other trees of special interest (TSIs) (Conigree) • privet for moths (Conigree);</p> <p>2.4 provision of temporary open space through coppicing (see 2.1 and 4.3) and conifer clearfell (see 4.2).</p>	<p>2.1</p> <ul style="list-style-type: none"> • ecologist to decide which 0.2ha areas to cut each year • planner, forester and ecologist to meet annually to look at what has been coppiced, to check whether deer are affecting regrowth (and therefore fencing or intervention is required) and to discuss which coupes will be cut next • planner to take photographs annually to record changes to structural diversity <p>✓</p> <p>2.2 - 2.3</p> <ul style="list-style-type: none"> • ecologist to lead and monitor conservation work for identified species and habitats <p>2.2 and 2.4</p> <ul style="list-style-type: none"> • planner / ecologist to monitor provision and effects of open space and minimum intervention

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2

Forest plan objectives	Actions NB - actions apply to both Frith and Conigree unless stated otherwise	Monitoring
3. Resilience We will continue to encourage diversification of species and age structure through active management, so that Frith and Conigree thrive in the face of threats of pests and diseases.	<p>Actions to achieve this objective will include:</p> <p>3.1 restocking (or facilitating natural regeneration), following conifer clearfell, with site-appropriate species / provenances, that will enhance the woodlands' resilience to future threats from pests and climate change;</p> <p>3.2 monitoring of squirrel and deer populations, and damage affecting natural regeneration and coppice regrowth;</p> <p>3.3 monitoring of ash, looking for potentially dieback-resistant trees within the woods.</p>	<p>Economy</p> <p>Environment, history</p> <p>People</p> <p>Nature, history</p> <ul style="list-style-type: none"> 3.1 <ul style="list-style-type: none"> to be decided by the beat team through the site planning process and monitored by the planner through the review process 3.2 - 3.3 <ul style="list-style-type: none"> to be monitored by the beat team and planner through ongoing observation

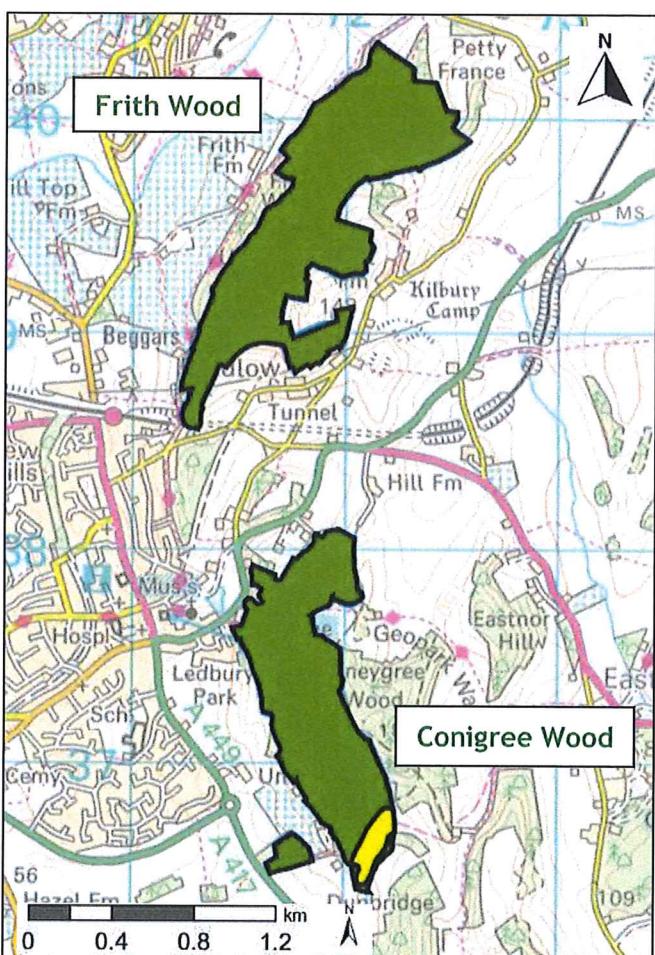
Forest plan objectives	Actions NB - actions apply to both Firth and Conigree unless stated otherwise	Monitoring
	<p>Actions to achieve this objective will include:</p> <p>4.1 thinning of conifers on a 5 year cycle to favour native broadleaves, and thinning of broadleaves on a 10 year cycle - thinning should aim to create uneven age / structure, working towards continuous cover broadleaf woodland;</p> <p>4.2 two conifer clearfalls in Conigree during the plan period - dates are flexible (within ~5 years) to enable them to be carried out at the same time as thinning; these conifers will be replaced with site-appropriate native broadleaves through planting or natural regeneration (see future habitats and species map at Figure 8)</p> <p>4.3 re-establishment of regular sweet chestnut coppice (for fencing materials) in Firth on a 20-30 year rotation, and some commercial coppicing in Conigree, (if appropriate towards the end of the plan period / beginning of the next);</p> <p>4.4 production forecast (10.03.21) suggests annual productivity of 977.5m³, or 9775m³ over the plan period;</p> <p>4.5 possible establishment of a long-term coppice contract in order to achieve more regular coppicing as per the plan.</p>	<p>✓ ✓</p> <p>✓ ✓</p> <p>✓ ✓</p>

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Forest plan objectives	Actions NB - actions apply to both Frith and Conigree unless stated otherwise	Monitoring
5. Community Frith and Conigree are enjoyed by local people for low key recreation and connection with nature and wildlife; we will continue to work with, and value the contribution of, volunteers.	<p>Actions to achieve this objective will include:</p> <p>5.1 monitoring of potential access issues e.g. limited parking (cars blocking gate) in Frith, public use of non-access land in Conigree, and mountain bike use in both woods;</p> <p>5.2 ecologist and community ranger will consider the feasibility of a volunteer group to carry out habitat management work e.g. coppicing;</p> <p>5.3 continue to enable and encourage Ledbury Naturalists, and others, to monitor species and habitats;</p> <p>5.4 continue to encourage volunteers to monitor the condition of the wooden track name signs in Frith, and replace these when needed.</p>	<input checked="" type="checkbox"/> ✓ <p>5.1</p> <ul style="list-style-type: none"> to be monitored by the beat team through ongoing observation <p>5.2 - 5.4</p> <ul style="list-style-type: none"> to be monitored by the ecologist, and discussed at the annual meeting between planner, forester and ecologist
Economy		
Environment, history, nature, heritage		
People		

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Figure 8 - Maps to show future habitats and species in Frith and Conigree



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This map illustrates the intended restock prescriptions - the species and type of woodland that will regenerate or be planted when the current crop is removed.

One conifer coupe in Conigree (yellow on the map), will be clearfelled and restocked with site-appropriate native broadleaf species. The rest of both woodlands (green on the map), whether thinned or clearfelled, will be allowed to regenerate naturally, supplemented with planting where needed, e.g. where density is less than 1100 trees per hectare 5-10 years after clearfell.

The long-term goal is gradual restoration of a diverse native broadleaf woodland.

Proportion of conifers and broadleaves in Frith and Conigree	2021	2031*
Broadleaves	67%	71%
Conifers	33%	29%

* The 2031 figures assume that the three conifer clearfalls proposed for this plan period take place on time, and that the conifers are successfully replaced with broadleaves. If the clearfalls are delayed for any reason, these proportions will be reached at a later date. Thinning of conifers will also affect these figures, if the database is updated with the new proportions in each coupe.

This smaller map, of the NVC (National Vegetation Classification) for Frith and Conigree, indicates the type of woodland that we expect to develop naturally, and offers guidance as to which species we should plant where we need to supplement the natural regeneration.

The green areas are W8 - characterised by ash, field maple, hazel, lime, elm and sycamore - we will need to address the dominance of ash in light of ash dieback, and expect that sycamore may fill the gaps left by dead ash, although squirrel damage is likely to affect sycamore, and alternative species may need to be encouraged.

The orange areas are W10 - where oak, birch, hornbeam and sweet chestnut are common, with smaller proportions of holly, beech, wild cherry and wild service.

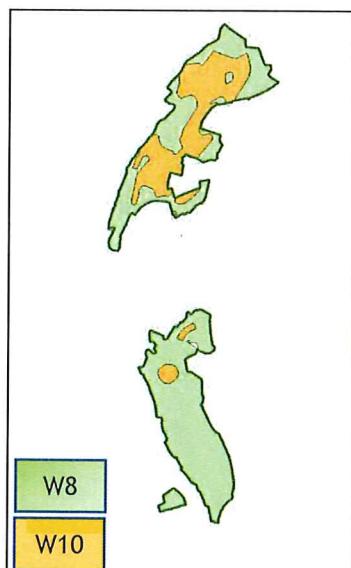
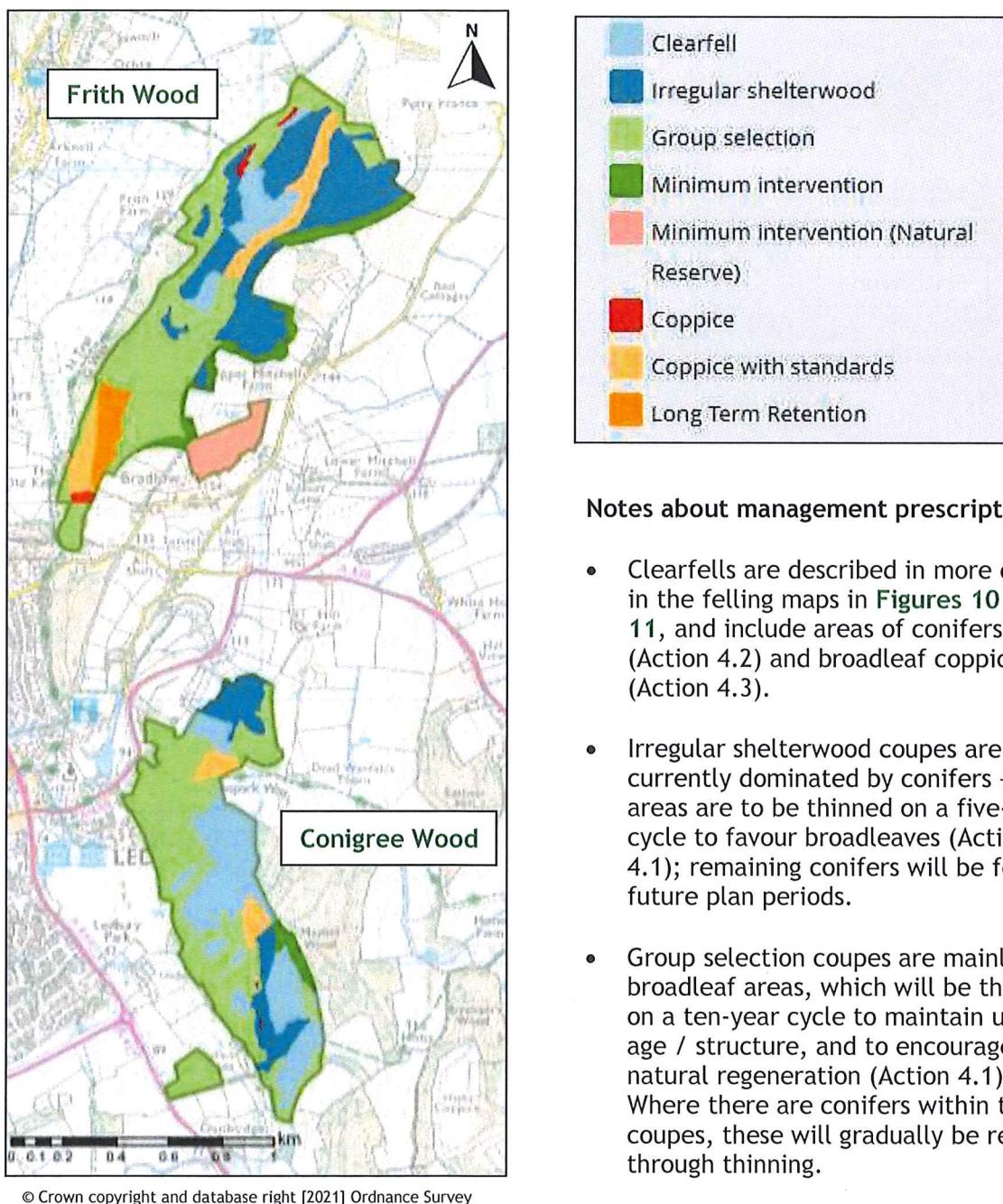


Figure 9 - Map of management prescriptions for Frith and Conigree

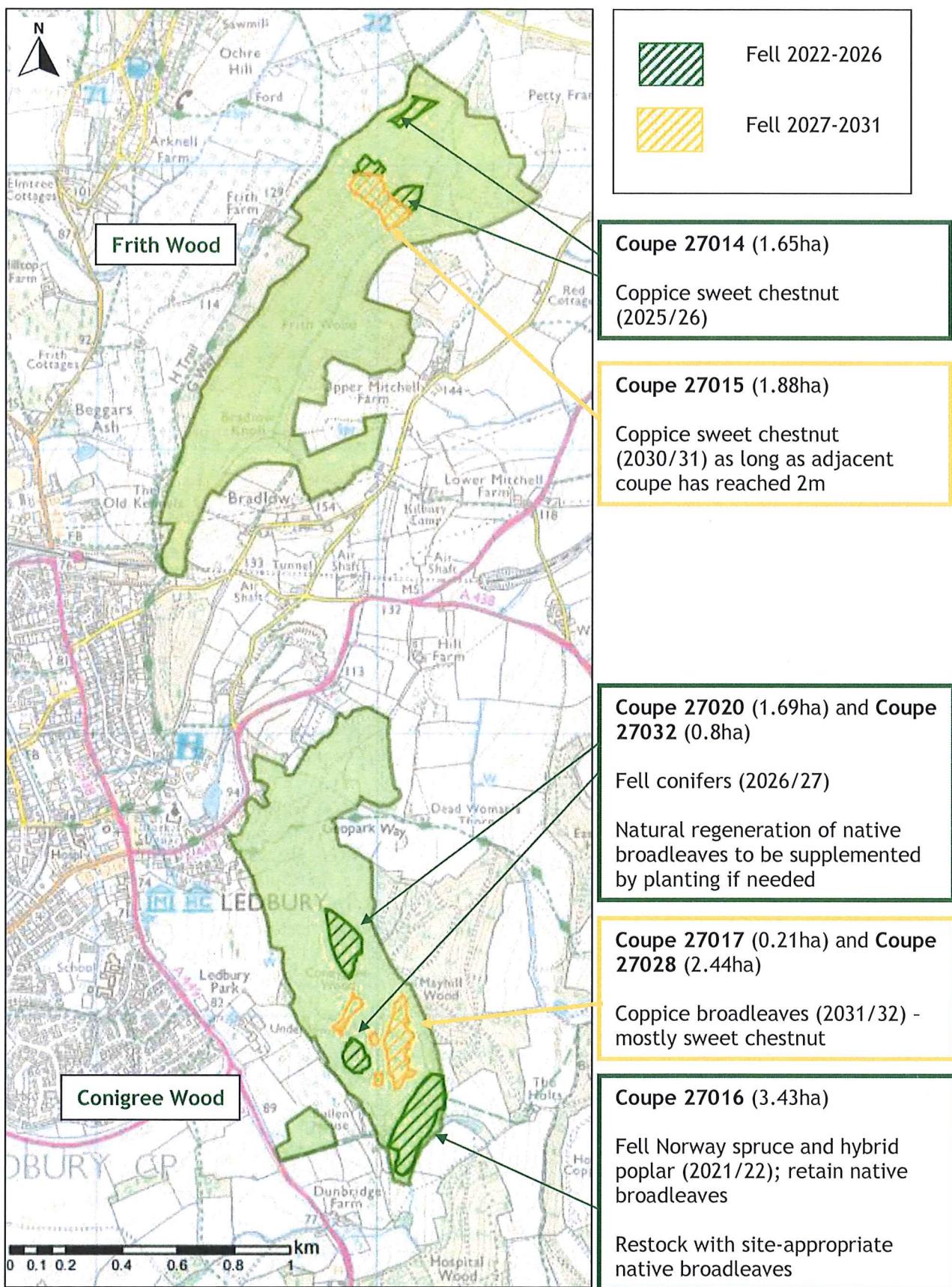


- Coppicing of the ‘coppice with standards’ areas will be carried out annually on a small scale, creating a mosaic of different age regrowth - for conservation benefits (Action 2.1).
- The area of long term retention in Frith Wood will be managed with little or no intervention, for the benefit of bats (Action 2.3).

Notes about management prescriptions

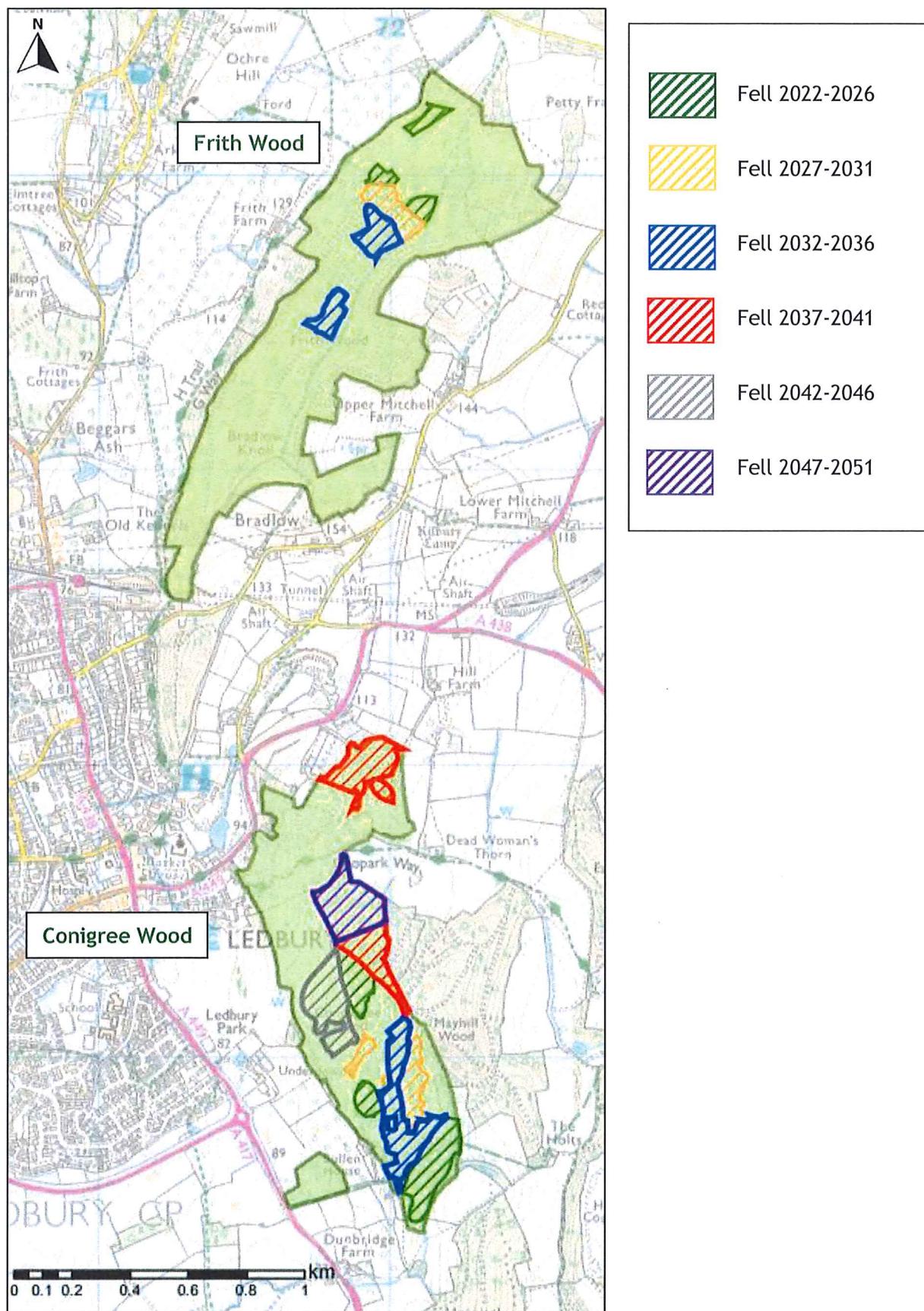
- Clearfalls are described in more detail in the felling maps in [Figures 10](#) and [11](#), and include areas of conifers (Action 4.2) and broadleaf coppice (Action 4.3).
- Irregular shelterwood coupes are currently dominated by conifers - these areas are to be thinned on a five-year cycle to favour broadleaves (Action 4.1); remaining conifers will be felled in future plan periods.
- Group selection coupes are mainly broadleaf areas, which will be thinned on a ten-year cycle to maintain uneven age / structure, and to encourage natural regeneration (Action 4.1). Where there are conifers within the coupes, these will gradually be removed through thinning.
- Areas recorded as ‘minimum intervention’ are mostly inaccessible. Lack of intervention may be beneficial for wildlife (Action 2.2), but will be monitored for unintended effects.
- Natural reserves are of particularly high wildlife interest or potential and are usually managed by minimum intervention unless alternative interventions have higher conservation or biodiversity value (Action 2.2).

Figure 10 - Frith and Conigree felling plan - 2021-2031



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Figure 11 - Frith and Conigree felling plan - 2021-2051



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