

Parkend Walk & Blakeney Walk Forest Plan 2023 - 2033

West England Forest District

Forest Blocks covered:

Blakeney Hill (45),
Blaize Bailey, Abbots Wood (45),
Staple Edge & Middleridge (44),
Church Hill, Cockshoot and Oakenhill (46)

Francis Raymond-Barker

Forestry England and new FS File Ref: OP10/44 45 46
Old FS File Refs: FoD/2/82 & FoD/2/75, GL/1/5/2.64 & 2.65,
GL/1/5/2.67, 2.73 & FoD/2/81



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





West England Forest District

Application for Forest Plan Approval

Parkend Walk and Blakeney Walk Forest Plan

Forest District:	West England FD	
Woodland or property name	Blaize Bailey, Blakeney Hill, Staple Edge, Middleridge, Church Hill, Cockshoot and Oakenhill	
Nearest town, village or locality:	Cinderford, Ruspidge & Soudley, Blakeney, Yorkley, Lydney, Whitecroft and Parkend	
OS Grid reference:	Blaize Bailey	SO 6667 1136
	Abbots Wood	SO 65781 156
	Blakeney Hill	SO 6580 0882
	Staple Edge	SO 6459 1046
	Middleridge	SO 6310 1120
	Cockshoot	SO 6461 0779
	Churchill	SO 6285 0869
	Oakenhill	SO 6253 0744
Local Authority District/Unitary Authority:	Forest of Dean District Council Gloucestershire County Council	

Plan Area:	2587 Ha
Conifer Felling:	80 Ha
Broadleaved Felling:	10 Ha

1. I apply for Forest Plan approval for the property described above 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 the FC 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



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



Promoting Sustainable Forest Management

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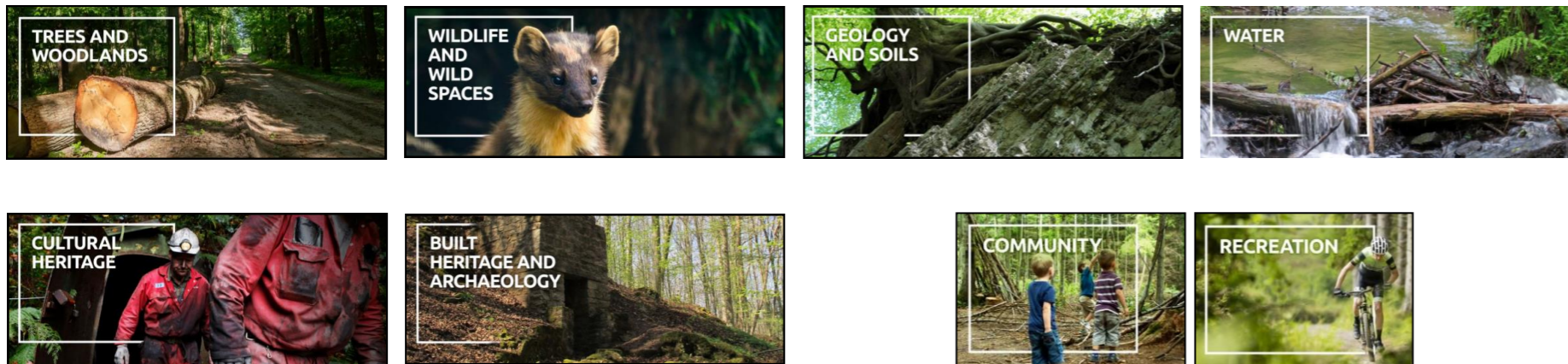
OUR SHARED FOREST

“To Nurture a shared Forest unlike any other”

The Blakeney Hill Walk and Parkend Walk Forest Plan is the first of six Forest Plans that will cover the main block of the Forest of Dean. These six Forest Plans tailor the management of the main block for the Forest of Dean through the lenses of eight “principles of management” outlined in the Our Shared Forest (OSF) land management plan published in 2019 that closely align with the UK Forest Standard (UKFS).

The Our Shared Forest looks to a future where the Forest of Dean main block :

“Has a scale, diversity and a continuity of management over time that supports a depth and breadth of habitats and species that is on a par with, or better than, many celebrated national nature reserves and protected landscapes.”

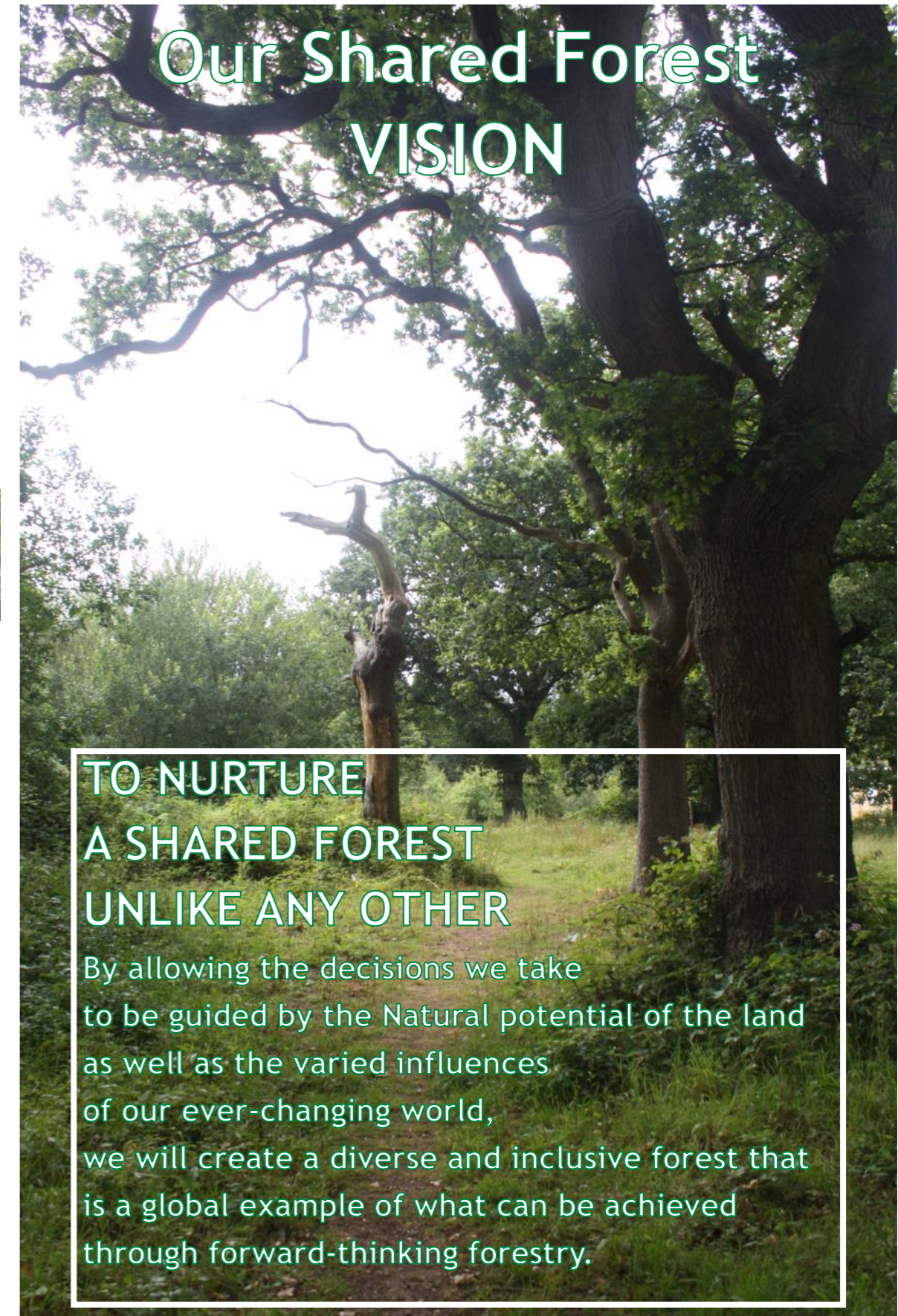


A Forest Plans core purpose is to ensure Forestry England is able to functionally implement the management of its woodlands and forests in line with the UKFS through the prescriptions identified within the Forest Plan. It is the Forest Plan that is approved by Forest Services (Forestry Commission), and it is that approval which achieves this operational requirement.

So how does the Forest Plan link and relate to reflect OSF ?

The Forest Plan integrates the OSF through the Analysis and Concept stage of the Forest Plan process. Integration has been achieved by structuring the Analysis and Concept of the Forest Plan around the eight “principles of management” within OSF. It is through the completion of the Analysis and Concept that topics in need of further investigation and development are recognised. Resolution is achieved through thorough field work, data-set analysis and consultation that cover of the salient points of concern documented in the Forest Plan Analysis. It is this process of identification and consideration that then help inform decisions within the core of the Forest Plan.

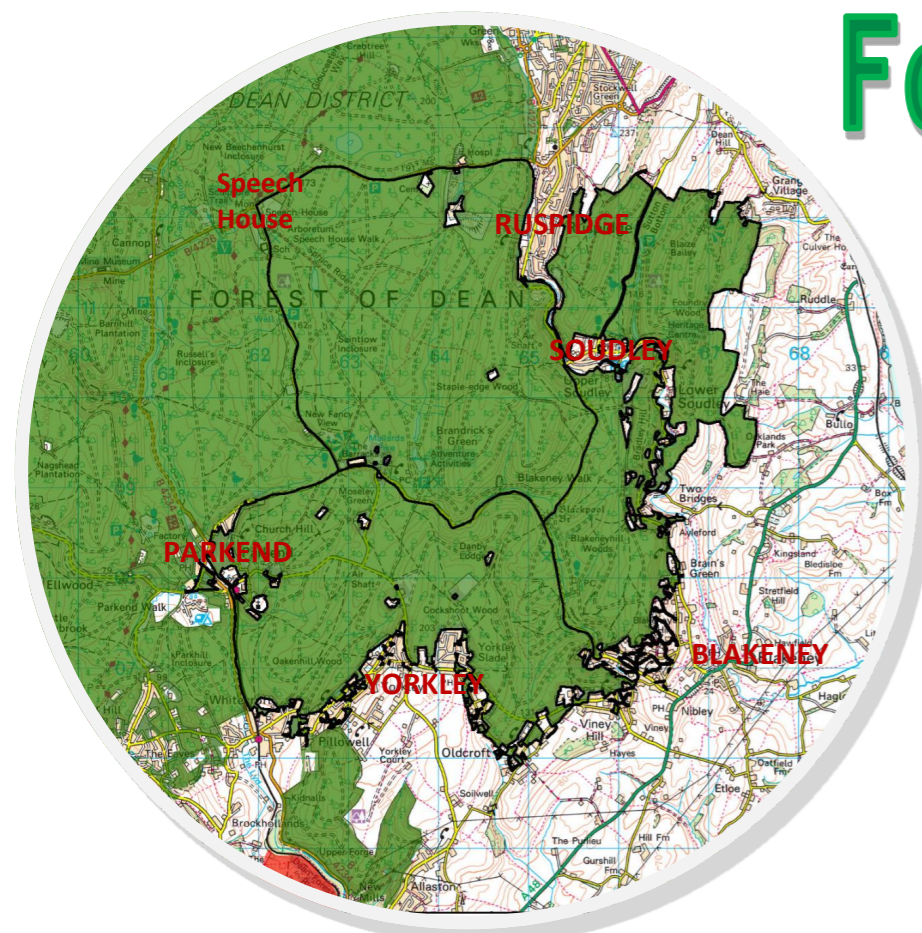
This approach ensures that the local distinctiveness and uniqueness of the forest is captured and maintained. At the same time it will ensure the due process and regulatory context required by Forest Services for Forest Plan approval is met by Forest Planning process.



**TO NURTURE
A SHARED FOREST
UNLIKE ANY OTHER**
By allowing the decisions we take to be guided by the Natural potential of the land as well as the varied influences of our ever-changing world, we will create a diverse and inclusive forest that is a global example of what can be achieved through forward-thinking forestry.

Photo Above: Veteran Oak planted in the 1840s at Oldcroft Plantation in Yorkley Slade, shows the close intertwined nature between communities, woodland amenity and habitats within The Forest.

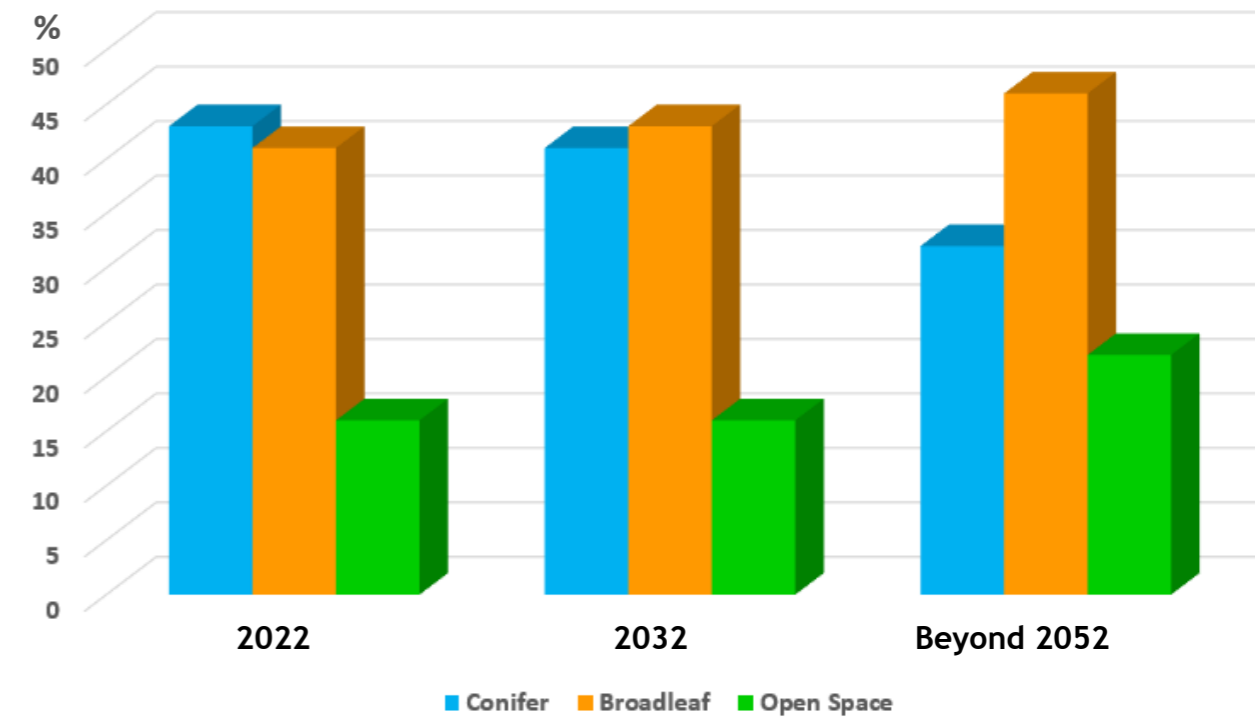
Forest Plan SUMMARY



Forest name	Area	% of plan area
Abbots Wood	127 Ha	5
Blaize Bailey	282 Ha	11
Blakeney Hill	308 Ha	12
Staple Edge	592 Ha	23
Middleridge	458 Ha	18
Cockshoot	430 Ha	16
Churchill	156 Ha	6
Oakenhill	234 Ha	9
Total	2587 Ha	100 %

(Area given to the nearest Ha and percent to nearest %)

Indicative Woodland composition over time



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About

The Plan lies predominantly within the Statutory boundary of the Forest of Dean, the Hundred of St. Briavels and solely within the county of Gloucestershire. The plan area covers 10 square miles or around 2600Ha that contain mixed coniferous and broadleaved woodland. The numerous villages nestled along the peripheral edges of the forest are integral to the feel of the woodland and the sense of place that makes the Forest unique.

Whilst commanding a prominent location and overlooking the River Severn, external views into the block remain rather oblique. Although from along the A48 at Lydney through Blakeney upto Newnham gives an indication of the steep and varied nature of the topography that lie within. Appreciation of the intricate topology can be gained if one takes a leisurely drive along one of the two main valleys that dissect the plan area¹ that evoke the diverse Sense of Place² and reveal just a glimpse of the tree species that the plan area has to offer thanks to the varied geology that gives rise to rich and fertile productive soils.

In turn, the mixed woodland and open habitat provide rich mosaic of habitat types for a wide variety of wildlife and flora, that includes a recovering population of adder, a selection of lepidoptera, bats and lichen along with a stable population of Goshawk, Fallow deer, Wild Boar and with the recent reintroduction of Pine Marten that is hoped will have a positive effect on helping control Grey Squirrel numbers.

The plan features several watercourses³ that all feed into the River Severn and are punctuated with ponds and lakes⁴. The Forest Plan area contains significant Ancient Woodland character including features like remnant Napoleonic Oak and Sweet Chestnut yet is also capable of producing quality timber⁵ in both hardwood and softwood grades.

¹from Rusridge to Soudley, down to Blakeney via Brains Green, then from Blakeney north westerly to Wenchford, Blackpool Bridge upto Mallards Pike and the Barracks. Also the minor valley from Wenchford to Soudley and through to Sutton Bottom.

²influenced through mans past industrialisation of the Forest for stone, coal and iron as well as the timber.

³Blackpool Brook, Cinderford Brook, Soudley Brook, Forge Brook, Harr Brook and Rudge Brook

⁴Speech House Lake, Mallards Pike, Tides Pool and Soudley Ponds.

⁵In the preceding 10 years to this plan, the plan area produced around 2.1 million pounds worth of timber with a total volume of around 80 thousand cubic meters and an approximate value of circa £27 per m3.

Aims and Objectives

The Forest Plan aims to protect and enhance existing habitats through sustainable management that is context with the surrounding landscape and character whilst providing a sustainable flow of timber to market throughout the plan duration. Not in any order, the plans objectives are:

- ◇ The diversification of woodland species and structure for greater ecological and economic resilience.
- ◇ Protect and enhance woodland, open habitats and their associated species.
- ◇ Deliver well-designed forests that both protect and enhance the internal and external landscape in keeping with the local landscape character.
- ◇ To protect and enhance areas of Ancient & Semi-Natural Woodland with reference to increasing native diversity, structure, resilience and natural capital.
- ◇ The protection and enhancement of veteran trees (VT)/ trees of special interest (TSI) and recruitment of future generations of both.
- ◇ The continued production of sustainable and marketable woodland products.
- ◇ To conserve, maintain and enhance cultural and heritage assets.
- ◇ The restoration and management of Sites of Special Scientific Interest / Scheduled Monuments / Key Wildlife Species.
- ◇ The provision and maintenance of recreation facilities.

What we will do

The Forest Plan outlines management proposals including felling and restocking over several decades with felling licence approval for operations up until 2032. The planned areas of clearfelling, restocking and permanent /transient open habitat creation during the ten years to 2032 are summarised below in hectares:

- * Clearfelling of broadleaves: 10Ha
- * Broadleaf restocking/regeneration 48Ha
- * Clearfelling of conifer: 80Ha
- * Conifer restocking/regeneration 23Ha
- * Open space and open habitats: 19Ha

Crops will be managed for a mixture of objectives including timber production. There will be around a 60% reduction in the use of clearfelling in favour of Low Impact Silvicultural Systems for the duration of this plan period till 2032 although clearfelling will still play a valuable part in helping achieve our objectives. (except for diseased areas that are in need of statutory felling)

The plan will see priority watercourses managed to remove conifer, and increase native broadleaf content to include Alder, Aspen, Willow and other native broadleaf species, whilst integrating varying degrees of open habitat.

Wet woodland and wet open habitat will be expanded to protect priority habitats, whilst adders and other priority species such as lepidoptera will benefit from work to consolidate and connect their habitats increasing overall permeability and this will include the start of regenerating and connecting existing areas of stored coppice. This delivery of improved connectivity will continue to increase the diversify of habitat and quality of internal landscaping.

In addition ongoing thinning and selective felling of both conifer and broadleaf will be carried out at five and ten year intervals.

Indicative woodland composition expected within the plan period and over time is illustrated in the middle and right hand columns of the chart above.

Location and Description

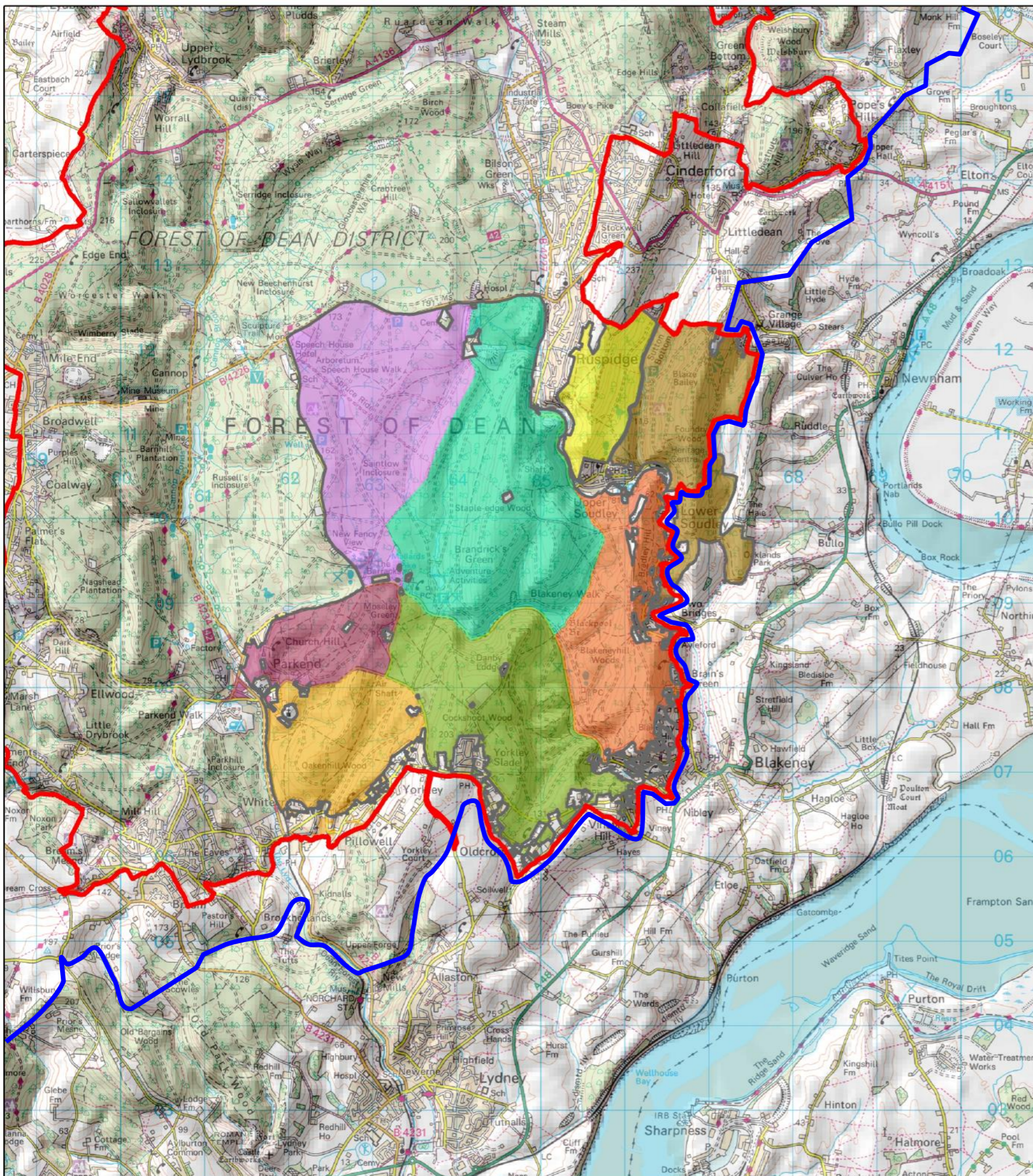
The Parkend Walk and Blakeney Hill Walk Forest Plan covers the south eastern quadrant of Forest of Dean main block. Sitting on the western banks of the River Severn, the plan lies within county of Gloucestershire. The A48 runs in parallel along the eastern side of the plan area with the towns of Cinderford and Lydney lying to the north and south respectively. Integral to the feel of the woodland and along the peripheral edges of the plan lie numerous villages including Parkend, Whitecroft, Pillowell, Yorkley, Viney Hill, Blakeney Hill, Soudley and Ruspidge. Tree species composition within the valleys often contribute to the Spirit of Place that is so invariably and uniquely distinctive in different parts of the plan area.

The majority of the plan area¹ sits both within the Statutory Forest (outlined in red on map) and The Hundred of St.Briavels (outlined in blue on map) encompassing eight blocks of woodland that were previously split over seven plans.

The area comprises of mixed conifer and broadleaf woodland that totals 2587 hectares covering 10 square miles. There are 4 prominent ridges and 3 valleys orientated north-south running through the plan area, that not only provide stunning views over the wider forest and adjoining countryside from the higher ground but also contribute to the special 'Sense of Place' within the intricate and often intimate topography of the plan area, that in places has been influenced in the past through mans industrialisation of The Forest of Dean for stone, coal and iron as well as the timber.

The valleys carry five of the main watercourses of The Forest² that all feed into the River Severn and are punctuated with ponds and lakes³. Whilst the ridges top out at between 195m above sea level (asl) in Cockshoot, 205m asl in Blaize Bailey and 225m asl in Staple Edge. These ridges also give rise to woodlands with varying topology with aspects & slopes mainly facing east or west. These slopes have elevations ranging from 35-75m asl along the eastern boundary of the plan and elsewhere 75-175m asl.

The area benefits from around 900mm rainfall a year and the fertile soils (brown earths and rich gleys) derived from Carboniferous Limestone and Devonian Old Red Sandstone mean the woodlands are capable of achieving good growth rates that for conifer are in the range of Yield Class (YC)10 to YC 24 and for Broadleaves one may expect YC of between 4-8.



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Churchill	156 Ha	6
Oakenhill	234 Ha	9
Total	2587 Ha	100 %

(Area given to the nearest Ha and percent to nearest %)

⁽¹⁾ With the exception of southern parts of Blaize Bailey totalling 84Ha: - Glastonbury Wood, Fernbrake Hill, Gill Birch, Moor Plantation, Moorland Grove, Forge Grove and Haie Grove)
⁽²⁾ Cannop Brook, The Lyd, Blackpool Brook, Cinderford Brook, Soudley Brook & Forge Brook.)
⁽³⁾ Speech House Lake, Mallards Pike and Soudley Ponds, with Woorgreen north of the plan area and Cannop Ponds to the west)

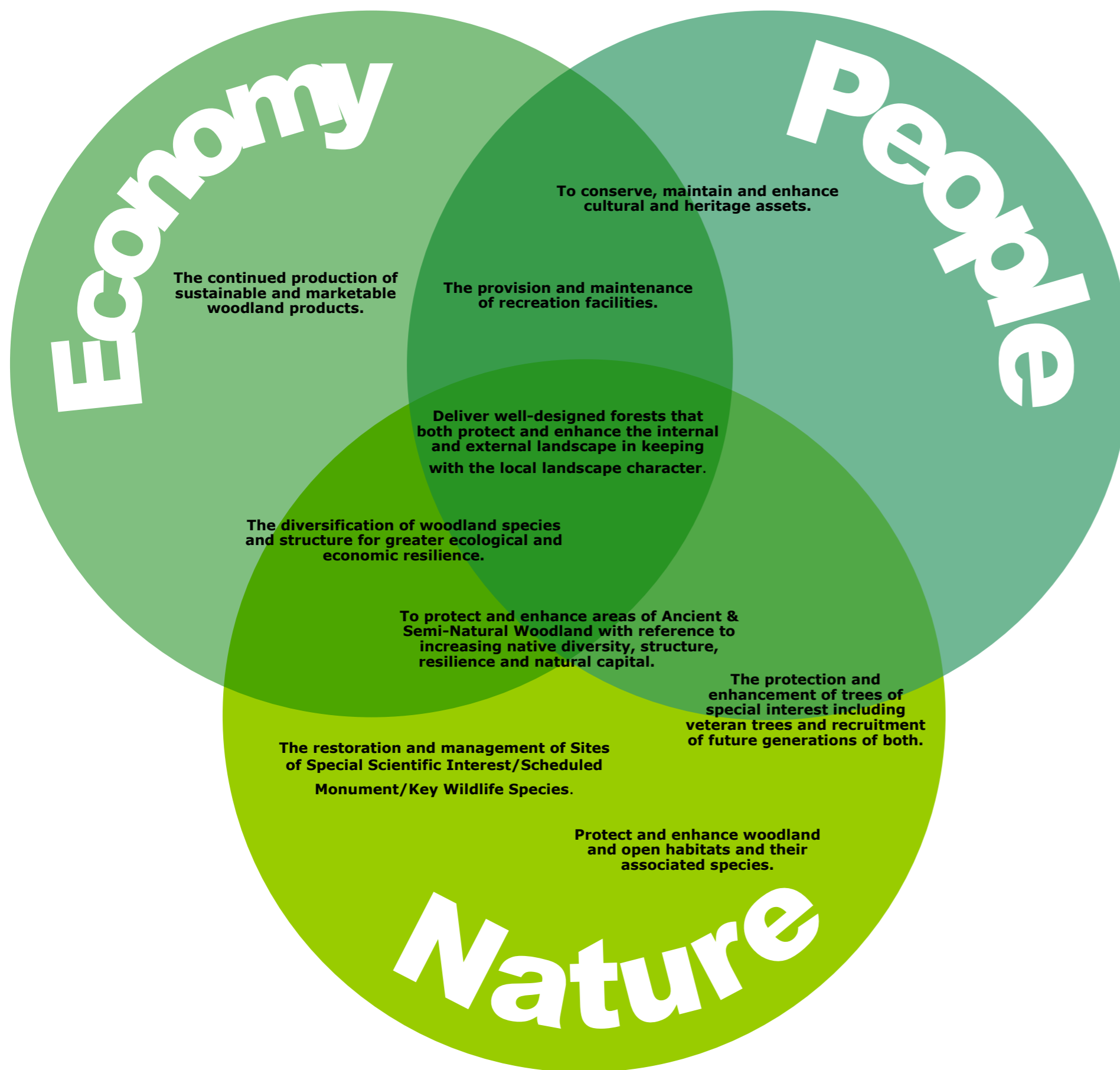


Tenure & Management Agreements

The whole 2587Ha of this plan area is freehold of which 2563Ha are dedicated under Countryside Rights of Way Act.

There are numerous management agreements in place for a variety of purposes from grazing to radio masts (Staple Edge & Soudley) and from hospitality/recreation (Speech House and Mallards Pike) to minerals and transport (Forest of Dean Railway). Development of a cycle path started in 2019 that will run between Parkend and Lydney that has undergone several incarnations and is the current vision of Greenways.

- ParkendWalk & BlakeneyWalk FP
- Acquisition Freehold (A/FH)
- Acquisition Leasehold (A/LH)



Management Objectives

WEST ENGLAND FOREST DISTRICT

SECURING AND GROWING THE SOCIAL, ECONOMIC AND NATURAL CAPITAL OF THE NATIONS FORESTS IS AT THE HEART OF EVERYTHING WE DO

The objectives of this Plan will reflect and help deliver the West England Forest District Strategic Plan and the National Strategic Plan for the Nations Forests in England.

WE MAKE PLANS TODAY FOR A BETTER TOMORROW
SO OUR BUSINESS AND OUR FORESTS ARE SUSTAINABLE
AND FIT FOR THE FUTURE

All of our forests and woodlands in this Forest District are certified by the Forest Stewardship Council® (FSC®) and the Programme for the Endorsement of Forest Certification (PEFC).

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

TOGETHER WE ARE GROWING THE FUTURE
FOR WILDLIFE, FOR PEOPLE AND FOR THE CLIMATE

The meeting and monitoring of the Forest Plan objectives shown opposite is outlined on the following page.

Meeting Objectives

(Objectives are not listed in any priority order)

District Strategy

Forest Plan Objective

Meeting Objective

Monitoring

Nature

Increase our Natural Capital, Superb Forests and Telling our story
Increase diversity of tree species and stand structure, incorporating changes to silvicultural practices to maximise diversity resilience and carbon storage.
Give space and time for nature to protect and enhance biodiversity recognising and responding to needs of wildlife using natural processes.
Ensure that natural and cultural heritage values of our forests are understood and widely shared.

People

Increase our Natural Capital and Telling our story
We will maintain and enhance working relationships & partnerships with conservation organisations such as Wildlife Trusts / Butterfly Conservation.
Support / encourage healthy lifestyles focussing on powerful benefits of nature improving mental / physical wellbeing.
Raise awareness & understanding of sustainable forestry and increase engagement with and understanding of Forest Plans.

Economy

Superb Forests and Increase our Natural Capital
Maximise diversity in tree species and stand structure and increase long-term resilience incorporating changes to silvicultural practices all of which will be delivered in accordance with the UK Woodland Assurance Standard.

The diversification of woodland species and structure for greater ecological and economic resilience.

Clearfell used where appropriate, gives opportunity to enhance ecological value of sites and add species diversity, highlighted in the Forest Plan and Operational Site Planning (OSP) process. The plan also sees a gradual increase in the use of ATC and LIS methods (60% previously clearfell)

Monitoring will be achieved through the OSP process & Forest Plan review process, including SCDB analysis.

To protect and enhance areas of Ancient & Semi-Natural Woodland with reference to increasing native diversity, structure, resilience and natural capital.

Restoration will be a gradual process targeting removal of conifer crops & non-native regen through clearfell & thinning aiding establishment of native species through regeneration & planting. Conifer crops will be planted where appropriate following survey prior to restocking unless indicator species dictate otherwise.

Analysis and comparison of naturalness scores derived from the Sub-Compartment Database (SCDB) and field observation through the FP review process.

Deliver well-designed forests that both protect and enhance the internal and external landscape in keeping with the local landscape character.

Through a mixture of thinning & clearfelling the approach will be dependant upon steepness & awkwardness of terrain and prominence within the landscape. OSP will help integrate the Forest Plan intentions minimising risk of adverse impact on the landscape and adjacent SSSIs.

Fixed point photography will be used during the Forest Plan review process to help in the analysis of how the implementation of the plan is effecting external landscape and character. OSP will help identify opportunity for enhancement to character and identify safeguards for SSSI.

The protection and enhancement of veteran trees (VT)/trees of special interest (TSI) and recruitment of future generations of both.

These woodlands contain TSI & VT of varying description. OSP should record TSI and VT; updating GIS layer files for future reference. At the same time the process should promote the retention of both standing and fallen deadwood.

The Forest Plan review process at years 5 and 10 should check data held on GIS. Site visits and operational site plans will help in verifying appropriate TSI and VT management.

Protect and enhance woodland, open habitats and their associated species.

Through a mix of clearfell, thin and coppice the provision for open habitats and associated species will be enhanced. Opportunities should be highlighted in the OSP process where conservation benefits can be delivered. Appropriate reinstatement works will be carried out once operations have been concluded.

Monitored through review process, looking at local records for updated sightings.
Analysis and comparison of SCDB open space through the Forest Plan review process.

To conserve, maintain and enhance cultural and heritage assets.

The identifying and recording of any unscheduled features is an on-going process aimed at improving the quality of existing data sets that subsequently feed into the OSP of harvesting and restocking sites that should identify features of interest and outline appropriate measures to avoid and minimise damage.

Monitoring will be achieved through the OSP, contract supervision and the Forest Plan review process.

The continued production of sustainable and marketable woodland products.

Plan delivery achieved through thinning and clearfelling will continue to produce a mixture of wood products, both conifer and broadleaf that will be in keeping with and help progress and or enhance other management objectives.

Comparison of total production forecast with actual production at the Forest Plan five and ten-year review.
OSP and contract supervision.
Pre- thinning survey and post thinning control.

The restoration and management of Sites of Special Scientific Interest / Scheduled Monuments / Key Wildlife Species.

These features will be managed by following their respective management plans and utilising OSP to implement the required works.

Monitoring will be achieved through OSP, and the Forest Plan review process.

The provision and maintenance of recreation facilities.

Maintained by Recreation department. Certain sites may require capital investment. (Mallards Pike and New Fancy) Cycle trail link between Parkend and Lydney is in process of development with other waymarked trails being revised.

Forest Plan review and the Our Shared Forest review processes.

National Character Profile: 105 Forest of Dean and Lower Wye
source: Natural England (April 2014)

The NCA area is centred around an undulating well wooded plateau of ridges and valleys. Sitting over shallow Coal Measures it is contained by an outer rim of more open landscape on Carboniferous Limestone and Devonian Old Red Sandstone. The NCA enjoys areas of extensive woodland concentrated on the central plateau that are contained within the Statutory Forest. The eastern edge of the central plateau falls away steeply into the Severn flood plain, the estuary of the Severn, and the Severn and Avon Vales NCA. From clear, unwooded higher ground along this eastern edge, the Cotswold scarp can be seen rising out of the flat vale.

Sitting between the River Severn and Wye with only 3 main roads (A4136, A40 and A48) there is a sense of isolation and historically the rivers - and then the railways were the main trade and communication corridors (most of which are now obsolete and derelict, but now many contribute to both nature conservation and also means of exploring the forest on foot or bike) - while the rest of the Dean is criss-crossed by relatively small roads and narrow lanes, continuing the relative isolation of some of its communities.

The woodlands feature rich wildlife habitats including grassland, heathland and traditional orchards. Wooded areas range from managed coniferous plantations to broadleaved woodlands, many of which are ancient woodland - defined as being continuously wooded since 1600; the Statutory Forest is an ancient forest, having been heavily exploited for timber, although the majority is considered either as ancient or semi-natural woodland. These woodlands form one of the largest remaining areas of broadleaf semi-natural woodland in the country and are home to suites of nationally important assemblages of woodland birds, butterflies, internationally important woodland, river and bat sites; and a range of other rare flora and fauna. The Forest Waste within the Statutory Forest retains characteristic acid grassland habitat although the dwindling of grazing due to foot and mouth means scrubbing up of many of these areas is now apparent.



View from above Blakeney on Stretfield Hill looking along the easterly slopes of Blakeney Hill

Often sprawling and linear in nature, encircling the edge of the Statutory Forest is a ring of villages and hamlets where buildings are interspersed with industry, open grazing land and often associated with iron ore and coal deposits, whose remnant workings are often subsumed by woodland canopy. Other earlier settlements of medieval origin, for example, St Briavels, Lydney, Newnham, Mitcheldean, and Ruardean, lie on the peripheral edges of this ring. Parkend, Soudley and Brierley are the only substantial settlements that are wholly contained and surrounded by woodland within the Statutory Forest.

LANDSCAPE CHARACTER ASSESSMENT (Character makes each part of the landscape distinct and gives each its particular sense of place, regardless of perceptions of quality or value)

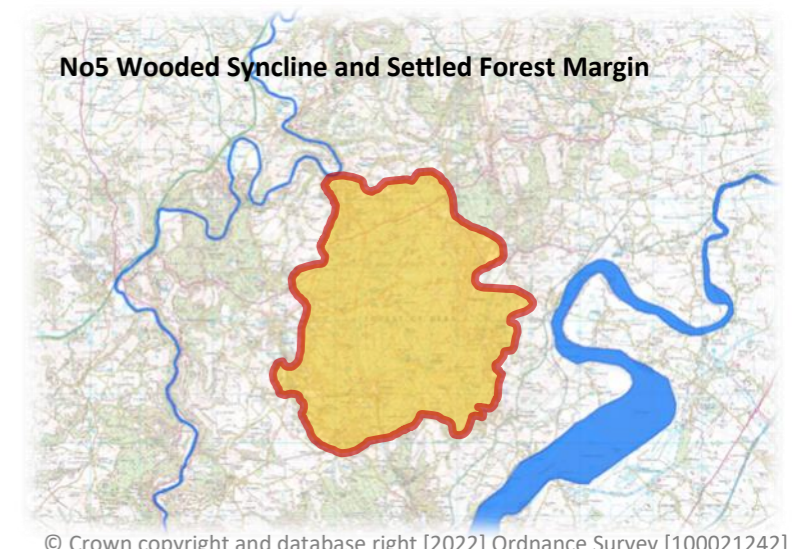
The grain of the landscape is generally north to south although this is rarely evident in the landscape due to dense woodland obscuring even the most dramatic relief features such as slades, valleys and ridges. The biggest influence on the landscape has been that of industry and mining, with the forest now being almost a continuous extensive blanket of both coniferous and broadleaved woodland draped across the syncline contributing to a strong and coherent “forest” identity that is carefully managed for its commercial timber, scenic qualities, amenity value.

The internal landscape is often small in scale and the dense woodland significantly limits long distance views. The old colliery tip at New Fancy provides an excellent striking vantage point from which to survey the extent of woodland within the syncline but these views are rare. The dense woodland is extensive and attracts thousands of visitors a year thanks to the perceived “wilderness” of many areas. This is especially the case within the Forest Core where the sense of isolation and wilderness is retained. The outer edge of the Forest has a high number of settlements generally located close to the Crease Limestone band that contains the iron ore, where as the central parts are almost devoid of settlement with the notable exception of Parkend, Edge End and Brierley. The forest creates a backdrop and edge to most settlements and so it is rare for buildings to break the skyline, although there are many instances of houses being in clusters that can be seen to climb up the sides of valleys in characteristic informal loose terraces.

The 17th to early 19th centuries saw extensive areas of woodland cleared either for war efforts or for local industries with the 1808 Dean Forest Timber Act seeing large scale enclosures for the planting of Oak and survivors from this period can be seen most notably around Speech House and Cannop Valley with extensive younger generations of Oak in Blakeney Hill. The extensive and dense woodlands harbour both small and large scale coal workings often visible in the landscape. For the smaller ones colonisation by birch and gorse ensures they remain prominent and visible in the landscape with larger ones developing massive spoil tips e.g New Fancy. Elsewhere the local term “sowle” refers to and indicates the location of ancient iron ore extraction.

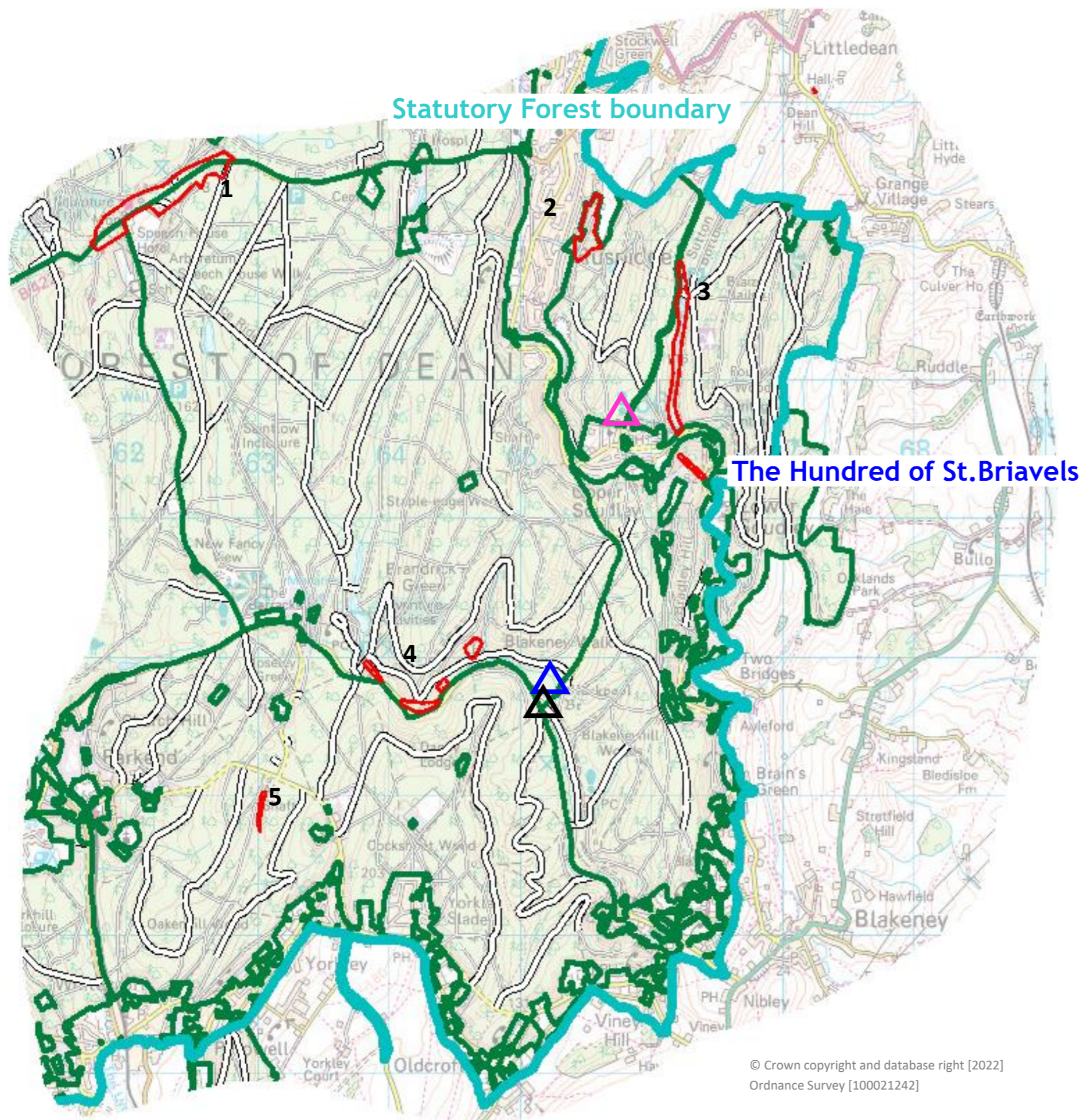


View from New Fancy north into Middleridge and Staple Edge






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Designations



Scheduled Monuments within Parkend Walk & Blakeney Walk Forest Plan

There are three SMs within the plan area:

- ◇ Blackpool Bridge 
- ◇ The Roman Road 
- ◇ Soudley Camp 

Listed Buildings

Speech House Hotel

Sites of Special Scientific Interest within Parkend Walk & Blakeney Walk Forest Plan (outlined in red)

21Ha within Severn Vale FP are designated SSSI

- 1) Speech House Oaks (5.9ha part)
- 2) Buckshaft Mine & Bradley Hill Railway tunnel (4.9Ha)
- 3) Soudley Ponds (6.2Ha)
- 4) Oakenhill Railway Cutting (0.54Ha)
- 5) Meezy Hurst (3.8Ha)

Buckshaft Mine & Bradley Hill Railway tunnel are also both part of the Wye Valley and forest of Dean Bat SAC.

OUR SHARED FOREST

“To Nurture a shared Forest unlike any other”



TSI Oak at Danby Lodge: cpt 4628c

Whilst there are several veteran and ancient trees, there are even more that have potential to become ancient and veteran that are in various states of health providing a variety of habitat types. Some can be classed as “Trees of Special Interest” (TSI) and can be of any species. Trees with this potential are always valued and being discovered, whether through operational planning or through community projects like Foresters Forest.

Concept

The Forest Plan recognises these trees as important features. Their location and context within the wood will determine how best to manage them. Eg haloing to remove interfering conifer or invasive species such as Western Hemlock, the Oak at Speech House designated as SSSI or the many veterans in and around the villages and communities and peripheral edges of The Forest. All these contexts have differing management needs. Prime objective is to retain the tree with felling being an absolute last resort. The retention of deadwood will increase the ecological value for invertebrate populations and soil quality.



Open habitat with p1847 Oak

Woodland composition of the plan area currently sits with an even split of conifer and broadleaf and just under 20% of open space.

Concept

The plan will contain a more diverse range of tree species that reflect the changing soil and topography. As a general rule of thumb conifer should appear on the higher ridges and upper slopes with broadleaves in the valleys and gullies. In the long term there will be a higher proportion of broadleaf with conifer retaining a prominent part in composition. Open space will reflect the scale of the surrounding woodland, aiming to create better connectivity, permeability and flow between habitat types with an increase in woodland edge.

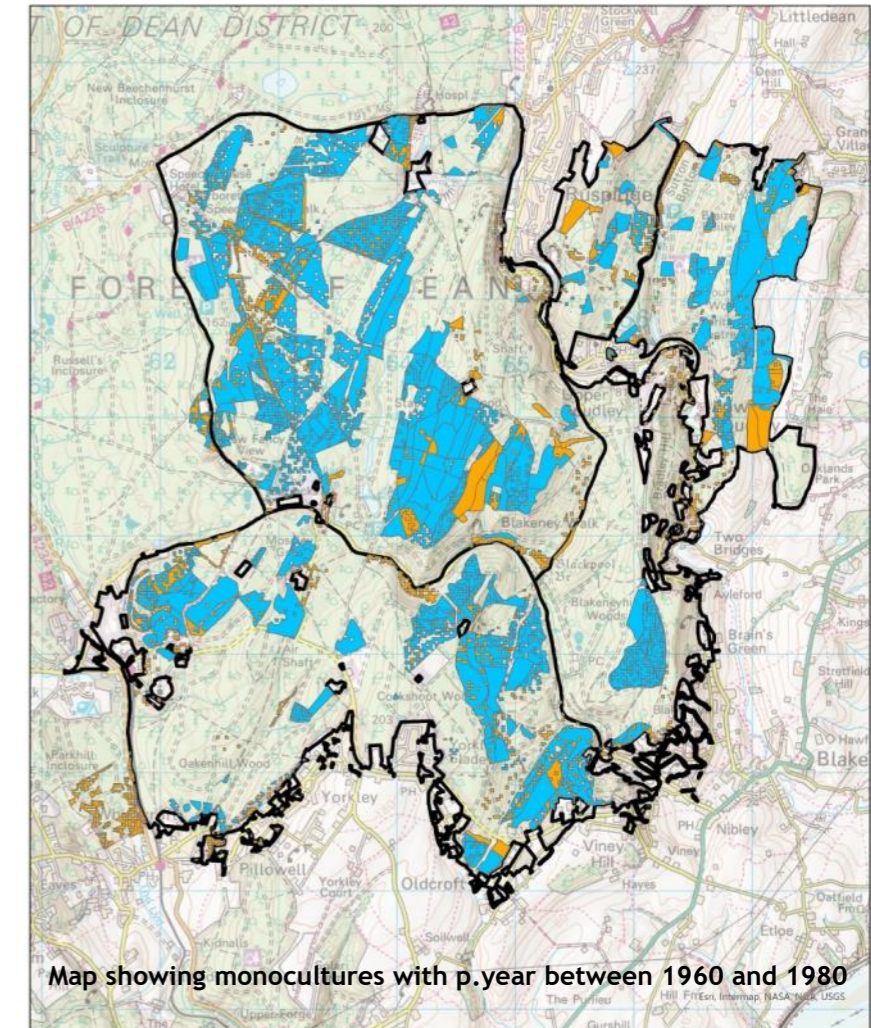


Hemlock and Grand Fir

A large proportion of the woodlands were planted in the 1960s to 1980s mainly as monocultures (see map to right) and is true for both broadleaf (in brown) and conifer (in blue). Restructuring is underway mainly occurring in the northern half of the plan area through clearfelling and restocking that began in the 1990s, with younger crops that are establishing well. For varying reasons not all clearfells have been completed meaning restructuring should still be an objective for this Forest Plan.

Concept

The new plan will evaluate clearfelling for the next 10 year period to confirm if clearfell and restock remains the best option. Focus can then begin to shift from a mind set of clearfell and restock to one of using Low Impact Silviculture (LIS) whilst retaining the option for clearfelling and restock; since altering management of a site previously identified for clearfell and restock to LIS can be problematic for varying reasons. We must bear in mind that both clearfell and LIS have their place in successfully delivering ecological, social & economic objectives as well as policy and that management of pests and disease may also influence chosen prescriptions.



Map showing monocultures with p.year between 1960 and 1980

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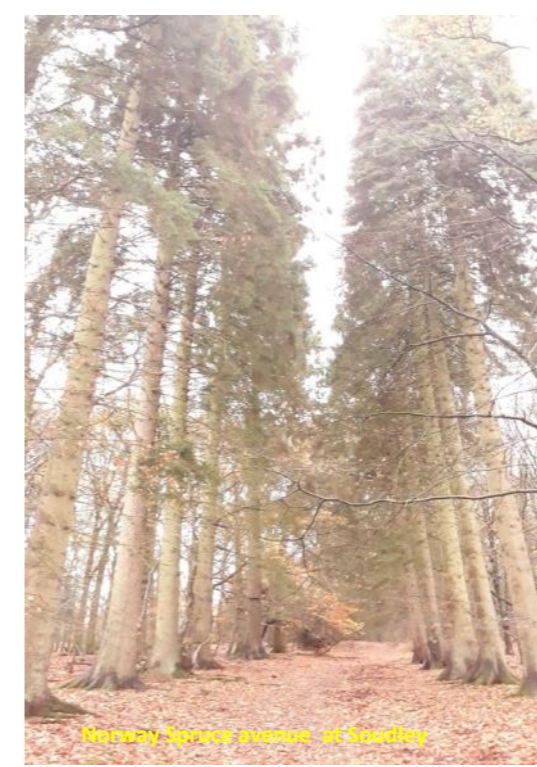
IMPORTANT FOR SENSE OF PLACE: Across the plan area, mature conifer stands of Douglas Fir, Red Cedar, Norway Spruce, Scots Pine but also those of Oak and Beech all vary in density and size, that adds uniqueness and distinctiveness. These crops are often a valuable component in the internal landscape adding structure, diversity often engendering a sense of tranquillity. Externally these areas can be visually impressive, offering a sense of scale, awe and grandeur, with steep terrain in many places also bringing a certain sense of drama to the landscape. Along council roads on many occasion the age, spacing or species of tree define the character of the landscape; it could be the veteran Oaks along Speech House road, the mature Douglas Fir along the Soudley Valley, the Beech between Bullocks Beech and Wenchford, the Tulip Trees and Red Oak between the Scroll and Yorkley or the scenic character along the meandering road of Soudley to Brains Green.

Concept

These types of landscape contexts contribute their own uniqueness and local distinctiveness to the “Sense of Place” at both external and internal levels and will be managed so as to sympathetically retain the Sense of Place.



Sequoia sempervirens (Coast Redwood)
Churchill: cpt 4602h



Norway Spruce avenue of Soudley

The Plan area has several tree avenues some of which are of cultural ecological and recreational importance. Avenues include: Lime tree ride, Gees ride, Trafalgar Avenue, Spruce drive, Cherry tree ride, Sequoia sempervirens at Palescot and an avenue of Spruce from Soudley village hall to Bradley Hill pictured left.

Concept

Management will look to safeguard these avenues for the future. Some avenues need remedial reinstatement work whilst others would benefit from thinning adjacent crops to give the avenues more space to grow and mature fully E.g. Cherry tree ride.

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The pioneering exploration of tree species and their silvicultural characteristics in years gone by in certain areas like “The Wilson Plots” in Blaize Bailey, The Dr.Cyril Hart Arboretum, Yewtreebrake and Churchill Inclosure has left a legacy of richness that has helped shape the diverse and interesting species composition within The Forest that we know today.

Concept

Safeguard, maintain and where possible consider expansion of these sites. Use these sites as a source of knowledge and springboard of inspiration when restocking, enrichment planting or under planting. This will ensure the continued increase in species richness and diversity, helping enhance resilience to threats posed by future biotic and abiotic threats across the whole of the plan area.

Scattered old Oak and community woodland that can be diverse in nature occur typically within the peripheral woodland edges and associated villages, often coincide with areas of Forest Waste too. They are appealing due to their species and age, they are well used and explored by the public and supported by a network of desire lines that are important for quality of life.

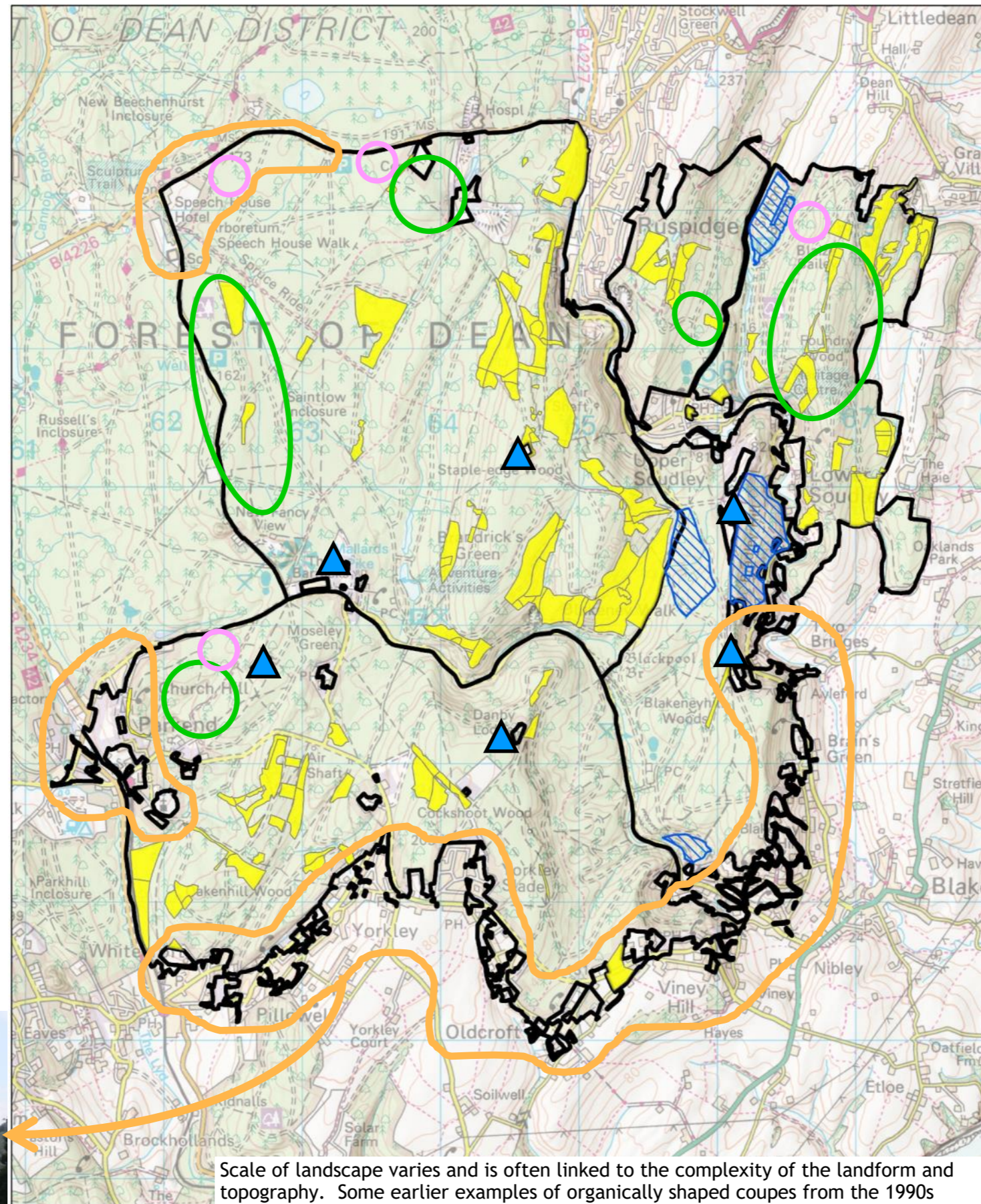
Concept

Maintain these areas as community and amenity orientated woodlands, thinning will be permitted for ecological or health benefits.

The plan has several registered seed stands for the collection of acorns: at Sutton Bottom, Bradley Hill, Puttenage and Fowlswell Slade.

Concept

These stands will be managed in a more individually tailored way than other broadleaf crops, retaining and developing crowns of dominant acorn producing trees. This includes retention of the beech understory that aids good form and helps control heavy bramble growth detrimental to efficient acorn collection.



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Scale of landscape varies and is often linked to the complexity of the landform and topography. Some earlier examples of organically shaped coupes from the 1990s worked well but were too small, whilst some coupes bear little relation to landform.

Concept

Coupes will be designed so as to take scale and landform into account. In some areas such as Churchill and Oakenhill scale is small and focused In other areas such as Staple Edge and Middleridge scale is much larger so coupes will be too.

13% (339Ha) of the plan area contains Larch and Sweet Chestnut, with a further 80Ha of Corsican Pine, with Ash at less than 1%. Oak accounts for a fifth of the area at 523Ha.

All these species are at risk from pests and disease: such as Phytophthora on Larch and Sweet Chestnut, Dothistroma Needle Blight on Corsican Pine, Hymenoscyphus (was Chalara) on Ash, Chronic/Acute Oak decline and Oak Processionary Moth.

Concept

Pests and diseases will be managed through a variety of silvicultural means that include clearfelling, thinning, mulching, under-planting and species choice to diversify woodland composition that will see an increase in the use of mixed woodland. Forest Research will actively monitor chosen sites to learn more about and monitor pests and diseases.

Some stands like those in Yewtreebrake, Acorn Patch, Blaize Bailey, Abbots Wood, Churchill and parts of Cockshoot are showing good signs of conifer and/or broadleaf natural regeneration, whilst others have had seed fellings undertaken in the past e.g. Yorkley Slade, Blakeney Hill and Churchill for Oak regeneration.

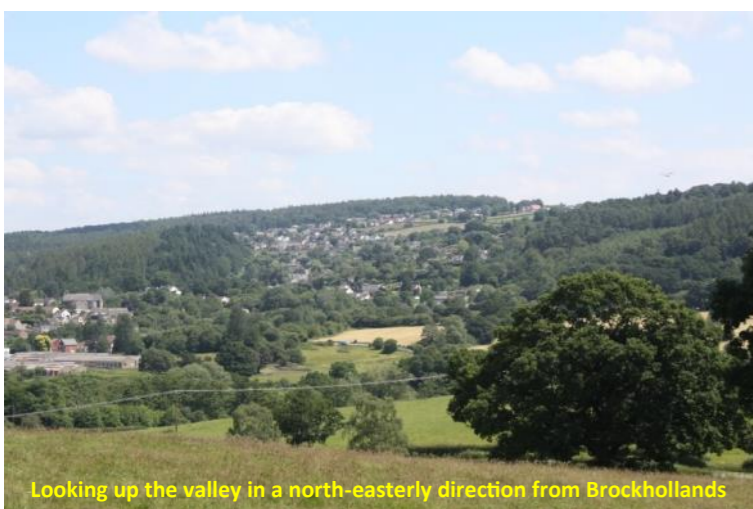
Concept

Recruitment of regeneration along with enrichment planting to form a component of the future crop should be considered, if it fits with plan objectives and there is no conflict with other management considerations. Eg Western Hemlock next to an AW / SNW or SSSI like at Soudley Ponds. It is likely that fencing will be required to ensure adequate protection and successful establishment.

▲ There are numerous dwellings that lie nestled within the woodland:- Danby, Blakeney Hill, Staple Edge, Brandricks Green and Bradley Hill all have their Lodges with scattered houses/cottages. This illustrates the interwoven nature of woodland and people within the plan area (see photo below)

Concept

Prescriptions and operations will reflect this interwoven nature by sympathetic management in line with plan objectives and landscape context.



Looking up the valley in a north-easterly direction from Brockhollands

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Speech House Oaks SSSI is designated for its composition of Oak and understory of veteran holly that supports an internationally important assemblage of lichens with several being red book data species. These Napoleonic Oaks originally planted for ship building now provide a variety of habitats for a diverse range of flora and fauna as well as contributing to the variety of deadwood, Sense of Place and contributing towards mental wellbeing.

Concept

Speech House Oaks are managed in accordance with the management plan for the area. The adjacent areas of p1800 Oak will be managed sympathetically encouraging similar spacing and opportunities for holly recruitment to extend opportunity for the lichens to spread.

Foxes Bridge Bog is marshy area managed in partnership with GWT. An adjacent area to the south has been felled to provide further mosaics of open habitat and broadleaf woodland. Much of the ground in the surrounding area is flat and poorly drained. The area to the south has been felled. Areas of Corsican Pine and broadleaf scrub are not performing well due to Dothistroma and the typically wet ground conditions.

Concept

Further felling work alongside conservation projects such as those to rescue and expand areas of sphagnum bog, will provide the foundations for a variety of much wetter woodland habitats, helping to create a much more functional waterway system throughout the plan area, with increased woodland edge that will also benefit other wildlife.

Awres Glow. This wet valley stretches from Lightmoor colliery in the north to just above Mallards Pike. Open habitat varies in structure from mature Scots Pine and Norway Spruce to mixed broadleaf and conifer regen to scrub and rough grass species.

Concept

Prescriptions will perpetuate the concept from the last 30 years of Forest Plans, to provide a mosaic of open habitats that run centrally N-S linking Moseley Green to Woorgreen and up as far as Wigpool.

The woodland behind Parkend Church contains a secluded mix of complex topography intertwined with watercourses that produce a variety of habitats. Complimentary to this there are also opportunities to reinstate and increase the use of coppicing throughout the plan area. (pink areas on map)

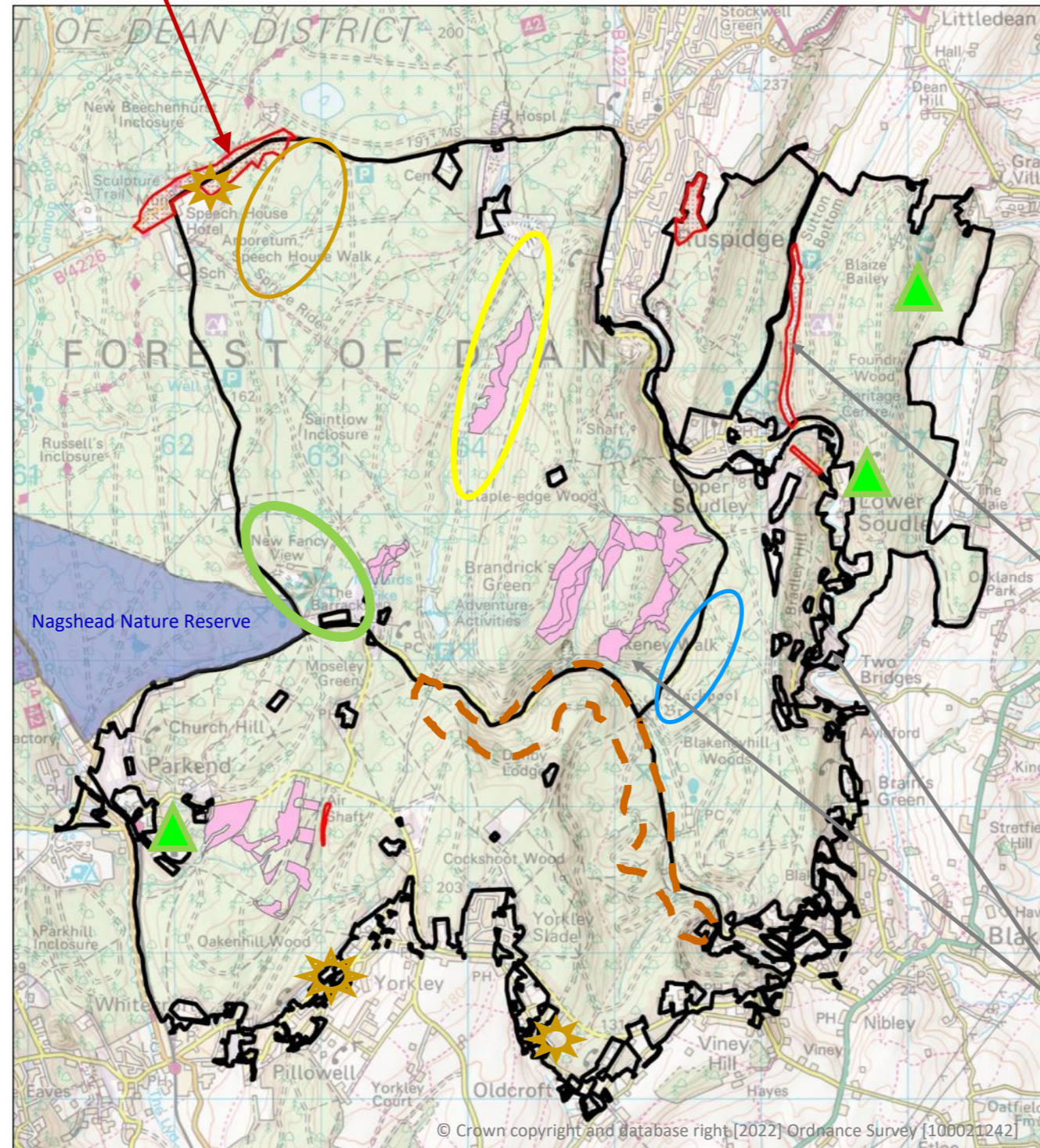
Concept

Opportunities exist to increase the amount of coppice work that will provide improved habitat links, ride structure and complement wet habitats.

Brandricks Green is an area of acid grassland and bracken next door to The Barracks and New Fancy that provides a mosaic of open habitats, host to some of the last sites in the Forest for Small Pearl-bordered Fritillary whilst at Moseley Green the habitat has shown to be important for Turtle Dove.

Concept

This area is isolated and in need of expansion to safeguard the habitats. Prescriptions will vary but will work to complement this area to provide a robust mix of habitats with much stronger links and corridors to other similar habitats around Mallards Pike, north into Saintlow Inclosure and south into Little Moseley.



The Blakeney Hill Valley that runs up from Blakeney to Mallards Pike has a very Semi-natural feel, polarised by plantation woodland that in some cases fragments the semi-naturalness feeling. Other instances illustrate well mixed and diverse range of species that feathers the transition from lower slopes to higher ground really well.

Concept

Where plantation woodland disrupts the flow of Semi-natural woodland, native species will be promoted, especially south of the forest road opposite Wenford and the transition from lower elevations to higher ones will imitate those north of Danby Lodge promoting mixed broadleaf and conifer crops that will enhance future resilience of the woodland to future threats from pests, disease and climate as well as provide diversity of habitat in structure and biological maturity.

The plan area enjoys expansive swathes of native Bluebells, especially from Soudley to Blackpool Bridge that is a popular scenic drive both for locals and visitors that is further enhanced by stands Large Douglas Fir and Scots Pine.

Concept

The Bluebells here are found in stands of Oak that have an understory of Beech. This understory should be maintained to ensure correct levels of dappled shade exist for the Bluebells to thrive. The stands of Douglas Fir and Scots Pine should continue to be thinned and allowed to develop to biological maturity.

Soudley Ponds SSSI is designated for its wet woodland habitat types and varied diverse invertebrate population that the ponds and adjacent habitats support including White clawed crayfish (WCC)

Concept

Management will be in line with the SSSI plan and bio security will be promoted to aid the protection of the WCC.

▲ The plan area enjoys both large and small areas of Beech and Hornbeam particularly good for Hawfinch e.g. Parkend Church and Blaize Bailey.

Concept

Planting should be mindful to enhancing habitat for hawfinch by recruiting regeneration or enrichment planting.

The southern slopes above Blackpool Brook and the area around Holly Tufts, Brains Green and up through the Soudley Valley are naturalistic and diverse. There is much old mining activity that can leave disturbed soils and mixed woodland of varying density, with some wet woodland and areas of mature Douglas Fir.

Concept


Broadleaves will be dominant along the valleys, particularly along the Blackpool Brook and eastern side of Staple Edge. Alder, Willow and Birch will be the main species in wet woodland areas with Oak, (Ash & Sweet Chestnut), Hazel, Lime and Aspen featuring in other areas.

★ Scattered old Oak and Oak dominated community woodland is generally situated around the peripheral edges.


Concept

These areas of old oak contain fantastic opportunities to accrue valuable deadwood habitats for invertebrates, lichens and other species to thrive. In terms of management felling will be a last option applying modern scanning techniques and survey to ensure this is the case.




The plan area provides a vitally important range of bat habitat and refugia, with a number of bat hibernacula throughout the plan area. Those at Bradley Hill railway tunnel and Buckshaft Mine are designated as SSSI for greater and lesser horseshoe bat and the railway tunnel within Oakenhill railway cutting geological SSSI being an important roosting site. Surrounding woodland provides both feeding and roosting for bats as well as links to breeding sites north of the plan area at Littledean Hall and Blaisdon with a further SSSI hibernacula at Westburybrook Ironstone mine. Typical flight lines indicated by yellow arrow thus: 

Areas of peripheral Forest Waste and woodland edge to the south are also likely to be well used by the bats too.
Concept
Prescriptions will be sensitively selected to ensure that woodland will be carefully managed in line with EPS guidance to ensure habitats are protected.

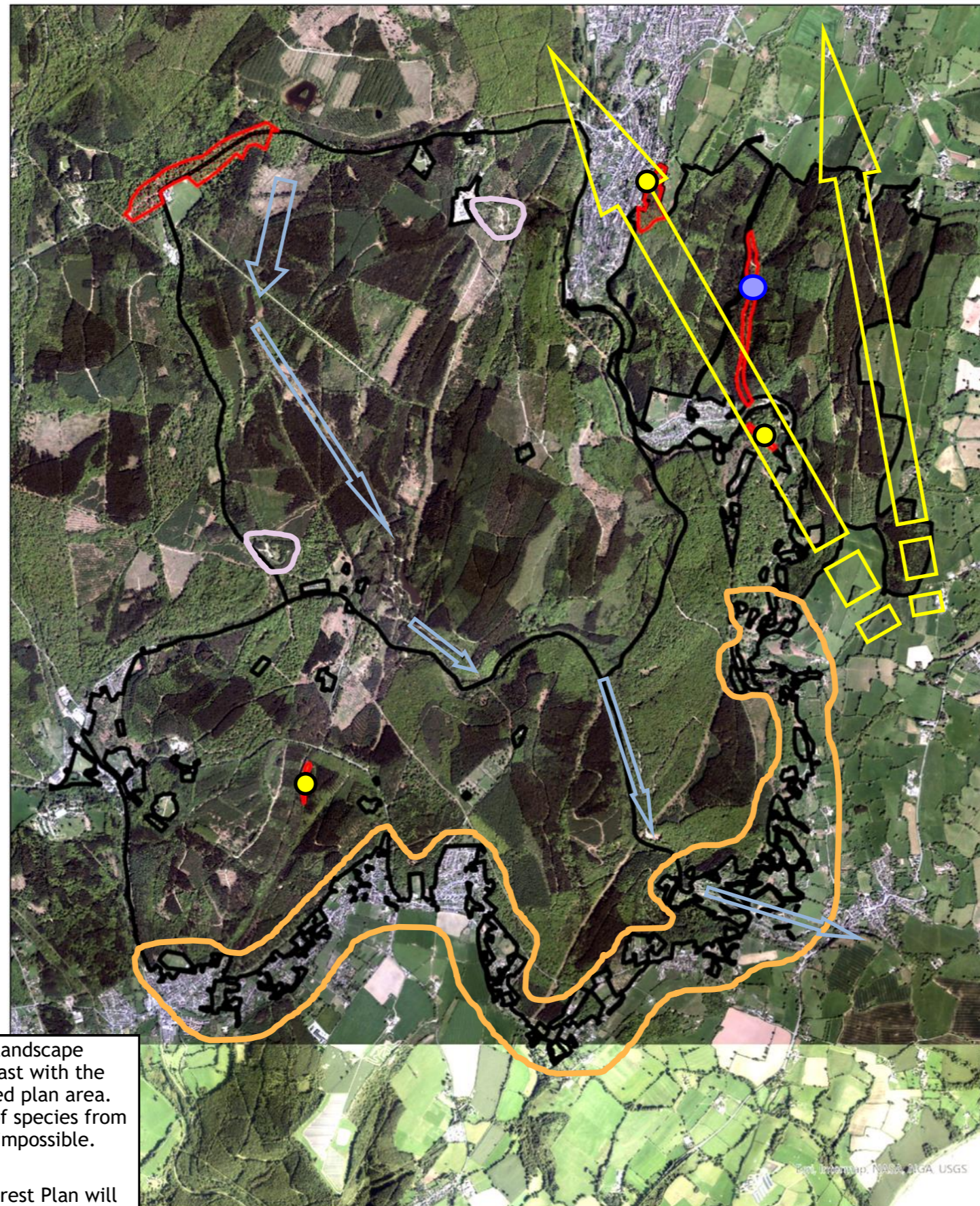
Dormice have been noted within the plan area.

Concept
Prescriptions will be tailored to enhance existing linkages and create new ones especially through coppicing.

Lightmoor and New Fancy collieries. These old spoil heaps provide rich open habitats suitable for the likes of the Grayling butterfly or adder populations. However, these areas are generally isolated, fragmented and too small with habitats being transitional in nature so putting pressure on remaining populations of priority species.
Concept
Prescriptions will be tailored to enhance existing linkages and create new ones in order to provide better connectivity, functionality, diversity of habitat and woodland edge.

Historically much of the plan area was drained to establish the woods we have today. Until recently drains were routinely maintained.
Concept
Management of water flow is being prioritised. In some cases, through implementation of identified prescriptions, stretches of watercourses will be promoted for the purposes of providing future potential beaver release sites.


 The plan area is unique in that it contains almost the complete catchment for Blackpool Brook starting at Foxes Bridge Bog, as well as partially 2 other catchments. Some of those watercourses are not ecologically in prime condition. The plan area is also home to important EPS species such as Great Crested Newts.
Concept
The plan will adopt the priorities laid out in the Water catchment plans for the Forest in order to improve the ecology and quality of the catchment. Each priority buffer will have its own management & restock coupe to highlight work required.


The nature of the aerial photo shows the surrounding landscape dominated by open pasture and arable land is in contrast with the densely wooded, monocultured nature of the afforested plan area. This provides poor permeability, meaning movement of species from one area to another can be slow, difficult and almost impossible.
Concept
Whilst celebrating diversity that the forest has, the Forest Plan will seek to diversify the age class, species composition and habitat structure by ensuring treatment types are as diverse as possible.



The plan area is capable of producing high quality timber from both conifer and broadleaves, with both the Oak in Middelridge and Blakeney Hill, Douglas Fir from Soudley commanding high prices, although squirrels, boar and deer are a challenge.

Concept
The quality of the timber needs to be safeguarded from natural predation by the likes of squirrels. This will hopefully be achieved through the reintroduction of Pine Martens, although the length of time it will take to reverse the impact on timber quality is not known but could be as long as 15-20 years or more. Fencing and culling will be used for other predators such as boar and deer.

 Soudley Ponds are designated as SSSI as the ponds represent fine examples of wetland habitat rich in wildlife bordered by damp woodland.
Concept
Work will continue to be implemented, managing the tree cover in line with SSSI management plan to ensure levels of light and shade are retained at optimum levels.

 Goshawk are an iconic species for the Forest of Dean and have been very successful due to the diverse mix of mature conifer habitat that support the Goshawk.
Concept
Mature conifer habitats will be managed through thinning, clearfell & Low Impact Silviculture (LIS) ensuring suitable habitat remains available for nesting and breeding.

Areas of Forest Waste are an important feature and component of the wooded landscape, enhancing the distinctive character of the area mainly around peripheral edges of the woodlands E.g. Moseley Green & Yorkley and provide habitat for the likes of adders, Glow-worms, other reptiles and invertebrates. Some areas are being lost to successional infill by gorse, bracken and pioneer tree species due to the lack of grazing since foot and mouth in 2001.
Concept
Areas of Forest Waste should continue to be managed both through mechanical means and volunteer groups. There maybe opportunities to incorporate Forest Waste into larger open areas for grazing by goats, cattle and sheep.

The Industrial past of the Forest has led to some areas of poorer, more impoverished and sometimes skeletal soils. Eg the eastern slopes of Staple Edge, the strip mining in Oakenhill, the quarrying at Lightmoor and Eastern United.

Concept

Following completion of quarrying, sites are restored but are often left open due to being acidic in nature or having a low nutrient value, although species such as alder, birch and pine are good pioneering species for these types of sites.

The plan area contains two important SSSI sites (shown ringed in blue) cited for their geological significance both locally and nationally:

- Meezyhurst occurs in four places along the southern slopes of Staple Edge with various important outcrops and strata exposed.¹
- The Oakenhill Railway cutting offers valuable exposures of Carboniferous rock layers.²

Concept

These sites will be maintained in accordance with their respective SSSI plans that generally require occasional scrub clearance and odd

Midleridge - fertile brown earths on the eastern slopes capable of growing productive conifer with poorer less well-drained central area on heavier clays and gleys on which Oak quality has been reputedly high.

Staple Edge - Eastern slopes are better draining mainly consisting of acid brown earths with some calcareous outcrops and occasional podzols. The disturbed slopes above Blackpool Brook give rise to ground due to mining producing high quality Douglas Fir and Sweet Chestnut. Further west, the broad shallow valley comprises of imperfectly drained gley soils, often nutrient rich but very wet. Just above Mallards Pike on the lower slopes of the ridge are gleyed and show good signs of natural regeneration.

Blaize Bailey and Abbots Wood - Predominantly brown earths with some gleyed areas mainly with a fresh moisture regime and rich to very rich Nutrient regime. Meaning that this block can produce high quality Douglas Fir of up to YC24.

Blakeney Hill - Predominantly brown earths with some gleyed areas with a fresh moisture regime and rich nutrient regime achieving broadleaf YC of upto YC 6.

Cockshoot - The eastern slopes are mostly gleyed soils rising to the relatively flat plateau consisting of free draining brown earth that continues down the western slopes.

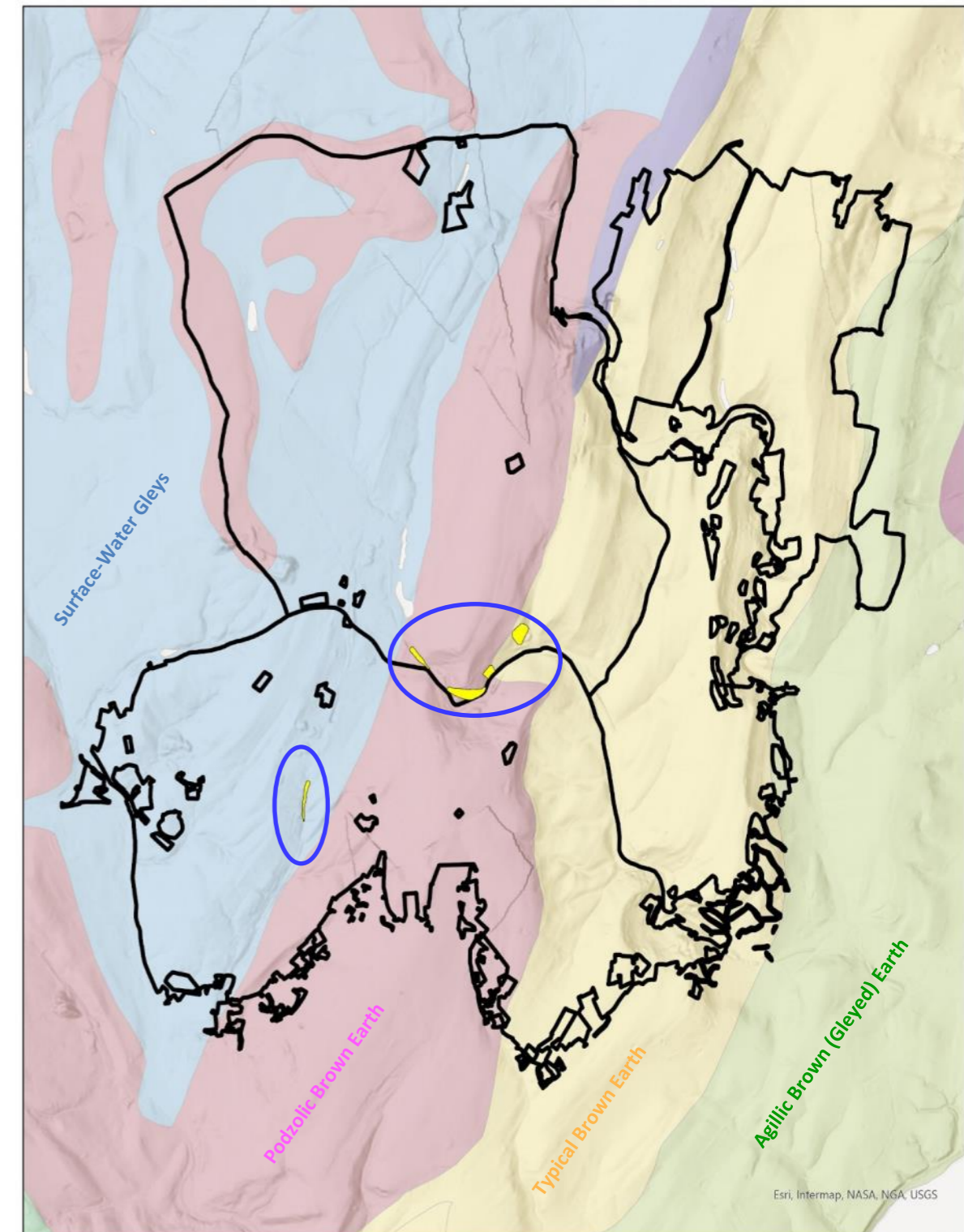
Churchill and Oakenhill- Both contain mostly gleyed soils that drain to the west with wetter pockets to the west too. Oakenhill was strip mined and so soil is more impoverished but still able to support conifer upto YC18.

Concept

With the use of local knowledge in conjunction with Ecological Site Classification (ESC) tools and where appropriate soil pits, the future woodland structure will move away from monocultures and continue to diversify an already diverse woodland composition to include those species classed as “Alternative” or “Emerging” species that will give the woodland a more robust composition suitable to face a changing climate and threats of pests and disease.

¹ The unconformable contact with the underlying older rocks is clearly exposed, and a more or less continuous section through the whole of Trenchard Group and lower Pennant Group of the Upper Coal Measures can be seen. This includes the Coleford High Delf, which marks the boundary between the two groups. The site thus provides the best opportunity to see how sedimentation first spread into this area during this part of the Westphalian. (source: Natural England SSSI citation)

² These consist of shale layers, separated by thin sandstones or coals form part of the Supra Pennant Group, a subdivision of the Coal Measures. This is the only extensive exposure of this group in the Forest of Dean and offers an important opportunity to examine the fossil content of these rocks, rarely found elsewhere in Britain. The site is of unique importance in understanding geological development of this area. (source: Natural England SSSI citation)



Left: Meezyhurst SSSI

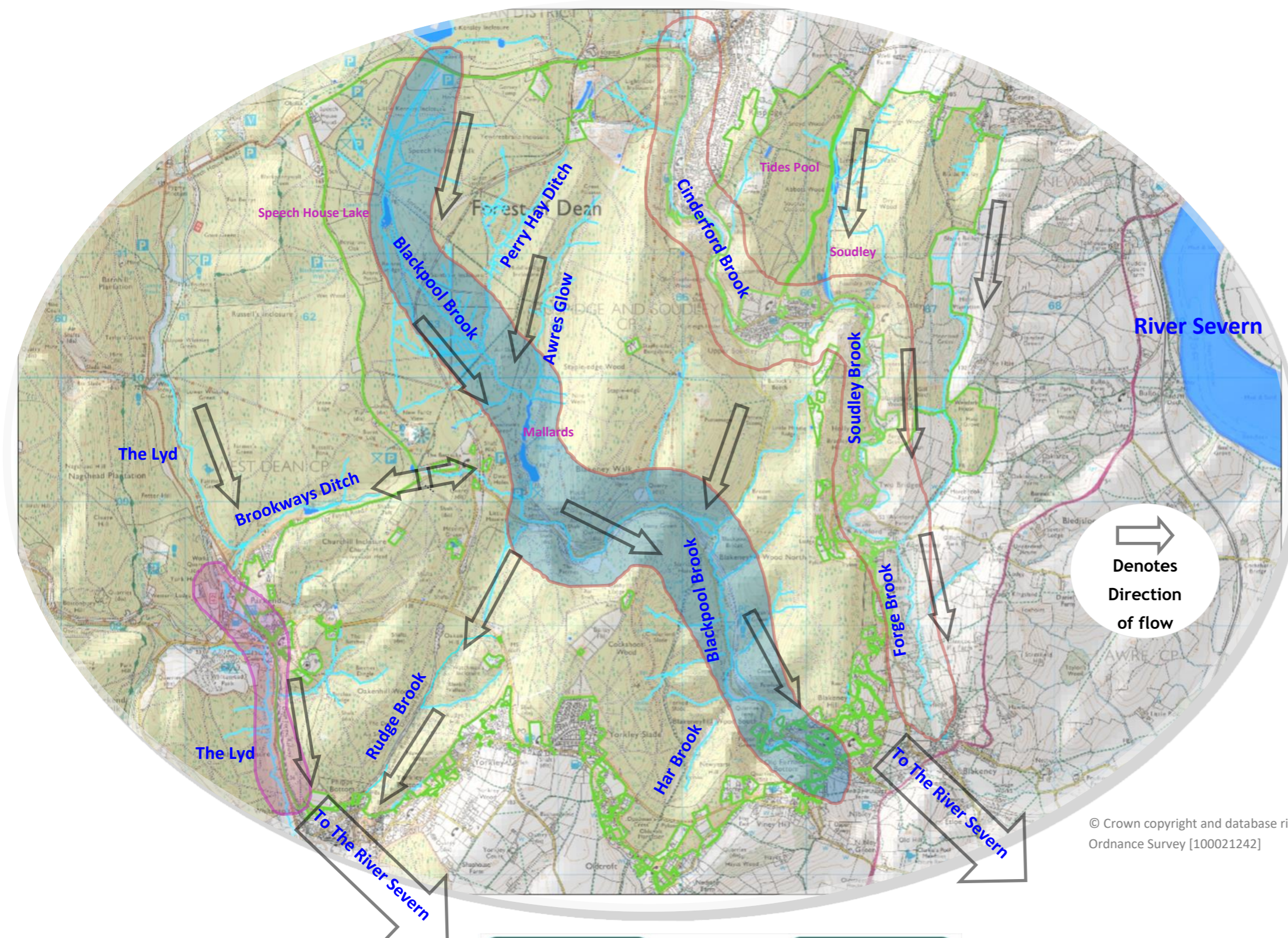
1 of the 4 geological exposures just west of Morses Level.



Right: geological exposure at Oakenhill Railway cutting SSSI also

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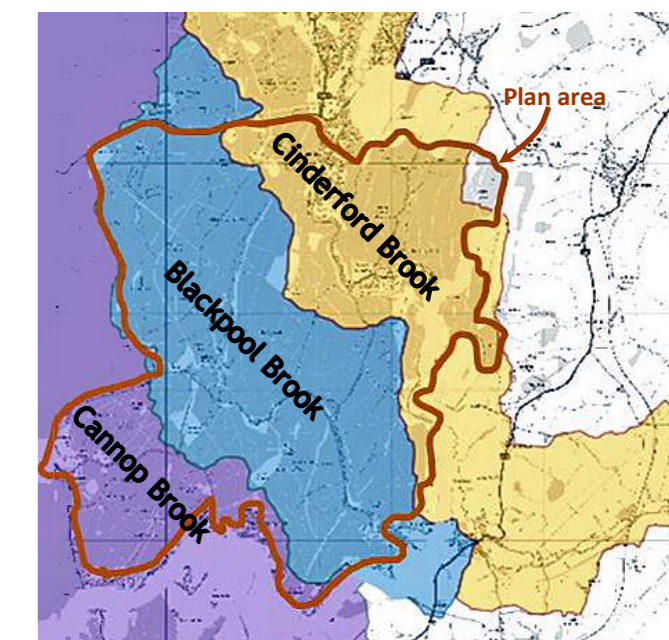
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Water catchments within the Forest Plan

The map below denotes the three water catchments covering the Forest Plan area as identified in the Environment Agency’s Water Framework Directive. The main watercourses involved can be seen in more detail on the map to the left and are colour coordinated to this table for ease of identification.



Catchment	Length (miles)		Catchment area (square miles)
	Total (from EA*)	In plan	
Blackpool Brook	3.0	5.5	6.4
Cinderford Brook	9.6	4.2	10.6
Cannop Brook	12.2	1.5	22.5

Concept
The Forest Plan coupled with the Our Shared Forest project will look for ways in which to harmonise forest management prescriptions with the character of freshwater ecology within the plan area. This will ensure natural features, processes and habitats are delivered that will provide protection from natural hazards such as flooding, soil erosion and help in protecting the needs of aquatic species. To achieve this the plan will embrace the principles laid out in UK Forest Standard Guidelines for Water.

The image to the right is taken from the Dasgupta Review of 2019 (HM Treasury) and calls for changes in how we think, act and measure economic success to protect and enhance our prosperity and the natural world.

Forestry England has embraced the [natural capital approach](#) and increasing Natural Capital is one of Forestry England’s core objectives.



Concept
This Forest Plan will seek to identify those watercourses in need of priority treatment in order that their biological and ecological values are greatly enhanced, achieved by following key guidance for riparian buffers laid out in the Catchment Management Plans prepared by the Forest Waters Officer and the District Ecologist.

Foxes Bridge Bog is a marshy acidic area managed in partnership with Gloucestershire Wildlife Trust. Fed by water that flows from Woorgreen Lake, eventually finding its way through the marsh to Speech House Lake. Much of the ground in the surrounding area is flat and poorly drained.

Concept

Extend wet woodland and associated habitats south of Foxes Bridge Bog down to Speech House lake. This will be achieved through clearfelling and planting of tree species such as Willow, Alder and Aspen in sensitively selected areas, creating a woodland habitat that’s as diverse as possible and could support other future ecological goals.

The plan area is special in that the full length of Blackpool Brook is wholly contained within the plan area; from the headwaters emanating from Foxes Bridge Bog to Pitching Green and Fowlswell Slade at Blakeney, before flowing through to the River Severn. Blackpool Brook feeds both Speech House Lake & Mallards Pike, that in turn is fed by numerous smaller streams and ditches. A lot of these watercourses are overshadowed by conifer. This has begun to be redressed in places through the removal of conifer from riparian zones & flood plains and begun opening up stretches of watercourses such as those at the Reform Bridge (see photo, right) and Saintlow Inclosure.



Concept

Through clearfelling, selective thinning and group planting of native broadleaves along selected stretches of the brook, there are further opportunities to improve and enhance the ecological value of the brook and the surrounding habitats. From the water catchment management plans non-silvicultural options will also be applied that may include projects like raising river beds, the blocking of ditches in certain areas, use of woody dams or the reintroduction of Beaver in suitable locations.



The Forest Plan has 8 large man-made ponds covering four sites at Speech House Lake, Mallards Pike, Soudley Ponds & Tides Pool that provide a diverse range of benefits. Some ponds are known for the woodland and wildlife habitats such as Soudley Ponds (SSSI - see Wildlife & wild spaces analysis), Speech House Lake for fishing & filming and Mallards Pike providing the setting for a variety of recreational activities and events.

Concept

Through thinning and coppicing, light levels will be controlled. Features like the Scots Pine at the entrance to & around Mallards Pike Lake will be thinned to promote large crowned trees for the future. Conifer surrounding Speech House Lake should continue to be routinely thinned, opening up & pulling back the dense conifer that shrouds the pond edges. Soudley Ponds will be managed in accordance to the SSSI management plan.

● The valley of Awres Glow in Staple Edge runs in a southerly direction from Palescot in the north to Mallards Pike lake in the south. It has a wet valley bottom that once was dominated by mature Norway Spruce. Suffering periodic windthrow, over the last 15 years the Norway Spruce has been gradually removed through thinning and clearfelling. Although some stands remain, the valley now has a much more open feel to it, with some open areas and ponds being created in the northern parts of the site. Some parts now show signs of both conifer and broadleaf regeneration. Some stretches further south are showing signs of tufa formation, whilst in others the stream has spread across floodplains to create shallow pools full of watercress, then meandering through wet woodland of Willow and Alder before entering Mallards Pike lake.

Concept

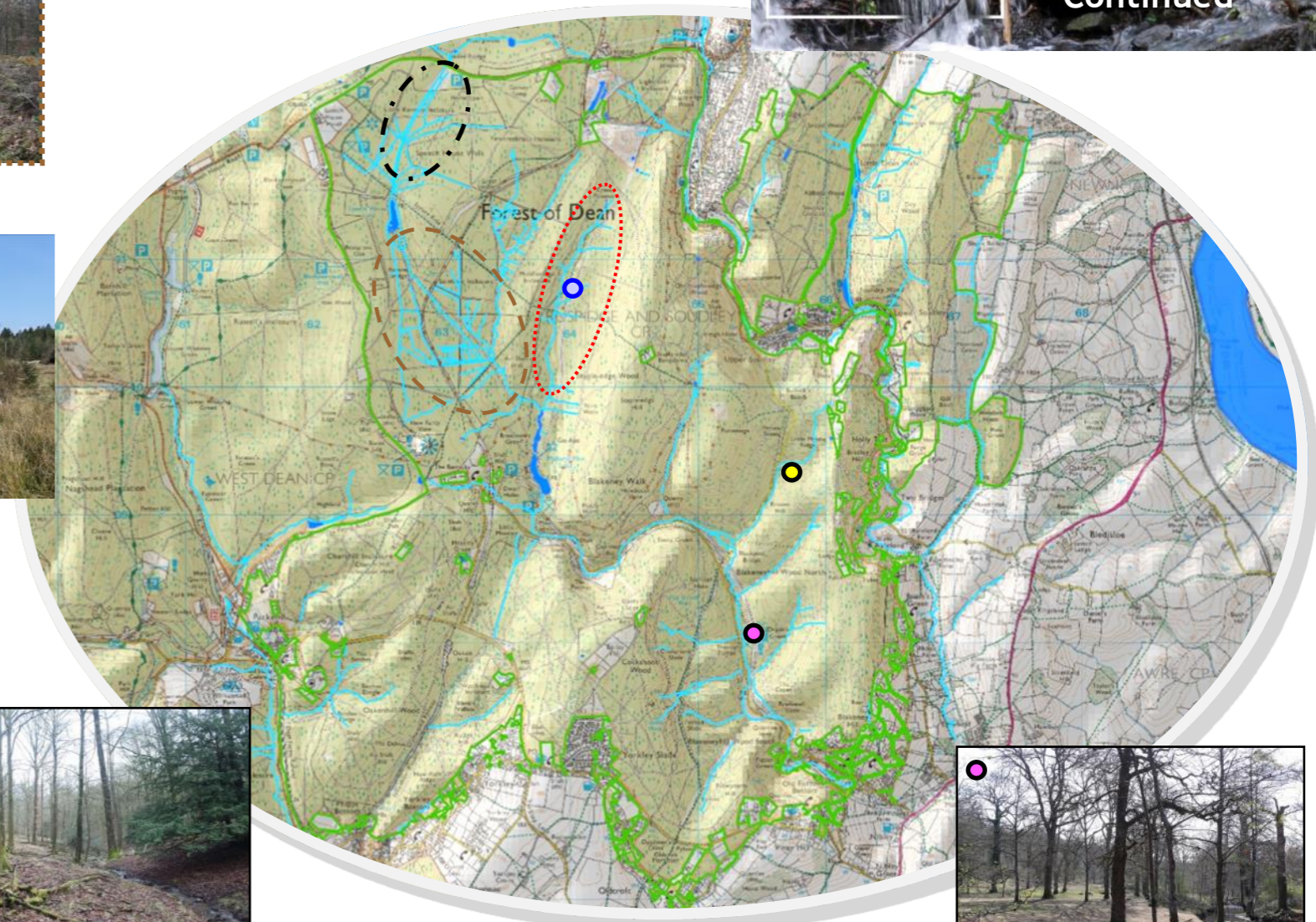
This valley already contains an interesting mosaic of habitats and features that will provide a backbone for the development of a more connected suite of habitats that are better integrated into the woodland setting. These maybe achieved through further felling, thinning, sensitive restocking or group plantings, grazing, open space creation and maintenance, reconnection of the watercourse in places to its surrounding landscape and possible consideration for the reintroduction of beaver.



● Those Tributaries and smaller streams flowing through broadleaved valleys and gullies can predominantly be found within Blakeney Hill, whilst those occurring to the south in Cockshoot often occur with conifer.

Concept

Being of a broadleaf nature, there will be little change along the watercourses and tributaries that run through Blakeney Hill. However, along some selective stretches of watercourses within Cockshoot there remain opportunities to reframe the wooded context of the watercourses to one that has more of a broadleaf nature, although at some locations it is the conifer that adds a sense of drama to the landscape and these areas should be retained.



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● Blackpool Brook (Blakeney Straits) runs through Wenchford picnic site that is defined by the widely spaced Oak planted in 1869. The site is widely enjoyed by people for both the Oaks and the Brook. There is evidence that the brook is threatening the stability of some of the oak trees.

Concept

The site will be assessed for thinning or other remedial works such as crown thinning, crown reductions or as a last resort felling during routine thinning in Blakeney Hill. Work on Oaks should be an opportunity to improve the provision of all types of deadwood, enriching available habitats for a diverse range of wildlife, invertebrates and flora. Underplanting will help resolve issues with dieback of Oak.

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The industrial past of the Dean has left a legacy of features that provide opportunities for local recreation and education as well as recording cultural identity. Examples include:

- Oakenhill Railway Tunnel and cutting (SSSI) that provides educational opportunities to learn about the geological structure of the Forest.
- Extensive networks of dismantled railways - used as informal footpaths and also more formally converted for cycling.
- Colliery tips such as those at New Fancy that provide fantastic panoramic views over the forest. Others have been planted, usually with Scots Pine that become features of the Forest. Eg, Parkend Royal Colliery tip in Oakenhill.
- The railway line from Parkend to Whitecroft along the western edge of Oakenhill is still in use and run by The Norchard Steam Railway.

Concept
Each of these features in turn requires their own specific prescriptions, often relating to ensuring the quality of the landscape is maintained through sensitive management. This can take the shape of maintaining the impressive mature Douglas Fir and Scots Pine that grow alongside the Steam Railway line or along the Family Cycle Trail that runs through



“Roll of Honour” sculpture at New Fancy commemorates miners



Forest Waste at the Barracks

The Forest Plan contains around **150 to 170Ha** of Forest Waste. These areas are areas of non-productive open ground, and were traditionally grazed by commoners and their sheep. Since Foot and Mouth in 2001 the number of grazing sheep has dwindled significantly to a point where they are ineffective at retaining Forest Waste as open habitat, as a result some areas are being lost to successional growth of birch, bramble, gorse and other woody vegetation.

Concept
A number of these areas are now usually cut each year by flail or swipe, perhaps with opportunity to encourage further grazing.

Many of the ponds that the plan area enjoys were created following quarrying activity. Ponds provide numerous benefits for education, recreation, habitat and species diversity.

Concept
Management will reflect the high aesthetic value given to the ponds, the expectation that mature trees will be present as well as the needs of the associated habitats and their surroundings.



Mallards Pike

Limetree ride is an important feature of Common Lime that runs from Cinderford Bridge south easterly through Middleridge and Churchill Inclosure ending at Parkend Church. Other important rides include Trafalgar Avenue planted to mark the bicentennial celebrations of Lord Nelson visiting the Forest of Dean & the Battle of Trafalgar. Secondly the Spruce ride originally planted in the 1960s and now recreated to commemorate past Foresters who have tended the Forest. There are also several Scots Pine avenues that still feature in Middleridge dating from the C19th.

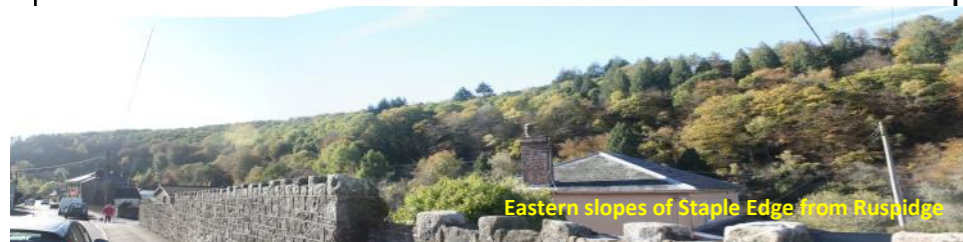
Concept
Through sensitive thinning of surrounding crops the avenues will be given more space for crowns to spread and to grow to full maturity. Younger avenues should have missing trees replaced.



Lime Tree Avenue

The eastern slopes of Staple Edge have historically been an area of intense industrial activity, initially following iron ore seams and later coal and stone. The area is geologically diverse. This has left a rich legacy of industrial archaeology. Some industrial activity continues today. There are a number of bat hibernacula along the outcrop of limestone on the eastern slopes of Staple Edge primarily associated with iron mining caves.

Concept
Management will be sensitive to ensure these features are maintained through the site planning process and safeguard mining features that are of benefit to bats, complementing the Dean Bat SSSI.



Eastern slopes of Staple Edge from Ruspidge

Mining and quarrying in the Forest remains an important part of the Forest economy and continuity with its past. Features include: Lightmoor, Eastern United, Oakenhill opencast, sites at Meezyhurst, Furnace Bottom. - Old sites are now often an important part of the landscape with mature mixed woodland covering them and also imparting a valuable contribution to a variety of woodland habitat from the open scree slopes of Lightmoor for Lepidoptera, to the old opencast site in Oakenhill that provides valuable acidic grassland habitat.

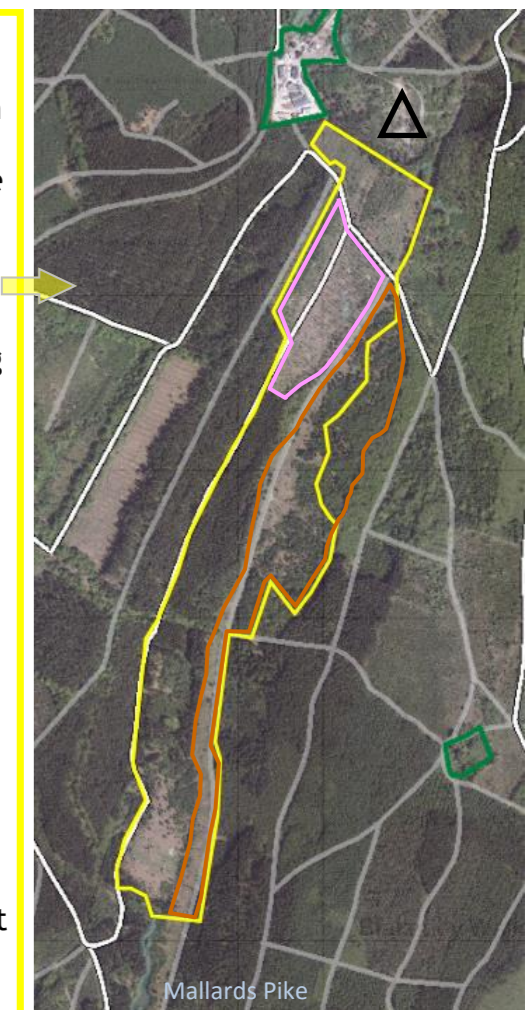
Concept
Where landscaping is important there will generally be a low level of change achieved through longterm retentions of conifer and broadleaves. In more open habitats they will be managed in accordance to their needs to retain their beneficial character.



Lightmoor Tip

Awres Glow. This wet valley bottom stretches from Lightmoor colliery in the North (▲) to just above Mallards Pike in the South and is a legacy resulting from historical industrial proposals, having been clearfelled in 2004. The now developing open habitat varies in age and species structure from mature Scots Pine / Norway Spruce to mixed broadleaf and conifer regen to scrub and rough grass species.

Concept
This site will now be managed for nature conservation providing opportunities to create a diversity of habitats through **grazing** and **coppicing** that will benefit a wide variety of invertebrates, reptiles and mammals.



Mallards Pike

OUR SHARED FOREST

“To Nurture a shared Forest unlike any other”



Possible site of C13th Saintlow Castle and later Lincolnhill Forest Lodge. Most Archaeological features recorded in Middleridge are of a later date dating back to C18-19th.


Concept
Ensure features are safeguarded during forest operations, retaining the integrity of remnant features such as earthbanks, stone walls, charcoal hearths.

There are numerous stone lined culverts throughout the forest such as this good example at Reform Bridge in Middleridge but often occur within the wood itself.




Concept
These features are lovely examples of industrial craftsmanship. The planning of Forest operations should identify any such feature and safeguard them where practicable.

Blackpool Brook features sections of stonework that line the Brook forming more of a leat type feature, engineered during days when mining was more active. Stone lining of the Brook helped to keep the mines from flooding.

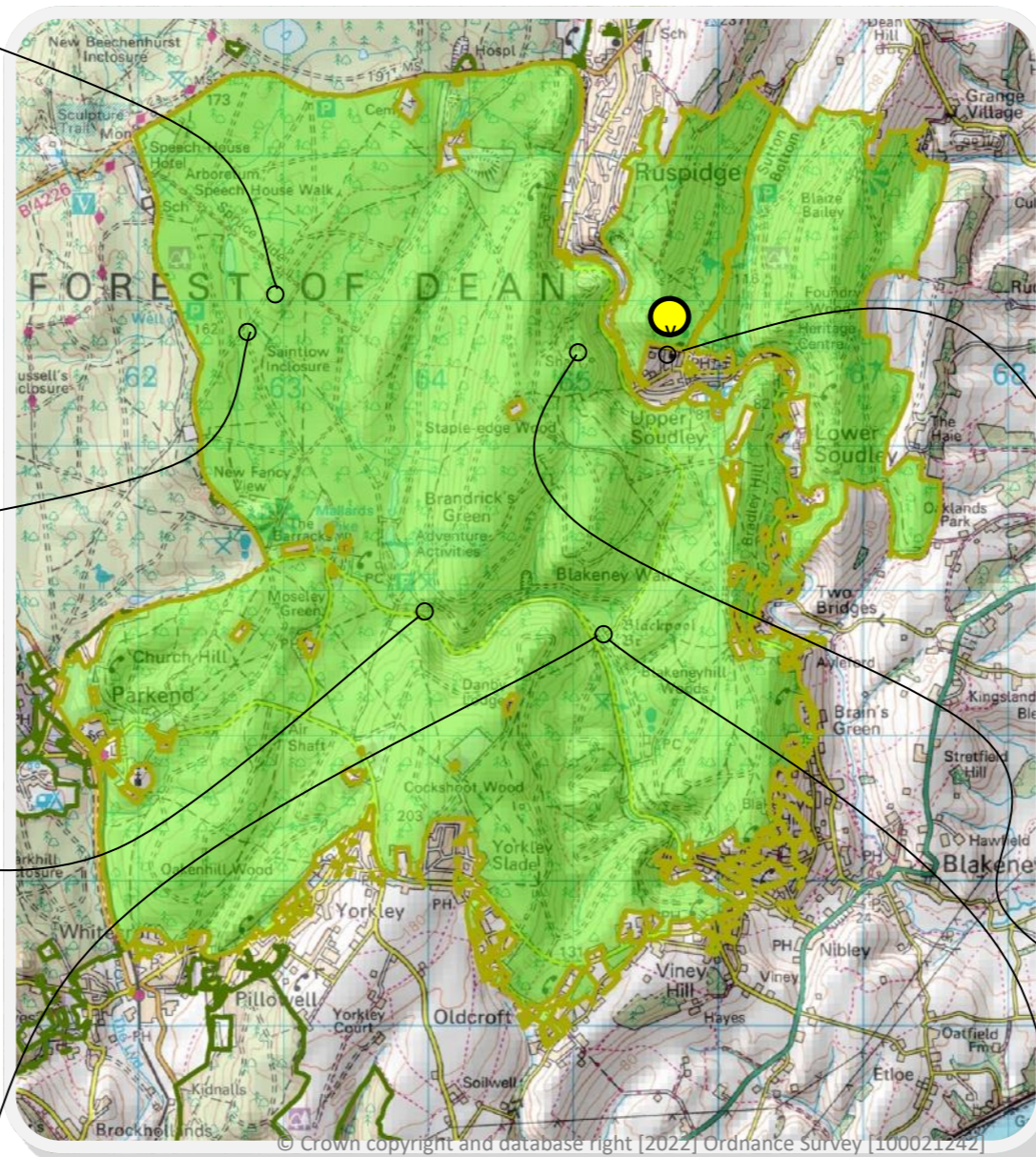



Concept
The leat is a heritage feature completed in its day for all the right reasons although now it is recognised that it carries the water off perhaps too quickly, especially during seasonally wet spells. The conflict between mining and conservation of the stream with associated habitats needs further investigation.

At Blackpool Bridge there is a section of exposed cobbled road known as “The Dean Road” or “The Roman Road”, it is a Scheduled Monument. The road is thought to continue southward through Cockshoot, but this is the most visible section. However it is threatened by encroachment from the council road whenever it is resurfaced.



Concept
The SM will be managed in accordance with the management plan. Council Highways will be made aware of potential threat to the Roman Road so as it can be safeguarded.



 Romano-British field system identified on LiDAR as Nationally Important.

Concept
Featured to be considered at time of planning of Forest Operations.

Railways of the area
Severn Wye Railway & Mineral loop / Great Western Railway / Forest of Dean Central railway / Tram roads & dram tracks.

Concept
Mostly disused, some are now cycle trails whilst others are overgrown. These will be considered during the planning of Forest Operations.


There are numerous non-scheduled features that are important to the heritage of the Dean and include charcoal hearths, scowles, wood/earth banks, sunken tracks known as holloways.

Concept
The planning of Forest Operations will refer to and consider features captured on GiS, with any new features recorded appropriately.

The plan area contains numerous Forest Lodges that would have once belonged to The Crown, although are all now in private ownership. Most sit nestled within a woodland context. (see Trees and Woodlands concept and analysis page)


Concept
Forest management should be sensitive to the context of the Lodges.

Soudley Camp is a Roman Fort and is a Scheduled Monument that lies in the southeast corner of Abbotts Wood, adjacent to Soudley Primary School. In 2014 the site underwent extensive restoration to remove heavy layers of bracken litter and gorse.




Concept
The Camp will be managed in accordance with an agreed management plan.

Findall’s Chimney sits on the eastern slopes of Old Staple Edge. It was part of the ventilation system for the Perseverance and Findall Iron Mine complex. Built in the 1800s it stands about 100ft tall and is the only complete surviving iron mine chimney in the Forest today, undergoing restoration in the last 30 years with thanks to the Forest of Dean Caving club.



Concept
The Chimney lies in a secluded part of the Forest surrounded by beech and oak woodland that should continue to be thinned sympathetic to the chimneys woodland context.

Blackpool Bridge just above Wenchford and adjacent to The Roman Road is a rare survivor from the days of when the network of railways throughout the Dean were thriving.



Concept
Ensure the brickwork remains unthreatened by encroaching broadleaf regeneration and Ivy.

OUR SHARED FOREST

“To Nurture a shared Forest unlike any other”



Recreational use of the area is high with the most frequented car parks at Mallards Pike, New Fancy, Spruce Drive, Dr. Hart’s Arboretum, Foxes Bridge, Blaize Bailey and Wenchford, as well as numerous informal car parks. The woods are used by walkers, horse riders and mountain bikers, with an ever increasing appetite for downhill & cross country routes, with pressure to also increase horse riding facilities. These users are supported by a network of public rights of way, permissive routes and formal Forest Trails.

Concept

Whether that person is a local or a visitor, the woodlands, trees and associated habitats and species provide the foundation for Recreational enjoyment of the Forest. The Forest Plan prescriptions should be sympathetic to enhance the user experience and aim to enrich aesthetic appearances of the forest within a local and wider landscape context.

Visitors per year

Beechenhurst	350-400k
Speech House Hotel	c 30-50k
Mallards Pike	190-200k

- ★ Beechenhurst and Speech House Hotel
- ▲ Most frequented carparking

*** Other facilities**

- New Fancy viewpoint
- Speech House woodlands
- Foxes Bridge & Cinderford Bridge
- Soudley Ponds & Blaize Bailey

The plan area enjoys a multitude of recreational activities and events (mostly based at Mallards Pike) including: Go-Ape, Segway, outdoor pursuits, fishing, horse and carriage rides, husky racing and motor sports.

Concept

Whilst there are currently no major recreational developments planned, some sites may require forethought in the provision of additional car parking that may influence management prescriptions.

From various vantage points throughout the plan area one can appreciate the fantastic views of the surrounding Gloucestershire countryside especially those from the Blaize Bailey viewpoint. Internally within the woodlands there are also a diverse range of landscapes one can enjoy especially from New Fancy viewpoint that commands extensive views over the plan area and surrounding forest, along with the open habitats along Awre’s Glow, the more intimate open habitats like those at Foxes Bridge, or areas of Forest Waste like those at Blakeney Hill. There are also more oblique views like those from the top of Spruce Ride or Trafalgar Avenue.

- 360° view
- 180° view

Concept

The plan will look to maintain and improve these landscapes and view points through planned felling operations. Thinning operations should also identify and consider opportunities for enhancing both the existing internal and external views, or even possibilities of creating new vistas.

The Crematorium is a special and important part of the Forest life that enjoys the woodland setting bringing a “Sense of Place” to the site that the Dilke Hospital also enjoys.

Concept

The Forest Plan will recognise the “Sense of Place” that makes both sites so special and look to preserve/enhance the features that make it so. Carefully planned operations, use of appropriate Silvicultural techniques and consideration of under-planting to provide future species/structural diversity along with resilience will help safeguard the “Sense of Place”.

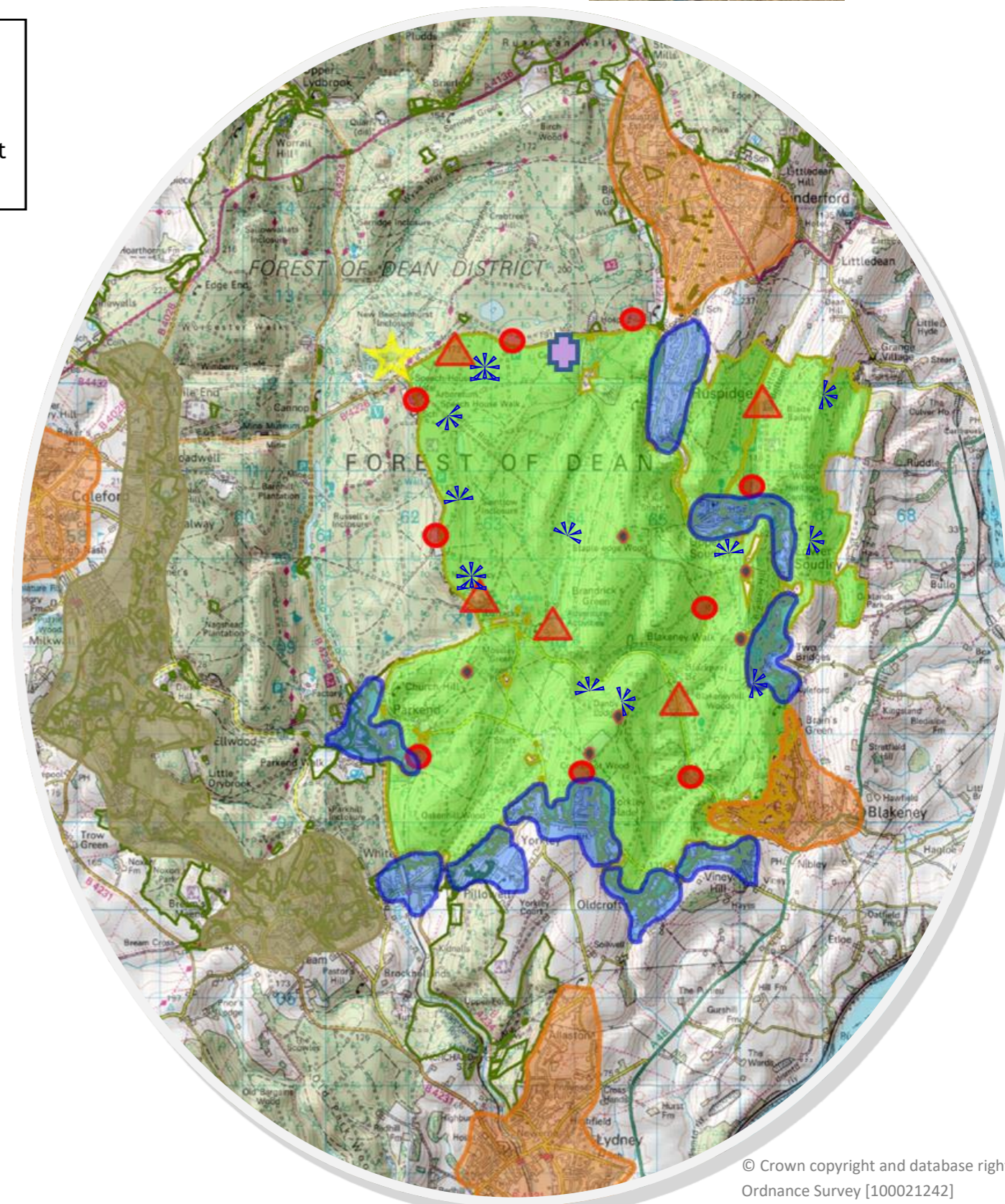
- Yewtreebrake Crematorium

The woodlands within this plan area have a high degree of interconnectivity with the villages and towns of the Forest. These include the “Forest Lodges” and clusters of homes set within the woods themselves.

Concept

The plan will recognise special features of the woodlands that make the interconnectivity to the integrated villages and communities of the Forest so special. In doing so prescriptions will be sensitive to these features and operations to implement the plan will look to safeguard and enhance them. Eg veteran/ancient oaks around Yorkley and Viney Hill the Native broadleaf dominated characteristics of Blakeney Hill or the large diameter Douglas Fir and Red Cedar within the Soudley valley.

- Main Towns
- Main Villages
- Near by Villages
- Forest Lodges

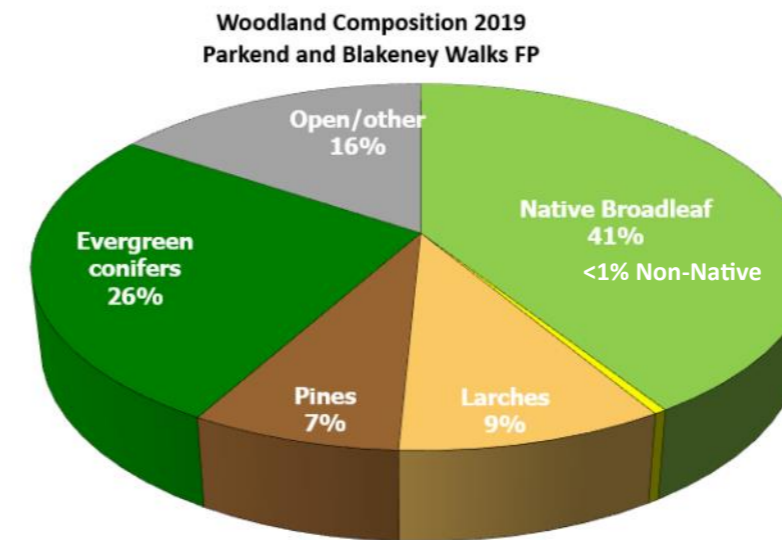


Woodland Composition

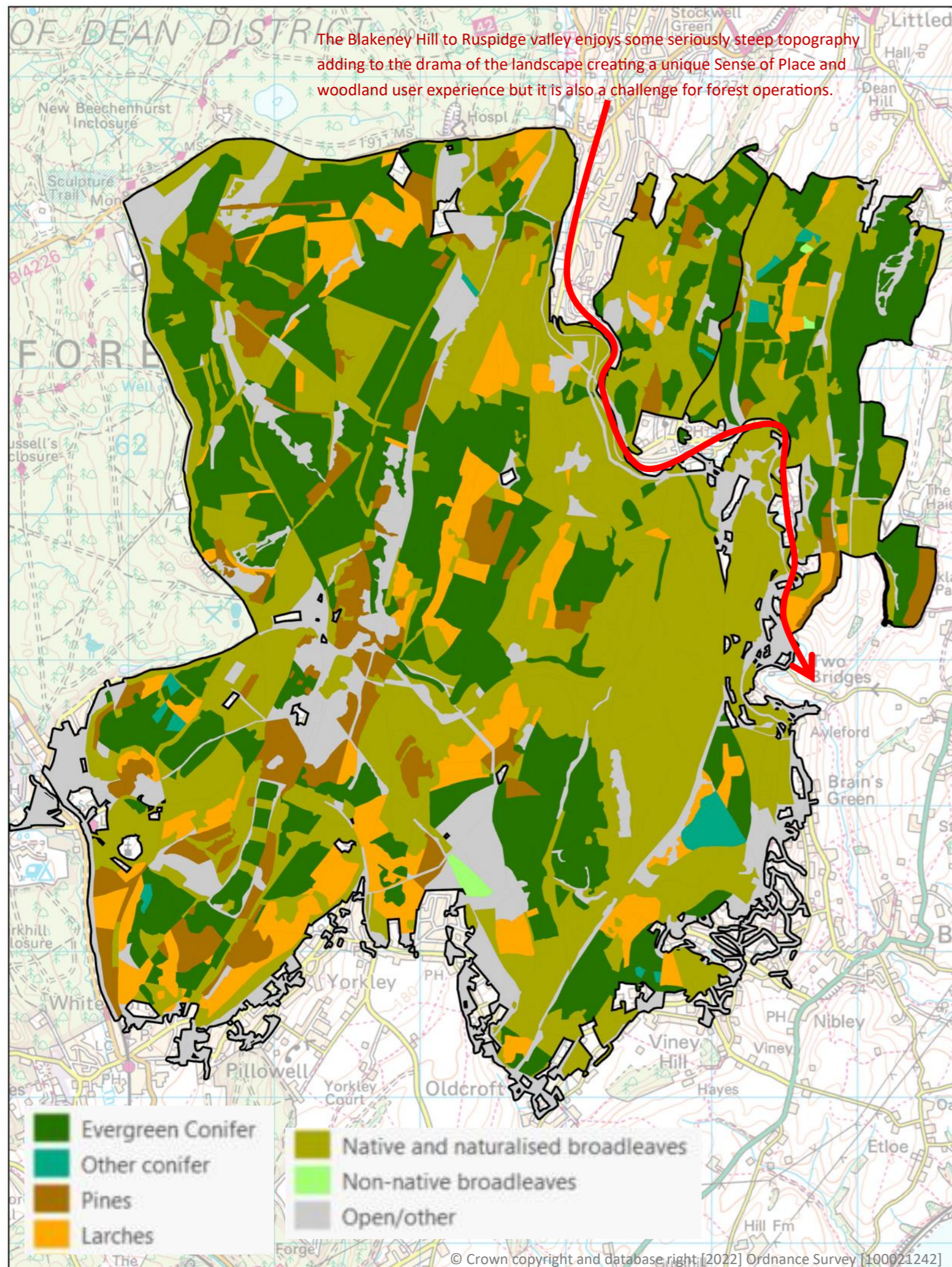
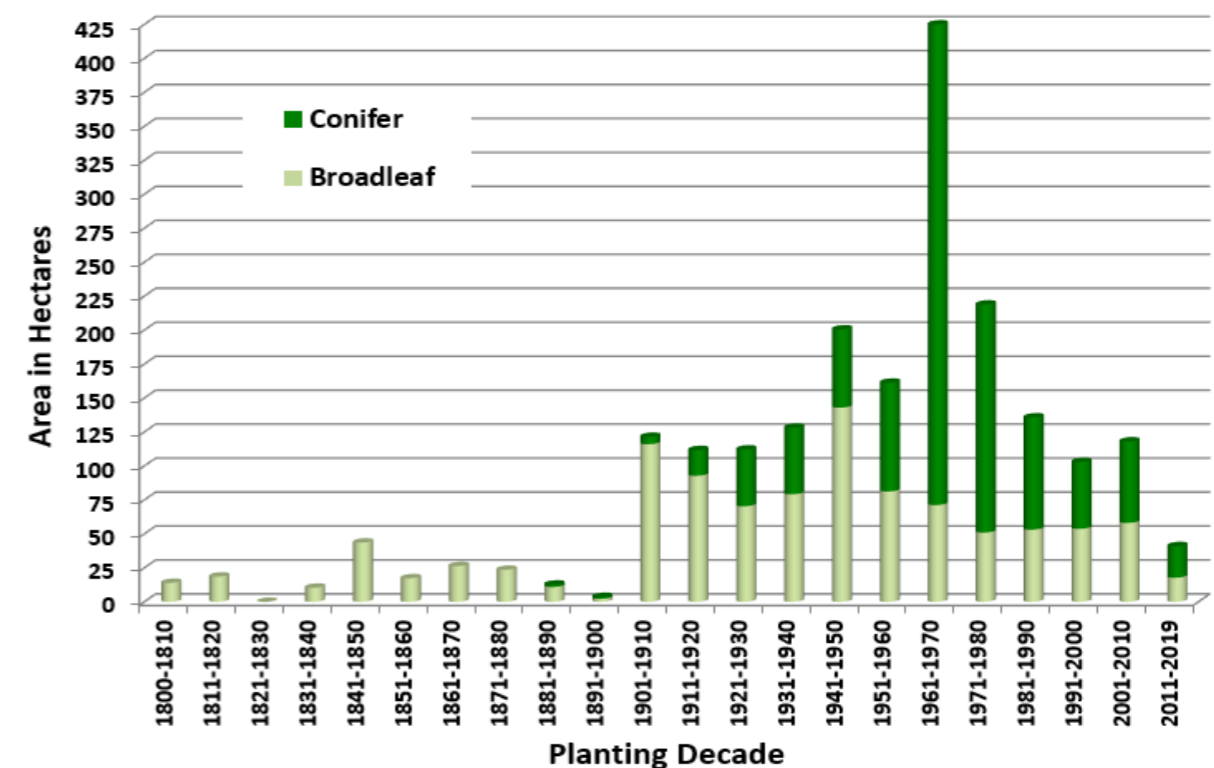
Woodland within the plan area is generally very diverse with a good range of species. Middleridge was predominantly planted in the late sixties with high proportions of Norway Spruce with the area containing remnant C19th Oak, and the provision of riparian habitats having been enhanced (especially parts of Blackpool Brook such as those below Speech House Lake & Saintlow), during previous Forest Plans along with open habitats being developed, for example at Awres Glow and Foxes Bridge.

Staple Edge comes in a decade later, in the seventies, with the ridge dominated by conifer. To the east, along the Blakeney Hill valley and up the Soudley Valley to Ruspsidge, tree cover is primarily contiguous broadleaf with high proportions of Oak, planted in 1800-1900 that enjoys a high degree of naturalness, whilst to the south Cockshoot, Churchill and Oakenhill have much later plantings from the thirties through to the seventies. Both Cockshoot and Blaize Bailey have a higher content of quality conifer with Low Impact Silviculture (LIS) potential, whilst Churchill has a proven track record for successful natural regeneration of Oak and Beech with some interesting plantings from the time of Parkend Forestry School. Whilst Middleridge has been a proving ground for conifer regeneration for a couple of decades now. Oakenhill is still in recovery from strip mining in the 1980s and as a result soils are generally impoverished but enjoy a diverse array of both woodland and open habitat types.

Restructuring has taken place, but has been limited to sites scattered across the plan area, meaning monocultures of both conifer and broadleaf still dominate, with higher degrees of naturalness occurring on the eastern side of the plan area. Conifer crops are generally of a high quality across the plan area and have been well thinned. Along the western side of the plan, crops enjoy a more integrated feel with Oak, Douglas Fir, Scots Pine and Beech all occurring in mixture. The valley from Blakeney to The Barracks is very similar with the topography lending to the sense of scenic drama. Belts of broadleaf often line roads and rides, enhancing the aesthetic feel to the woodland and break up the blocks of conifer, this is especially the case in Middleridge.



Age class distribution



Class 4 – Plantation Woodland



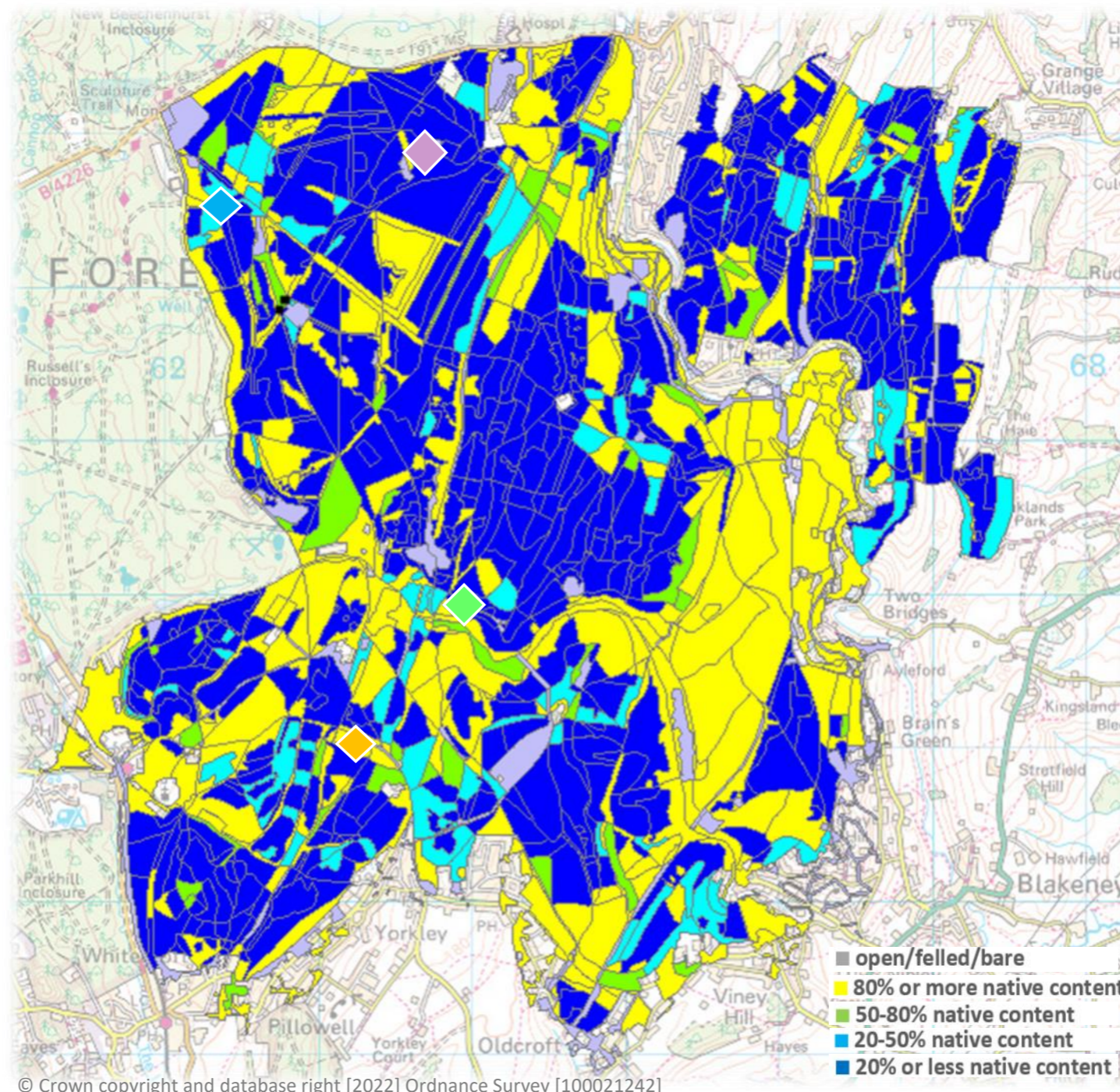
Class 3 – Plantation Woodland



Class 2 – Plantation Woodland

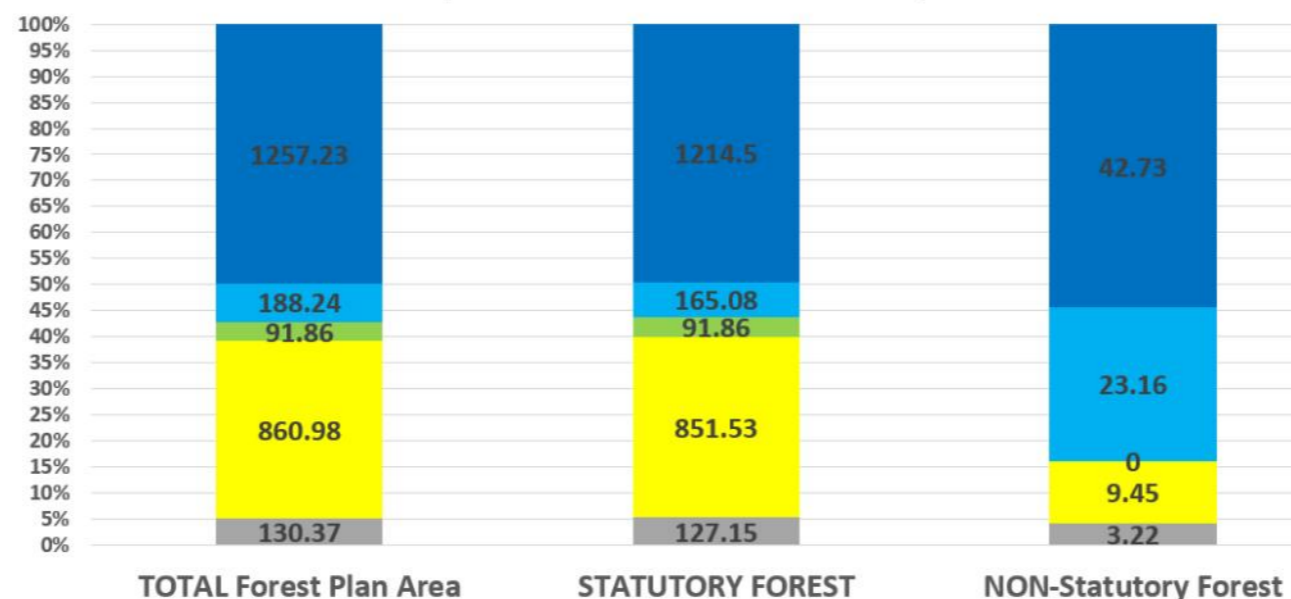


Class 1 – Semi-Natural Woodland



NATURALNESS - 2019 data

(chart data labels in hectares)



Woodland Naturalness

Naturalness is a measure to show native canopy cover of a woodland or forest and is given as the percentage of site native tree species in a given area. It is used to record and monitor the condition and restoration of Ancient Woodland Sites previously planted with non-native species.

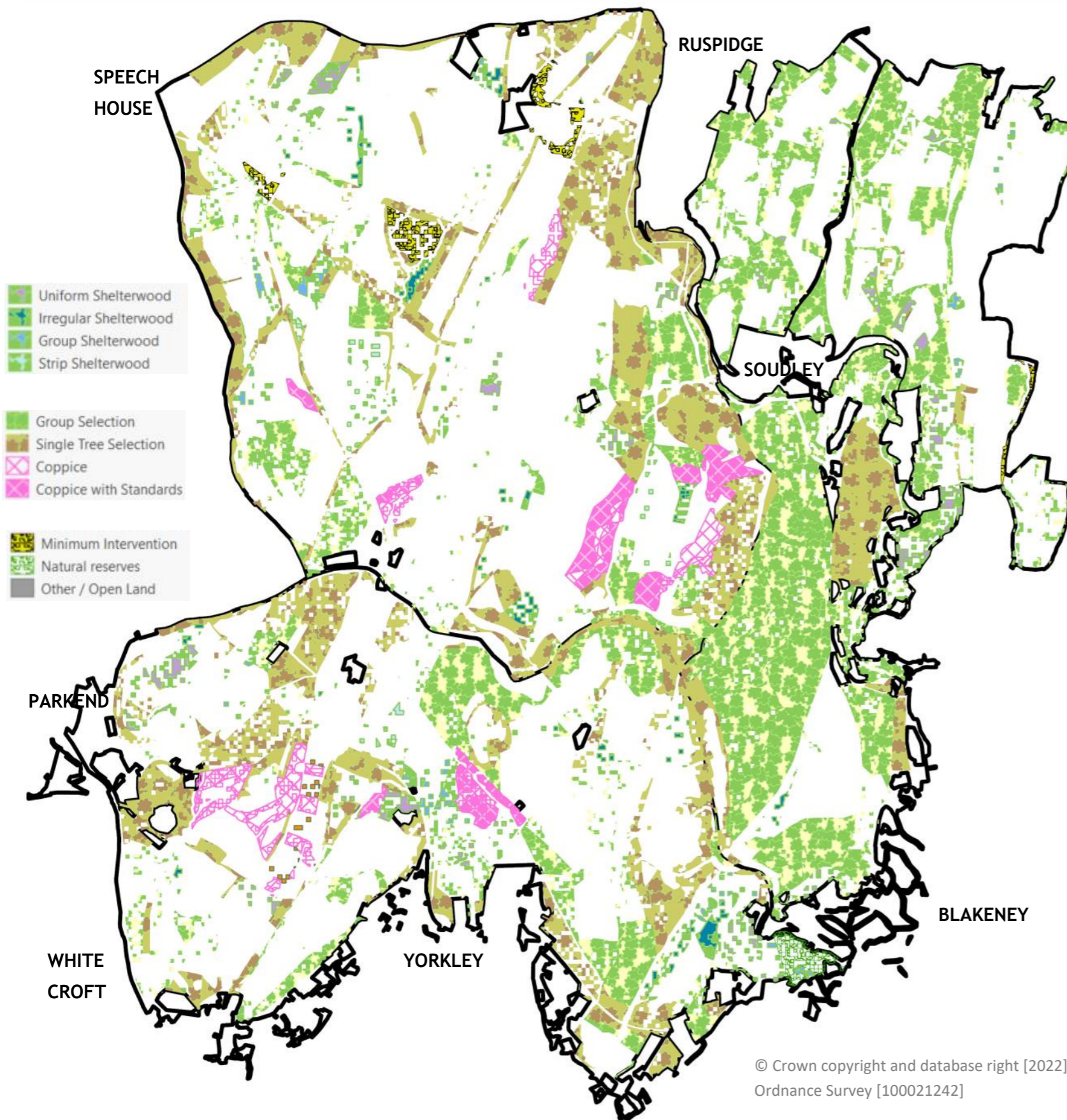
The Forest of Dean is one of England's oldest forests having a rich industrial history, that in past times has seen the Forest's timber and mineral resources utilised & exploited to the extreme, with clearfelling and open space¹ being common place. It is the subsequent replanting and habitat management undertaken, coupled with the interplay of the Forests hugely diverse topography and soils that has given the Forest of Dean the rich diversity of tree species and habitats we enjoy today.

The Ancient character of the Dean is recognised as an important aspect of the Forest. Past Forest Planning has sought to increase the ratio of broadleaf to conifer within the Forest of Dean as a whole. This Plan will continue to honour that commitment, working towards an initial aspiration of 60:40 broadleaf to conifer and would include an increase from 16% open space to around 23%, although, linked with Our Shared Forest, plan proposals will work to improve and enhance other features associated with semi natural woodland, such as wet woodland and priority riparian areas that at the same time will create better connectivity of habitats and native species. In doing so this will offer a much more holistic consideration to the restoration of semi natural woodland, rather than just considering native tree species i.e. naturalness condition.

It is recognised that in the current climbs of climate change and the rise and increase in threats to tree health that this is a challenge and therefore a long term objective. The balance to a more native and natural forest will therefore be a gradual one achieved through targeted thinning, under planting, group felling with group planting and clearfelling with restocking. Natural regeneration will have its place but planting will ensure that future species composition is diverse and resilient.

Left is a breakdown of the current naturalness for this Forest Plan.

¹E.g. Forest Waste/Quarrying & mining/Heathland/Wood Pasture and extensive felling and restocking programmes especially post war time.



Broadleaf Management

Regeneration of broadleaf woodland has historically been achieved mainly through the use of natural regeneration, except for where semi-natural woodland is so fragmented and or where windthrow has been a threat, making clearfelling with restock the preferred option.

Most Broadleaf areas are to be managed through some form of Low Impact Silviculture (LIS), either as a Shelterwood system, a Selection system, Longterm retention or as Minimum Intervention, which will help to ensure that they remain as robust and resilient as possible towards future threats from climate, pests and disease. With this in mind, rather than planting or recruiting just a single species the use of mixtures will be more prevalent and where regeneration is recruited, underplanting to enrich species composition will be considered, ensuring a diverse and robust crop is established for the future. Selection of species origin/provenance will follow current guidance on climate change and disease resistance, so will contain a varying mix of site native species, species from three degrees south of latitude, improved growing stock and non-native species maybe considered.

Where Broadleaf will replace conifer using LIS it is difficult to quantify the speed of reversion since most conifer crops identified for LIS have historically been managed utilising the clearfell & restock regime. Therefore thinning interventions are likely not to have been optimised for natural regeneration of native species, so will likely attract a higher probability that underplanting, group planting or enrichment planting will be needed to ensure the desired future species composition is achievable. The conclusion of this objective is therefore very much for the long-term and beyond the duration of this plan.

Light levels and grazing pressure will be managed through thinning intensity, fencing and culling, helping minimise weed encroachment and predation on both regeneration and planted stock. Whilst the reintroduction of Pine Marten is one step in helping to re-establish control over the grey squirrel, there is hope that it will ultimately safeguard the production of quality timber within younger generations of broadleaf woodland.

Thinning will look to develop final crop trees across all age classes and Irregular Thinning will target the breakup of even-aged crops whilst the matrix should remain well thinned to promote canopy development. This approach will help in developing a permanent Irregular structure. Thinning and partial harvesting of final crop trees will help in the delivery of quality timber to market that is sustainable, offering opportunity for underplanting or group planting. Understories should continue to utilise Beech to promote clean Oak stems, that will also safeguard populations of wild bluebell e.g. Blakeney Hill.

Generally speaking south facing slopes traditionally fair better for broadleaf growth, however might it be suggested that with a warming climate those sites with less favourable topology e.g. northerly or easterly facing slopes may in fact become better in terms of productivity and growth rates. Species such as Oak that may currently struggle on such sites e.g. in Cockshoot or on more impoverished soils such as those in Oakenhill could well fair better, meaning the choice of provenance should be carefully considered rather than just have Oak written off as being unsuitable. This approach will help Oak remain one of the prime broadleaf species for future generations to enjoy.

Deadwood Habitat will be managed to enhance the quality of both standing and fallen deadwood and to increase the amount in line with UKWAS recommendations. The percentage of crowns left in situ following harvesting operations will depend on the quality and condition of existing deadwood. Consider retaining wind damaged broadleaves, fallen limbs or fully windblown trees to add diversity to the types of deadwood present.

Below is a fairly typical list of operations one may expect in managing broadleaf crops.

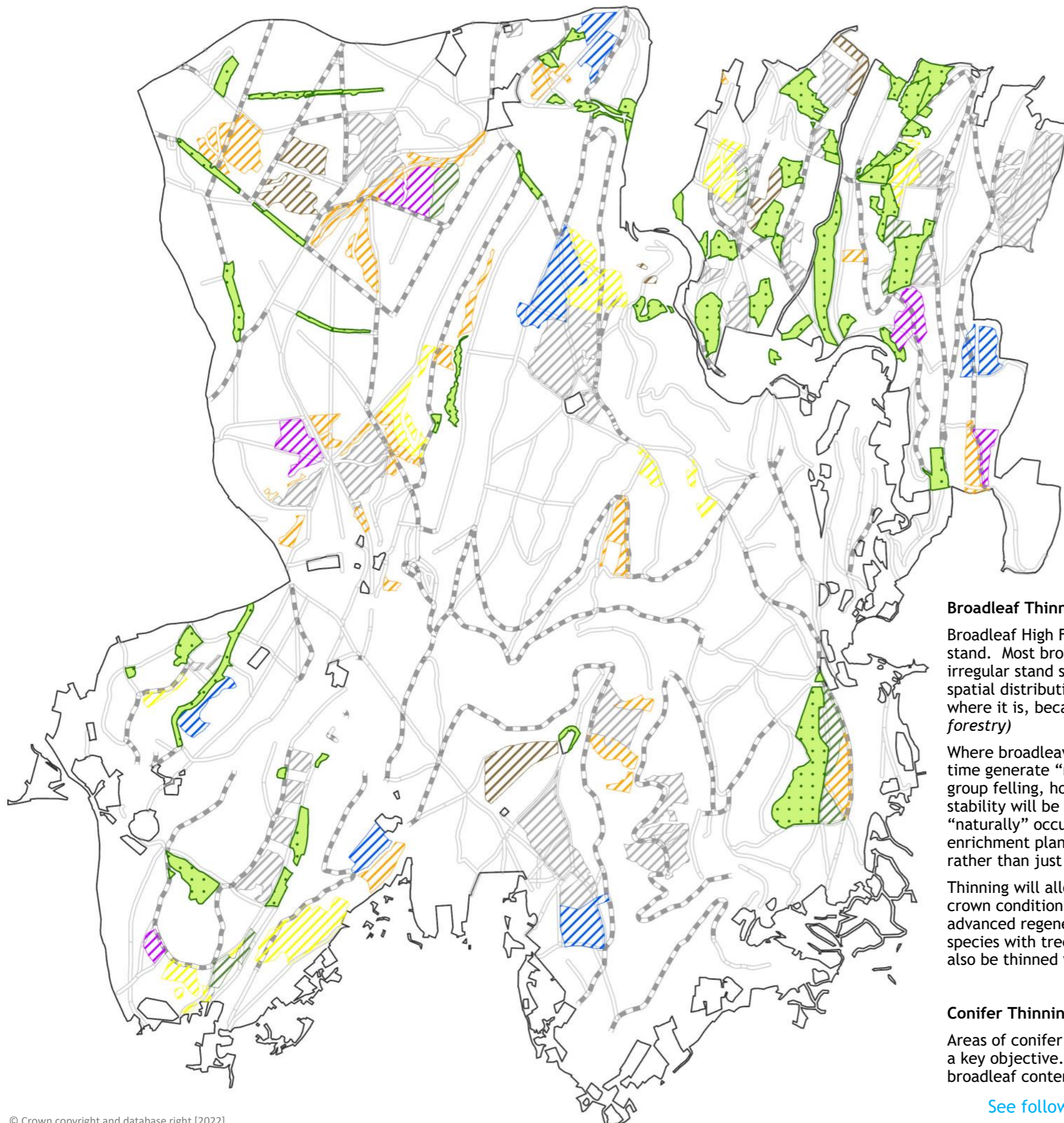
Broadleaves upto 50 years old Predominantly establishment operations such as planting, beating up, weeding, cleaning. Potential first thinning, respacing, enrichment planting and pruning etc will ensure correct stocking density is achieved. Early identification of potential final crop trees.

Broadleaves from 50 to 100 years old Identification of final crop trees. Thinning of main crop. Respacing of natural regeneration with enrichment planting for future diversity, along with pruning and thinning that will help raise the quality of timber.

Broadleaves over 100 years old Identification of final crop trees. Thinning of main crop and possibly some prep work for regeneration, enrichment planting, along with thinning.

Mature Habitat Some areas might be thinned and others not. Thinning will be light, considered and sensitive to site conditions, unless work is needed for public safety reasons e.g. in Chalara infected crops. Recruitment of Deadwood is likely to be high in these areas and most managed with Single Tree Selection system.

Silviculture



Clearfell

The map looks at the clearfelling programme from 2022 until beyond 2051. They are likely to be restocked in order to achieve the correct species composition for the next rotation and achieve the Forest Plans objectives on diversity and resilience. Some sites may be restocked in combination with natural regeneration.

Also shown are areas to be managed as Long Term Retention whose areas mainly compromise Douglas Fir, Red Cedar or older mature stands of Scots

LEGEND

	Fell 2022 - 2026
	Fell 2027 - 2031
	Fell 2032 - 2036
	Fell 2037 - 2041
	Fell 2042 - 2046
	Fell 2047 - 2051
	Fell beyond 2051
	Long Term Retention

Broadleaf Thinning

Broadleaf High Forest will be assessed for thinning every 10 years with a visual inspection of the stand. Most broadleaves are uniform in age, so thinning should encourage development of an irregular stand structure, retaining any existing stand variability in dbh range, species, height and spatial distribution to aid in achieving irregularity; “a tree should never be removed because of where it is, because clumpiness is a good thing in this respect.” (quote: Andy Poore from *Prosilva forestry*)

Where broadleaves consist primarily of single species, utilisation of irregular thinning will, over time generate “natural” gaps rather than specific creation of new ones or enlargement through group felling, however, size of gap will be dependent on slope, aspect and site fertility and crop stability will be a consideration. In any case, through irregular thinning and as crops age these “naturally” occurring gaps will then be utilised for recruitment of natural regeneration or enrichment planting using a mix of native species other than those occurring in the overstorey - rather than just a reliance on natural regeneration to achieve diversity and ensure full stocking.

Thinning will allow sub-dominant broadleaves sufficient light and space to mature, will develop crown condition of primary, secondary and tertiary final crop trees and will release existing advanced regeneration. Younger patches of regeneration can be thinned to favour site native species with trees of good form and vigour being retained. Matrices between final crop trees will also be thinned with the above points in mind.

Conifer Thinning

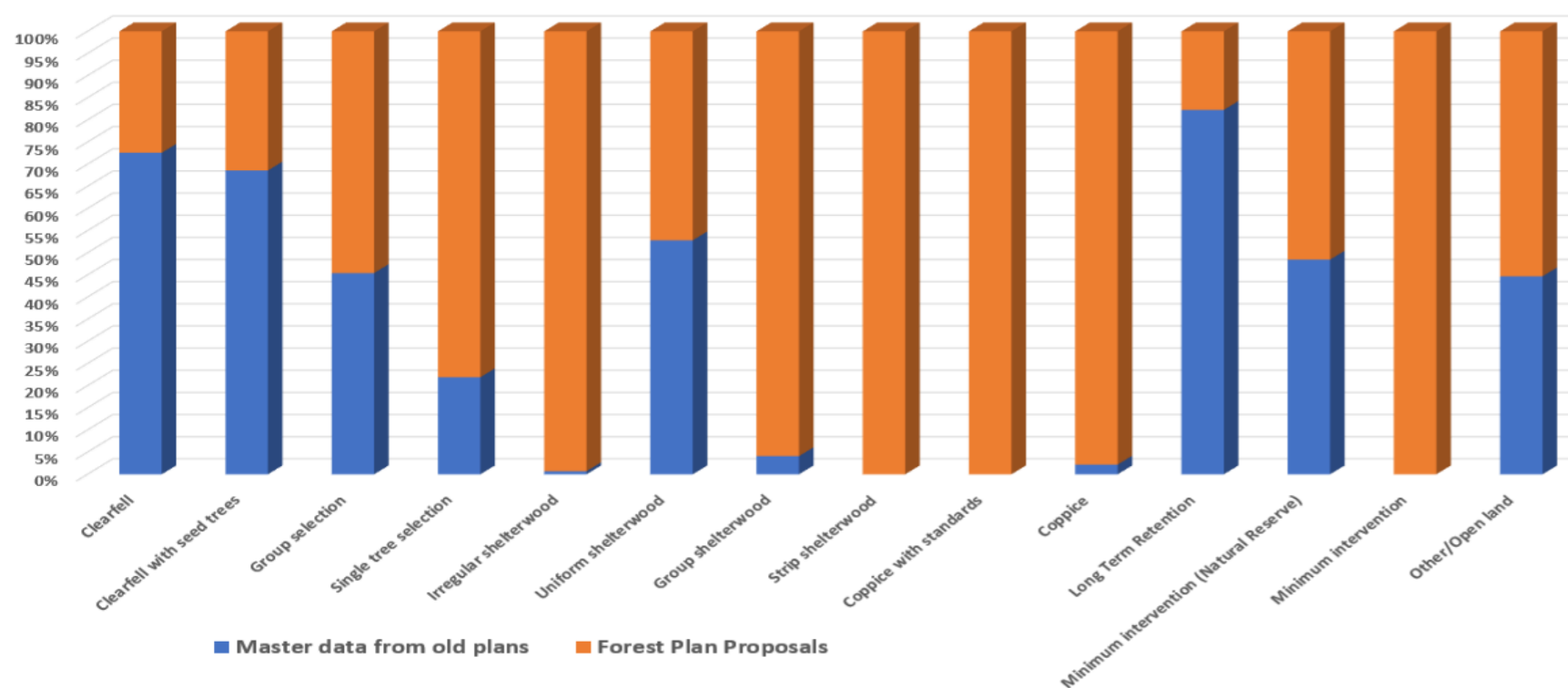
Areas of conifer are assessed for thinning every 5 years with the targeted removal of larch species a key objective. Other factors such as the quantity, condition, age and distribution of any broadleaf content, will also help decide if an area of conifer is to be thinned or not, with light

[See following pages for more information on Low Impact Silviculture](#)

Silviculture (cont)

Low Impact Silviculture (LIS)

Proportional shift in the use of Low Impact Silviculture between the old Forest Plans and the new Forest Plan proposals



The increase in the use of Shelterwood systems, Selection systems, Coppice and of Minimum Intervention along with some selected areas of Long Term Retention (e.g. areas of Scots Pine or Douglas Fir) will help deliver the Forest Plan objectives in a number of ways:

- By improving the distribution of Age Classes
- Diversify the variety of tree species
- Increase the variety of woodland edge
- Improve connectivity of habitats
- Improve opportunity for deadwood retention
- Enhance and improve riparian management
- Reduce the amount of clearfelling
- In the longer term increase the Sense of Place
- Provide micro climate for natural regeneration and the under planting or group planting of both conifer & broadleaf.
- Provide an increase in the amount of woodland that has a permanent irregular structure

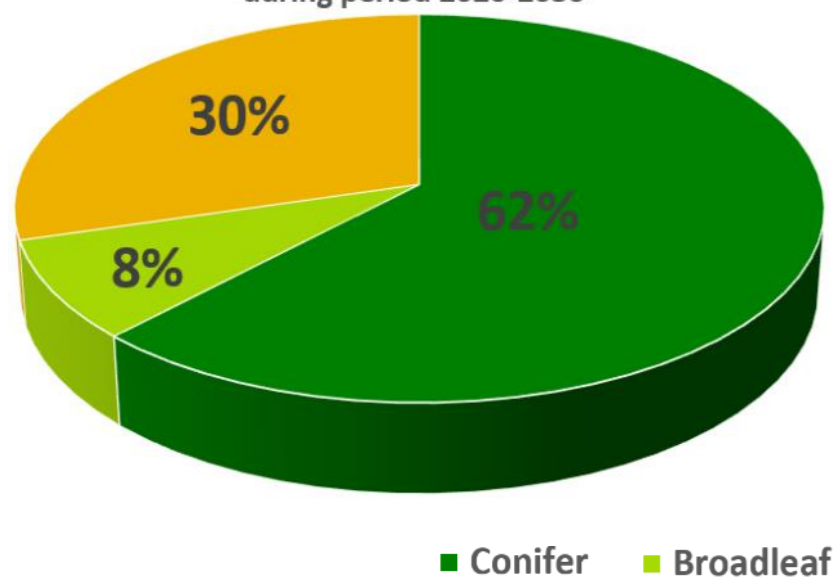
Clearfell and restocking has traditionally been the method of management for a large majority of sub-compartments that are now proposed for regeneration via LIS. These stands will therefore generally need careful intervention, undergoing between 1 to 3 or even 4, 5 or more thinning interventions in order that light levels and vegetation remain suitably controlled¹ to attain favourable conditions for natural regeneration to occur. However in a lot of cases it will probably be required to utilise underplanting, group planting or enrichment planting to attain the desired species composition², to further meet the objectives of species diversity and forest resilience toward future threats of pests, disease and climate.

¹ One of the key principles of management to attain a permanent irregular structure

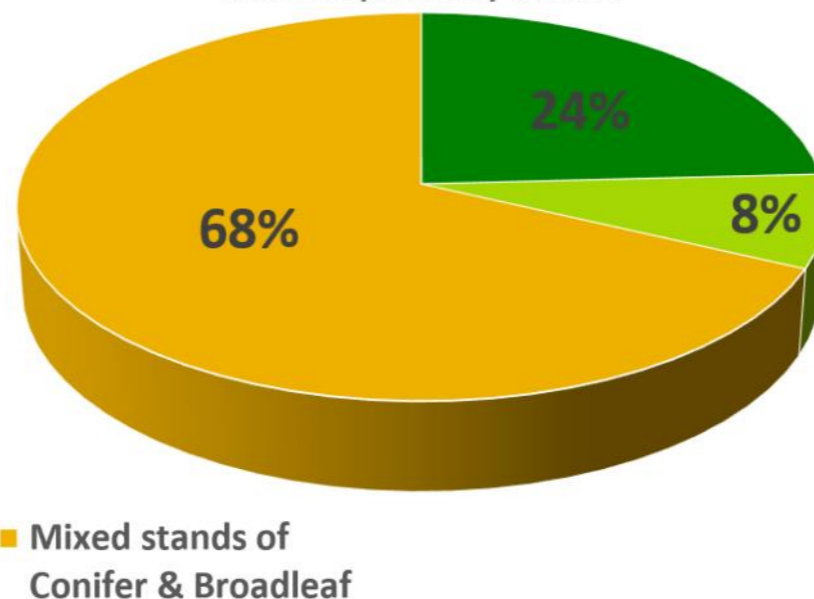
² Can be due to several reasons including: lack of suitable parent material, poor seed productivity and vegetation competition on more fertile sites.

Indicative Future Species Composition of LIS Coupes previously identified for Clearfelling

Current Species Composition for LIS areas previously identified as clearfell during period 2020-2030¹



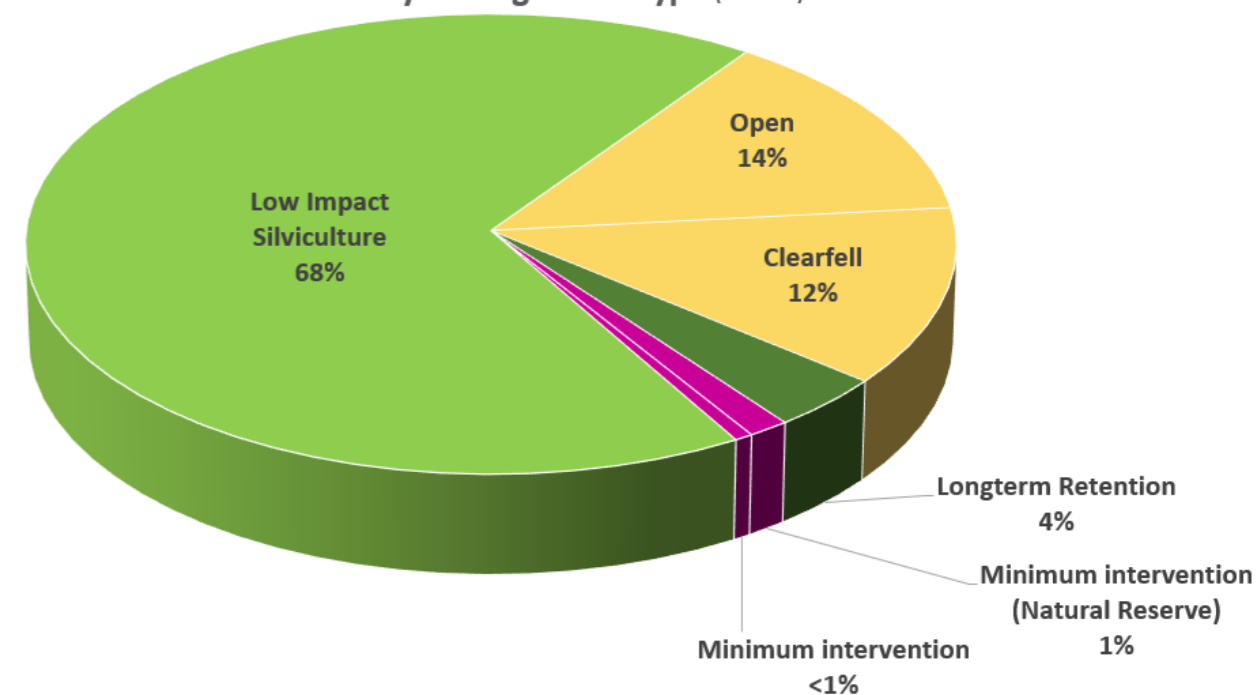
Indicative Future Species Composition for coupes identified for LIS that were previously clearfell



¹ Clearfells identified from the previous suite of Forest Plans for felling during this period

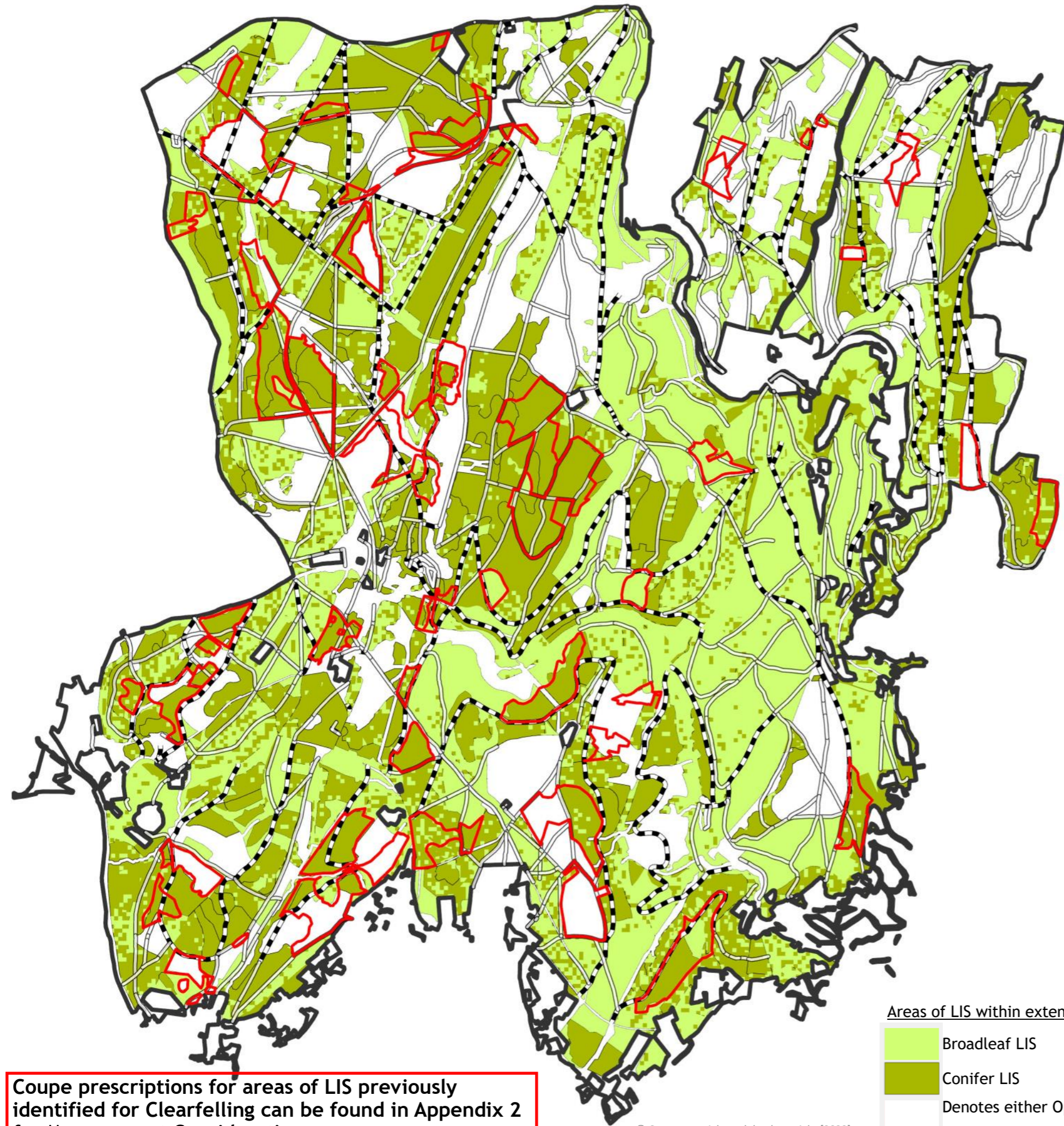
With the above points in mind, the charts below clearly show both support and ambition for

Parkend Walk and Blakeney Walk Forest Plan
Landuse by Management Type (Dec 2021)



Silviculture (cont)

Map showing areas to be managed through Low Impact Silviculture (LIS)



For clarity, the map to the left shows areas of LIS by current species composition. The Future Composition can be found in the section on Indicative Future Species.

Under the old suite of Forest Plan prescriptions the coupes outlined in red were proposed for clearfell and restock between 2020 and 2030.

For this Forest Plan these identified coupes were assessed for their potential to be managed by alternative prescriptions, i.e. LIS, and the map on this page clearly shows that moving forward there is a significant reduction in clearfelling.

Thinning will favour broadleaf components. This, together with the targeted removal of invasives such as Western Hemlock will increase the potential for employing natural regeneration or enrichment planting and will move sites towards having greater native broadleaf content.

Broadleaf stands will generally be managed through thinning that looks to create permanent irregular structure and develop native broadleaved components with targeted removal of conifer components where required. Although through necessity of managing disease and resilience to changes in climate, mixed stands containing both conifer and broadleaf elements will increase in prevalence.

Selection systems can be used on windfirm (although windthrow can be advantageous in creating structure) accessible crops to proactively diversify the woodland structure and composition, recruiting natural regeneration of appropriate species and through the use of enrichment replanting with conifer or native broadleaves where required, e.g. where natural regeneration has proven unsuccessful in the past.

Areas of predominantly Douglas Fir, Red Cedar, Scots Pine and some stands of Spruce will be managed on Long Term Retention as Irregular Selection or Shelterwood with the aim of producing future woodland with complex stand structure and mixed woodland composition. Stands with existing complex structure or those managed for an amenity purpose will be maintained through single tree selections. E.g. areas of pre-1900 Oak or mature areas of Scots Pine such as those around the Mallards Pike area.

Uniform shelterwoods are predominately sites that will be managed using seeding fellings with possibilities for under planting of site suitable species and develop good timber quality.







Irregular shelterwoods will look to develop a complex stand structure. For broadleaves this means identification of final crop and seed trees and use of irregular thinning. In some cases a proportion of overstorey maybe retained.

Strip shelterwoods It is most likely that uniform or irregular shelterwoods will be used but are often on wind vulnerable sites or steep areas that are awkward to work. Strip shelterwood can be regenerated through natural regeneration or in combination with planting.

All of the above methods of LIS can be employed in conifer or broadleaf and can

Coupe prescriptions for areas of LIS previously identified for Clearfelling can be found in Appendix 2 for Management Considerations

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<u>Areas of LIS within extent of Forest Plan</u>		<u>Coupes identified from previous plans for Clearfelling between 2020-2030 now to be managed through LIS</u>	
	Broadleaf LIS		Broadleaf
	Conifer LIS		Conifer
	Denotes either Open Habitats or		Open Habitat or coupes still to
			be managed through Clearfelling



Silviculture (cont)

Map showing Long Term Retentions, areas of Minimum Intervention, Natural Reserves, Open Habitats and stands of pre1900 Oak

Minimum Interventions are predominantly inaccessible or ecological valuable areas where intervention will only occur to protect and ensure the future succession of key habitats and species. They will often also have a distinct Sense of Place.

Long Term Retentions are in places where the landscape value of the woodland is key, or where the retention is advantageous to development of stand/woodland structure and the accrual of biological maturity. Examples include areas such as those in Blakeney Hill or the Soudley Valley.

Retention can be at stand level or applied to components of a stand. In some situations, for example where biological maturity has been achieved, consideration could be given to moving the stand into Minimum Intervention if deemed appropriate. It is possible that other areas may reach a stage suitable for retention having previously been managed through the use of Selection Systems and this choice can be considered at the time of Forest Plan review or rewrite.

Open Habitats are generally managed to ensure forest cover does not exceed 2m in height and will have varying degrees of cover depending on the objective for that site, but in general should not exceed 20% tree cover. In some coupes spatial distribution of Open Habitat over time may vary, e.g. in parts of Awres Glow in the Restock Coupe that shares 44056 & western part of 44012.

Areas of Pre1900 Oak

Parts of the forest containing such Oak by their very nature, are finite and considered extremely valuable assets both ecologically and socially. They are areas often situated in peripheral locales such as along roadsides or close to communities, and may fall within a conservation or amenity & recreation working circle or both; but does not preclude them from producing quality timber if appropriate and intervention meets other Forest Plan objectives.

These areas of pre1900 Oak are often spatially distributed in a fragmented or lineal nature. Prescriptions will work to remediate this, either through adjacent planting to create connectivity and larger more consolidated areas of Oak, or through recognition of their value in a wider ecosystem context such as the Oak at Speech House and those surrounding Foxes Bridge Bog.

Given the issues with predation by rabbits, squirrels, boar and deer, thinning for the regeneration (naturally or planted) of the crop should not be harsh and expect immediate results; but instead a more gentle, irregular, sensitive longer term approach should be taken. Working with existing



variability will increase structural and ecological diversity.

The above paragraph is even more important given it has been observed that dieback of Oak is not only affecting older generations of Oak, but also younger plantings, even as young as those planted in the 1970s. Recognising the cause of health issues and type of dieback is beyond the Forest Plan remit. Therefore it is felt that a survey is crucial to look at this

Felling and Restocking

The next half dozen pages show coupes that are to be managed through clearfelling and restocking over the next ten years - till 2032. However, if Statutory Plant Health Notices are issued for the felling of diseased stands, then some areas may not be felled in order to ensure that timber production remains within sustainable limits.

Areas that will take priority for felling in this instance will be ones that will help with delivery of multiple benefits e.g. areas alongside cycle trails or those required for riparian improvement/water flow management or those for habitat creation and habitat connectivity.

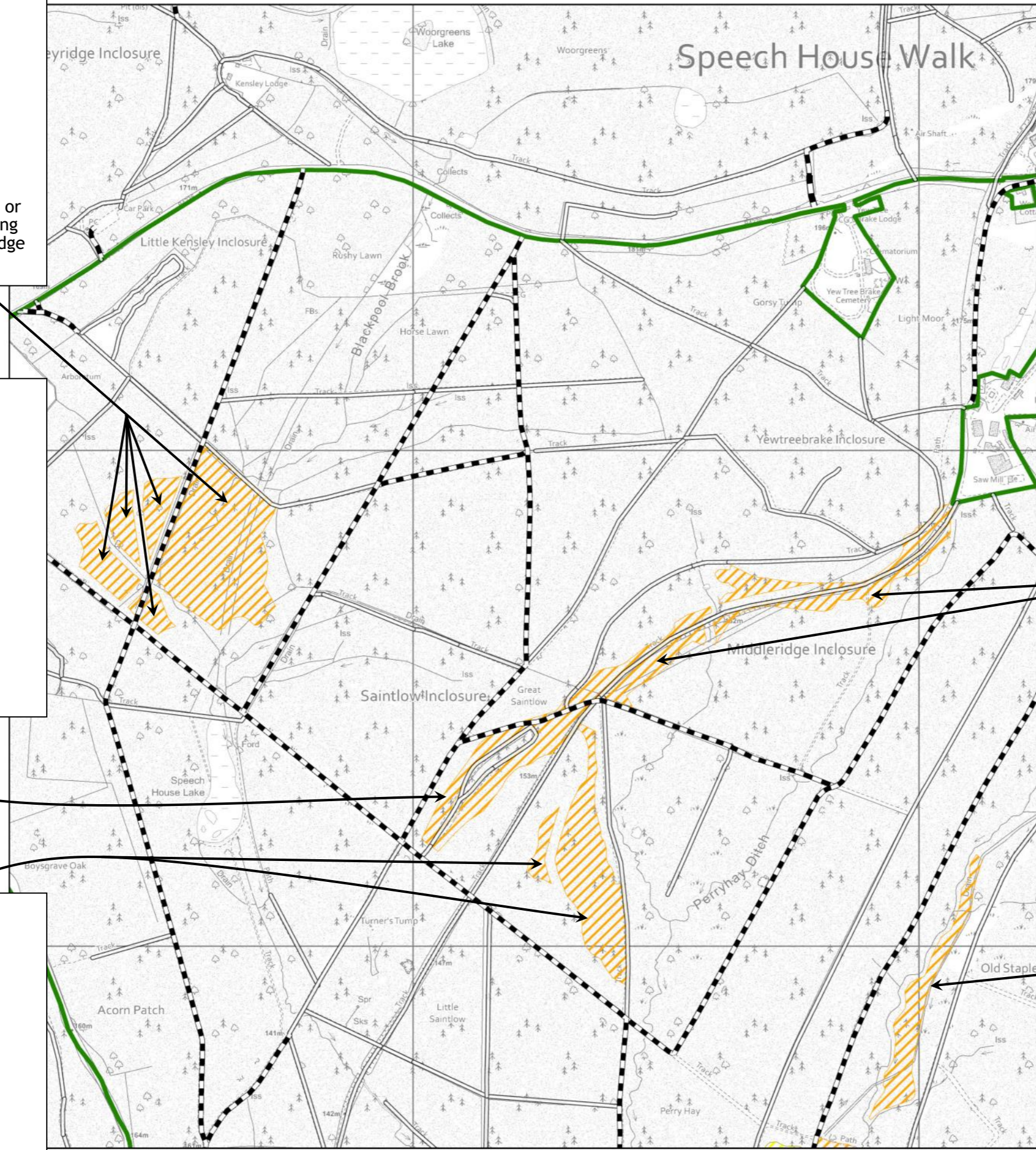
Felling Coupe: 44024
Fell period: 2022-2026
Area: 8.2Ha
Restock Coupe: 44024a
Propagation: planted
Mixed Broadleaf upto 20%
OPEN 80 to 100%
Description:
20-50% tree cover to be retained &/ or planted, native broadleaves. Creating complementary habitat to Foxes Bridge Reserve and adjacent area.

Felling Coupe: 44069
Fell period: 2022-2026
Area: 3.10Ha
Restock Coupe: 44069a
Propagation: planted
Mixed Broadleaf 20%
Other Conifer 20%
OPEN 60%
Description:
Upto 30% tree cover

Felling Coupe: 44068
Fell period: 2022-2026
Area: 3.54Ha
Restock Coupe: 44068a
Propagation: N/A
OPEN 100%
Mixed Broadleaf <15%
Description:
Open habitats - for lepidopteran interest and Internal landscaping. Cycle trail with upto 15% tree cover

Felling Coupe: 44037
Fell period: 2022-2026
Area: 3.68Ha
Restock Coupe: 44037a
Propagation: planted
Oak 50%
Mixed Broadleaf 30%
OPEN 20%
Description:
On felling retain Broadleaves

Felling Coupe: 44027
Fell period: 2022-2026
Area: 1.85Ha
Restock Coupe: 44027a
Propagation: Successional
Mix of open habitats, Broadleaf and Conifer regen
Description:
Winter flowing stream - open up to prevent scouring and erosion part of Awres Glow coupe at 22.81Ha



Felling and Restocking

Felling Coupe: 44071
Fell period: 2022-2026
Area: 1.96Ha
Restock Coupe: 44071a
Propagation: planted
 Oak 60%
 Scots Pine 40%
Description:
 SP and Oak Productive High Forest
 Part of larger restock coupe 5.07Ha
 Rest to manage as Shelterwood

Felling Coupe: 44044
Fell period: 2022-2026
Area: 0.69Ha
Restock Coupe: 44044a
Propagation: planted
 Mixed Broadleaf 100%
 OPEN upto 20%
Description:
 Reptile and lepidoptera linkage to be group planted with native species for future coppicing

Felling Coupe: 44040
Fell period: 2022-2026
Area: 0.57Ha
Restock Coupe: 44040a
Propagation: natural regeneration
 Nat-regen up to 20% tree cover.
 Enrichment planting using SP if required
 OPEN 100%
Description:
 Rationalise Open habitat and retain Scots Pine upto 20% SP/MB - part of larger restock coupe 2.41ha

Felling Coupe: 44042
Fell period: 2022-2032 (indicating heavy thinning)
Area: 1.15Ha
Restock Coupe: 44042a
Propagation: N/A
 Scots Pine 40%
 OPEN 60%
Description:
 Reptile/Lepidopteran interest
 Retain feature SP trees at 20-25m spacing. This is likely to

Felling Coupe: 44137
Fell period: 2022-2026
Area: 1.16Ha
Restock Coupe: 44137a north and 44137a south
Propagation: planted

	North	South
Oak	40%	
Hornbeam	20%	
Hazel	10%	
Mixed Broadleaf	10%	20%
Scots Pine		40%
OPEN	20%	40%

Description:
 Mixed High Forest
 Some SP to be retained in north coupe -part of larger restock coupe 6.56Ha

Felling Coupe: 44114
Fell period: 2022-2026
Area: 0.57Ha
Restock Coupe:
Propagation: planted
 Mixed Broadleaf 10%
 Scot Pine 10%
 OPEN 80%
Description:
 Extension of adjacent Adder and small pearl bordered habitats

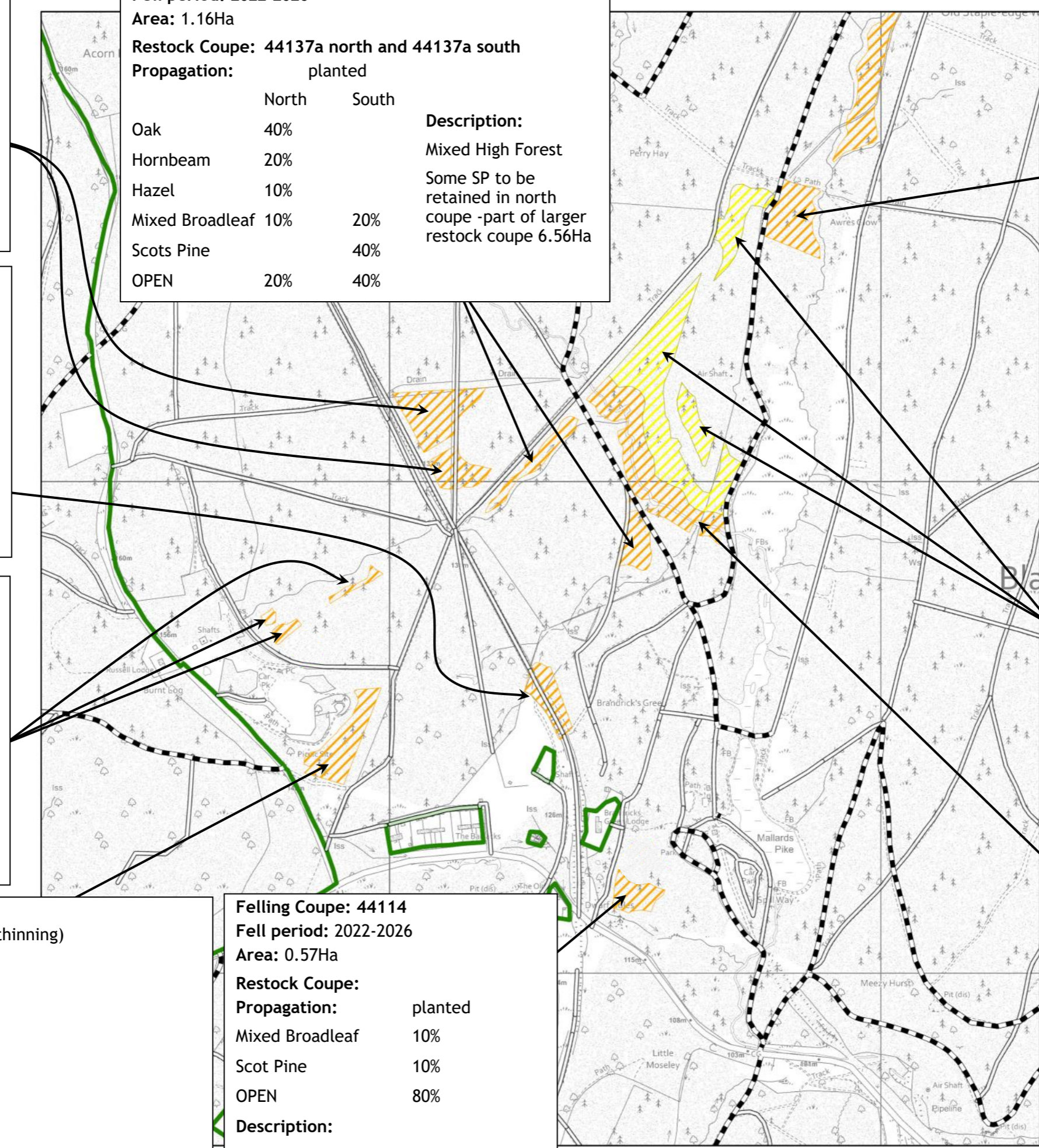
Felling Coupe: 44138
Fell period: 2022-2026
Area: 1.22Ha
Restock Coupe: 44138a
Propagation: planted / successional
 Mixed Broadleaf 40%
 Scots Pine 30%
 Norway Spruce 10%
 OPEN 20%
Description:
 Broadleaf will be sympathetic to watercourse. SP in groups along Road edge. South west half will be successional and is included in restock coupe 44056a

Felling Coupe: 44055
Fell period: 2027-2031
Area: 4.75Ha
Restock Coupe: 44055a
Propagation: planted
 Oak 40%
 Wild Cherry 20%
 Hornbeam 20%
 Mixed Broadleaf 20%
Description:
 Bolstering existing native Blve sympathetic to avenue of oak, riparian area, providing connectivity of native broadleaf habitat

Felling Coupe: 44052
Fell period: 2022-2026
Area: 2.35Ha
Restock Coupe: 44052a
Propagation: planted/nat regen

	Westside of stream	Eastside of stream
Mixed Broadleaf	40%	20%
Other Alders		30%
Scots Pine	10%	
OPEN	50%	50%

Description:
 20m riparian buffer - 50% tree cover WIL/



Felling and Restocking

Felling Coupe: 44086
Fell period: 2022-2026
Area: 0.69Ha
Restock Coupe: 44086a
Propagation: planted
 Other Alder 20%
 Willow 10%
 Mixed Broadleaf 10%
 OPEN 60%
Description:
 Fell for management of stream sides to enhance 10m riparian watercourse buffer.

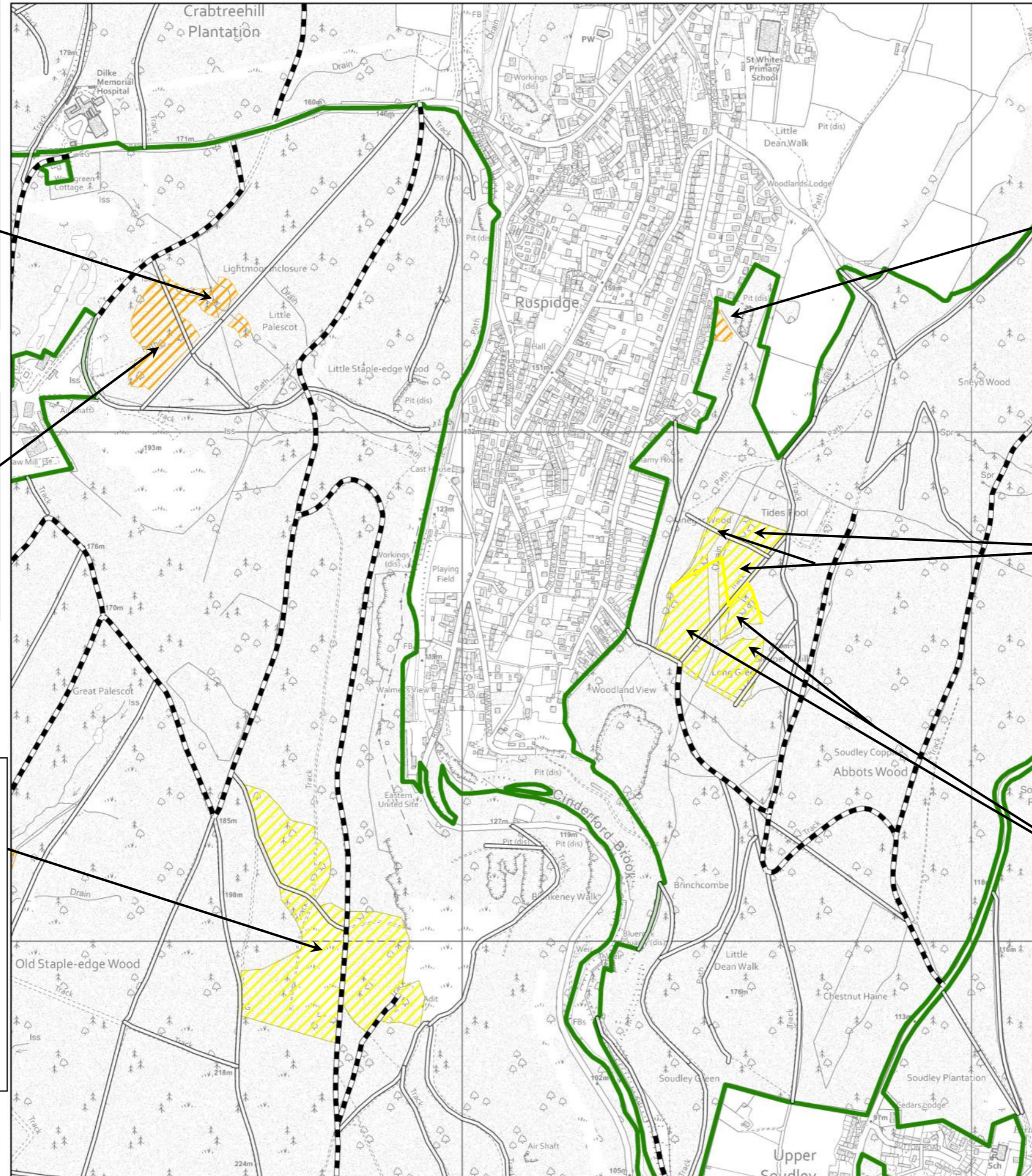
Felling Coupe: 44083
Fell period: 2022-2026
Area: 1.70Ha
Restock Coupe: 44083a
Propagation: planted
 Mixed Conifer 100%
Description:
 Productive High Forest

Felling Coupe: 44189
Fell period: 2027-2031
Area: 8.64Ha
Restock Coupe: 44189a
Propagation: planted
 Oak 60%
 Mixed Broadleaf 30%
 Hazel 10%
Description:
 Southern edge (50m strip) is part of restock coupe 44023a that contains non-native broadleaves.

Felling Coupe: 45819
Fell period: 2022-2026
Area: 0.16Ha
Restock Coupe: 45819a
Propagation: planted
 Scots Pine 60%
 Mixed Broadleaf 40%
Description:
 Felling within the Dean Bat SSSI

Felling Coupe: 45106
Fell period: 2027-2031
Area: 1.56Ha
Restock Coupe: 45106a
Propagation: planted
 Mixed Broadleaf 90%
 OPEN 10%
Description:
 Removal of Ink spot diseased SC through heavy thinning, may need to clearfell if so will be done in 2037-38 after working coupe 45113

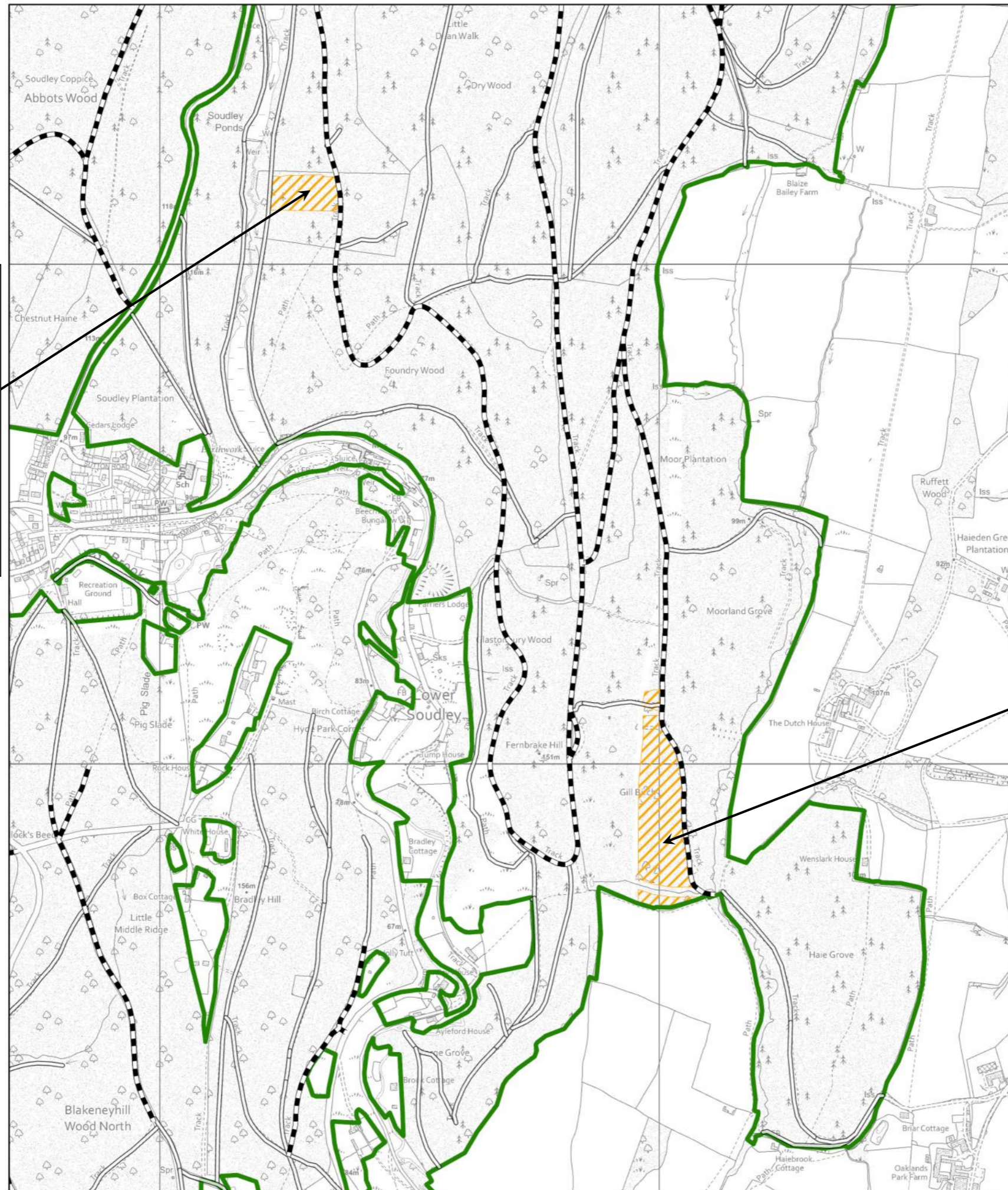
Felling Coupe: 45113
Fell period: 2027-2031
Area: 3.14Ha
Restock Coupe: 45113a
Propagation: planted
 Mixed Broadleaf 90%
 OPEN 10%
Description:
 Removal of Ink spot diseased SC through heavy thinning, may need to clearfell. Accrue deadwood where appropriate and restock with species suited to wetter ground where necessary, sympathetic to the 10m riparian coupe that divides the site.



Felling and Restocking

Felling Coupe: 45041
Fell period: 2022-2026
Area: 0.98Ha
Restock Coupe: 45041a
Propagation: planted
 Douglas Fir 50%
 Mixed Conifer 50%
 OPEN
Description:
 Remove all Western Hemlock due to interfering with Soudley Ponds SSSI.

Felling Coupe: 45040
Fell period: 2022-2026
Area: 3.23Ha
Restock Coupe: 45040a
Propagation: planted
 Mixed Broadleaf 40%
 Oak 30%
 Beech/Hornbeam 30%
 OPEN <10%
Description:
 Diversify native broadleaves due to ink spot on the Sweet Chestnut.

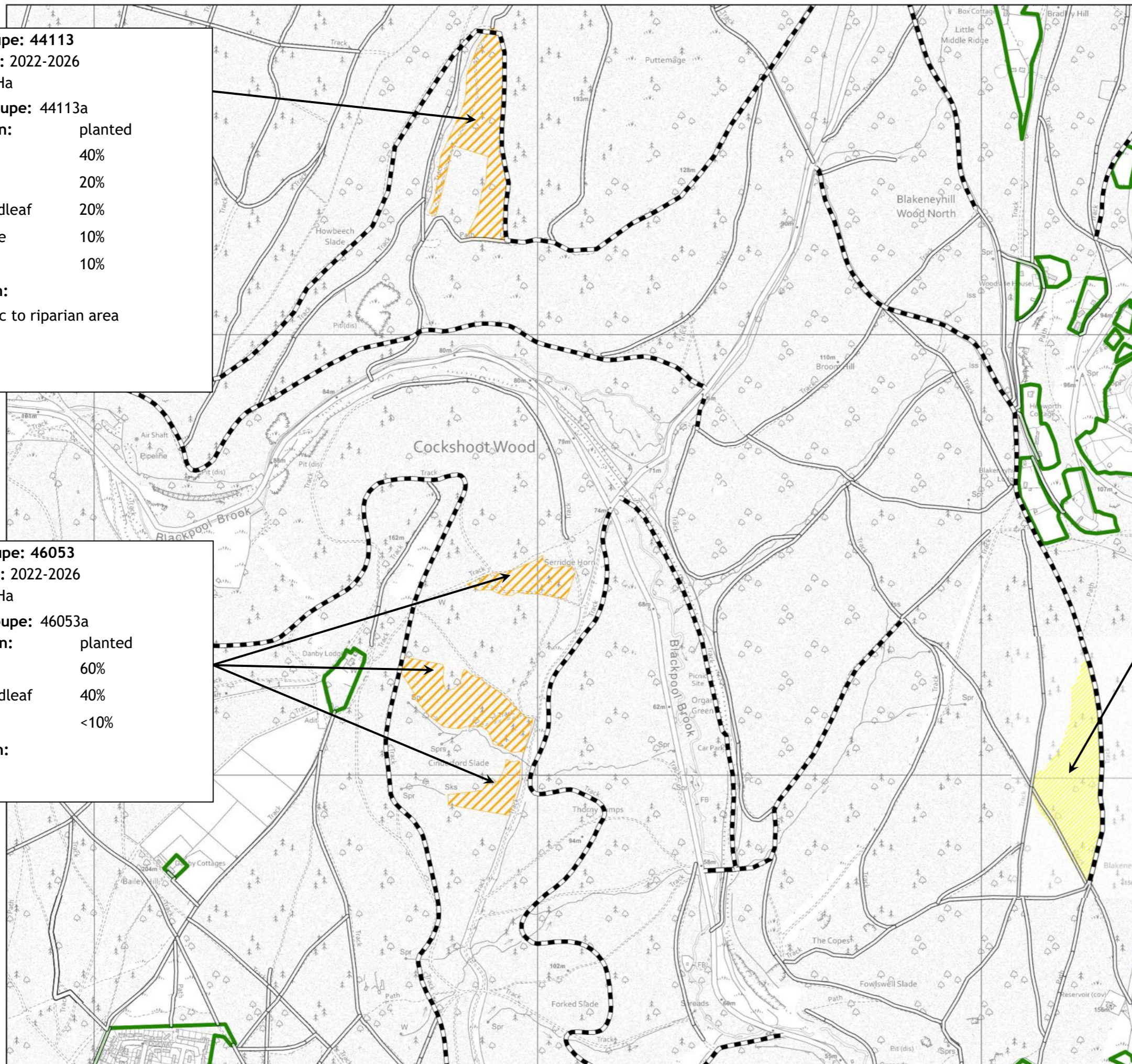


Felling and Restocking 2022- 2032

Felling Coupe: 44113
Fell period: 2022-2026
Area: 3.72Ha
Restock Coupe: 44113a
Propagation: planted
 Oak 40%
 Aspen 20%
 Mixed Broadleaf 20%
 Wild Service 10%
 OPEN 10%
Description:
 Sympathetic to riparian area

Felling Coupe: 45078
Fell period: 2030-2031
Area: 4.51Ha
Restock Coupe: 45078a
Propagation: planted
 Douglas Fir 40%
 Mixed Conifer 50%
 OPEN 10%
Description:
 Potentially CCF in future

Felling Coupe: 46053
Fell period: 2022-2026
Area: 5.25Ha
Restock Coupe: 46053a
Propagation: planted
 Oak 60%
 Mixed Broadleaf 40%
 OPEN <10%
Description:



Felling and Restocking 2022- 2032

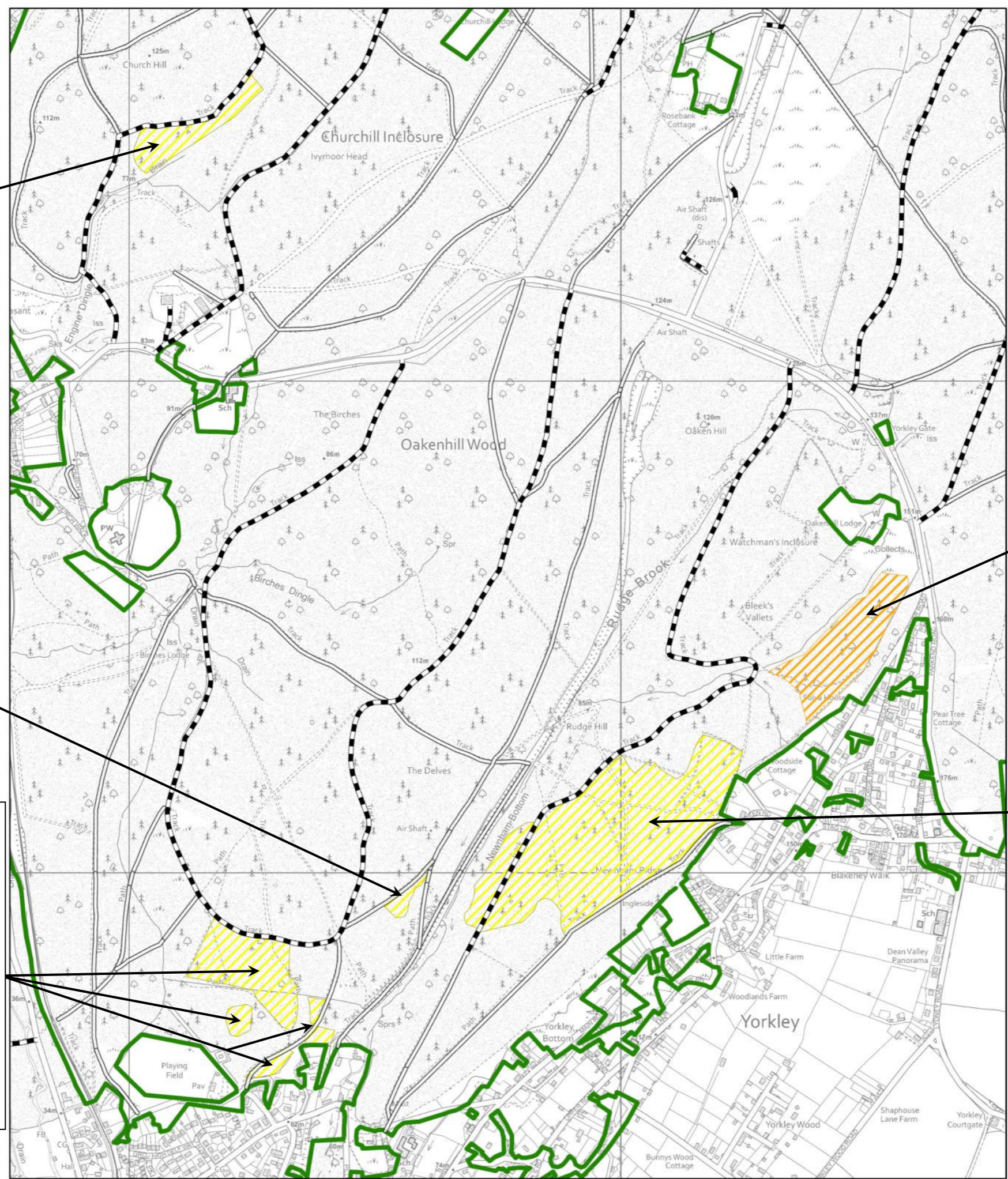
Felling Coupe: 46099
Fell period: 2027-2031
Area: 1.37Ha
Restock Coupe: 46099a
Propagation: planted
 Douglas Fir 30%
 Other Conifer 30%
 Mixed Conifer 20%
 OPEN 20%
Description:
 Sympathetic to riparian buffer on southern boundary

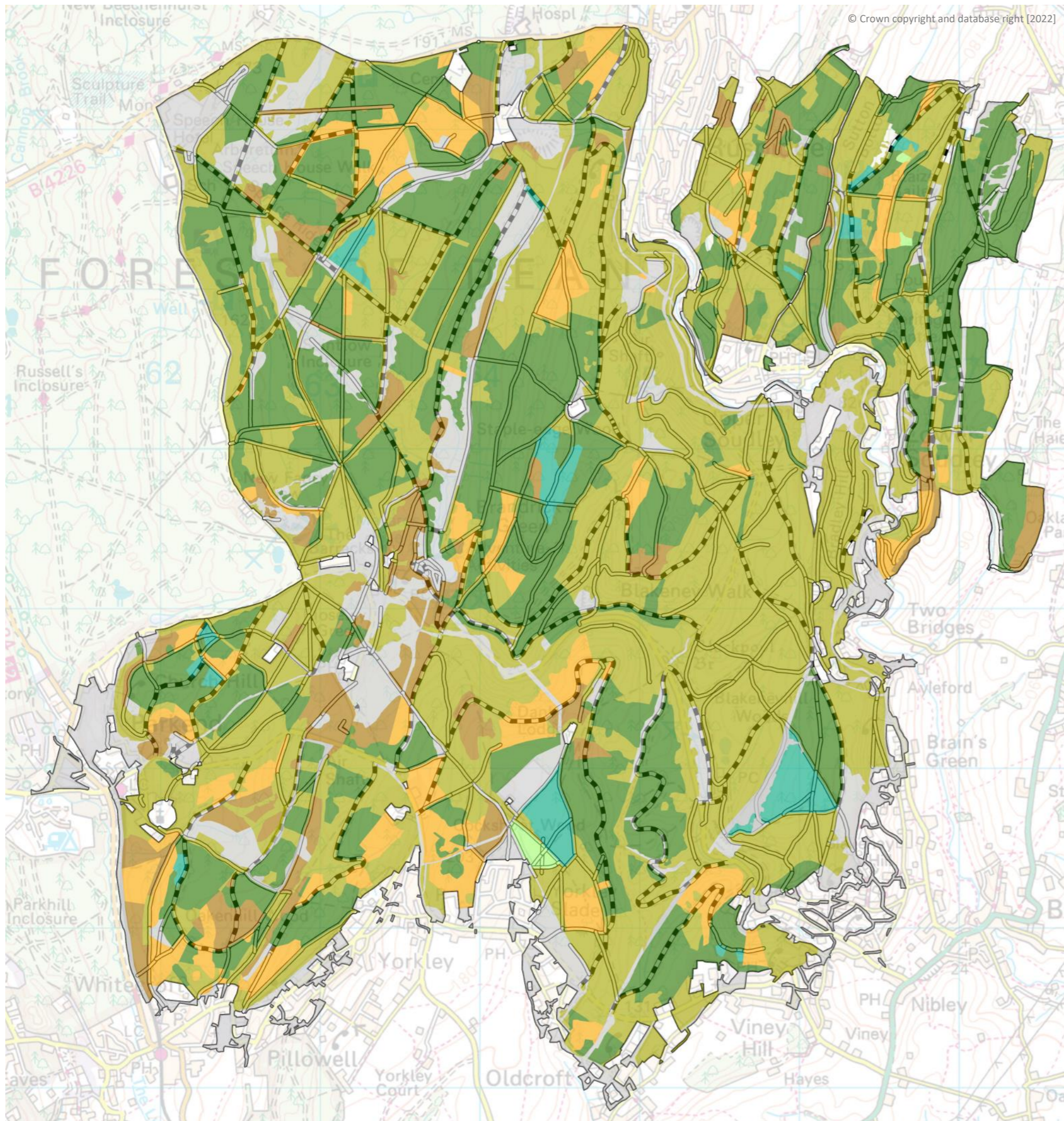
Felling Coupe: 46135
Fell period: 2027-2031
Area: 0.29Ha
Restock Coupe: 46135a
Propagation: planted
 Beech/Hornbeam 60%
 Mixed Broadleaf 40%
Description:
 Removal of Larch

Felling Coupe:
Fell period: 2027-2031
Area: 3.42Ha
Restock Coupe:
Propagation: planted
 Oak 50%
 Mixed Broadleaf 20%
 Other Broadleaf 20%
 OPEN 10%
Description:
 Clearfell conifer components

Felling Coupe: 46064
Fell period: 2022-2026
Area: 3.06Ha
Restock Coupe: 46064a
Propagation: planted
 Oak 40%
 Scots Pine 40%
 Hornbeam 20%
Description:
 Retain broadleaf components
 Only remove Larch that will not damage remnant veteran Oak & Broadleaf

Felling Coupe: 46111
Fell period: 2027-2031
Area: 11.07Ha
Restock Coupe: 46111a
Propagation: planted
 Douglas Fir 40%
 Mixed Conifer 30%
 Scots Pine 20%
 Mixed Broadleaf 10%
Description:
 Removal of larch and poorly performing Corsican Pine



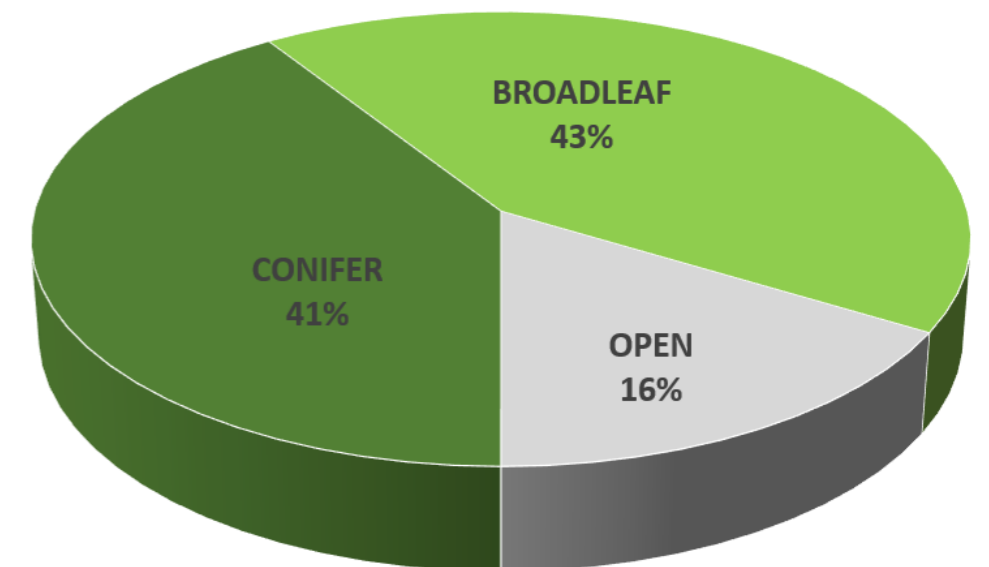


Indicative Future Species 2032

The projections made are an indication of species composition in ten years time. They do not constitute a guarantee and merely act as an indicator of how the vision for the Parkend Walk and Blakeney Hill Walk Plan area will be delivered over time.

Some areas may change more quickly than anticipated due to clearfelling of diseased areas. In these cases coupe design and species will be honoured according to Forest Plan¹ prescription to ensure restructuring goals are achieved.

Year 10 Indicative
composition in 2032



Legend

- Evergreen Conifer
- Other conifer
- Pines
- Larches
- Native and naturalised broadleaves
- Non-native broadleaves
- Open/other

Long Term Indicative Future Species Beyond 2051

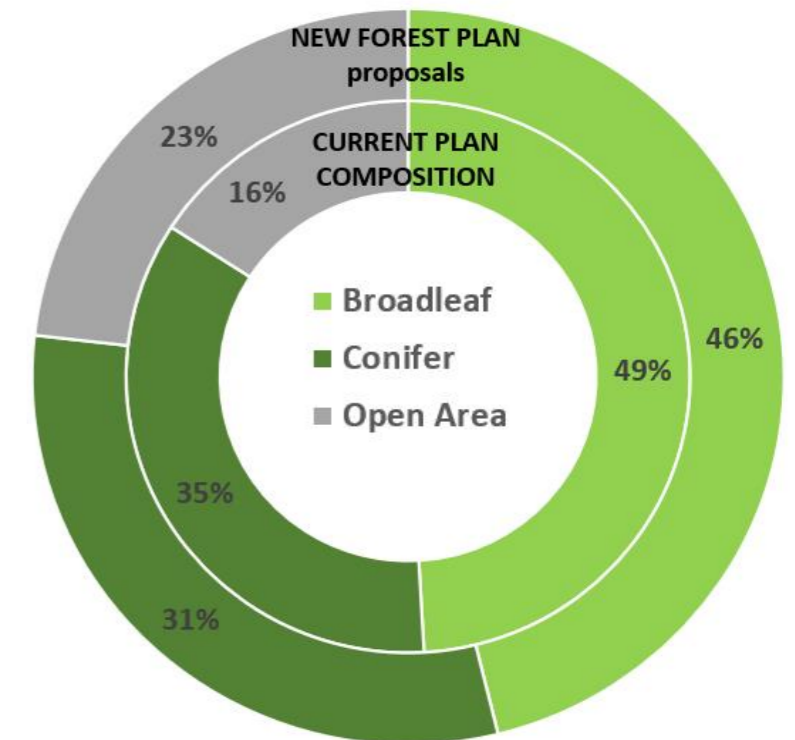
The projections made are indicative of species composition once Forest Plan prescriptions have run their course. Given that some prescriptions utilise Selection Systems that do not have a felling date this Long Term date is somewhat subjective but could easily be 2100 or beyond. They do not constitute a guarantee and merely act as an indicator of how the vision for the Parkend Walk and Blakeney Hill Walk Plan will be delivered over time.

Some areas may change more quickly than anticipated due to clearfelling of diseased areas. In these cases the design of coupe shape and species will be honoured to ensure restructuring goals are achieved.

Coupes falling in the "Evergreen Conifer" category will usually have, for example, a bias towards Douglas Fir, Red Cedar, Western Hemlock, or Norway/Sitka Spruce. With rising concerns over pests, disease and changes in climate, coupes classed as "Other Conifer" will contain a mix of "alternative" and or "emerging" species with elements of other Evergreen Conifer, to achieve the highest degree of species diversity possible.

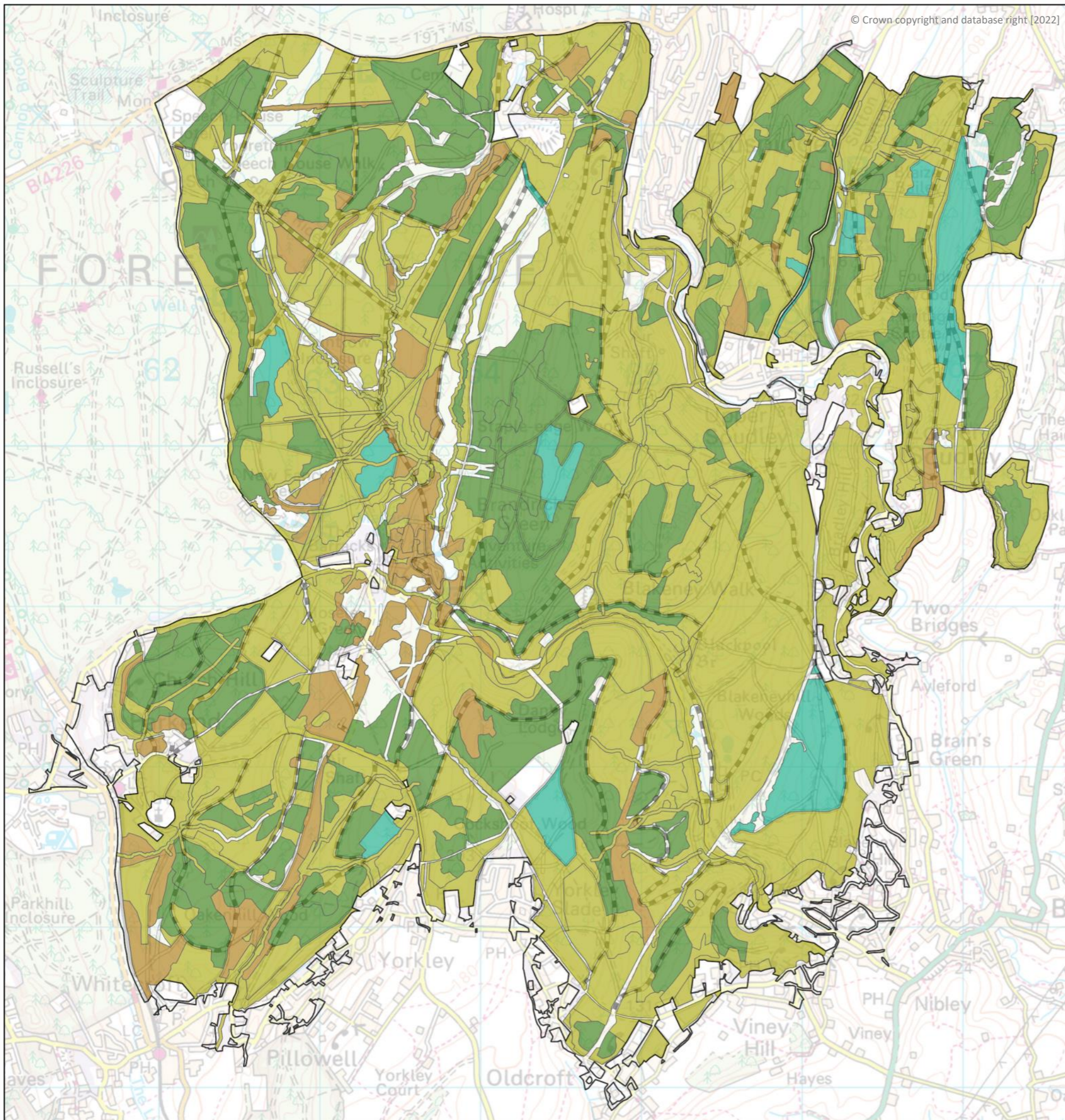
In reality both these classes will incorporate varying proportions of Evergreen and Other Conifer, since the map is formulated from the largest component. This approach presents the best chance of a more

Indicative Species Composition for the future



Legend

- Evergreen Conifer
- Other conifer
- Pines
- Larches
- Native and naturalised broadleaves
- Non-native broadleaves
- Open/other



Conservation - Habitats and Features

Coppicing and habitat linkages

Parts of Staple Edge (and wider Forest) have long associations with coppicing. Over the decades active management has declined with Coppice cycles now somewhat derelict. Coppice and coppice with standards will play a vital role in providing valuable habitat to support greater permeability¹ of species groups like lepidoptera and reptiles as well as supplying utilisable timber for fencing, firewood, pitprops and timber framing etc.

Short-term aim (20 years) - Bring existing coppice (outlined in orange) back into active management by reinstating a mix of simple coppice along forest roads/rides of varying depth with coppice and standards reaching back to high forest to create a graded edge. This will increase the woodland edge effect; and be achieved through rotations of simple coppice ranging between 3 and 6 years with coppice and standards being between 25-30 years, helping ensure habitat diversity is maintained.

Medium-term aim (40 years) - Provide connectivity (solid green with red outline) for the currently solitary areas of coppice mentioned above by either clearfelling or strip felling these links and replant with coppicable native species. These areas would then fall into the management outlined under short-term aims.

Long-term vision (80 years) - Work towards creating a corridor of coppice marked **A-B** on the map (dotted orange line) that will link areas marked out for short and medium term restoration in Staple Edge to the mixed open/coppice habitat at Awres Glow in Middleridge. This is a longer term prescription, taking a much longer timeframe to achieve given a higher % of conifer being present.

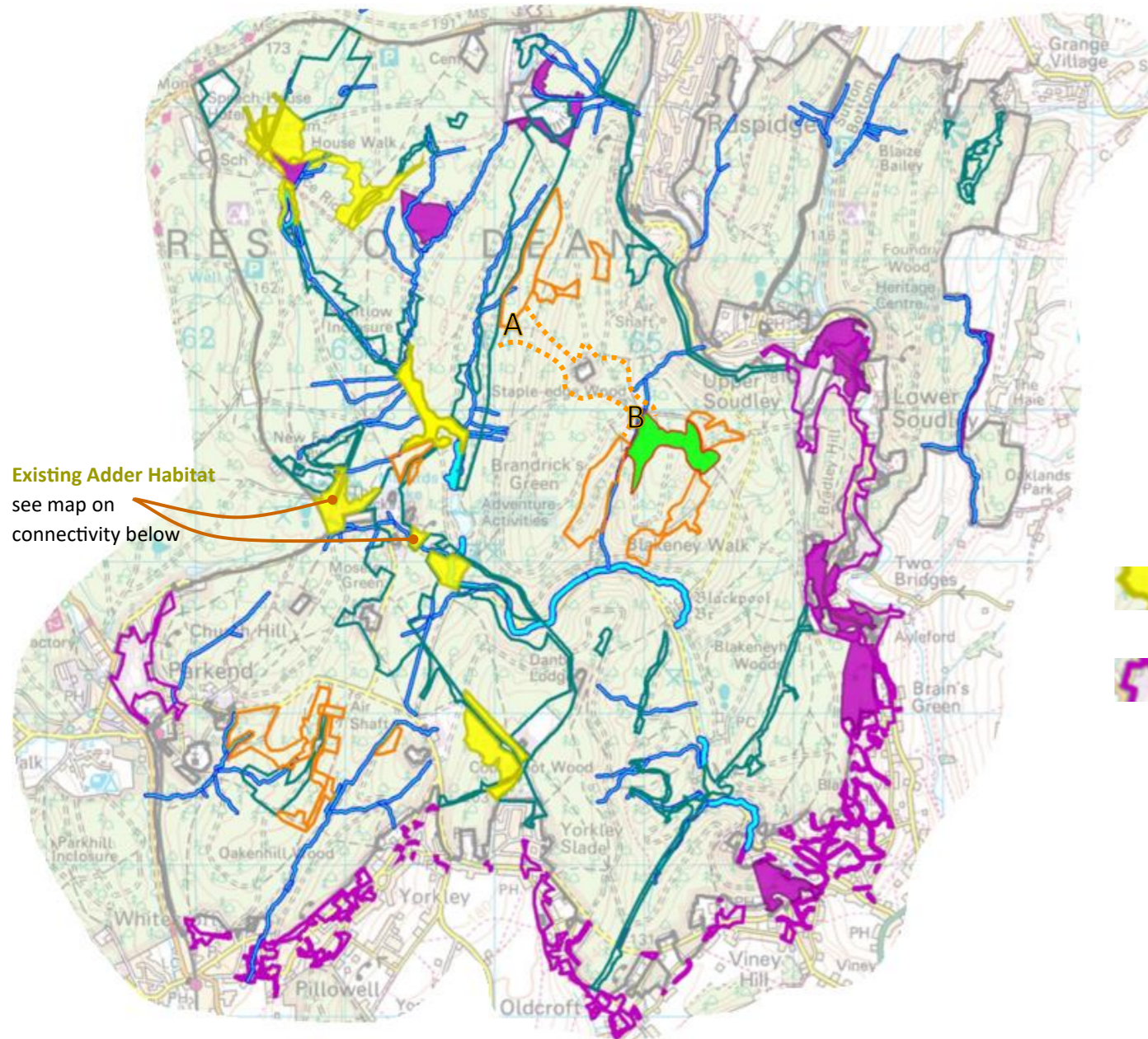
Existing open habitats (outlined in teal green) - Forest Plan prescriptions will see the joining of the adder habitats at New Fancy to those at Mallards Pike, with further linkage continuing to be developed in a north and north westerly direction that will benefit both adders and other species.

These linkages (coloured solid yellow) will be achieved through coppice renovation, thinning, promoting deadwood rich habitat along with 10 & 20 meter riparian buffer management (blue lines) to Speech House Lake and Foxes Bridge in a north westerly direction and from Mallards Pike, connection would continue to the north into Awres Glow.

Habitats containing wet woodland, open space and deadwood assemblages are complemented and strengthened by the presence of areas dedicated as minimum intervention shown in solid purple. E.g. at Lightmoor. Areas of Forest Waste generally occur along peripheral boundaries and are outlined in purple.

The completion of this vision of new habitat assemblages in Middleridge and Staple Edge would see an aspiration to create a green bridge between the adder site at Mallards Pike and the open habitats on the south side of the council road at Little Moseley turned into reality.

¹An Our Shared Forest objective is reduction of clearfelling - achieved in this plan by increasing the use of Low Impact Silviculture Systems such as, in this case coppicing and coppice with standards.



Existing Adder Habitat

see map on connectivity below

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Legend below for Map to right showing prescribed connectivity for open & Adder habitat

Green = Existing open ground

Orange = Areas that will have varying densities of native broadleaf tree species in matrix with open habitat

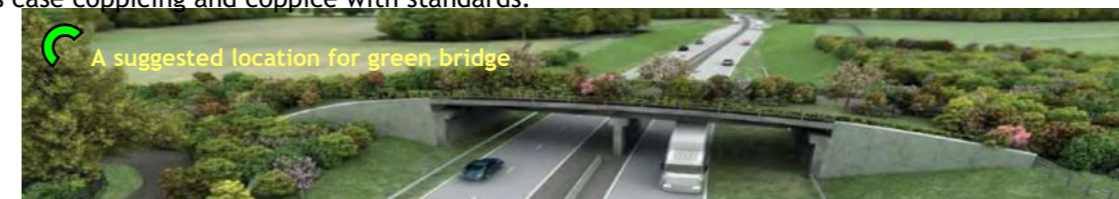
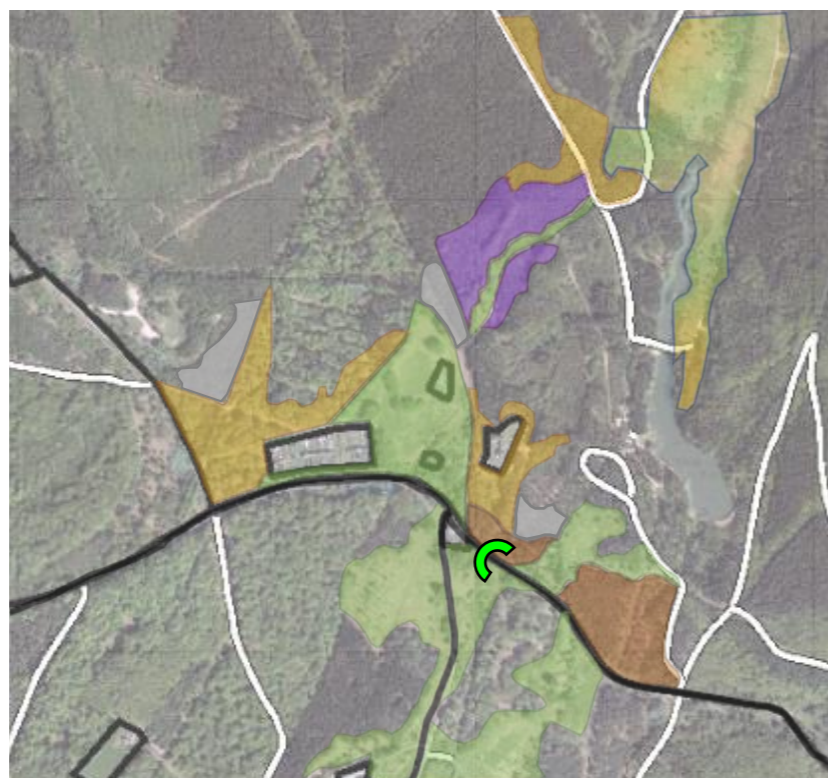
Brown = Areas of young Scots Pine will be developed into irregular size groups and individuals for long term retention in matrix with open habitat that will set and perpetuate the Sense of Place that Mallards Pike currently enjoys from Scots Pine.

Grey = Clearfells to create or link with existing adder habitat

Purple = areas to be managed through coppice and coppice with standards on varying rotation lengths to maximise ecological benefit for adders and butterflies

Green / Orange = area managed as mixed open habitat with some tree cover of varying density and species

Black line = council road



A suggested location for green bridge



Pine Marten - Released in Middleridge over the last 2 to 3 years Pine marten are beginning to spread, so with the population on the rise there is hope we will see a reduction in numbers of grey squirrel and therefore an improvement in timber quality. This being the case, Pine Marten will support the endeavour of promoting connectivity habitats through the proposed coppicing programme.



Adder - Adder populations in the plan area are vulnerable. The two main populous for adder reside at New Fancy and Mallards Pike. Felling selected areas, thinning others will provide linkage for these two areas and together with proposed coppicing should offer the Adder population space to expand more fully.



Dormouse - Currently three sites exist: Mallards Pike, Meezyhurst & Woorgreen Cottage. The Meezyhurst site is late thicket/early pole stage Douglas Fir. The plan area looks to restore around 30Ha of coppice. Long-term the plan offers around 60Ha of Coppice. Any planting undertaken in dormouse territory will consider planting an element of favourable species.



Native White-clawed Crayfish - The dams at Soudley Ponds incorporated features that protect and enhance habitats for the White-clawed Crayfish. Unfortunately during 2021 the population has crashed due to crayfish plague. It is hoped through careful management and use of Arc sites that the population can eventually be re-stabilised.



Beaver Habitat - Habitat creation that follow prescriptions for the 10 & 20m watercourse buffers with 80% tree cover, allied with prescriptions for enlarging the area of semi-natural wet woodland adjacent to Foxes Bridge Reserve, may well provide potential for future Beaver habitat.

Speech House Oaks SSSI -The SSSI is only a fraction of the Oak within this area, it is known for the holly understory and the assemblages of lichen that occur both on the Oak and Holly. This habitat will be safeguarded and enhanced by adjacent sub-cpts of Oak being identified and assigned similar management. Some areas will have conifer removed to release remnant 1800 Oak.

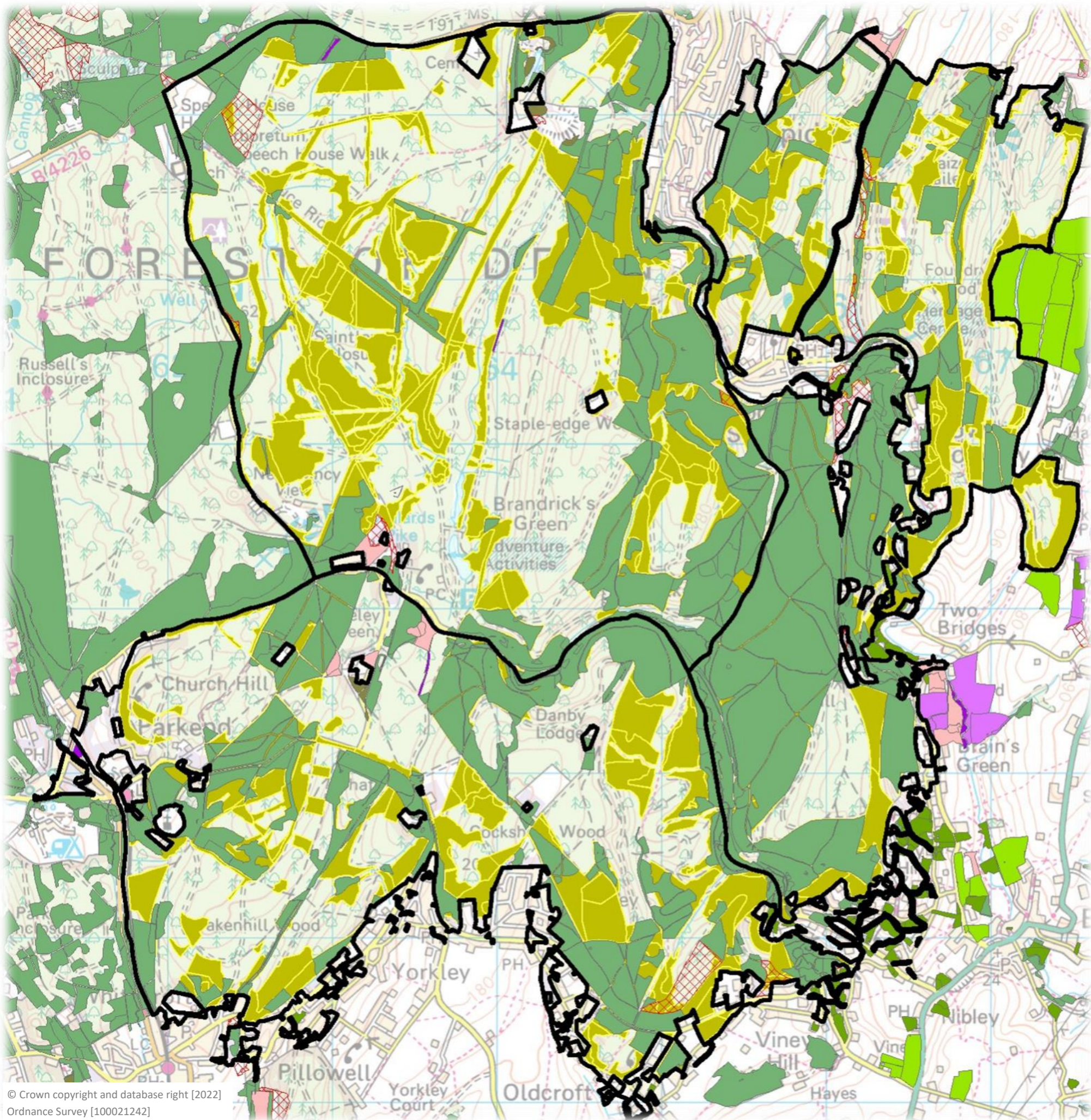
Semi-natural wet woodland - The headlands of Blackpool Brook reside within the Foxes Bridge Nature Reserve. Prescriptions will see adjacent woodland areas managed sympathetically, increasing the overall area of wet habitat types making the site more viable and valuable for "slowing the flow" and in doing so should attract a wider variety of species.

Wenchford Oaks - The Oaks at Wenchford are in a Wood Pasture context and are valuable both in terms of ecology and recreation, although they are suffering from Acute/Chronic Oak decline. Planting needs consideration to perpetuate the Sense of Place and Natural Capital Value the site has.

Conservation - Habitats and Features (continued)

NE Priority Habitats

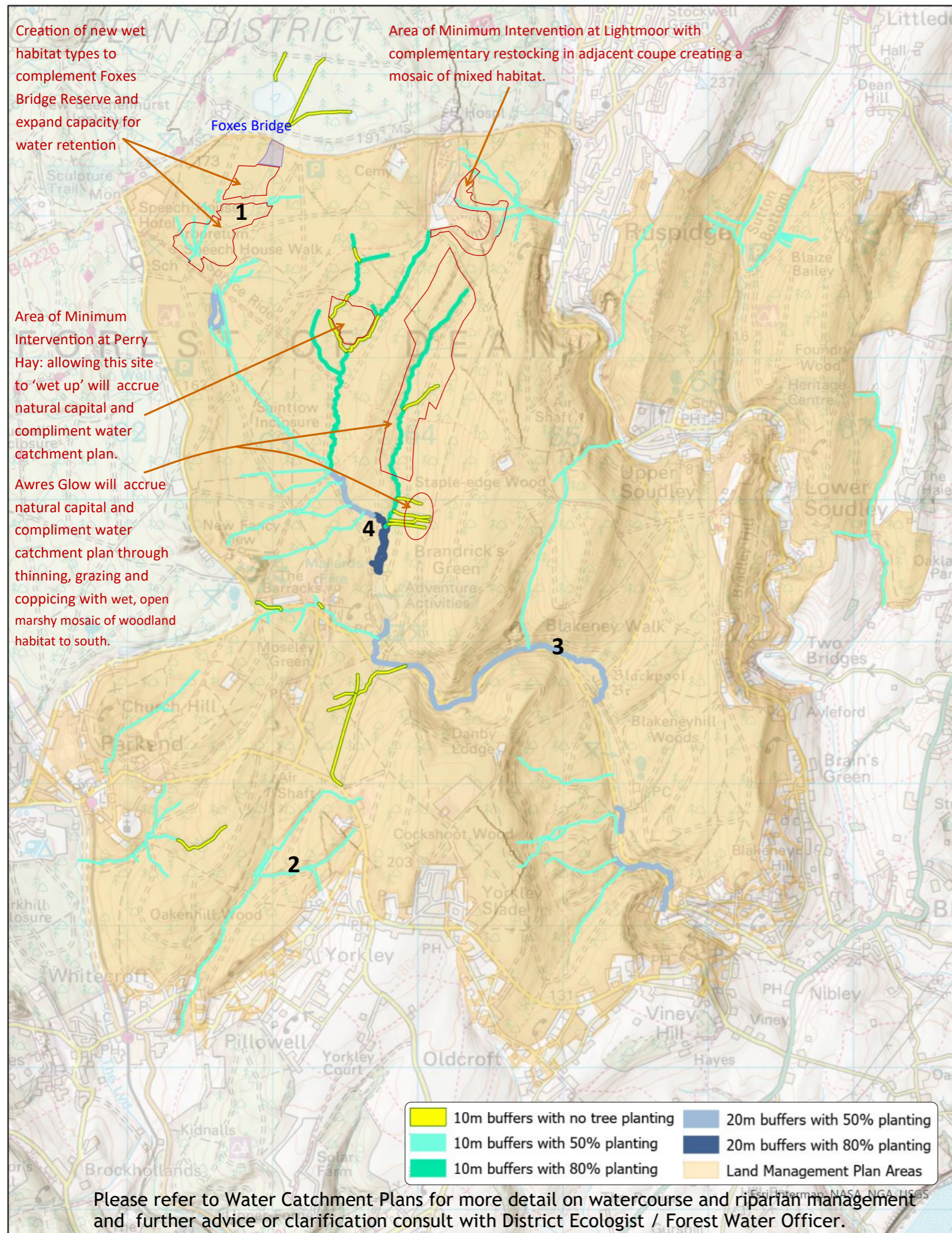
This map shows the Natural England priority Habitats with an overlay that indicates areas going back to broadleaf cover in the future and these areas can be seen in context by referring to the Long Term Indicative Future Species mapping on page 39



LEGEND

- Outline of Forest Plan area
- Forest Plan - indicative broadleaf restock
- Deciduous woodland
- Lowland meadows
- Lowland dry acid grassland
- Good quality semi-improved grassland
- No main habitat but additional habitats present

NE Priority



Priority watercourse buffers

Watercourses and their buffers identified in this plan are priority. The integrity of all buffers is critically important. Over time all self seeded conifer and Beech will be removed preferable by hand in order to maintain that integrity.

Preferably, no machinery should be allowed to enter these buffers for the same reason. However, where machines are used, then whole tree harvesting should be employed, and brush spread evenly outside the buffer zone within the matrix of the main crop.

In all cases, the Catchment Management Plans should be consulted on during operational planning, with further advice sort from the Forest Waters Officer and District Ecologist. Work will be undertaken when the opportunity arises either through routine thinning or through use of volunteer groups. Work in some cases may need completing over two or three interventions to ensure crop stability.

10m and 20m water buffers with NO tree planting

Photo 1



Foxes Bridge

1

All tree species other than willow species will be removed with some felled trees left in situ to enhance levels of deadwood and ecological value.

10m and 20m water buffers with 50% tree cover

Photo 2 and 3



Northern end of Rudge Brook

2

All Alder, Ash and Willow will be retained. Other natives can be retained but in small quantities to form a minor component of the buffer, species would include Oak, Rowan, Holly, Yew, Field Maple, Hazel etc. retained for example on drier sections along with large mature/veteran native standards.

All conifer species along with Beech and Birch will be removed, with some felled trees left in situ to enhance levels of deadwood and ecological value.

Planting will be allowed and together with retained trees, tree cover should account for approximately 50% of the buffer. Species planted will comprise of

10m and 20m water buffers with 80% tree cover

Photo 4



Blackpool Brook (leaf spring 2020)

3

The location of these buffers have been identified as locations considered to be potentially suitable future beaver habitat and work will aim to enhance the riparian habitat to be attractive to beavers. Work in these buffers will see removal of all species except Alder and Willow.

Alder, Willow and Aspen will be the only trees species to be planted, some targeted protection maybe required in specific areas to achieve this.



Stream feeding the top lake at Mallards Pike

4

Heritage Features

Archaeology and Heritage of the area is heavily influenced by mans exploitation of the Forest of Dean’s natural resources of stone and minerals that has left physical features behind such as scowle holes, stone lined culverts and stone lined sections of watercourses to prevent mines and addits from flooding. From the woodland, timber was widely harvested and processed on site for charcoal leaving numerous platforms and charcoal hearths behind.

All the materials being produced needed to be transported and over the years means of transport progressed from sunken trackways, holloways, dram roads and tram ways and stoned roads to more modern times where railway lines were prevalent and used for public transport too, although the majority are now defunct and derelict.

Use of the land for Agricultural and Forestry purposes has also left behind frequent and interesting earthwork features such as the lineal woodbanks, enclosures, stone walls and ditches with some like the Abbots Ditch running through Blaize Bailey that help mark sections of the Statutory Forest boundary, being further demarcated in strategic places by boundary stones.

The Plan area enjoys three scheduled monuments, these are:

- ◇ Blackpool Bridge,
- ◇ The Roman Road and
- ◇ Soudley camp.

Geological Exposures at Meezyhurst and at Oakenhill also hint at the Dean’s heritage and are designated as SSSI for their protection.

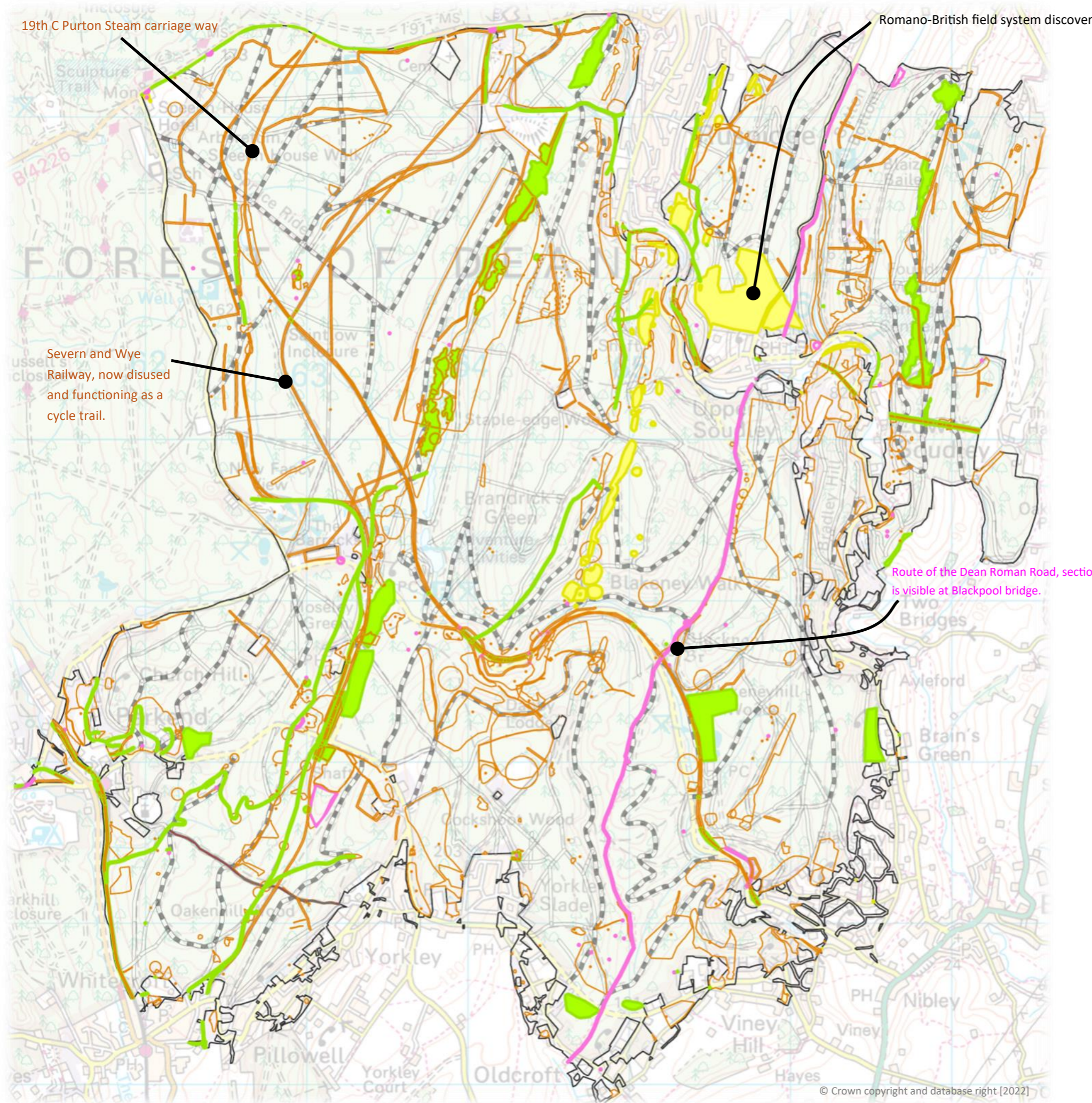
The use of Lidar in recent years has helped identify other previously unknown features or helped pinpoint others whose whereabouts have previously been sketchy at best. Complementing the use of Lidar, further Archaeological digs have turned up a wealth of other archaeological artifacts that all help paint a picture of the areas rich built and cultural heritage.

Heritage and archaeological features will be managed to avoid damage during any forest operation and where required will follow advice from the County Archaeologist.

Further information on archaeology and heritage can be found in the Concept and Analysis pages for heritage at the beginning of this plan.

Range of Importance

- National Importance
- Regional Importance
- Local Importance
- Other Sites - platforms/charcoal hearths
- Uncategorised



19th C Purton Steam carriage way

Romano-British field system discovered by Lidar survey

Severn and Wye
Railway, now disused
and functioning as a
cycle trail.

Route of the Dean Roman Road, section
is visible at Blackpool bridge.

Recreation and Public Access

Whilst producing in excess of £200,000 worth of timber per year and providing a wealth of habitat for a variety of wildlife; the woodland is also a valuable asset to local communities and the public for recreational purposes and wellbeing, making the plan area a true exemplar of multi-purpose forestry in action.

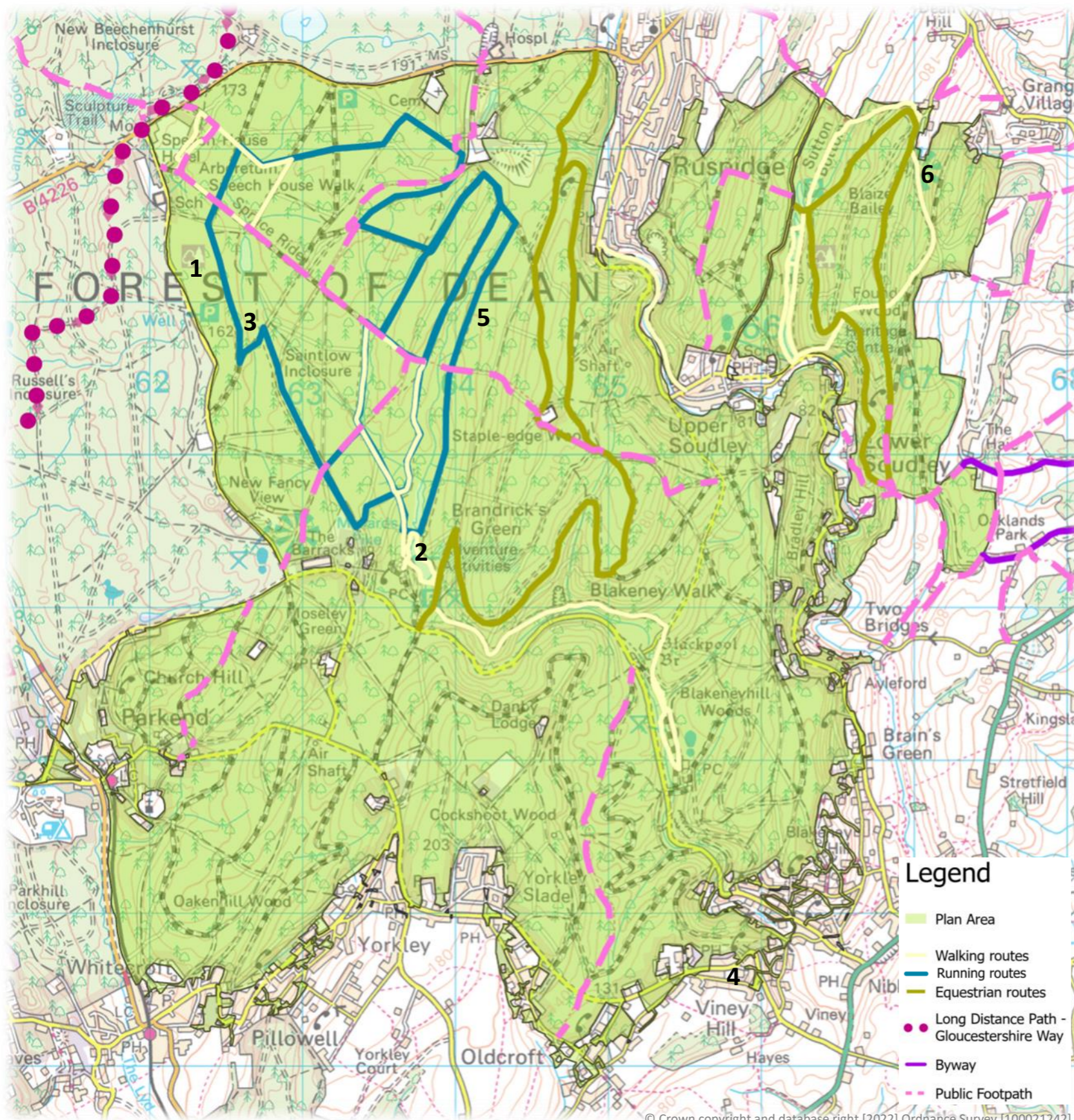
Below are a few of the woodland features & characteristics providing recreational benefit, that are also photographically illustrated at the bottom of the page and numerically cross referenced on the map:

1. The woodland composition in a large proportion of this plan area is being managed through systems of LIS that enables the provision of a variety of trees species; as a result visual diversity and interest is stimulated for users of the forest creating an immersive experience.
2. The woodland enjoys several main areas that are managed for public relaxation and as trailheads. Mallards Pike is the main one that provides a comprehensive variety of experiences e.g. Go-Ape, Segway and both running and walking trails. Others include New Fancy, the Dr.Cyril Hart Arboretum, and Soudley Ponds.
3. The woodland has rich cultural heritage and a strong sense of community that ensures these connections to the past are celebrated and remain as features, for future generations to enjoy. In this example links are created through a community planting project creating an avenue of Oak called Trafalgar Avenue and at New Fancy there are 3 sculptural installations that attract visitors too.
4. Napoleonic Oak often coincide with the Woodland fringe and offer a glimpse and hint to visitors as to the rich and distinct unique Sense of Place the Forest has to offer.
5. Landscape is designed and managed, enhancing the visual aesthetics of areas such as those at Awres Glow and at the same time provide a greater depth of habitat for wildlife providing a more vivid immersive user experience.
6. The woodland offers fantastic views of the surrounding landscape such as those over the river Severn at Blaize Bailey viewpoint and also 360 views from New Fancy Tip that gives far reaching vistas into Middleridge, Staple Edge and Cockshoot. Appendix 1 gives detail on how landscapes are managed to achieve a better aesthetic to the forest user.

Horse riders can enjoy two permissive trails: one starts at Cinderford Bridge and finishes at Mallards Pike with the other being a circular route around Blaize Bailey taking in the viewpoint over the River Severn. For cyclists there is the Family Cycle trail that utilises the defunct mineral loop railway. Both cyclists, horseriders and pedestrians can also enjoy the numerous hard stoned roads & rides that run through the plan area with provision of public access supported through CRow Act and also a substantial network of PRow.

There are areas of the woodland within this plan area that lend themselves to being quiet areas and this is currently a focus of work being developed for future provision of spaces that forest users can enjoy with a sense of tranquillity. Further information on these "management zones" will become available once this piece of work is completed.

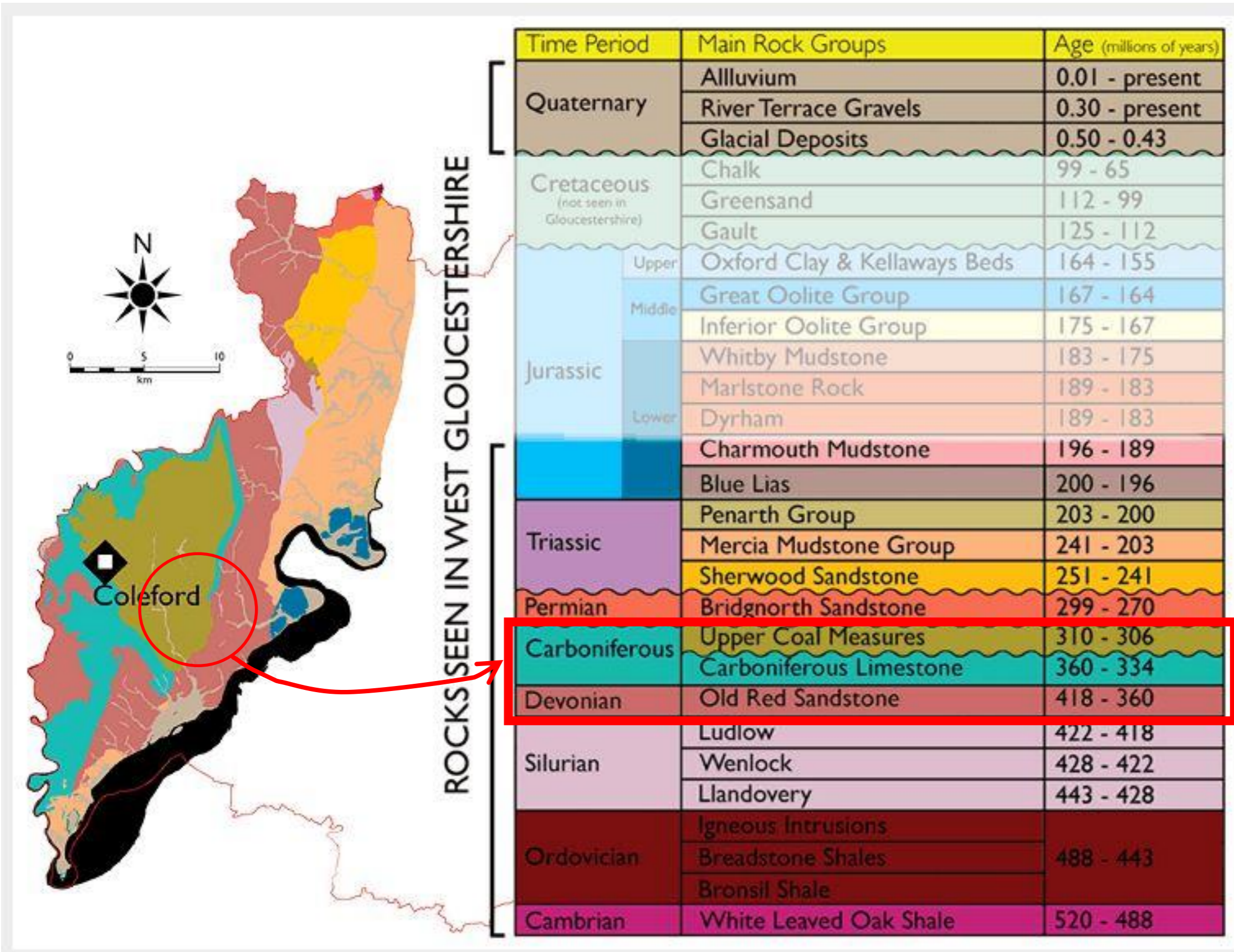
There are possibilities of further provision of facilities at some sites. This could potentially include a limited number of open days for the scenic drive at Blaize Bailey and improvements to existing carparking provision at certain sites within the plan area.



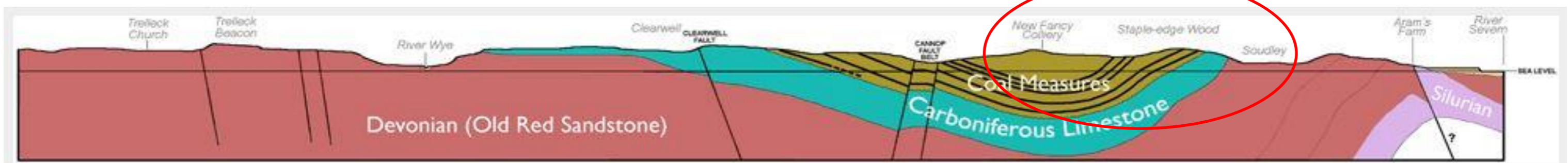
Geology

Plan map showing geology of the Forest Plan area with the plan ringed in red.

For Soils please see Concept and Analysis on soils and geology page 16



Cross section of the Geology in Forest of Dean showing the extent of the Forest Plan area.



Landscape Analysis



Above: Taken from Ruspidge looking West into Old staple Edge.

One can see the diversity in species of broadleaf contrasting against conifer. Usually there would be expectation to remove the conifer, but in this case the conifer adds character and interest so the bank will be managed through Single Tree Selection.

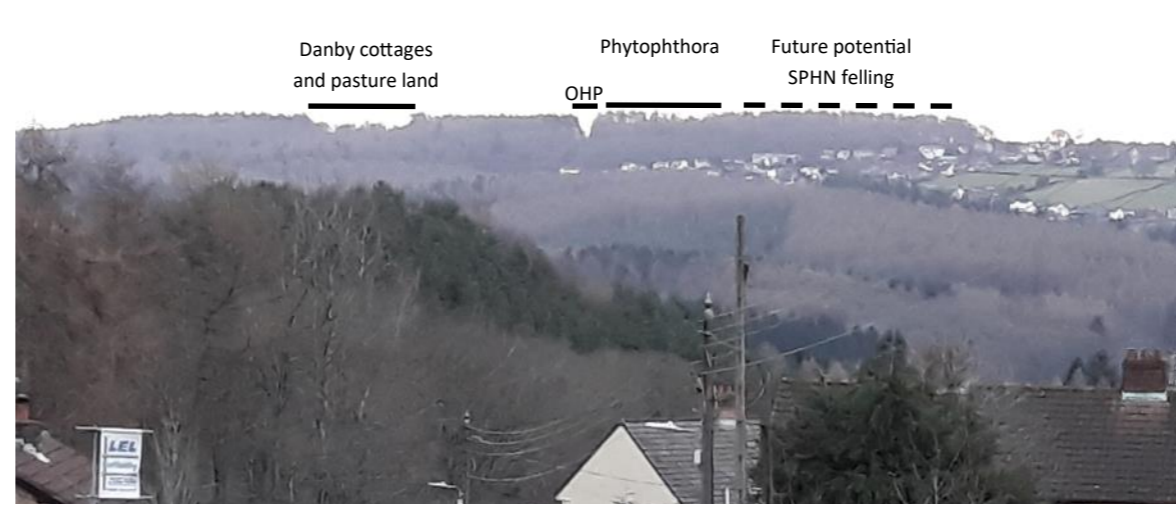
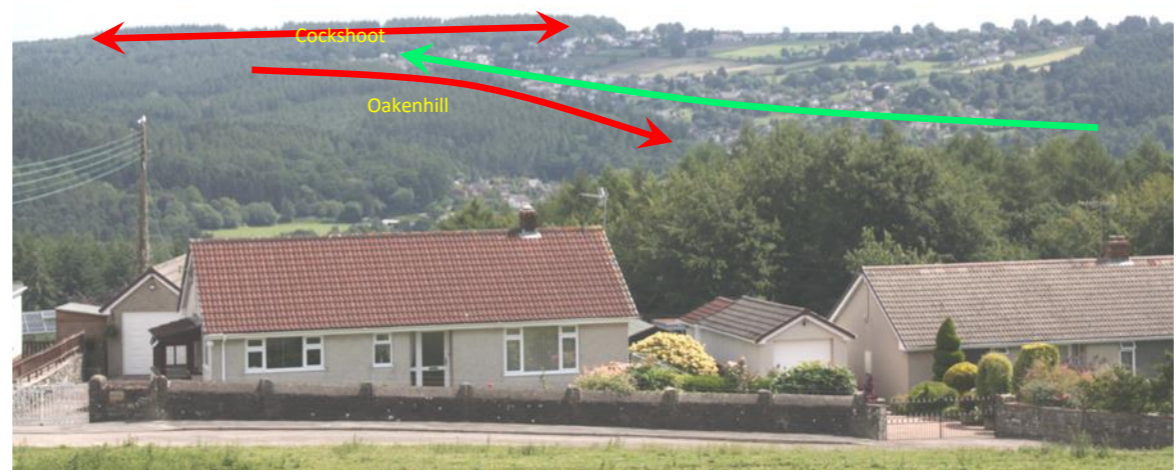
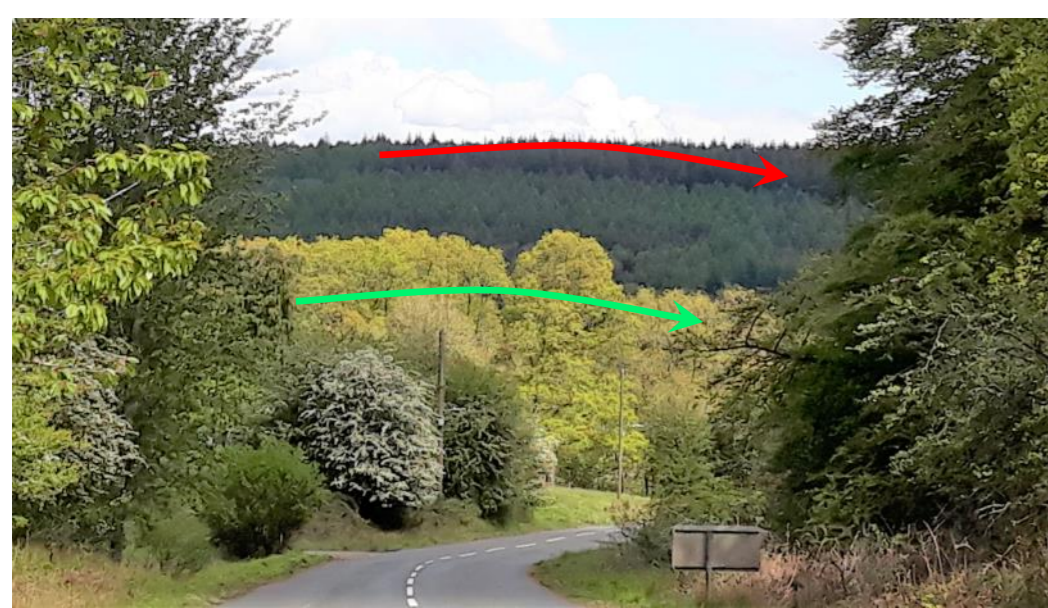


Above Left: Taken from the area of Forest Waste in front of The Barracks at Brandricks Green looking Easterly onto woodland surrounding Mallards Pike in the fore and Staple Edge rising behind to the skyline.

The species are blocky by nature, and the boundaries are straightish, but are tangential to the skyline and slope of the hillside and their ribbon like appearance reflect the angle of the road carrying your eye off to the right (Southward) and out of sight, giving a sense of suspense and intrigue as to what lies around the corner.

Below: This is the same viewpoint but taken from the road. The right one is taken before reaching the area of Forest Waste the left photo is the same place as the above photo but from the road. In both cases there is a sense of flow created by the coupe shapes and juxtaposition of the predominantly conifer woodland interacting with and echoing those created in the broadleaved foreground resulting in more harmony than discord. - this is not to say that it could be improved, but it is likely to given the high content of larch that is susceptible to Phytophthora ramorum and is likely to be felled given the close proximity of Phytophthora on the same hillside further north. Therefore coupe design has tried to resolve the rectangular nature of the coupe shape, should the larch in these photos be removed. As previously said, the correction for the impact on the landscape due to sanitary fellings is likely to be over two or more decades and phases.

This process is complicated by the foreshortening effect when viewing the hillside from New Fancy viewpoint and this forest Plan only completes the first phase.

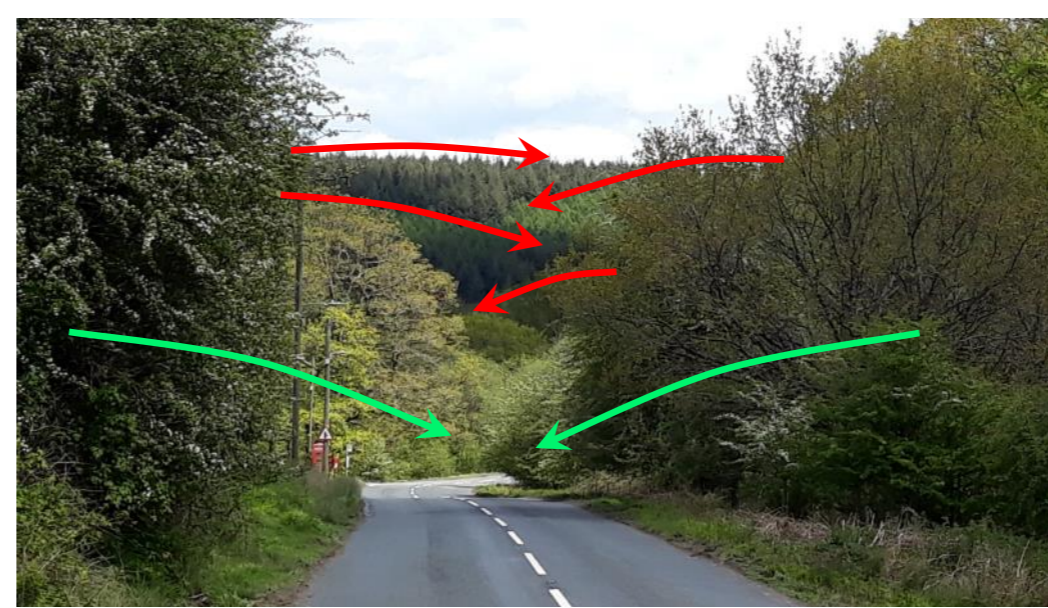


Left: View from Brockhollands Road in Bream.

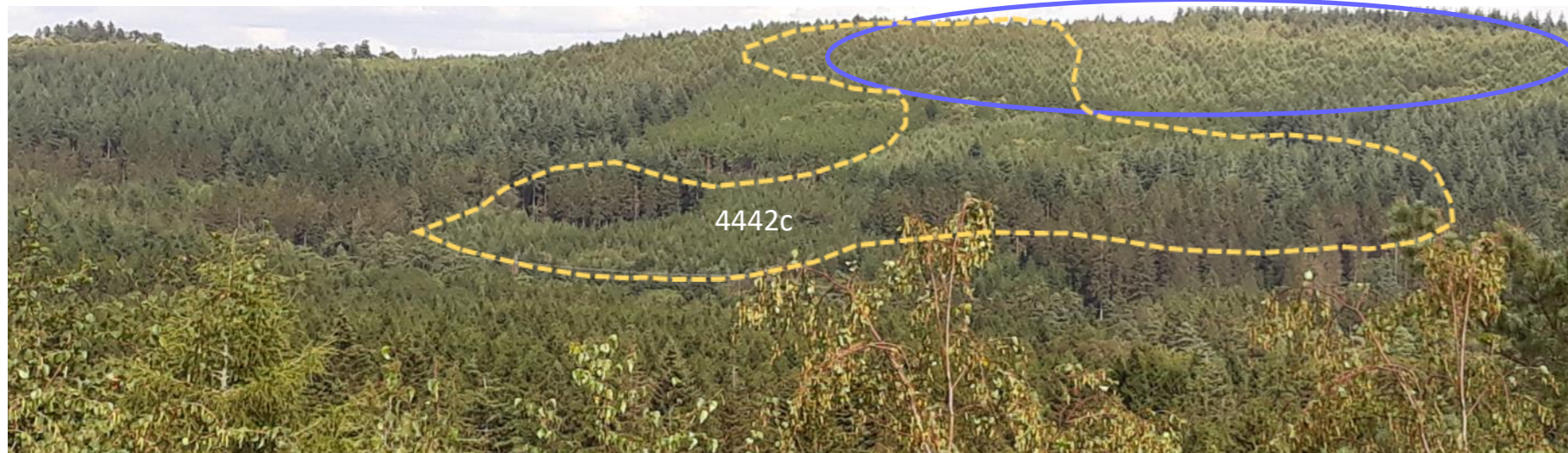
Oakenhill and Cockshoot noticeably convey a strong interlock between woodland, the surrounding peripheral communities of Yorkley, Pillowell, Whitecroft and open pasture land; with the lineal nature of the hedgerows enhancing visual lines of force, drawing the eye off the ridge into and then up the valley back into the woodland. The scattered copses and isolated trees provide a softening of the strong underlying geometric shapes within the landscape.

Left: Skyline of Cockshoot Wood taken from Whitecroft Road in Bream.

The castellated effect along the skyline is caused by the pasture land behind Danby cottages and a powerline wayleave. The felling of larch due to phytophthora can be seen to have a softening effect on this stepped appearance of the skyline. Future potential statutory felling of larch, may extend this effect to the southern (right) edge of Cockshoot.



Landscape Analysis (cont)



Left: This photo shows the Western slopes of Staple Edge as viewed from New Fancy viewpoint taken in 2020 prior to an outbreak of *Phytophthora ramorum* that occurred in the area ringed blue knocking out almost 18Ha of vulnerable crops.

One can see that the woodland is pretty monocultured in species and age, but that a start in restructuring has started in sub-cpt 4442c that was felled in 1999-2000 and restocked in 2001 with Norway spruce. The shape of the coupe worked but in context with the scale of the landscape one could argue was too small by comparison. One can also see despite the start of this process the rectangular and blocky nature of the sub-cpts is still extremely evident. The felling of the *Phytophthora* only exaggerated this, meaning a redesign would be beneficial on both counts.

The Redesign process for coupes on Staple Edge started by taking the shape of 4442c and enlarging it to fill the landscape (see the dotted yellow line). This shape was then used to form the foundation of the new coupe design. The process worked well and coupes are now in scale.

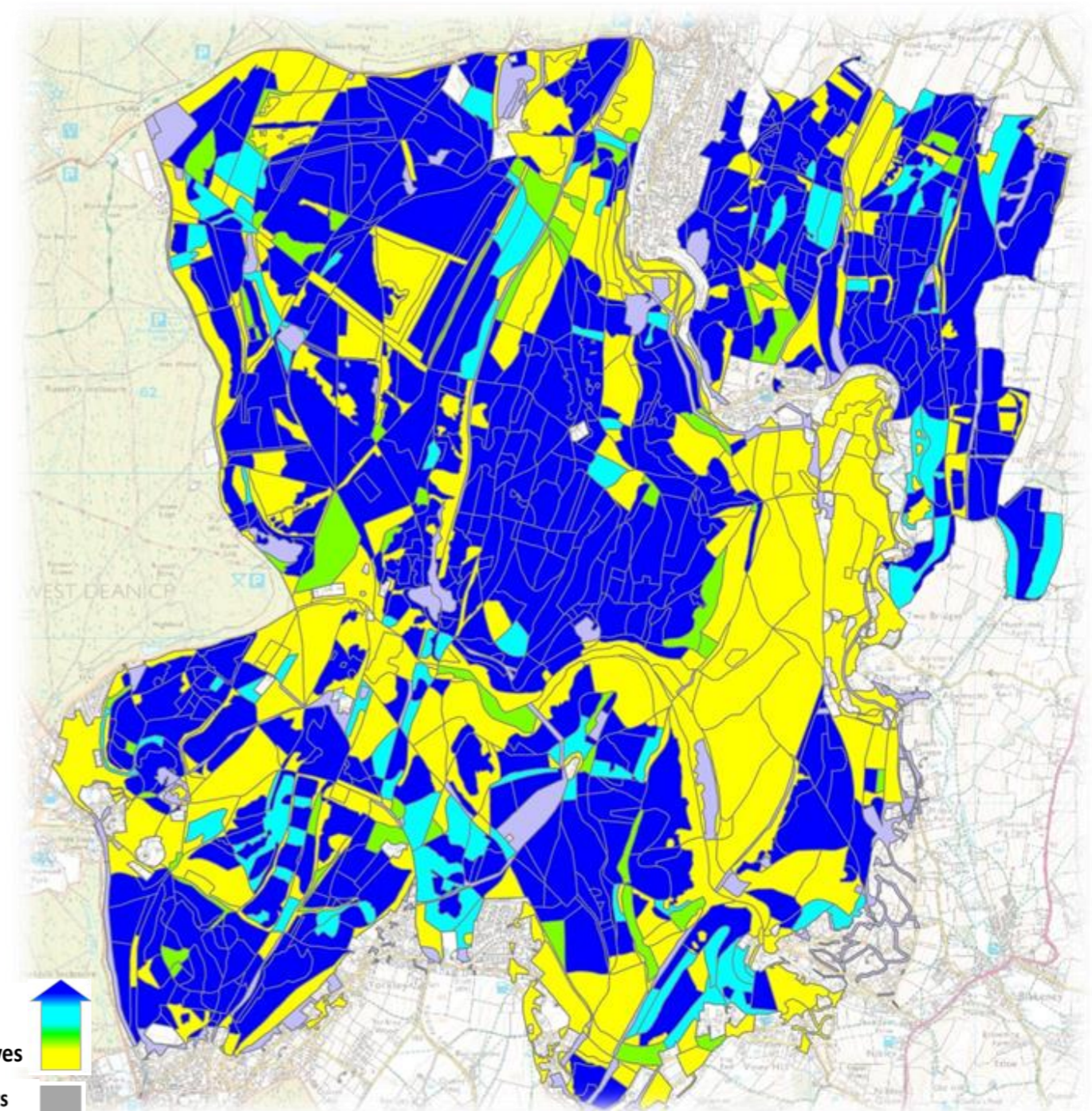
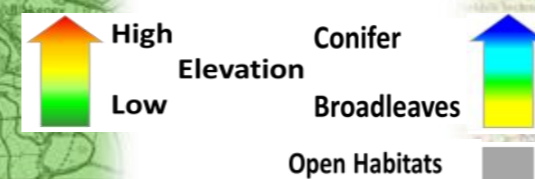
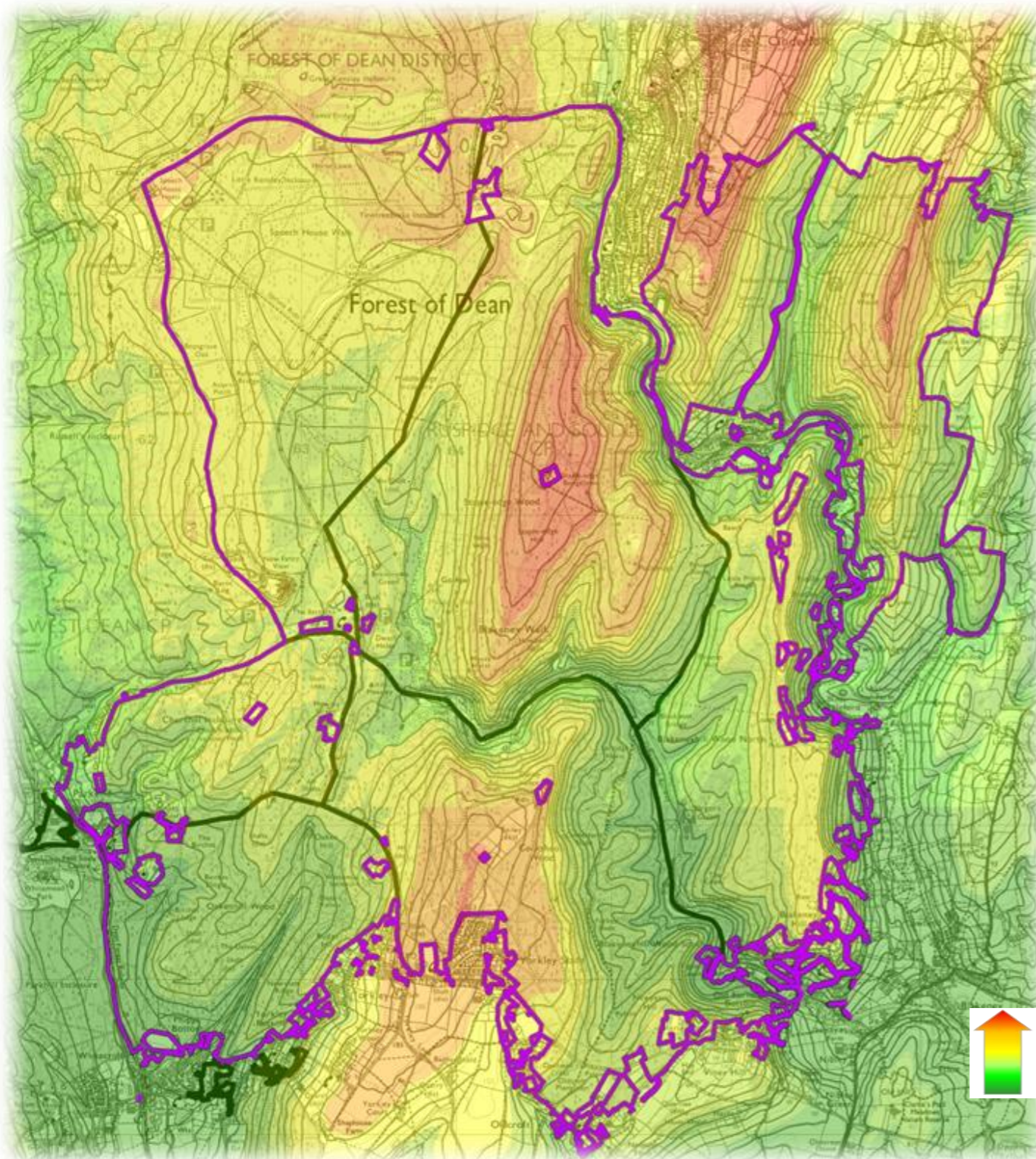
Below: the design of the coupes evolved and below was the result. The coupes take into account the scale of the landscape and landform to give a much more organic, natural feel to the flow of the coupes. The transformation will be achieved through the use of Selection and Shelterwood systems with some clearfelling. Where coupes are clearfelled, a 15-20m headland will be left around its perimeter and this will gradually infill with natural regeneration or be restocked at the time of felling the adjacent coupe. Where LIS is used thinning will be utilised along coupe boundaries to develop opportunities for underplanting and this will help to define the new coupe shapes.



Below: The issuing of an SPHN for *Phytophthora ramorum* during the writing of this plan means the first part of the first phase of transforming the coupe design has been completed ahead of schedule. One can see that the boundaries of the SPHN felling and new coupe layout intersect quite nicely. The remaining coupe transition and implementation will take shape as restocking and future thinning are applied. The large coupe to the far right of the photo may need sub-dividing in the future and this could be achieved by division along the white dotted line.



Landform Analysis



Landscape analysis is used to assess the landform patterns and demonstrates how it is in keeping with the surrounding landscape character.

One's eye is naturally drawn up valleys and gullies and down the ridges. Elevations in the map above left are scaled from green to red with red indicating ridgelines and then scaling through orange and yellow to green that indicates valleys, valley bottoms and gullies.

These principles can be used to design the coupe shapes of the future ensuring the size and shape of felling and restocking coupes do not detract from the natural appearance of the forest and its contribution to the landscape character and context.

As a rule of thumb and in most contexts landscaping aims to place broadleaves in valley bottoms and conifer on the higher elevations and ridges. The map on the right of the page shows the current spatial distribution of conifer and broadleaf. In comparing the two maps one can see there is a close correlation to this principle. There are a few anomalies, some can easily be resolved through clearfelling¹ whilst others will take more time through the use of LIS. In some cases though, conifer in valley bottoms adds to the drama and Sense of Place and in these cases conifer is likely to be retained. E.g. Mallards Pike to Blackpool Bridge on both sides of the road and in Soudley valley where the Douglas Fir adds a sense of grandeur, awe and wonderment.

¹ either clearfelling that has been programmed can solve and achieve the ideal coupe shape for the landform in which the coupe is located OR additional longer term complications arise because clearfelling takes place to eradicate pests and disease, in which case, remedying such an issue may take a couple of decades and has to be achieved in phases. E.g. Views into Staple Edge from New Fancy viewpoint where *Phytophthora ramorum* has meant early removal of infected stands of larch.

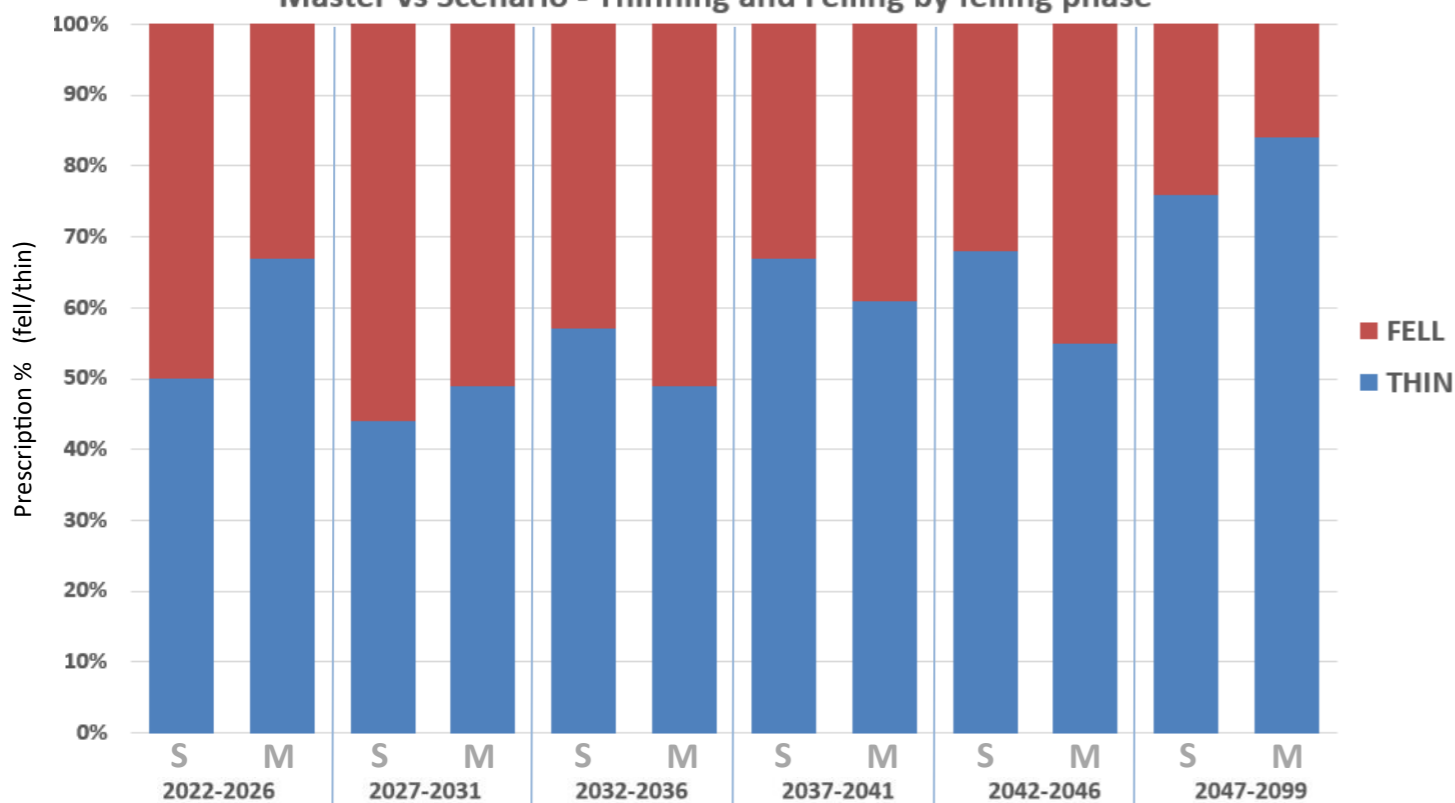
APPENDIX 2: Management considerations - Option Testing

Option 1 – The Current seven Forest Plans (Master)	Option 2 – Proposed Forest Plan (Scenario)
Deliver well-designed forests that protect and enhance the internal and external landscape in keeping with the local landscape character.	
Old plans for the main adequately addressed landscape issues in most cases, but did not foresee impacts of pests and disease e.g. the almost 360 panoramic views from New Fancy that take in the extensive internal views of Middleridge and western slopes of Staple Edge.	Couping detail in the new plan concentrates on putting into place a longer term coupe design based on the well thought out designs from the mid -1990s, but this will take time to achieve given the prescribed increased use of Low Impact Silviculture. (LISS)
Conservation and Ecology objectives (various)	
For the majority the suite of conservation objectives in the old plans were fairly broad in their statements, but in some instances specifics were mentioned e.g. open habitats, protected species, old oak woodlands and individual species such as Small Pearl-bordered Fritillary.	This new plan covers an area between 5-6 times larger and recognises that in their entirety the conservation and ecology objectives from the old plans address issues that are still current. However, specific examples concurrent to Our Shared Forest have been highlighted in this new landscape scale amalgamation, e.g. Ancient Semi Natural Woodland (ASNW), Trees of Special Interest (TSI), Veteran Trees, Open Habitats and their associated species.
The continued production of sustainable and marketable woodland products.	
Timber production was sustained primarily through thinning and clearfelling was the prime mode for managing structure change. LISS and Minimum Intervention being in their infancy for the delivery of other objectives.	Timber production delivered in a sustainable way remains an important objective. To this end the plan looks to implement a higher proportion of LISS as a means to deliver sustainable production and as an alternative means of increasing structural diversity within stands and the wider landscape. Reliance on clearfelling will therefore be reduced and value of natural capital will increase.
The diversification of woodland species and structure for greater ecological and economic resilience.	
Clearfelling and restocking have been used for the past 30 years to implement a strategy for diversifying species and age class. For various reasons including pest and disease and needing to maintain a sustainable delivery of timber the restructuring programme has fallen behind schedule. Not that there is a rush, but does mean the realising of resource potential may suffer.	LISS will be used as a means of managing the burden of Statutory Plant Health Notices that either have been or have potential to be served. So around 40% of Clearfell sites due to be felled over the next ten years (2032) have been found to be suitable candidates for managing through LISS. Retaining 60% as clearfell means that other objectives such as providing transitory open habitats for ground nesting birds can be achieved. Within LISS this will be compensated for by the reintroduction of coppicing.
To conserve, maintain and enhance cultural and heritage assets.	
Management proposals were in line with management intentions laid out within the Forest Plan.	Management proposals will continue these intentions supported by the site planning process that will look to identify and record any heritage features that may be impacted by forest operations as well as those previously unidentified. The Heritage Layer will be used to record those previously unidentified features for future reference.
The management and maintenance of Sites of Scientific Interest/ SAC/ SAM and key wildlife species habitat	
Management proposals were in line with management intentions laid out within the Forest Plan.	The Forest Plan looks to increase ecological and biological value by linking up fragmented habitat that will lead to an overall increase in the Natural Capital of the plan area, e.g. enhancing and creating more riparian habitat or the consolidation of small pockets of semi-natural woodland.
The provision and maintenance of low-key recreation that will benefit peoples physical, emotional and mental health	
Management proposals were in line with management intentions laid out within the FP.	Management proposals are in line with management intentions. With the ever increasing pressure on the Public Estate to provide better connection to nature and to help people’s physical, emotional and mental health, all previous objectives look to help meet this one.

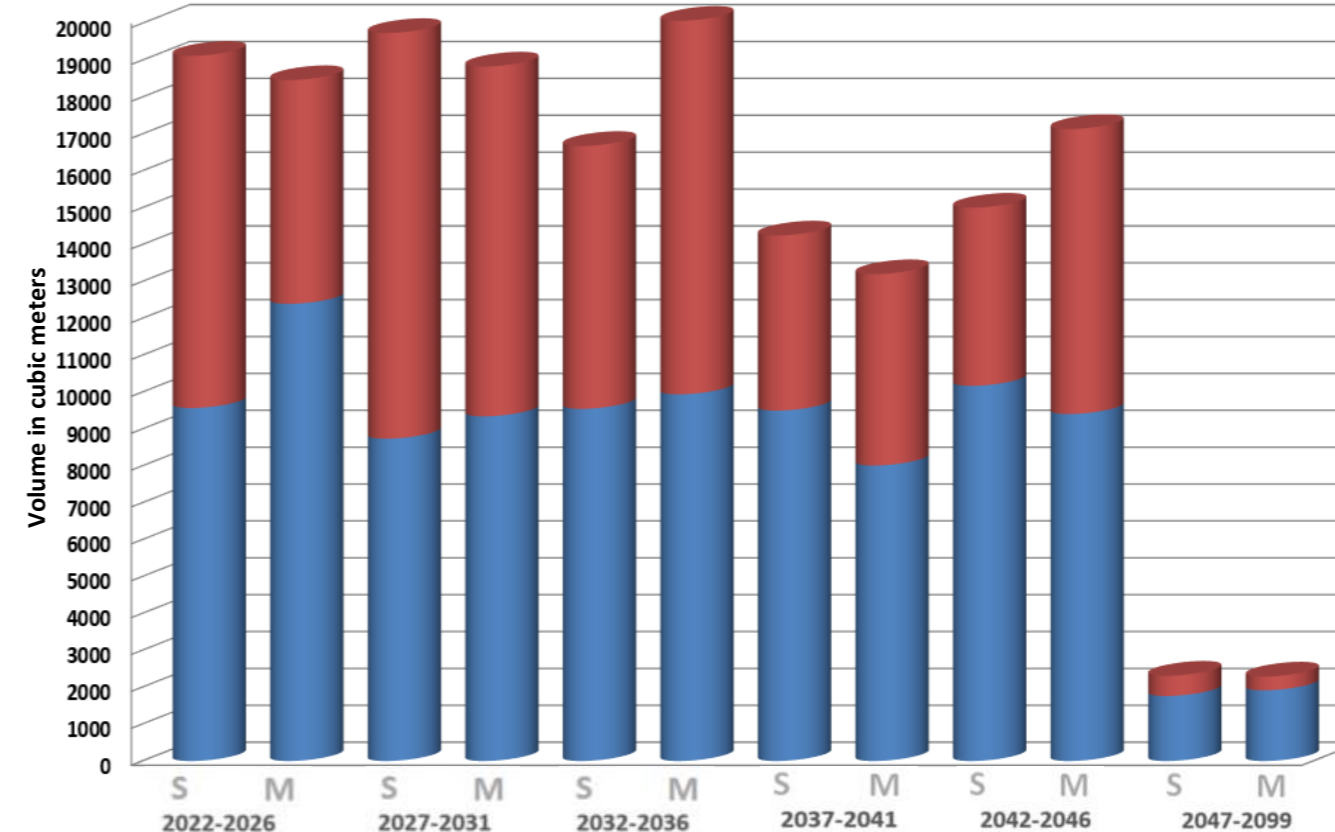
Option 2 is the preferred option and will be instigated

Production Forecast - Comparison of volume from

Master vs Scenario - Thinning and Felling by felling phase



S = Scenario M = Master



S = Scenario M = Master

Felling Phase

Coupe prescription for areas of LIS previously identified for Clearfelling

LMP SCENARIO 2			Coupe details						Future Species Composition				Future composition by Area		
comment	man type applied	Final meeting 21st Feb 2020 Quick glance LISS / CF or both	Map	Block	coupe number (new coupe ref)	area	current species	current species group (Blve/ Con or both)	FUTURE species group	FUTURE conifer %	FUTURE broadleaf %	FUTURE open habitat %	Conifer	Broadleaf	open habitat
			124.51									80.74	34.50	9.80	
Coppice and standards Gap up required with other native species	Coppice with Standards		16	Middleridge	44227 (44132)	0.52	CAR/OK/BI	Broadleaf	Broadleaf		0.9	0.1	0	0.468	0.052
Increase diversity, maintain mature tree cover with future vet potential and maintain sense of place singling multi stems and coppicing	Coppice with Standards		4	Staple Edge	44146 (44140)	2.91	SC	Broadleaf	Broadleaf		0.9	0.1	0	2.619	0.291
	Group Selection		5 (8)	Abbots Wood	45092 (45088)	0.5	OK	Broadleaf	Broadleaf		0.9	0.1	0	0.45	0.05
Increase diversity, maintain mature tree cover with future vet potential maintain sense of place singling multi stems and coppicing	Coppice with Standards		5	Staple Edge	44127 (44140)	3.95	SC	Broadleaf	Broadleaf		1		0	3.95	0
Consolidation of Native Blve to extend habitat linkages from New Fancy up into Middleridge. Work also fits with and enhances watercourse management and internal landscaping	Group Shelterwood		18	Middleridge	44232 (44136)	1.77	CP	Conifer	Broadleaf		0.8	0.2	0	1.416	0.354
Change coupe to LTR Fell year 2199 Changed Arboretum to LTR Group selection to be used to remove all WH Planting alternate species to extend arboretum	Long Term Retention		1	Middleridge	44011 (44101)	1.55	WH/GF/OK	Con & Blve	Con & Blve	0.6	0.4		0.93	0.62	0
Create a mosaic of conifer and Native Blve Thin for natural regen and under planting Where mature native Blve exists within conifer they will be retained. Restock through natural regen & under planting.	Group Selection		2	Middleridge	44015 (44057)	2.88	NS/OK	Con & Blve	Con & Blve	0.6	0.4		1.728	1.152	0
deadwood some wet woodland screening sawmill boundary adjusted	Minimum Intervention		8	Middleridge	44077 (44033)	0.97	SP/MB	Con & Blve	Con & Blve	0.2	0.7	0.1	0.194	0.679	0.097
Create Mixed native woodland in valley (west & south side) through clearfelling with restocking and on east facing slopes use irregular shelterwood to generate mixed conifer stand	Irregular Shelterwood		17	Middleridge	44231	5.46	DF/OK/SP/ NS	Con & Blve	Con & Blve	0.4	0.5	0.1	2.184	2.73	0.546
likely LH bat flight line along field edge	Group Selection		4 (1)	Blaize Bailey	45077 (45065)	4.12	CP/SP/WH/ AH/BE	Con & Blve	Con & Blve	0.4	0.6		1.648	2.472	0
remove larch through thinning but only what is gettable w/ o damage to broadleaf components	Group Selection		7	Cockshoot	46132 (46054)	5.28	RC/BE/EL	Con & Blve	Con & Blve	0.2	0.8	0.1	1.056	4.224	0.528
Conifer High Forest retain component of DF add alternate species	Irregular Shelterwood		1	Cockshoot	46172 (46032 & 46039)	11.53	DF/OK/EL	Con & Blve	Con & Blve	0.7	0.3		8.071	3.459	0

Coupe prescription for areas of LIS previously identified for Clearfelling (cont...)

LMP SCENARIO 2			Final meeting 21st Feb 2020		Coupe details				Future Species Composition				Future composition by Area		
comment	man type applied	Quick glance LISS / CF or both	Map	Block	coupe number (new coupe ref)	area	current species	current species group (Blve/Con or both)	FUTURE species group	FUTURE conifer %	FUTURE broadleaf %	FUTURE open habitat %	Conifer	Broadleaf	open habitat
Retain tree cover enhance structure diversify species with broad species selection	Group Shelterwood		5	Middleridge	44043 (44029)	0.64	JL	Conifer	Con & Blve	0.5	0.5		0.32	0.32	0
SP dominated landscape surrounding Mallards pike Maintain SP coverage, retaining clusters to become future veterans with possible future U/Plant develop crowns through thinning thin/underplant	Group Selection		12	Middleridge	44181 (44110)	2.59	NS/SP	Conifer	Con & Blve	0.8	0.2		2.072	0.518	0
SP dominated landscape surrounding Mallards pike Maintain SP coverage, retaining clusters to become future veterans with possible future U/Plant develop crowns through thinning thin/underplant	Group Selection		13	Middleridge	44187 (44110)	0.71	NS	Conifer	Con & Blve	0.8	0.2		0.568	0.142	0
SP groups develop crowns buffer stream	Group Selection		14	Middleridge	44188 (44170)	0.75	SP	Conifer	Con & Blve	0.5	0.1	0.4	0.375	0.075	0.3
SP dominated landscape Retain clusters to become future LTR veterans SP groups of uneven sizes to defuse the OHP set in mosaic with open space habitat develop SP crowns through thinning possible future underplant?? (far long term)	Group Selection		15	Middleridge	44189 (44170)	1.04	SP	Conifer	Con & Blve	0.5	0.1	0.4	0.52	0.104	0.416
Master coupe split into two. Extend coppice from adjacent coupe South - Mix with SP and native broadleaf North - Use HAZ/OK as component of B'lve restock ***Retain Wood Ant nests*** Northern coupe final removal is 2080	Strip Shelterwood		23	Middleridge	44979 (44133 & 44134)	11.15	NS/JL	Conifer	Con & Blve	0.8	0.2		8.92	2.23	0
Develop SP crowns	Group Selection		3	Cockshoot	46162 (46084)	12.12	DF/JL	Conifer	Con & Blve	0.8	0.1	0.1	9.696	1.212	1.212
SP softens and adds character and value to adj open habitat Develop SP crowns & potential future u/p create tree cover & OPN habitat mosaic	Group Selection		9	Cockshoot	46124 (46012)	1.43	SP	Conifer	Con & Blve	0.4	0.4	0.2	0.572	0.572	0.286
Conifer PHF - retain NS - some of the 1st NS planted by FC Thin, Promote NS regen or plant appropriate provenience NS	Long Term Retention		7	Oakenhill	46085 (46063)	4.17	NS	Conifer	Con & Blve	0.9	0.1		3.753	0.417	0
Opportunity for underplanting in western section of coupe EASTERN part of coupe is Uniform Shelterwood thinning and underplanting	Single Tree Selection		2	Churchill	46025 (46101 & 46103)	4.1	RC/GF/EL/DF/LC	Conifer	Con & Blve	0.8	0.1	0.1	3.28	0.41	0.41

Coupe prescription for areas of LIS previously identified for Clearfelling (cont...)

LMP SCENARIO 2			Final meeting 21st Feb 2020		Coupe details				Future Species Composition				Future composition by Area		
comment	man type applied	Quick glance LISS / CF or both	Map	Block	coupe number (new coupe ref)	area	current species	current species group (Blve/Con or both)	FUTURE species group	FUTURE conifer %	FUTURE broadleaf %	FUTURE open habitat %	Conifer	Broadleaf	open habitat
Thin will promote group plantings opportunities. DF will remain a future comp. plant alternate species	Irregular Shelterwood		5	Cockshoot	46143 (46021)	9.25	JL/DF/GF/	Conifer	Con & Blve	0.8	0.2		7.4	1.85	0
conifer LISS Underplant EL with ESF	Irregular Shelterwood		4	Middleridge	44038 (44129)	1.89	EL	Conifer	Conifer	0.9	0.1		1.701	0.189	0
Diversify species composition with alternate spp. eg RSQ and SP - Thin develop crowns and opportunity for u/p	Group Selection		3	Churchill	46020 (46013)	4.01	NS	Conifer	Conifer	1			4.01	0	0
West side thin & remove circa 40% to facilitate u/planting. East side of road lighter thin and u/plant	Uniform Shelterwood		6	Oakenhill	46088 (46137)	3.7	NS	Conifer	Conifer	1			3.7	0	0
	Group Selection		2	Staple Edge	44163 (44153)	18.04	RC/CP/JL/ WH/SC	Conifer	Conifer	1			18.04	0	0
	Single Tree Selection		1	Staple Edge	44167 (44121)	2.47	BI/SC	Broadleaf			0.9	0.1	0	2.223	0.247
Some "wetting up"	Group Selection		22	Middleridge	44874 (44019 & 44092)	5.01						1	0	0	5.01
Group selection with clearfell. Eastern side - clearfell and restock with broadleaf western side - thin and u/p with NS/ORS & SP	Group Selection	CCF & LIS	6	Middleridge	44053 (44038)	8.77	NS/OK	Conifer	Con & Blve	0.5	0.4	0.1	4.385	3.508	0.877
Group selection with clearfell. Eastern edge clearfell and coppice Diversify Species / age class, remove larch through thinning Thinning and underplanting with group planting	Group Selection	CCF & LIS	3	Staple Edge	44166 (44152 & 44184 & 44119)	14.28	CP/JL/RC	Conifer	Conifer	1			14.28	0	0
Uniform Shelterwood with clearfell. Riparian zone in cpt4609a	Uniform Shelterwood	CCF & LIS	1	Churchill	46030	5.19	NS/HL/RC	Conifer	Conifer	0.8		0.2	4.152	0	1.038
Partial Clearfell in 2023/24 Partial CCF retain irregular groups of SP	Group Selection	CCF & LIS	19	Middleridge	44237 (44137 & 44053 & 44052)	6.5	NS/SP	Conifer	Con & Blve	0.25	0.25	0.5	1.625	1.625	3.25
create diverse mix of conifer C/F 4409b&c with 4410g in 2047 4410g pos. re-established by underplanting by that date	Irregular Shelterwood with C/F	CCF & LIS	7	Middleridge	44059 (44096 & 44030)	8.52	NS	Conifer	Conifer	1			8.52	0	0

Name: *Phytophthora ramorum* (PR)

First appearance: 2009

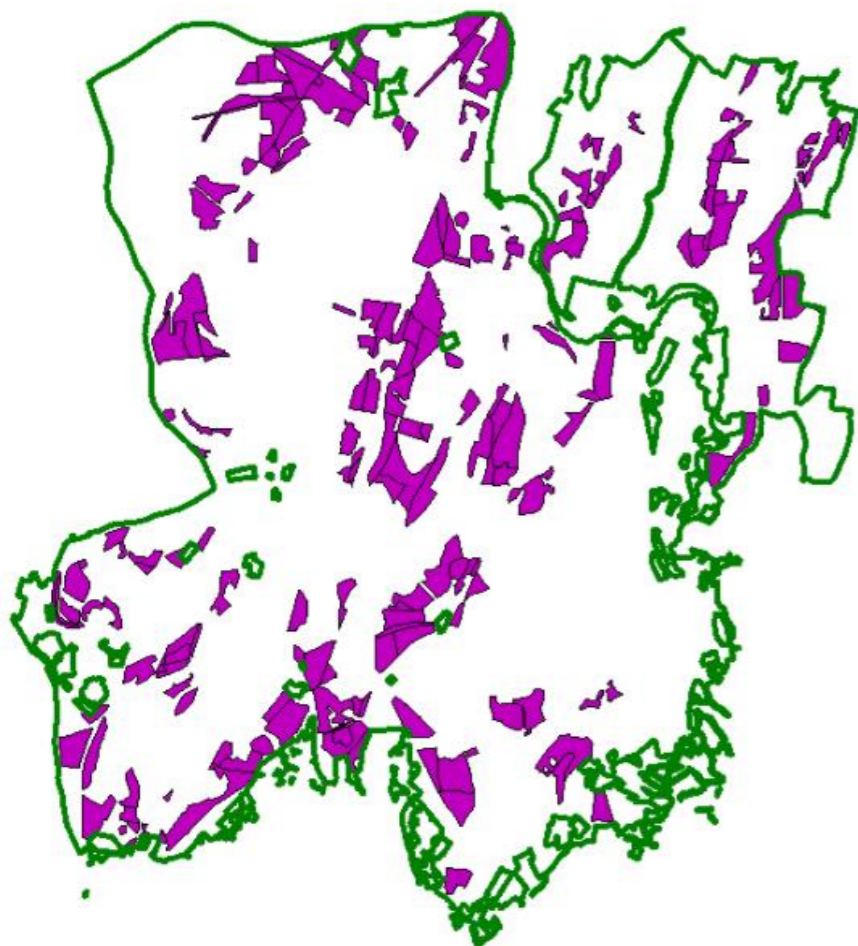
Attacks: LARCHES

Impact on plan area: **HIGH**

P. ramorum was first found in the UK in 2002 and until 2009 in the woodland environment had largely been associated with rhododendron species acting as a host from which spores are produced. In August 2009 *P. ramorum* was found on a small number of dead and dying Japanese Larch in South West England, causing particular concern since some affected trees were not close to infected rhododendron and showing a significant change in the dynamics of the disease than experienced previously.

Following this, testing in Devon and west Somerset confirmed the presence of PR in mature Japanese larch as well as species in its under-storey, including sweet chestnut, beech, birch, oak, Douglas fir and Western hemlock. On some sites there is little or no rhododendron present. It is now known that Japanese larch can produce very high quantities of disease-carrying spores when actively growing in spring and summer, at much higher levels than those produced by rhododendron. These can be spread significant distances in moist air. PR is a notifiable disease dealt with by felling the infected area under a statutory plant health notice (SPHN) issued through FERA and the Forestry Commission.

Components of larch will be removed through thinning and larger areas will require clearfelling. Some areas have significant influence in the landscape e.g. the larch in Staple Edge as viewed from New Fancy viewpoint.



Name: Oak 'dieback' or 'decline'

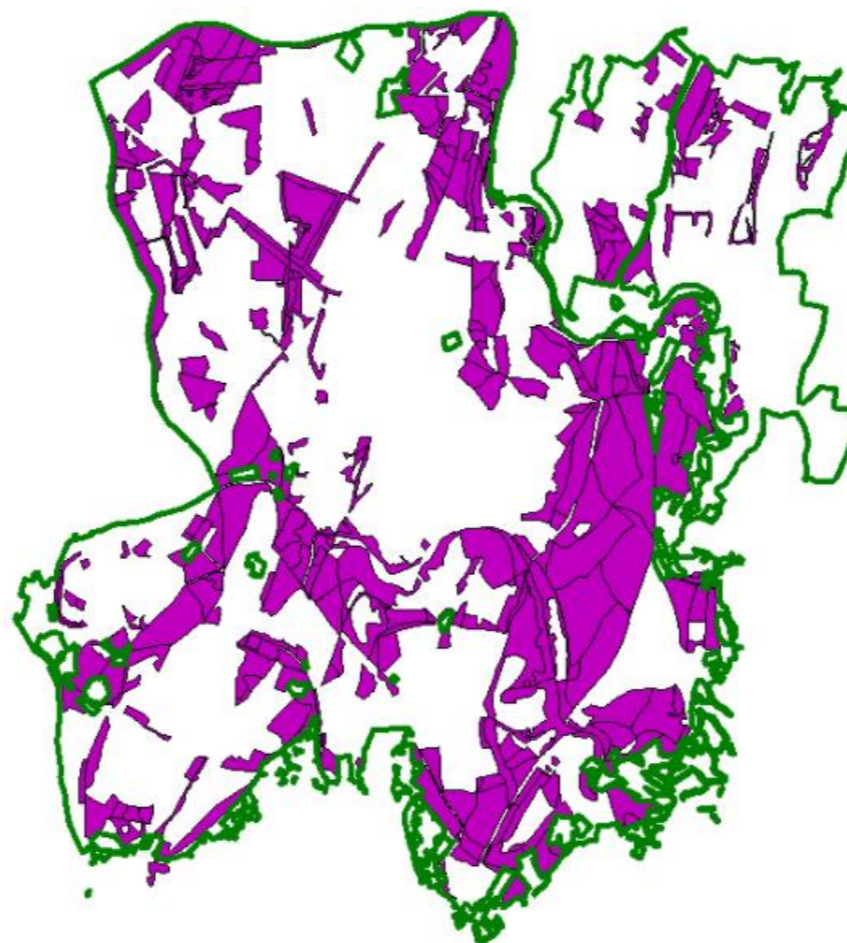
First appearance: unknown

Affects: OAK

Impact on plan area: **HIGH**

Oak 'dieback' or 'decline' is the name used to describe poor health in oak trees and can be split into Chronic decline and Acute decline. Chronic decline is protracted taking effect on the Oak over a number of decades whilst Acute decline is much swifter acting over much shorter periods usually five years or so. Symptoms can be caused by a range of living agents e.g. insect and fungal attack, or non-living factors, e.g. poor soil and drought. Factors causing decline can vary between sites, as can the effects of the factors through time. Oak decline is not new; oak trees in Britain have been affected for the most part of the past century. Both native species of oak are affected, but Pedunculate oak (*Quercus robur*) more so than Sessile oak (*Quercus petraea*). Successive exposure to any of these agents on a yearly/seasonal basis further reduces the health of the tree(s) by predisposing them to other living (Biotic) agents that can often spell the eventual death knell for the tree.

Within the Dean Main block the type of dieback is going to be assessed through a program of survey work that will look to gather field data and observations to try and help assess the extent of the issue along with mensuration data that will help determine management prescriptions.



APPENDIX 2: Management considerations -

Pests & Diseases affecting the Plan

Name: *Hymenoscyphus fraxineus* (formerly *Chalara fraxinea*)

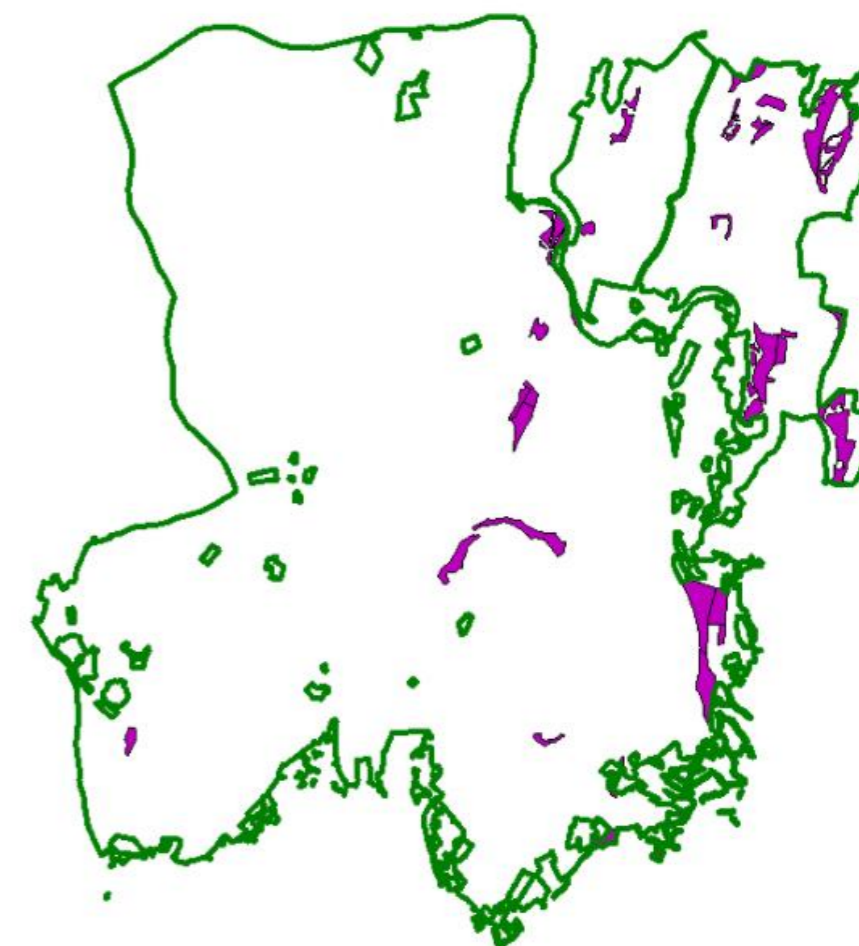
First appearance: circa 2016

Attacks: Ash

Impact on plan area: **LOW**

First reported in Poland in 1992 and now pretty rampant in Europe, showing up in 2012 mainly along the East Anglian coastline. Now a major disease within most Ash woodland across England. The disease causes dieback from the top of the tree, with branches or stem girdled before foliage wilts and gradually turns black. Eradication of the disease has been deemed not to be a feasible option and so felling is generally only along council roads, Public Rights of Way. Ash is often retained in the hope that natural resilience will be found that can be used to breed future Ash trees resistant to the disease.

The plan has few areas of Ash and is therefore not a primary concern for this Forest Plan area.



Name: Dothistroma Needle Blight (DBN)

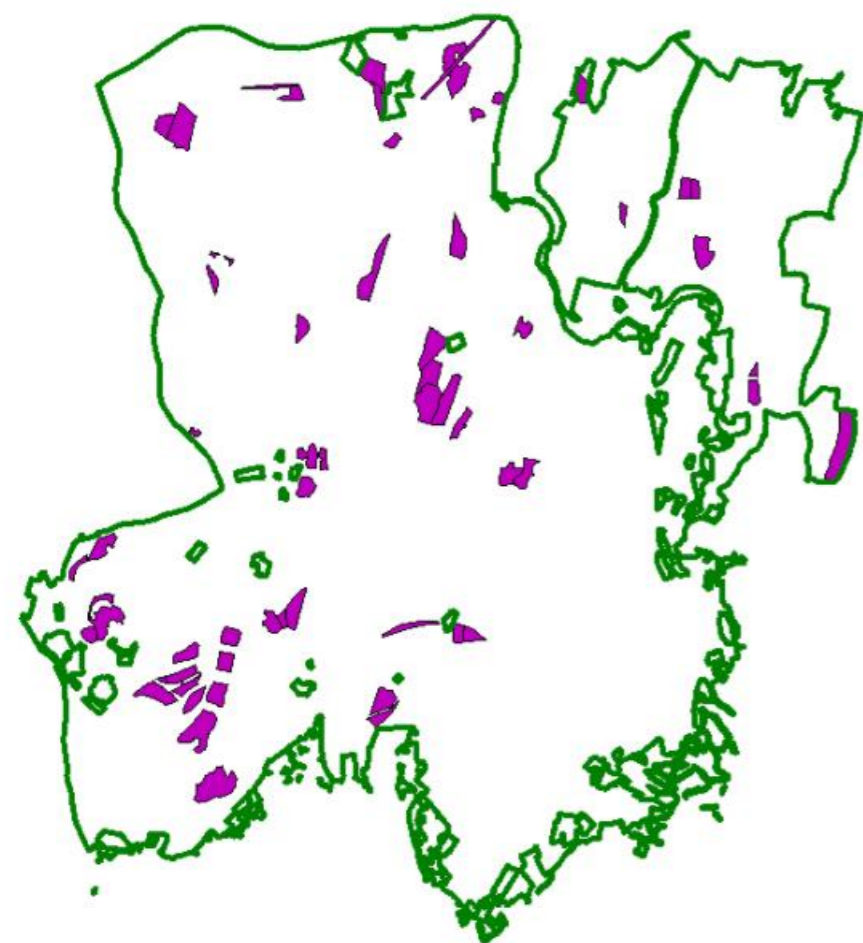
First appearance: mid 1990s

Attacks: Pine species

Impact on plan area: **MEDIUM**

Often referred to as Red Band Needle Blight (RBN) and can reduce growth rates by between 70 and 90%. Effects of RBN are managed through thinning the wood more heavily than you would normally to introduce higher levels of air flow through the remaining crop. However, the Mortimer WMU contains a relatively small component and therefore its impact has been fairly limited.

Most areas of Corsican Pine are well thinned in line with current best practice. Within the plan these areas are being taken as an opportunity to diversify species through underplanting or group planting.



Name: Phytophthora pluvialis

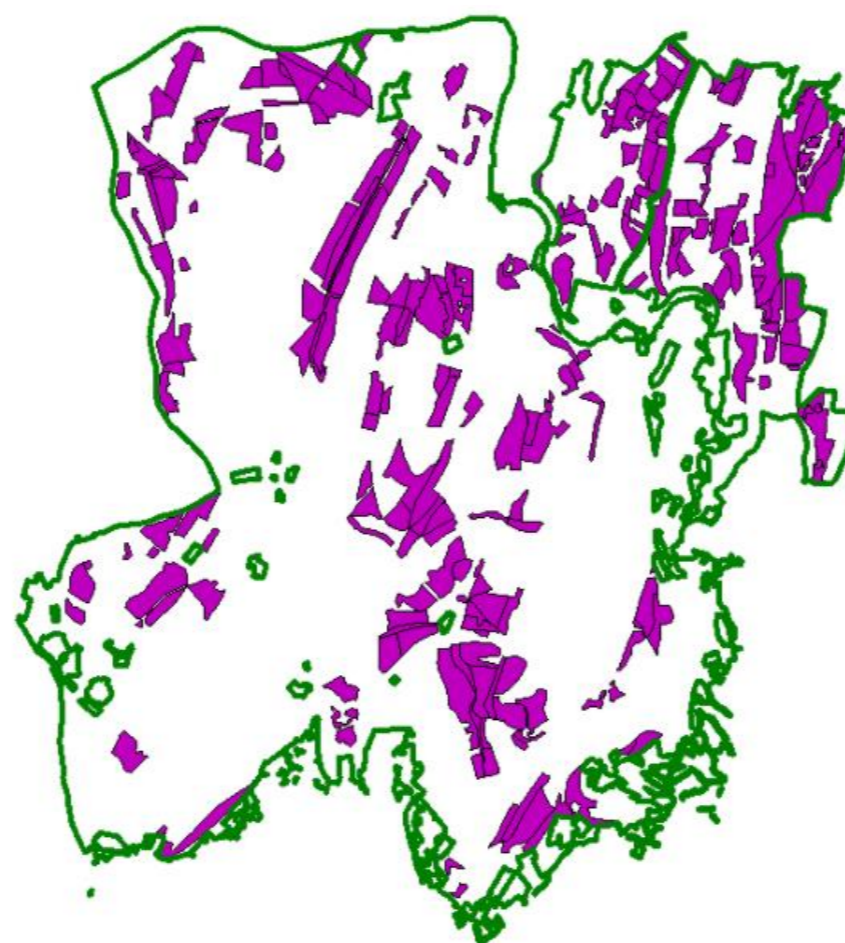
First appearance: 2021

Attacks: Douglas Fir

Impact on plan area: **MEDIUM** but potentially **HIGH**

Newly discovered in Cornwall in summer 2021 following surveillance for Phytophthora ramorum. This variant of Phytophthora originally reported in USA in 2013 and New Zealand in 2014 can cause symptoms such as needle cast, shoot dieback, and lesions on the stem, branches, and roots. It is a notifiable disease which results in mandatory felling through the issuing of SPHN from FERA.

Being a main conifer species within the plan area and mostly monoculture in nature. The plan will seek to continue the process of breaking up the age structure as well as begin to diversify these crops with other conifer species through underplanting or group planting.

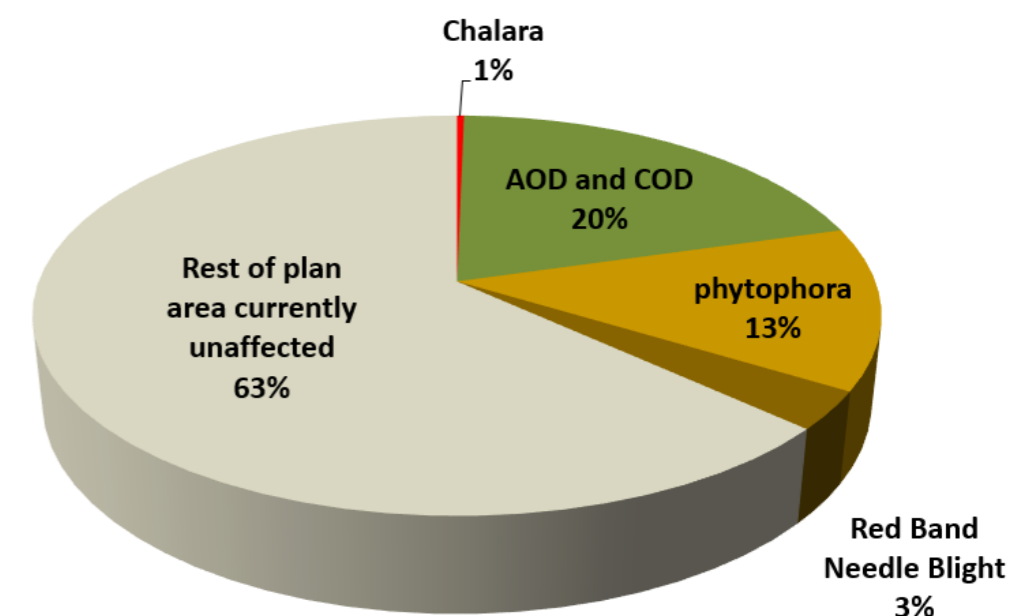


planting.

APPENDIX 2: Management considerations -

Pests & Diseases affecting the Plan (continued)

Potential area of plan at risk from pest & disease



Acute and Chronic Oak Decline	523 Ha
Phytophthora ramorum ¹	338 Ha
Dothistroma (Red Band Needle Blight)	80 Ha
Chalara	8 Ha
Unaffected area of plan	1636 Ha

¹ Larches	240 Ha	(9%)
Sweet Chestnut	98 Ha	(4%)

Parkend Walk and Blakeney Walk Forest Plan

Fire Prevention, adaptation and creating resilience

Hazards

1. Open habitats:
 - Lowland heath sites and other open habitats/sites
 - Forest Road and Ride edges managed for open habitat
 - Clearfell sites prior to planting with high fuel loading of fine, medium and coarse material
2. Planted clearfell sites upto thicket stage
3. Young restock sites at thicket stage to pole stage
- 3b. CCF sites with a thicket understorey
4. Conifer sites with high ground coverage of dead needles and cones.
5. Sites infected with RBNB that are unthinned or heavily stocked
6. Oak plantations suffering dieback
7. Other broadleaf crops with high deadwood content & Squirrel damaged crops
8. Pure conifer crops especially un-brashed or poorly thinned stands
9. Areas where surface coal and coal seams are present.
10. Intimate nature of the topology (gullies and valleys being of a higher risk)

Risk

1. The plan area is one large contiguous wooded area surrounded by other woodland.
2. Higher percentage of CCF is proposed.
3. Increase in woodland edge could lead to higher fuel loads as the scrub layer develops.
4. Increased public usage.
5. Reduced proportions of clearfells (changes the risk rather than increases risk??)
6. Structure of woodland still being reasonably even aged.
7. High fuel loadings accruing:- deadwood, decades worth of layered dead bracken and having more sites managed for heathland and grazing that may decrease drying times of fuel loads as:-
8. Drier and hotter summers are on the increase.

Controls

- ⇒ Within the plan area rides will be widened as per the coupe prescriptions. This will include specific felling work to achieve this but should also be a consideration when carrying out routine thinning.
- ⇒ A revival of coppice management, both simple systems and sites with retained standards.
- ⇒ Overall increase in broadleaf cover, partly as a result of more SPHN felling work.
- ⇒ Prescribing the planting of a much wider species pallet for both conifer and broadleaf, with an increase in the use of mixtures.
- ⇒ Careful implementation of LISS - i.e. use of a wider range of Silvicultural Systems.
- ⇒ Leaving 10 meter unplanted traces where coupe boundaries are changing and are in need of identification to achieve landscaping objectives
e.g. in Staple Edge where SPHN felling has crossed coupe boundaries. These may well infill with broadleaf nat-regen which is will add resilience.
- ⇒ Introduction of watercourse buffering to 10 and 20 meters on prioritised stretches where all conifer will be removed and only broadleaves will remain or be planted at different densities in matrix with open space.
- ⇒ Areas of wet woodland habitat types will increase creating higher potential for water retention.
- ⇒ In areas affected by RBN ensure thinning follows District protocol to give wider spacing that will minimise fuel loading and likely hood of crown fire.
- ⇒ Increase in Broadleaves in general, that includes bolstering existing weak lineal components that follow rides or cut through conifer crops and a decrease in broadleaf fragmentation.

Term	Abbreviation	Description
Ancient Semi-Natural Woodland	ASNW	A woodland site where ancient features often survive, where trees and other plant species appear to of established naturally rather than having been planted. Predominantly these sites will contain 80% or over of site native species or species native to the surrounding area.
Alternatives to Clearfell	ATC	Alternative to Clearfell is similar to CCF and refers to management systems where stands are regenerated without clearfelling.
Ancient Woodland OR Ancient Woodland Site	AW AWS	A site that has technically been wooded since 1600AD and is unlikely to have been converted to farmland in the last few centuries.
Continuous Cover Forestry	CCF	Continuous Cover Forestry is an approach to forest management that enables an owner of woodland to manage the woodland without the need for clearfelling. This enables tree cover to be maintained, usually with two or more canopy levels and can be applied to both conifer or broadleaf stands. With Conifer it is possible to regenerate the crop a lot faster than in broadleaf crops, where the canopy is generally removed a lot slower and over a much longer time span. A decision to use CCF must be driven by management objectives and will have long-term vision often aimed at creating a more diverse forest, both structurally and in terms of species composition. There are no standard prescriptions meaning CCF is very flexible in ensuring opportunities can be taken advantage of as they arise. This development of a more diverse forest is a sensible way to reduce the risks posed by future changes in the climate and biotic threats and enables a much wider palette of species to be planted due to overstorey providing a more sheltered and warmer microclimate.
Clearfell	C/F or CF	To cut and remove all trees from a certain area of woodland.
Crop		A stand of trees. Often associated with stands that are completely or partially managed for its timber. Just as farmers manage crops so does forestry the only difference is a farmers' rotation is shorter and often realised in 1 year. Trees are a much longer term crop with rotations varying from 6 years to 400 years. (also see definition for rotation)
Enrichment planting		Planting different species within areas of regen that helps diversify the range of species in a wood and in doing so can make it more resilient to future climate change and future threats from disease. Enrichment may be desirable in areas where success of regeneration is uneven, patchy or where a regen crop is limited by the number of species present.
Group felling / group planting		This is where small areas of woodland are felled hence the name "group felling" and then either allowed to develop through the use of nat-regen or in this case planted hence "group planting". These techniques can help to develop structure* within a wood over a given length of time and is often used in conjunction with continuous cover. *Either in terms of age or number of tree species present, since shelter and shade are provided by the remaining upper storey one can consider a larger number of tree species when deciding what to plant.
Hectare	Ha	Unit of area equating to 2.47 acres.
Low Impact Silviculture or Silvicultural System	LIS or LISS	LIS comprises of various methods of stand, forest, woodland or copse management without the need to clearfell complete coupes. The UKWAS definition is this: <i>Silvicultural systems including group selection, shelterwood or under-planting, small coupe felling, coppice or coppice with standards, minimum intervention and single tree selection systems which are suitable for windfirm conifer woodlands and most broadleaved woodlands.</i>
Native (and honorary native)		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.
Natural Regeneration	Regen or nat-regen	Trees growing on a site as a result of natural seed fall, and can be used as a management process and can allow cleared areas of woodland to germinate, grow and develop naturally. This process can happen anywhere and woods can be managed to encourage nat-regen although there is no guarantee of success. In these instances, or if nat-regen is unlikely for a variety of reasons, one can use enrichment planting or group planting to achieve the same affect. The process usually relies on an overstorey of "parent trees" being present or on parent trees being close by to provide the seed. These parent trees will usually of been thinned and managed with natural regeneration in mind. Existing areas of nat-regen are then usually developed through carefully thinning the surrounding woodland over a number of years, to give more light and space 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. Usually done in small groups or in strips this system can allow a varied woodland structure to develop over time. Protection from competing plant species and mammal browsing might be required in the early stages by fencing or using tree shelters.

Our Shared Forest	OSF	A Public consultation document published in 2019 that used public workshops and consultation to collate the views and opinions of members of the public and stakeholders in order to formulate guidelines that help inform the Forest Planning process and orientate Forest Operations to meet and achieve the eight Principles of Management outlined in the OSF that are also closely aligned to the UK Woodland Standards.
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. *The exception being that of coppice where rotation length can vary from 5 or 6 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 one where woodland has been cleared and replanted.
Scheduled Monument	SM	Is a heritage feature designated by Historic England to be of National importance. These features are found on the National Heritage List for England which is maintained by Historic England on behalf of the Secretary of State for DCMS. Scheduled monuments may also appear on the local Historic Environment Record. The regime for scheduling is set out in the Ancient Monuments and Archaeological Areas Act 1979.
Shelterwood		A management system that is applicable to conifer or broadleaf, where tree canopy is maintained at one or more levels without the need to clearfell the whole site. Felling can occur, but generally in small "groups" whose size shape and spatial distribution will vary depending on site conditions. The "groups" are then either: allowed to develop and establish by the use of natural regeneration, are planted or are established using a mixture of both techniques. This known as a "group shelterwood system" A variation on this is " Single tree selection " This variation removes individual trees of all size classes more or less uniformly throughout the stand to maintain an uneven-aged stand and achieve other stand structural objectives. While it is easier to apply such a system to a stand that is naturally close to the uneven-aged condition, single tree selection systems can be prescribed for even-aged stands, although numerous preparatory thinning interventions must be made to create a stand structure where the system can truly be applied.
Silviculture		A term coined during late 19th 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 forest resource objectives.
Site of Special Scientific Interest	SSSI	A SSSI is a formal conservation designation denoting a protected area. Usually describes areas that are of particular interest to science due to rare species of fauna, flora it contains or even for important geological or physiological features. In England the designating body is for SSSIs is Natural England.
Stand		A group or area of trees that are more or less homogeneous with regard to species composition, density, size, and sometimes habitat.
Thin	TH	Selective removal of trees from a wooded area, giving remaining trees more space to grow into larger trees. Thinning is done to: <ul style="list-style-type: none"> • Improve the quality and vigour of remaining trees. • Remove trees interfering with mature or veteran broadleaf trees. • Give space for tops (or "crowns") of broadleaf trees to develop and potentially act as a future seed source. • Give space for natural regeneration to grow and develop with the intention of recruiting these younger naturally grown trees as a part of the future woodland structure. • Create gaps for group planting or enrichment. • Remove species of tree that may compromise the intended management objective of the woodland eg: non-native or invasive species such as Sycamore, Western Hemlock or birch. • Improve the economic value of a wood. • Help realise opportunities to enhance ecological value. <p>NOTE: This list is not in any order of priority and will vary depending on management objectives.</p>
Yield Class	YC	A method of measuring the growth rate or "increment" of a crop of trees by age and height; measured in m ³ per Ha per annum. E.g. A crop with a YC of 16 is one that has an annual increment of more than 16m ³ but less than 17m ³ , although generally only even numbers are used when stating YC.

APPENDIX 3 - SUPPORTING INFORMATION

Stock Data - 2022

(see pdf files)

END



Parkend Walk and Blakeney Walk Forest Plan
2022-2032
Part of Our Shared Forest project
WEST ENGLAND FOREST DISTRICT