

Blackdown Hills Forest Plan

2018 - 2028

West England Forest District



Forestry Commission
woodlands have
been certified in
accordance with the
rules of the Forest
Stewardship Council.



Declaration by FC as an Operator.

**All timber arising from the Forest Enterprise estate
represents a negligible risk under EUTR (No 995/210)**

Ben Robinson
FCE File Ref: OP10/62

OLD Ref: PE41, PE47, PE50, PE50/1, PE56, PE57

List of Contents

PART 1 – Description, summary & objectives

Application for Forest Plan Approval	2
Contents	3
Summary	4
Location	5
Tenure	6
A 50 Year Vision	7
Management objectives	8
Meeting Objectives	9

PART 2 – Character, analysis & concept

Designations	10-11
Analysis & Concept	12-16

PART 3 – Composition and future management

Woodland Composition	17-18
Naturalness on Ancient Woodland	19
PAWS Management	20

PART 4 – Thinning, felling and future composition

Silviculture	21-22
Felling and Restocking 2018-2028	23-28
Management Prescriptions 2018-2047	29-30
Restocking Prescriptions	31-32
Indicative Future Species, 2028	33-34
Indicative Future Species, 2046	35-36

PART 5 – Conservation, heritage and recreation

Conservation—Habitats	37
Conservation—Natural and Cultural Heritage Features	38
Recreation & Access	39-40

APPENDIX 1: Physical environment

Landscape Analysis	41-42
Water & Riparian Management	43

APPENDIX 2: Management considerations

Option Testing	44
Coupe Prescriptions	45
Stock data – 2018	46-56
Pests and Diseases	57

APPENDIX 3: Supporting Information

Glossary of Terms	58-59
References	60

APPENDIX 4: Consultation

Consultation Record	61-65
---------------------	-------

APPENDIX 5:

SSSI Management Plan for Ruttersleigh SSSI	66-69
--	-------

APPENDIX 6:

SSSI Management Plan for Quants SSSI & SAC	70-73
--	-------

APPENDIX 7:

SSSI Management Plan for Priors Wood and Adcombe SSSI	74-77
---	-------

APPENDIX 8:

SSSI Management Plan for Thurlbear SSSI	
---	--

APPENDIX 9:

Castle Neroche Scheduled Monument Management Plan	
---	--

About

The Blackdown Hills Forest Plan area, totalling 1230ha, is made up of numerous forest blocks with a confluence around the complex of woodlands at Neroche. A large majority of the Plan area lies within the Blackdown Hills AONB.

The forests managed as part of the public forest estate stretch across Devon and Somerset from Tiverton in the west and then a cluster of woodlands within close proximity to the town of Taunton. The Plan area is made up of numerous woodland blocks within the catchment of the Rivers Exe and Culm.

The public forest here is a mixture of ancient and secondary woodland having been planted with conifer to address the national timber shortage of the early Twentieth Century. The area has recently gone through significant transformation with considerable areas of pasture and heathland restoration completed in the last ten years. The Plan area is still important in producing quality timber primarily with beech and spruce with areas of remnant ancient semi-natural woodland and wood pasture remaining and restore. Most of the areas are actively managed to provide timber for local and national businesses, and to improve the quality of the remaining tree crop.

The Plan area is rich for ecology with five SSSI and one SAC designations highlighting the high ecological value of the Forest Plan area. The approved management of these sites will be integrated into the Forest Plan to aid and coordinate management. The woodland types include NVC W8 Priority Lowland Mixed Deciduous (ash/birch) Woodland as well as other Priority Lowland Mixed Deciduous Woodland types which are all important habitat flora and fauna species such as dormice, raptor and lepidoptera.

The vast majority of the Plan area is freehold, with open access permitted. The exception being Priors Park, Buckland, Huntsham and Otterford which are limited to de facto access due to it being leased from another landowner. Neroche is the main focus of informal recreational activity and is particularly nice place to picnic, walk or run given its close proximity to the town of Taunton, good path network and fine views over Taunton Vale.

Objectives

The core aim of the Plan is to deliver the 50 Year Vision by producing woodlands with increased conservation, recreation and landscape benefits whilst maintaining a viable timber output. The long term aim of management is to continue to sustainably produce timber whilst providing a forest rich in wildlife, attractive to people and increasingly resilient to climate, pests and diseases.

The social, economic and environmental objectives of management are:

- Protect and enhance woodland and open habitats and their associated species
 - The restoration and management of the Sites of Special Scientific Interest
 - To protect and enhance areas of Ancient Semi-natural Woodland and restore areas of PAWs in line with ‘Keepers of Time’.
- Deliver well-designed forests that both protect and enhance the internal and external landscape in keeping with the AONB and local landscape character.
- The continued production of sustainable and marketable woodland products.
- To conserve, maintain and enhance cultural and heritage assets.
- The provision and maintenance of recreation facilities.

Summary

The current plan outlines management proposals including felling and restocking over several decades, with felling licence approval for operations up until 2028.

Crops in more exposed positions where soils are thin will continue to be managed primarily for conifer timber production under a clearfell and restock scheme. Crops in less exposed positions will be managed to continuous cover forestry prescriptions so as to create a diverse and resilient forest structure.

A comprehensive review of forest and recent heathland and wood pasture creation has meant that an additional 9.5ha of open space will be restored in the next 10 years within wooded heath and wood pasture areas. Restocking design in specific places will look to enhance the heathland connectivity and butterfly habitat.

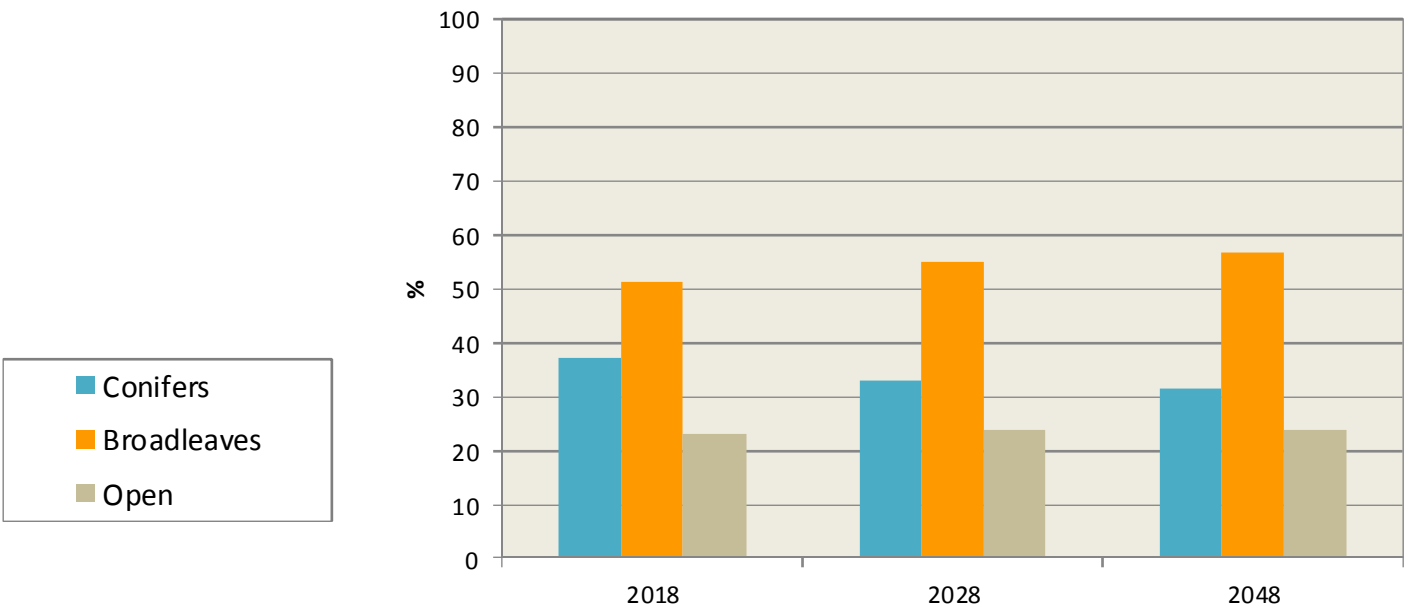
The Plan makes provision to ensure proposals are in keeping with the surrounding densely-wooded, steep scarp sloped landscape. Implementation and maintenance of an environmental corridor system will continue to increase diversity of habitat and internal landscaping.

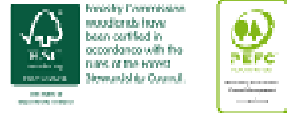
The planned areas of clearfelling, restocking and permanent open space creation during the ten years to 2028 are summarised in the chart below.

In addition to these defined operations, ongoing thinning and selective felling of both conifers and broadleaves will be carried out in the plan area at five to ten year intervals.

HECTARES	Conifers	Broadleaves	Open space
Clearfelling	63.7	4.5	-
Restocking/Regeneration	49.9	18.3	-

The proportions of conifer and broadleaved woodland and open space at the beginning of the plan period are shown in the bar chart. The increase in native broadleaves within the plan period and over time is indicated in the middle and right hand columns of the chart.





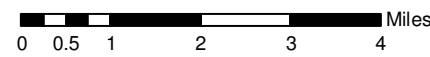
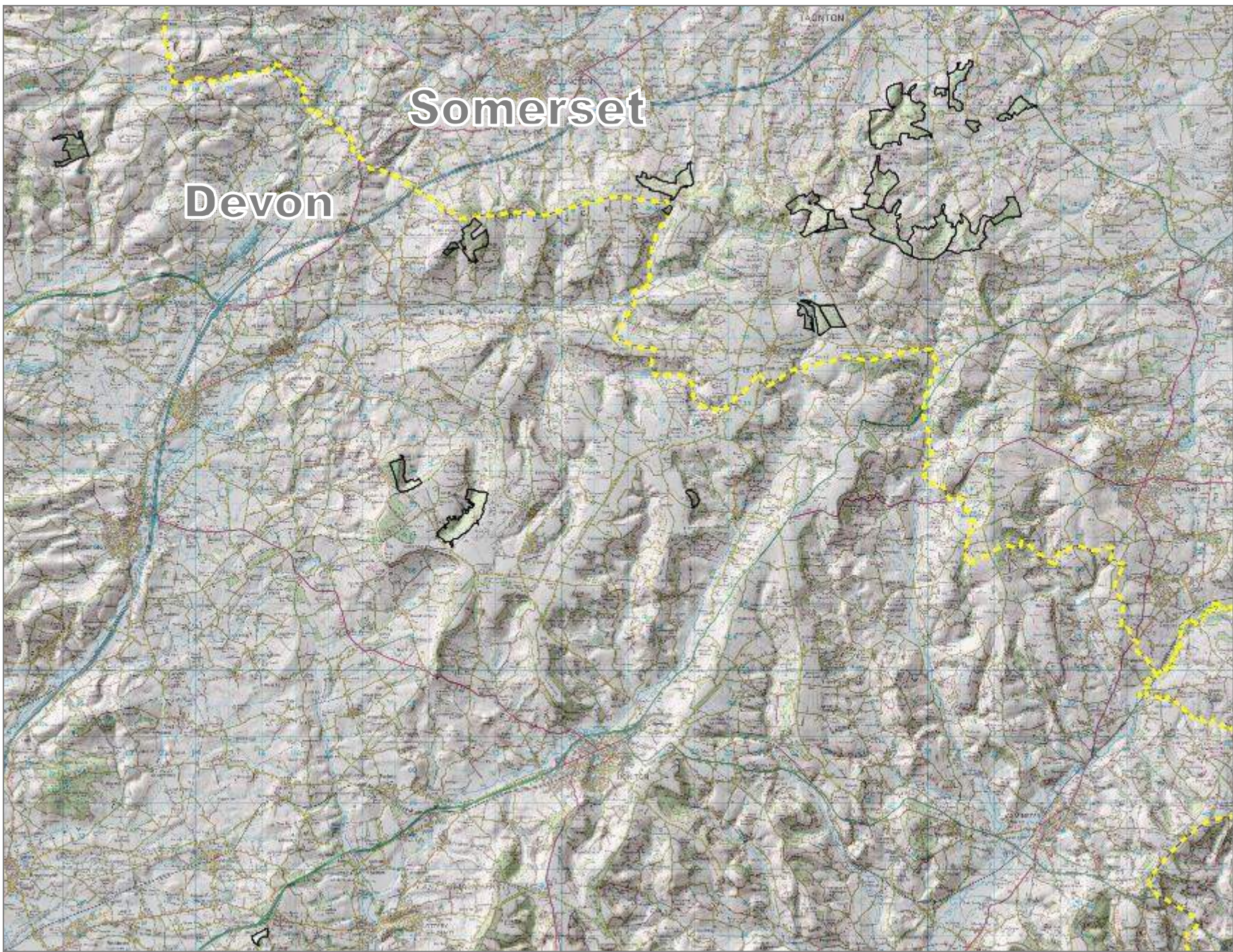
Location

The Blackdown Hills Forest Plan area lies across the border of Devon and Somerset with a cluster of woodlands within close proximity to the town of Taunton. The Plan area is made up of numerous woodland blocks within the catchment of the Rivers Exe and Culm.

A large majority of the Plan area lies within the Blackdown Hills AONB and the many of the woodlands are significant features in the landscape which can be seen from considerable distances. The densely-wooded, steep scarp slopes with both ancient oak woodland and conifer plantations which extend onto the ridges collectively create perceptions of tranquillity.

The majority of the land is at 150-275 metres above sea level and is undulating to steep in places. The climate is warm and fairly moist with an average annual rainfall of 800—1100mm, a soil moisture deficit of around 140mm, and an accumulated temperature over 5°C of 1800°C.

The soils are primarily medium to poor and fresh typical brown earths and surface water gleys with underlay of shallow rock or sand.

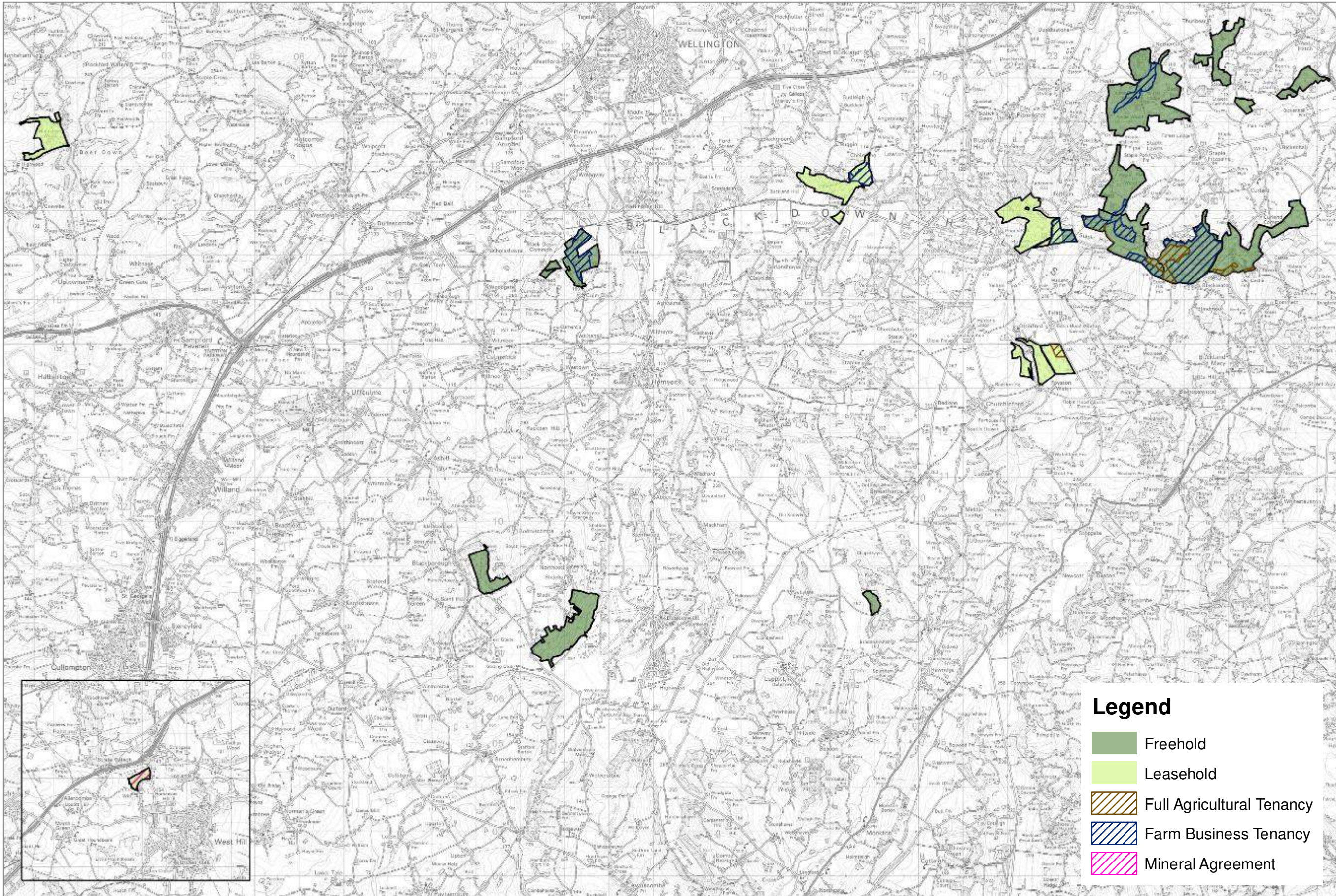
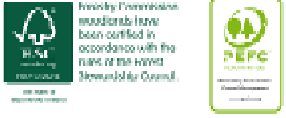


	Area (ha)	Percentage (%)
Bickenhall	29	2.4
Blackborough	40	3.3
Buckland	73	5.9
Castle Neroche	111	9.0
Culm Davy	63	5.1
Huntsham	48	3.9
Otterford	72	5.9
Priors Park	103	8.4
Sheldon	97	7.9
South Cleave	10	0.8
Staple Common	123	10.0
Staple Hill	113	9.2
Staple Park	73	5.9
Strete Raleigh	11	0.9
Thurlbear	59	4.8
Wych Lodge	203	16.5
TOTAL	1228	100

Tenure and Agreements

The recent acquisition of the freehold of Neroche in 2017 means that only Priors Park, Buckland, Huntsham and Otterford are now held through leases (totalling 309ha – 25%).

A number of management agreements are in place. In particular a full agricultural tenancy on the improved open pasture, farm business tenancies on the restored areas of pasture and heathland, Somerset Wildlife Trust's management of Thurlbear SSSI and a mineral extraction and backfill agreement for Strete Raleigh.



A 50 Year Vision

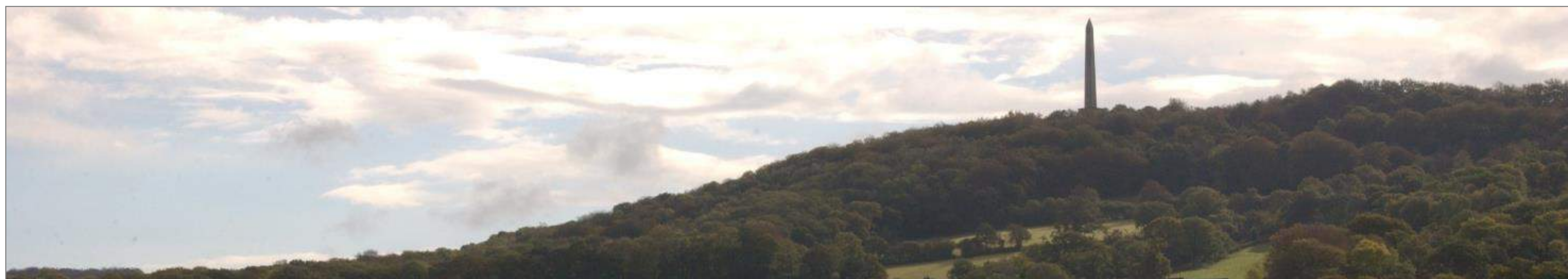
The Vision for the future of the Plan area is bold but in keeping with the Forestry Commission's key strategic goals and the local and national value which is placed on the area. Set against the backdrop of the National Character Area whereby *densely-wooded, steep scarp slopes with both ancient oak woodland, carpeted in bluebells and primroses, and conifer plantations which extend onto the ridges*, this Vision looks to achieve an area which is a haven for wildlife, fun and commerce. A element of the Landscape Character Area (Devon County Council, 2008) is to *manage conifer plantations for sustainable timber production, recreation and wildlife, creating new green links to surrounding semi-natural habitats* whilst making a *plan for long-term restoration of the more prominent conifer plantations and shelterbelts to semi-natural habitats ... including re-creation of heathland on the plateau and broadleaved woodland on steep scarp slopes*. In 50 years time this Plan will look to have delivered a rich mosaic of robust habitats which supports a multitude of rare and common flora and fauna species as well as contributing to a low-carbon economy.

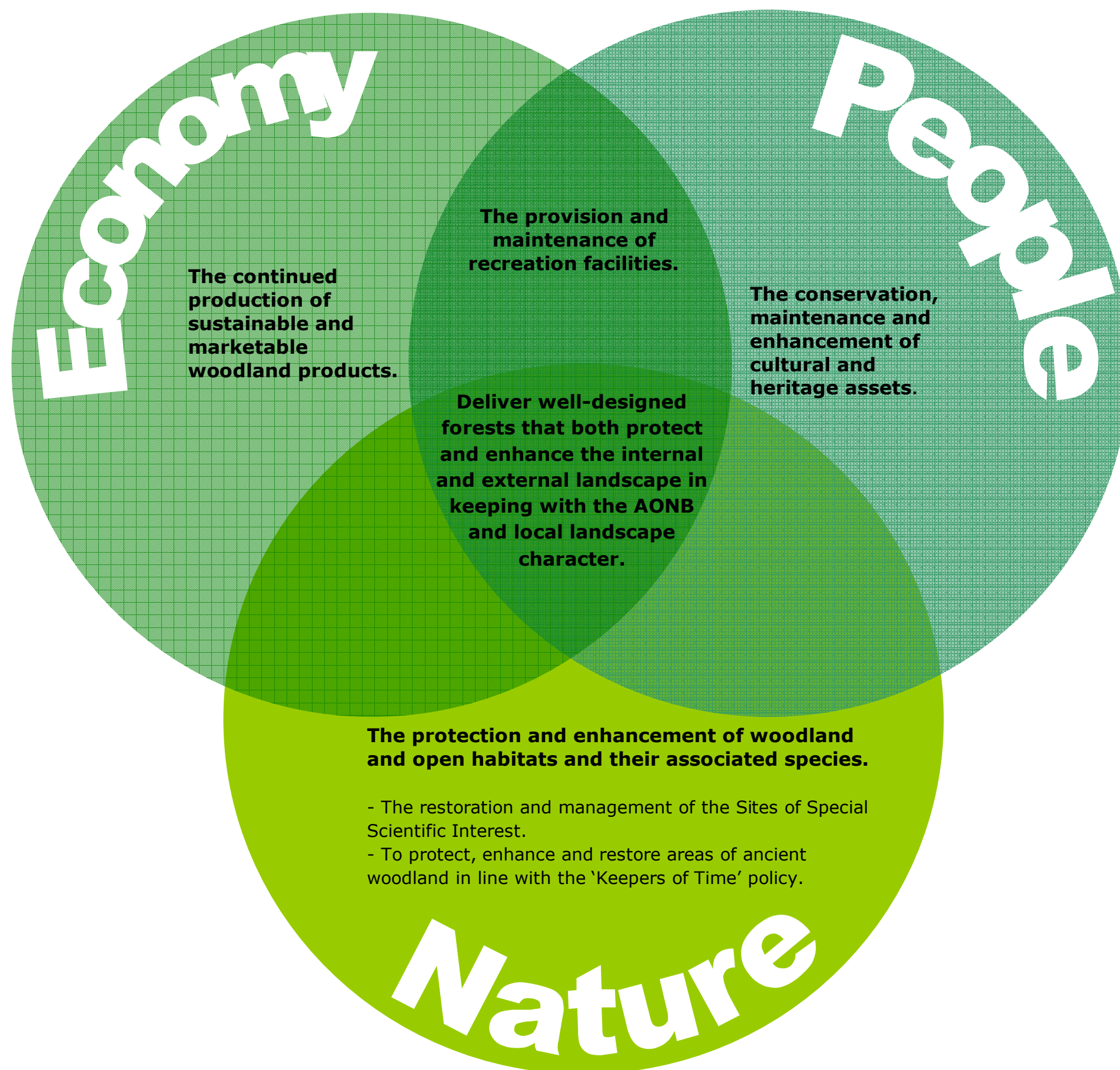
The conifer dominated forest will predominantly be managed through continuous cover forest and low impact silvicultural systems contributing to a vibrant woodland economy. Building on the significant amounts of work already carried out by the HLF project much of the woodland will be restored overtime to native woodland to better reflect the historical cultural landscape. Rare and protected species, such a nightjar, hobby and bats will continue to call the forest home. The forest will also be a popular and safe place to come exercise, learn and relax in a resilient natural environment. The trees will be valued not only for their ecological and social value but also as a timber product, water regulation and for carbon sequestration which as climate change takes effect will be of increasing importance. A diverse structure of young, thicket and maturing crops across the area will provide suitable continuous habitat over time.

Significant areas of restored wood and open pasture as well as remnant and newly created wet and dry heathland will be a haven for a multitude of associated species such as Dartford warbler and Duke of Burgundy and maybe in time, Marsh Fritillary butterflies. These will be bigger, better consolidated and more connected to enhance ecological value and aid effective management. The considerable rides and roadside network will be wider than currently and support common and protected butterflies and other rotational scrub loving species. These areas will also be invaluable to the enjoyment of the area for people, creating windows into the wider forest and out into the landscape.

Ancient and native woodland, a key part of the Landscape Character, will feature more significantly in the area's makeup. Areas will be restored to oak dominated forest cover gradually to support the rare and protected flora and fauna species which populate these habitats. In addition to these, areas of conifer dominated forest managed through continuous cover forest techniques or clearfell/restock will become a home for numerous conifer and edge loving species such as butterflies, bats, nightjar and raptor. Broadleaf woodland will grow in size and improve in condition as restoration to native cover takes affect in certain areas. Managed more sensitively but still with productivity in mind through thinning or coppicing, these more secluded areas will become a haven for a multitude of micro habitats, species and ecosystem functioning. Veteran, mature and future significant trees will be retained and allowed to breakdown providing deadwood habitat and nutrient cycling. Everything from rare dormice and butterflies to lichens will enhance the contribution to ecology, cultural heritage and social value and to the wider landscape. Riparian areas will be enhanced through broadleaf intrusion and opened up to dappled shade to become invaluable to the quality and storage of water that passes through.

The 50 Year Vision outlined in this Plan will be delivered in part over the next 10 years through the Objectives outlined on pages 9 and 10 with the proposal and prescriptions following.





Management Objectives

WEST ENGLAND FOREST DISTRICT

**PROTECTING AND EXPANDING ENGLANDS FORESTS
AND WOODLANDS AND INCREASING THEIR VALUE TO
SOCIETY AND THE ENVIRONMENT.**

The objectives of this Plan will, in part, deliver the *West England Forest District Strategic Plan* (2013a) and the national *Strategic Plan for the Public Forest Estate in England* (2013b).

Sustainable management of the woodland will be to the standards required to maintain FSC and PEFC accreditation and therefore must deliver economic, environmental and social objectives.

The meeting and monitoring of these objectives is outlined on the following page.



Forestry Commission woodlands have been certified in accordance with the rules of the Forest Stewardship Council.



Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No 995/210)

District Strategy

Economy

Maintain the land within our stewardship under FSC/PEFC certification.

Improve the economic resilience of our woods and forests.

Encourage and support business activity on the Estate

Nature

Improve the resilience of the natural environment of the Estate under our stewardship.

Realise the potential of the Public Forest Estate for nature and wildlife.

Maintain and improve the cultural and heritage value of the Estate.

People

Maintain existing established consultation panels and engage with other consultative bodies such as National Park Authorities and AONBs.

Provide high quality woodland based recreational opportunities for people and business focusing on the 3 principle Forest Centres.

Forest Plan Objective

Meeting Objective

Monitoring

The continued production of sustainable and marketable woodland products.

The majority of the Plan area will remain productive through thinning yield.

Some clearfell timber production of mature crops will occur, majority from the conifers.

Comparison of total production forecast yield 26,000m³ (2018-2022) and 55,500m³ (2018-2028) with actual production at the Forest Plan (FP) five and ten-year review.

The protection and enhancement of woodland and open habitats and their associated species.

- The restoration and management of the Site of Special Scientific Interest.

- To protect, enhance and restore areas of ancient woodland in line with the 'Keepers of Time' policy.

Appropriate reinstatement works will be carried out once operations have been concluded.

Protection and enhancement of water supplies and soil quality through sensitive implementation of operations and improved restocking practices.

Restoration of ancient woodland through a gradual thinning process

Management of SSSI's in line with specific management plans towards and maintained 'favourable condition'.

Operational site planning of harvesting and restocking operations will help monitor the effect of management.

Ongoing monitoring of soil and water quality pre and post harvesting with input from outside stakeholders.

Analysis of naturalness scores at Review stage

Through correspondence with Natural England at regular interval — SSSI condition is monitored by NE

Measured at Review stage through analysis of ongoing surveys and records.

The provision and maintenance of recreation facilities.

Visitor numbers will be maintained.

Road and ride corridor and car park aesthetics enhanced and maintained.

Felling together with a delayed restock program will continue to diversify stand and age structure.

Viewpoints enhanced and maintained at time of intervention, where possible.

Visitor feedback comments, to be included in Review where appropriate.

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

Implementation of proposals will soften and better integrate the woodland with the surrounding landscape

Fixed point photography analysis at Forest Plan review stage

The conservation, maintenance and enhancement of cultural and heritage assets .

Protect and enhance scheduled and unscheduled sites at the time of intervention.

Operational site planning of harvesting and restocking operations will help monitor the effect of management.



Designations

Blackdown Hills AONB - has a suite of special qualities that together make it unique and outstanding, underpinning its designation as a nationally important protected landscape. Special qualities may be considered as specific components of 'Natural Beauty', distilling out the key attributes that combine to form the natural beauty of the AONB. These are the special qualities we need to conserve and enhance for the future and they should be considered in all decisions affecting the AONB.

Thurlbear SSSI - is a species-rich woodland, formerly managed in a traditional coppice-with-standards system and situated on soils derived from Rhaetic shales and limestones. The recorded history of the site, its Medieval embankments and the presence of several plants normally confined to primary woods, all suggest that Thurlbear is of considerable antiquity. This is leased to and managed by Somerset Wildlife Trust.

Prior's Park and Adcombe Wood SSSI - have excellent examples of several of the broadleaved semi-natural woodland types associated with the Blackdown Hills. Additional interest lies in the occurrence of several areas of unimproved marshy grassland.

Ancient Woodland

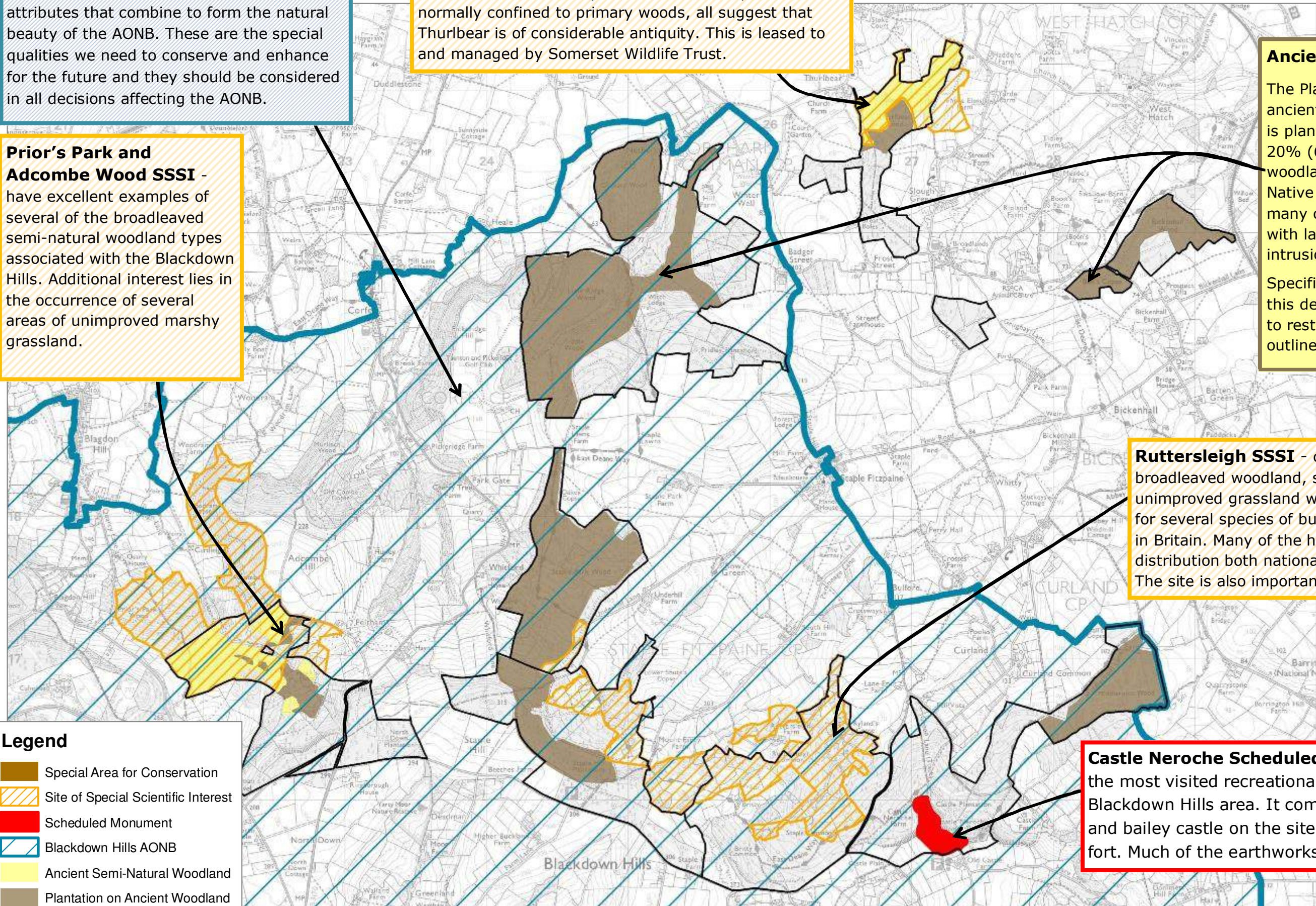
The Plan area includes 347ha of ancient woodland, 298 ha of which is plantation on ancient woodland. 20% (66ha) of this ancient woodland is pure conifer (<20% Native component), which means many of these crops are mixed with large amounts of broadleaf intrusion.

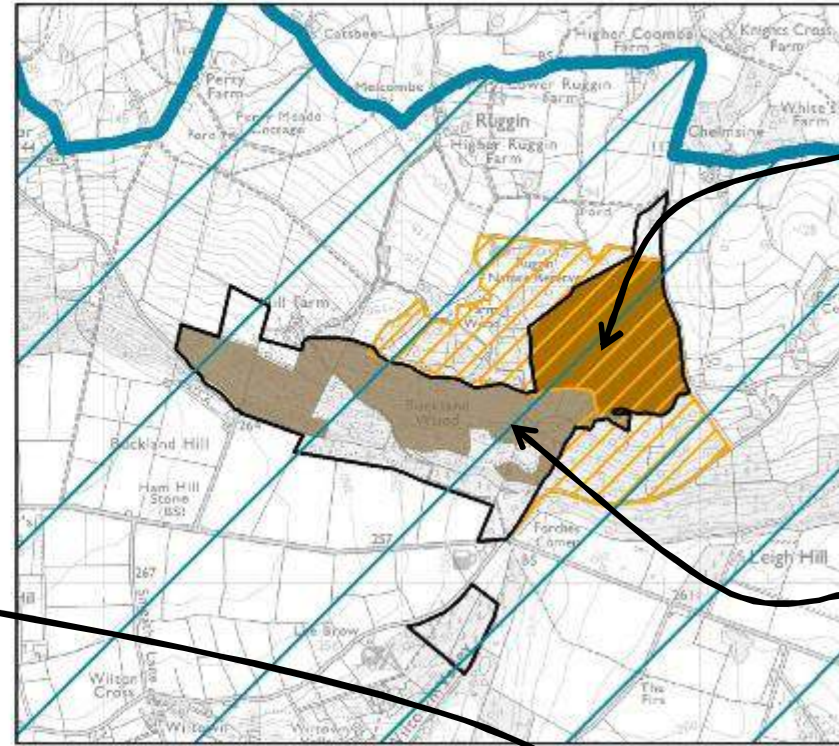
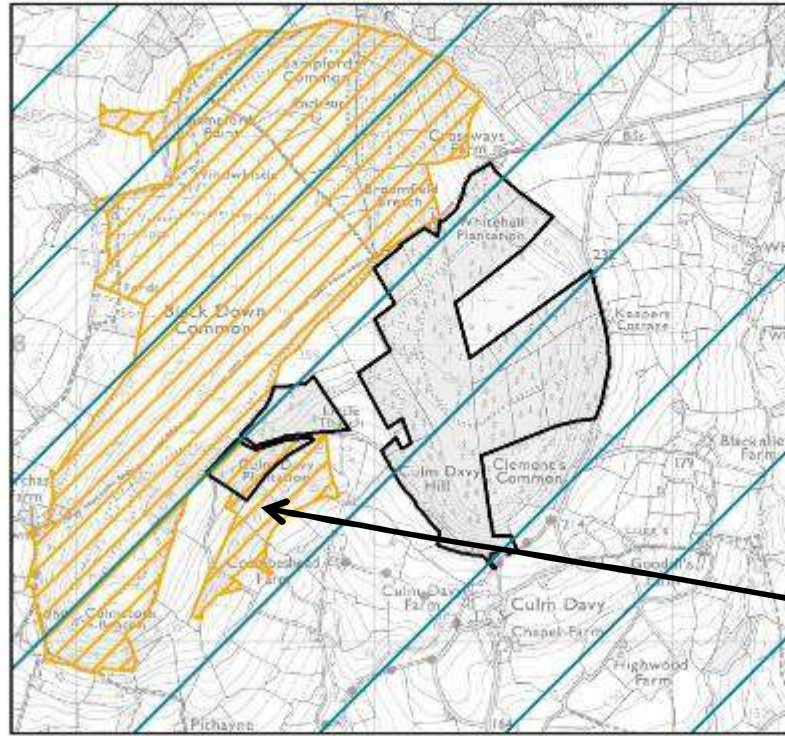
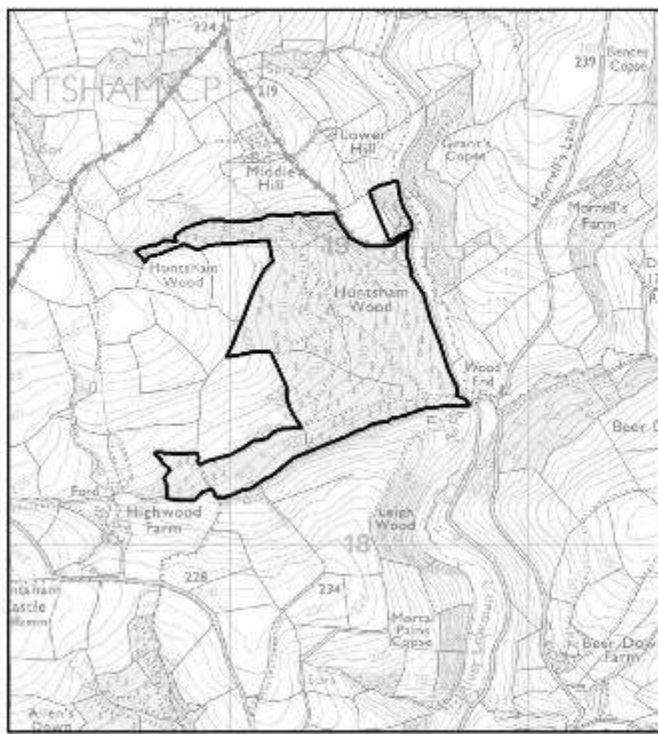
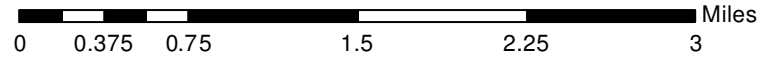
Specific management in light of this designation and the objective to restore to native cover is outlined on pages 20-21.

Ruttersleigh SSSI - comprises a mosaic of broadleaved woodland, scrub, bracken, mires and unimproved grassland which provides the habitat for several species of butterfly which are now scarce in Britain. Many of the habitats have a restricted distribution both nationally and in the South West. The site is also important for its lichens.

Castle Neroche Scheduled Monument—is one of the most visited recreational sites in the northern Blackdown Hills area. It comprises a Norman motte and bailey castle on the site of an earlier Iron Age hill-fort. Much of the earthworks are still clearly visible.

- Legend**
- Special Area for Conservation
 - Site of Special Scientific Interest
 - Scheduled Monument
 - Blackdown Hills AONB
 - Ancient Semi-Natural Woodland
 - Plantation on Ancient Woodland



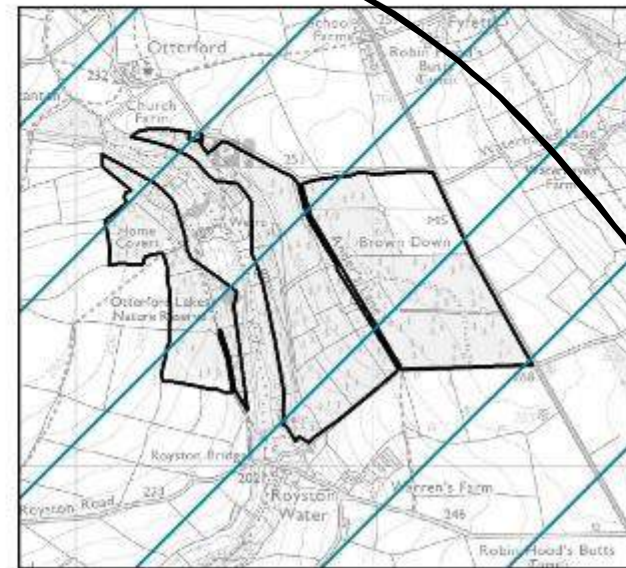
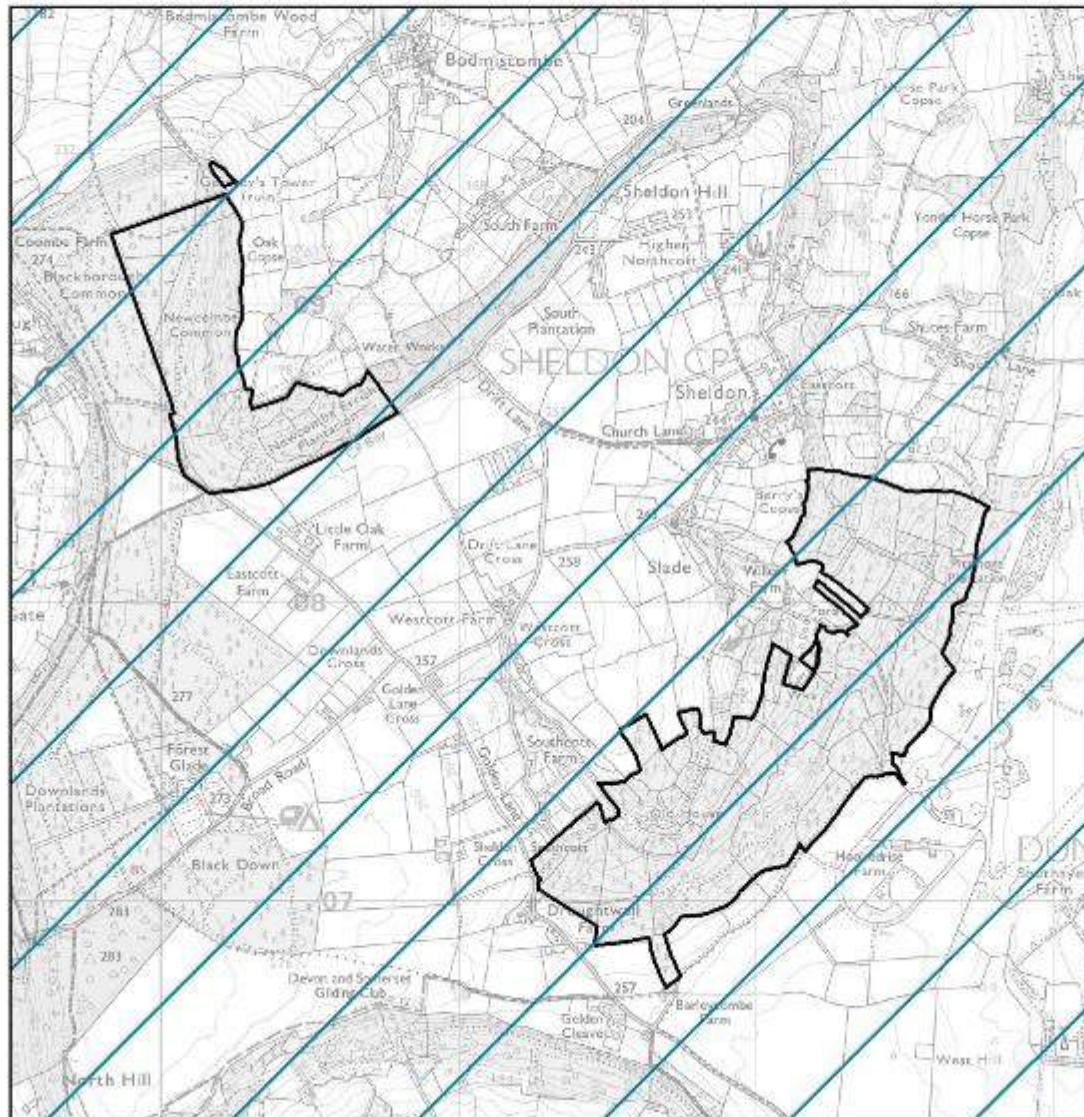
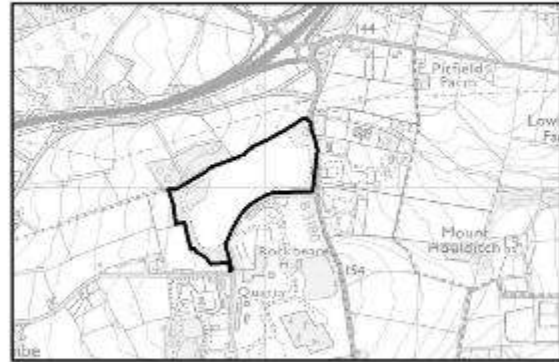


Quants SSSI and SAC - includes unimproved neutral grassland, ancient woodland, secondary woodland, and small areas of heathland and fen. A number of plants and lichens with a local distribution in Somerset are present and the site also supports an outstanding invertebrate fauna.

Ancient Woodland

The Plan area includes 347ha of ancient woodland, 298 ha of which is plantation on ancient woodland. 20% (66ha) of this ancient woodland is pure conifer (<20% Native component), which means many of these crops are mixed with large amounts of broadleaf intrusion.

Specific management in light of this designation and the objective to restore to native cover is outlined on pages 20-21.



Blackdown and Sampford SSSI - has the finest and most extensive surviving examples of the heathland, carr woodland and marshy grassland habitats that have developed on the acidic soils overlying the Greensand and Keuper Marls of the Blackdown Hills.

Blackdown Hills AONB - has a suite of special qualities that together make it unique and outstanding, underpinning its designation as a nationally important protected landscape. Special qualities may be considered as specific components of 'Natural Beauty', distilling out the key attributes that combine to form the natural beauty of the AONB. These are the special qualities we need to conserve and enhance for the future and they should be considered in all decisions affecting the AONB.

Legend

- Special Area for Conservation
- Site of Special Scientific Interest
- Scheduled Monument
- Blackdown Hills AONB
- Ancient Semi-Natural Woodland
- Plantation on Ancient Woodland

Analysis & Concept

Priors Park, Staple Park, Edge & Common and Castle Neroche

The Neroche complex is situated on the edge of the Blackdown escarpment and is a collection of ecologically diverse, economically productive and culturally significant woodlands 5 kilometres south of Taunton. This rich historic landscape was an ancient hunting forest and as a result contain a large proportion of oak dominated Lowland Mixed Deciduous Forest and large amount of historic wood pasture. The woodlands also contain a large number of significant and veteran trees. The main objective within the ancient woodland areas is restoration to native species cover and the associated ecosystem functioning in an economically efficient way; that is through the tackling of immediate threats and then gradual removal of non-native trees in favour of native species. In other areas the continued production and diversification of timber species will be pursued whilst maintaining a woodland valued for biodiversity, recreation and amenity. This is with the exception of the heathland and pasture which were restored as part of the Neroche Scheme.

Analysis: Prior's Park and Adcombe Wood SSSI have excellent examples of several of the broadleaved semi-natural woodland types associated with the Blackdown Hills. Additional interest lies in the occurrence of several areas of unimproved marshy grassland.

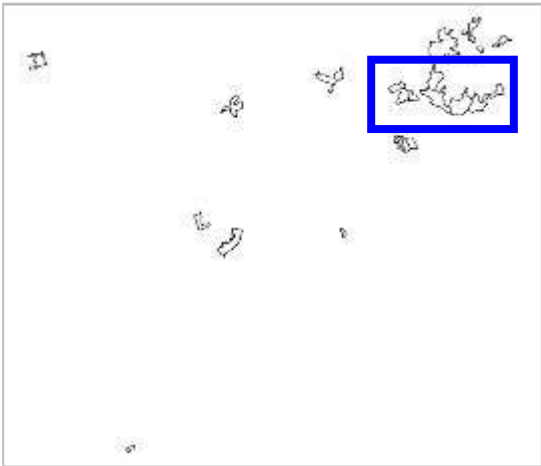
Concept: The management of the woodland will be to complement and enhance the SSSI. This will be outlined in this Plan and primarily achieved through coppice management and selection of standards.

Analysis: The majority of the woodland is registered ancient woodland, the majority of which is ancient semi-natural or of native dominated cover. Where plantation on ancient woodland has occurred this is usually with beech, Scots pine or Norway spruce.

Concept: A restoration plan whereby threats are addressed and then native features are developed and enhanced will ensure that quality, multi-beneficial habitat restoration of native woodland occurs where necessary.

Legend

- Ruttersleigh SSSI & Prior's Park and Adcombe Wood SSSI
- Castle Neroche Scheduled Monuments
- Ancient woodland
- Lowland mixed deciduous woodland
- Tree of Special Interest
- Heathland
- Wooded Heath
- Wood Pasture
- Grazing Units (FBT)
- Primary River
- Secondary River
- Tertiary River



Analysis: A high density of veteran oaks and other open grown broadleaves can be found on the edges Staple Park and Staple Common.

Concept: The management of areas around these specimens will be to preserve and protect them in perpetuity. As such much is managed as a Natural Reserve.

Analysis: Ruttersleigh SSSI comprises a mosaic of broadleaved woodland, scrub, bracken, mires and unimproved grassland which provides the habitat for several species of butterfly which are now scarce in Britain. Many of the habitats have a restricted distribution both nationally and in the South West. The site is also important for its lichens.

Concept: The management of the woodland will be to complement and enhance the SSSI. This will be outlined in this Plan and primarily achieved through grazing.

Analysis: Castle Neroche is one of the most visited recreational sites in the northern Blackdown Hills area. It comprises a Norman motte and bailey castle on the site of an earlier Iron Age hillfort. Much of the earthworks are still clearly visible.

Concept: The management of the woodland will be to complement the SM and its approved Management Plan.

Analysis: A considerable area of wood pasture restoration is located within the forest. This is managed primarily through grazing under a larger Farm Business Tenancy (see green outline) with supplementary mechanical cutting.

Concept: The condition of the units is adequate, however a method of management outside of grazing will need to be proposed in the event that this method of pasture management is longer available.

Analysis: Areas of wooded heath and open heathland are located within the forest, with considerable further restoration planned. This is focused at the higher elevations of the forest where soils are thinner and yield lower.

Concept: An appraisal of these future plans is needed in light of Open Habitats Policy and resource constraints.

Analysis & Concept

Wych Lodge, Thurlbear and Bickenhall

Located to the north of the Neroche complex these stand alone woodlands are ecologically diverse, economically productive and culturally significant. These rich historic woodlands contain a large proportion of oak dominated Lowland Mixed Deciduous Forest with ash as a sub-species, as such it is considered to be National Vegetation Classification type W8. The woodlands also contain a large number of significant and veteran trees. The main objective within the ancient woodland areas is restoration to native species cover and the associated ecosystem functioning in an economically efficient way; that is through the tackling of immediate threats and then gradual removal of non-native trees in favour of native species. In other areas the continued production and diversification of timber species will be pursued whilst maintaining a woodland valued for biodiversity, recreation and amenity.

Analysis: 12ha of wood pasture restoration is located within the forest. This is managed primarily through grazing under a larger Farm Business Tenancy (see green outline) with supplementary mechanical cutting.

Concept: The condition of the unit is good, however a method of management outside of grazing will need to be proposed in the event that this method of pasture management is longer available.

Analysis: A dormouse stronghold is known in the north of Wych Lodge.

Concept: The management of this area will be sympathetic to needs of the species and look to enhance and further its population in the surrounding area.

Analysis: A high density of veteran oaks and other open grown broadleaves can be found on the edges Wych Lodge and Bickenhall.

Concept: The management of areas around these specimens will be to preserve and protect them in perpetuity.

Analysis: Young Wood is home to the Neroche Woodlanders, a legacy project from the Neroche Scheme which encourages community engagement with the woodland.

Concept: The management of this area will be sympathetic to needs of the Project.

Analysis: Thurlbear SSSI is a species-rich woodland, formerly managed in a traditional coppice-with-standards system and situated on soils derived from Rhaetic shales and limestones. The recorded history of the site, its Medieval embankments and the presence of several plants normally confined to primary woods, all suggest that Thurlbear is of considerable antiquity.

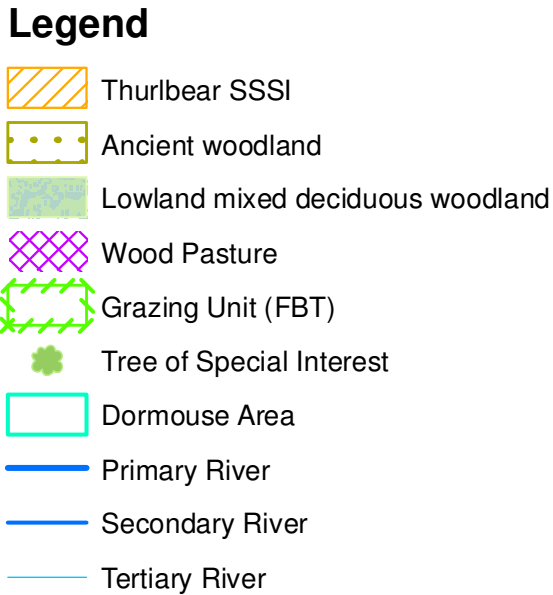
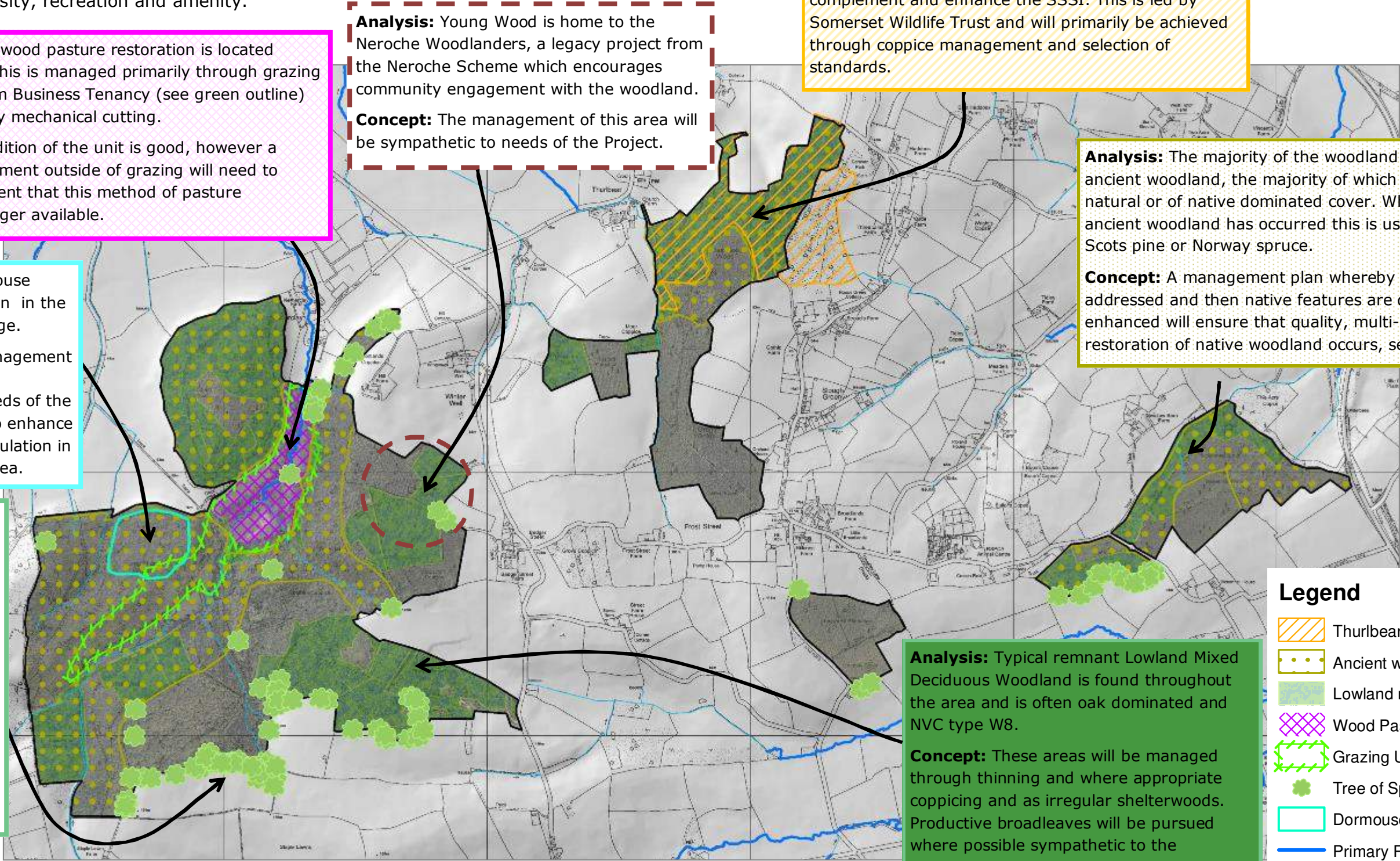
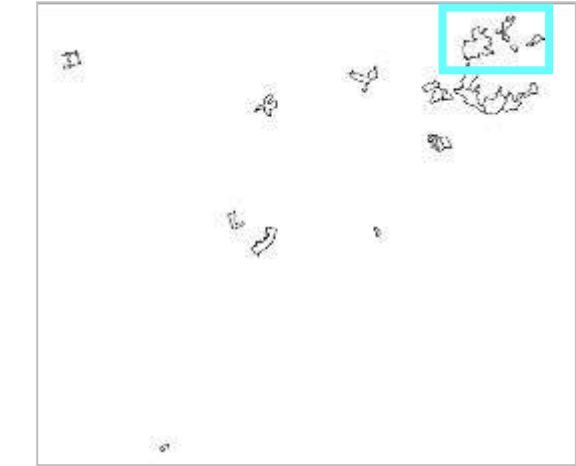
Concept: The management of the woodland will be to complement and enhance the SSSI. This is led by Somerset Wildlife Trust and will primarily be achieved through coppice management and selection of standards.

Analysis: The majority of the woodland is registered ancient woodland, the majority of which is ancient semi-natural or of native dominated cover. Where plantation on ancient woodland has occurred this is usually with beech, Scots pine or Norway spruce.

Concept: A management plan whereby threats are addressed and then native features are developed and enhanced will ensure that quality, multi-beneficial habitat restoration of native woodland occurs, see page 20.

Analysis: Typical remnant Lowland Mixed Deciduous Woodland is found throughout the area and is often oak dominated and NVC type W8.

Concept: These areas will be managed through thinning and where appropriate coppicing and as irregular shelterwoods. Productive broadleaves will be pursued where possible sympathetic to the considerable ecological value these woodlands play in the landscape.



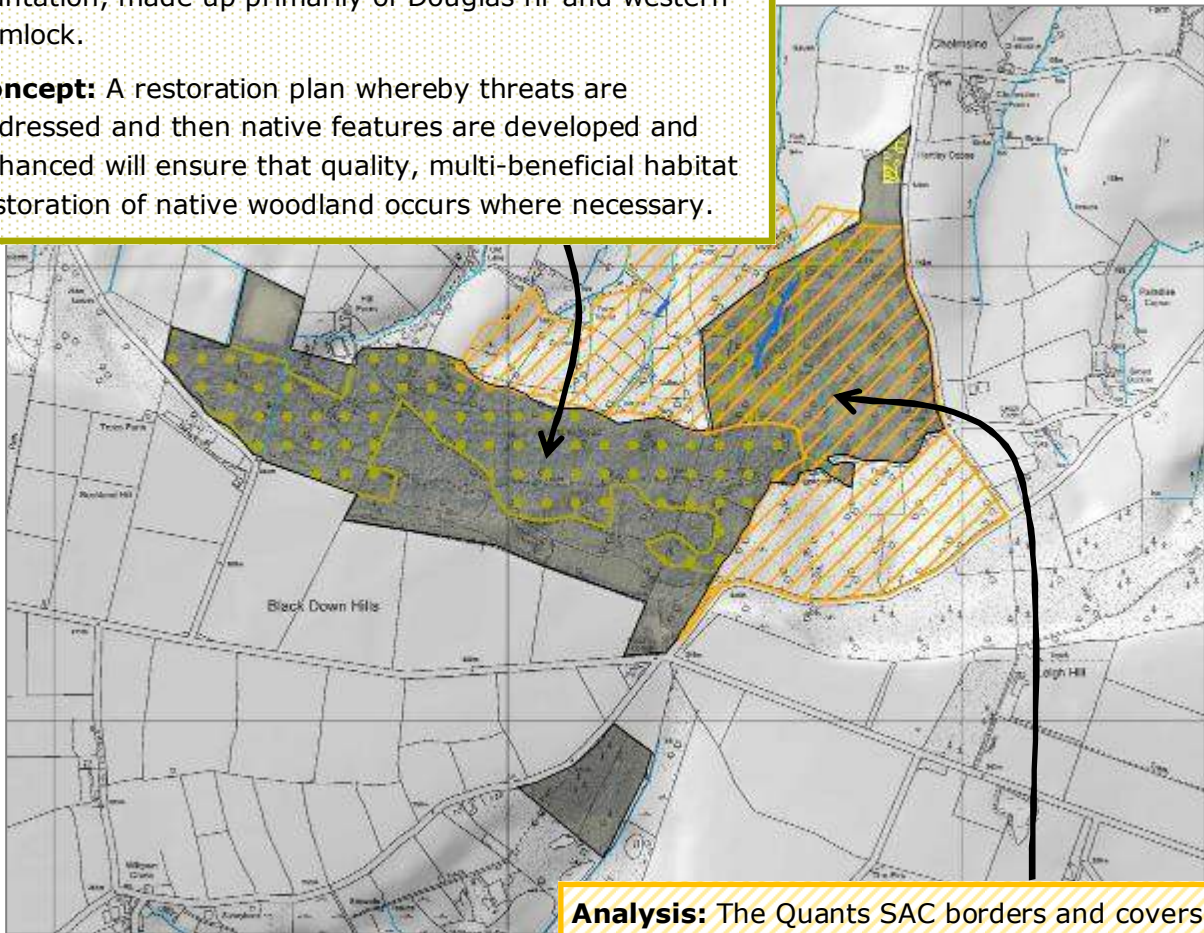
Analysis & Concept

Buckland

This 73 hectare woodland is situated on the edge of the Blackdown escarpment 3 kilometres south of Wellington. Large areas to the north and lower reaches of the woodland are registered ancient woodland on poor ground water gleys. The majority of the site is coniferised with Quants SSSI . The main objective within the woodland will be of ancient woodland restoration utilising continuous cover forestry principles where possible, sympathetic to the ecological (i.e. Quants SAC) and cultural assets of the woodland and surrounding landscape.

Analysis: Well over half of the woodland is registered ancient woodland, the majority of which is conifer plantation, made up primarily of Douglas fir and western hemlock.

Concept: A restoration plan whereby threats are addressed and then native features are developed and enhanced will ensure that quality, multi-beneficial habitat restoration of native woodland occurs where necessary.



Legend

- Quants SSSI
- Ancient woodland
- Primary River
- Secondary River
- Tertiary River

Analysis: The Quants SAC borders and covers a significant area to the north of the woodland. This designation includes unimproved neutral grassland, ancient woodland, secondary woodland, and small areas of heathland and fen. A number of plants and lichens with a local distribution in Somerset are present and the site also supports outstanding Lepidoptera.

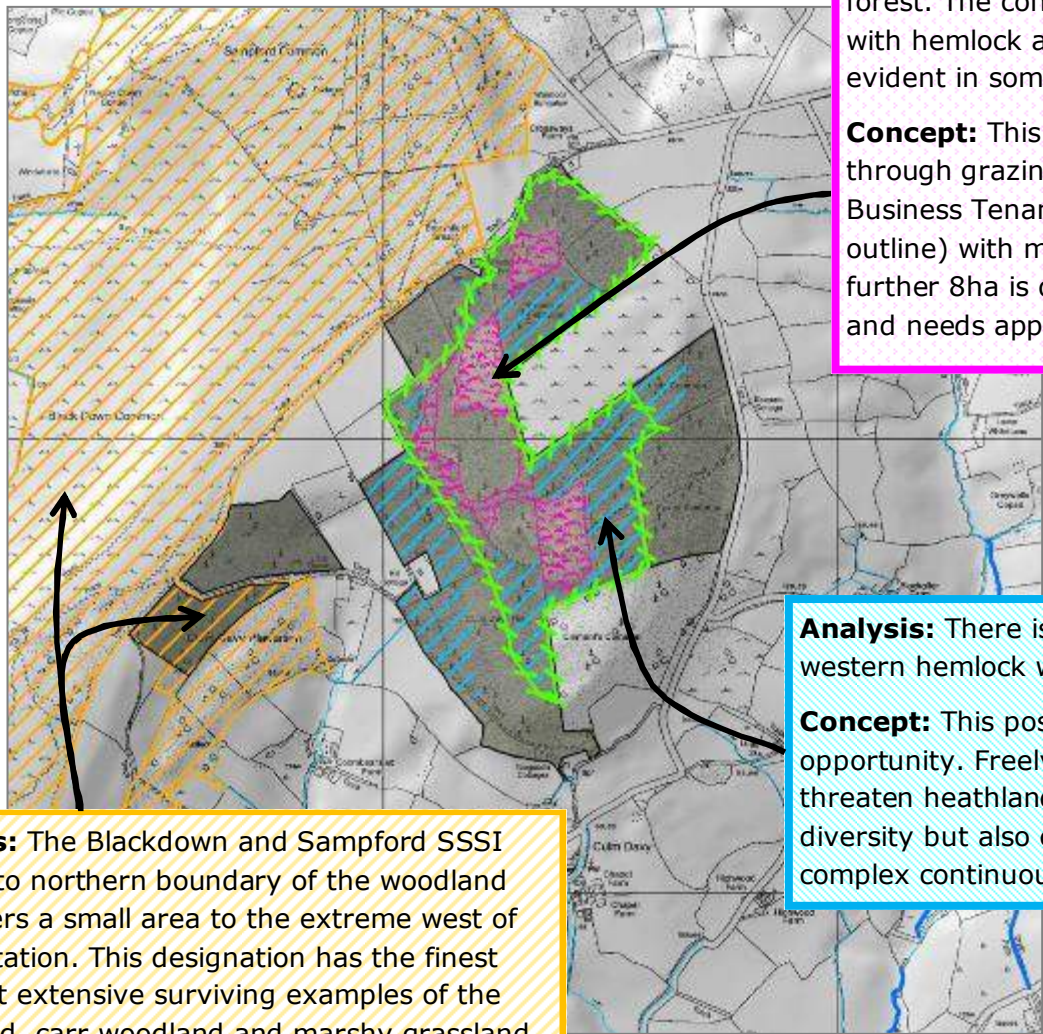
Concept: The management of the woodland will be to complement and enhance the SSSI. This will be outlined in this Plan and primarily achieved through grazing.

Culm Davy

This geometric, conifer dominated plantation is located on top of an elevation and borders a grazed common, indicative of the site's condition before afforestation, which is a designated SSSI. As a 63 hectare block is relatively close proximity to Wellington and Hemyock, the woodland is a popular walking destination. The soils are poor, wet and gleyed limiting species choice. However the main objective within the plantation will be of productive conifer forestry. This is with the exception of the lowland heathland (7ha) which was restored in 2009 and managed for heathland species, particular Lepidoptera. A further 8 hectares of lowland heathland and 23 hectares of wooded heath restoration is planned.

Analysis: 7ha of lowland heathland restoration is located with the forest. The condition of this varies with hemlock and birch regeneration evident in some areas.

Concept: This is managed primarily through grazing under a Farm Business Tenancy (see green outline) with mechanical cutting. A further 8ha is due in coming years and needs appraising.



Analysis: There is a high proportion of western hemlock within the plantation.

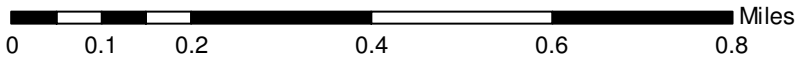
Concept: This poses a risk and an opportunity. Freely seeding hemlock can threaten heathland creation and woodland diversity but also can create a dynamic, complex continuous cover system.

Analysis: The Blackdown and Sampford SSSI borders to northern boundary of the woodland and covers a small area to the extreme west of the plantation. This designation has the finest and most extensive surviving examples of the heathland, carr woodland and marshy grassland habitats that have developed on the acidic soils overlying the Greensand and Keuper Marls of the Blackdown Hills.

Concept: The management of the woodland will be to complement the SSSI. This will through a transition to native woodland overtime.

Legend

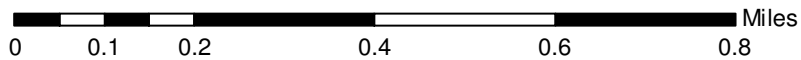
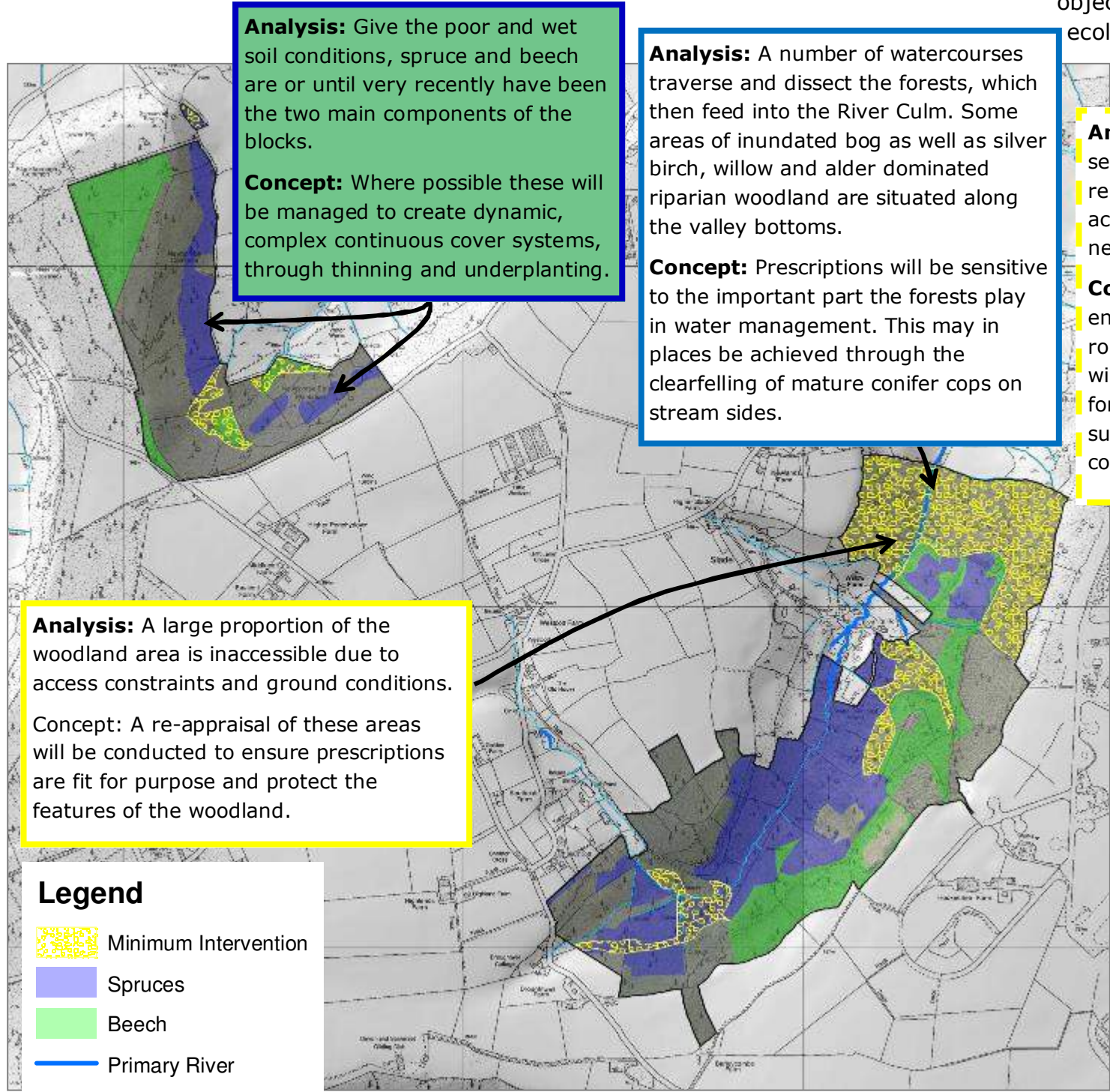
- Blackdown & Sampford Commons SSSI
- Western hemlock
- Restored heathland
- Grazing Unit (FBT)
- Primary River
- Secondary River
- Tertiary River



Analysis & Concept

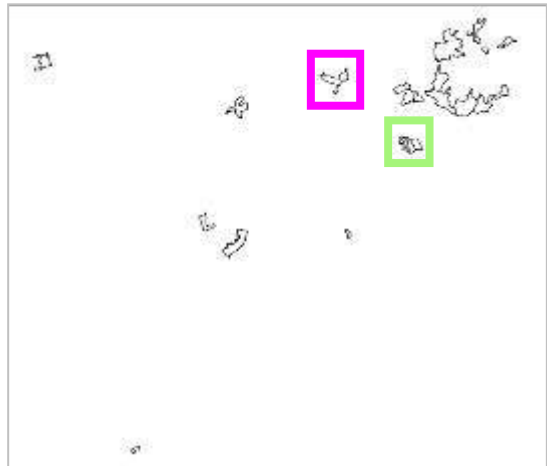
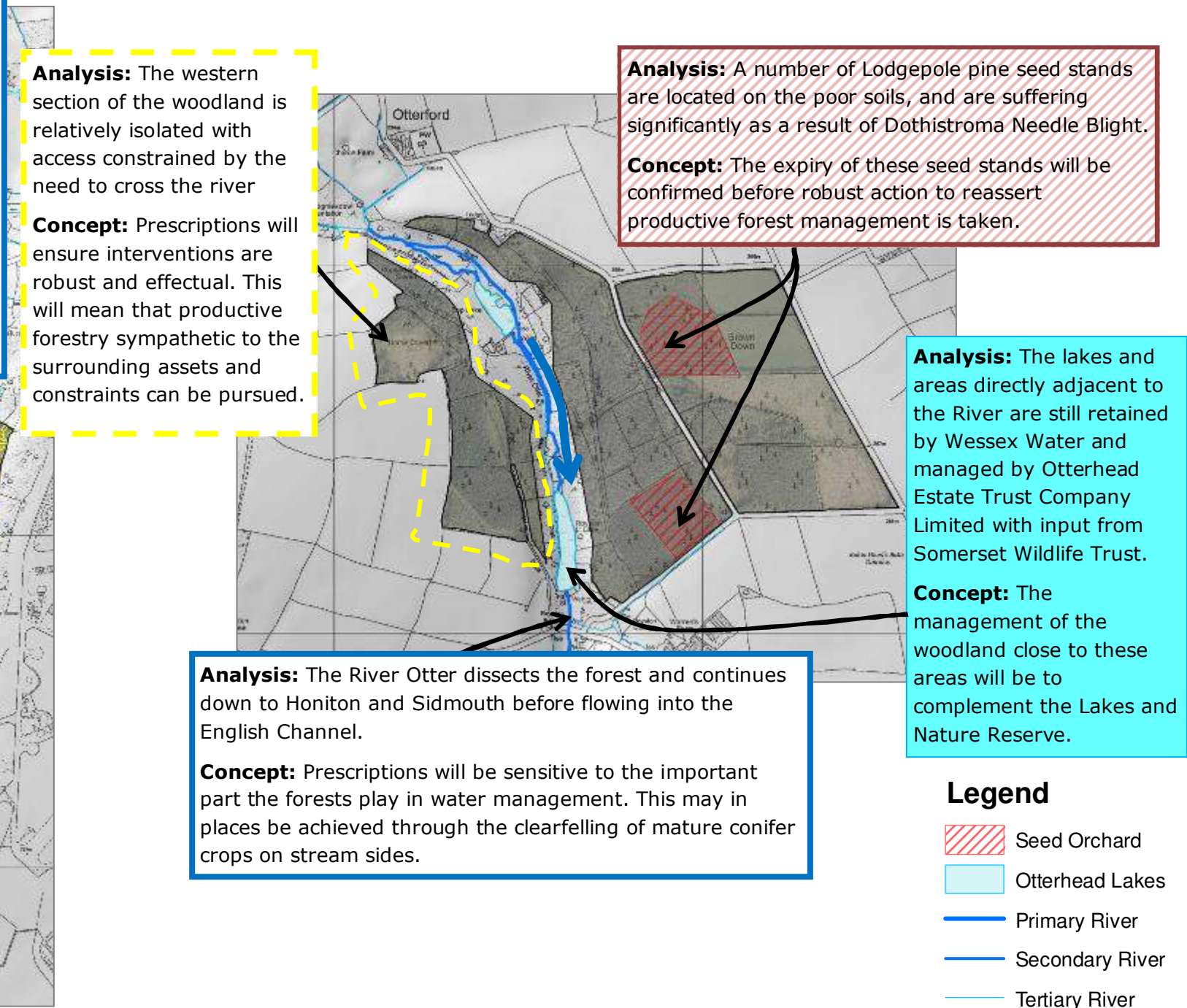
Sheldon Blackborough

These two secondary woodland blocks of 40ha and 97ha respectively sit elevated within an intimate wooded landscape 8 kilometres east of Cullumpton. Large areas of the woodlands sit on the edge and at the bottom of wet valleys and as such regulate a significant amount of water. The soils are acidic and often gleyed and support a number of marsh and bog areas with associated lichens and bryophytes. Where appropriate the main objective will be of robust productive conifer forestry, sympathetic to the ecological and cultural assets of the woodland and surrounding landscape. However where inundation and thus access is an issue, water retention and regulation and the associated ecologically will be a primary objective.



Otterford

This geometric, conifer dominated plantation is located across a plateau in the east and into the valley of the River Otter and Otterhead Lakes towards the west. This 72 hectare block is dissected by a public road and the River Otter. The land adjoining is owned by Wessex Water and managed as a Local Nature Reserve with a Forest Schools and fishing license. The adjoining area also includes some lost gardens, Victorian designed landscape such a a lime avenue and surviving garden plants. The soils are poor, wet and gleyed in the east limiting species choice however deeper and richer brown earths are located in the west. The main objective for the plantation will be of productive conifer forestry sympathetic to the ecological and cultural assets of the woodland and surrounding landscape.



Analysis & Concept

Huntsham

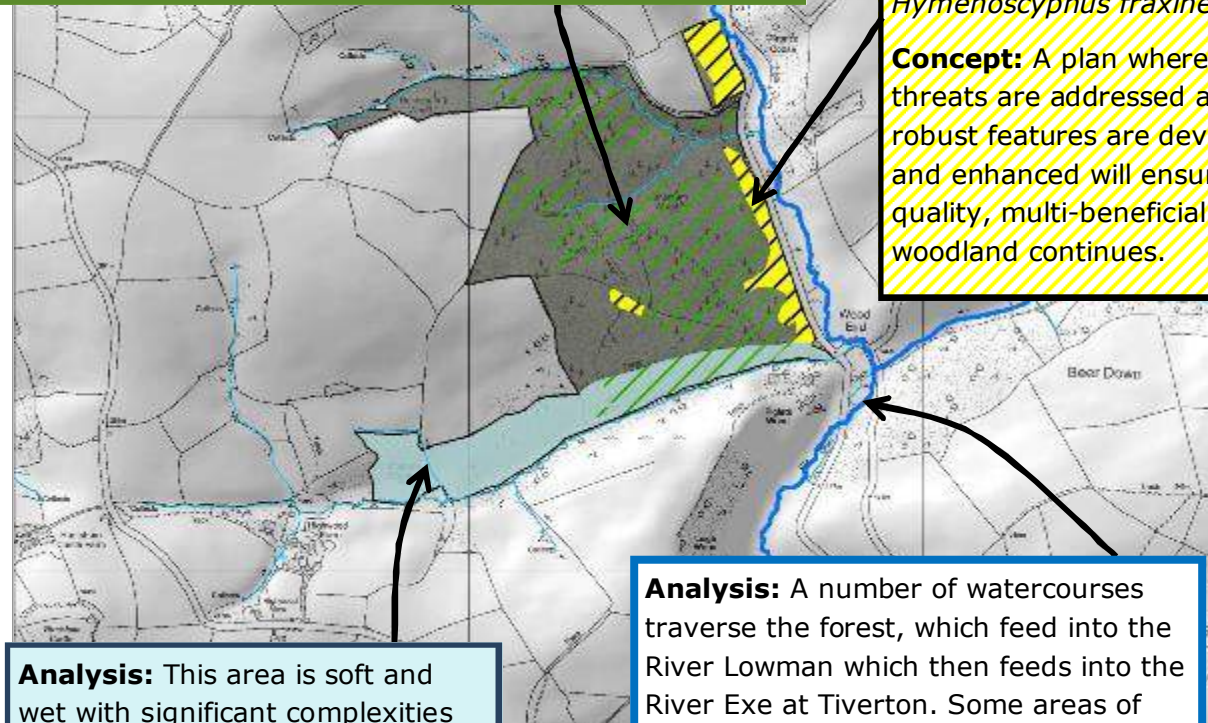
This isolated, 48 hectare secondary woodland site is 5 kilometres north east of Tiverton. Large areas to the east of the woodland are mature Douglas fir on deep and rich brown earth. Wetter, more acidic, gleyed soils to the west of the woodland support a mixture of Sitka spruce and significant broadleaf intrusion. The main objective within the woodland will be of productive conifer forestry, utilising continuous cover forestry principles where possible, sympathetic to the ecological and cultural assets of the woodland and surrounding landscape.

Analysis: Significant areas of mature Douglas fir, planted in 1959 are found throughout woodland.

Concept: Where possible, and in light of heavy deer browsing pressure a targeted and robust approach to continuous cover forestry and clearfell restock will be taken to pursue efficient conifer timber production.

Analysis: Areas of mature healthy Japanese and European larch are found along the road side, as well as juvenile ash which is showing signs symptomatic of *Hymenoscyphus fraxineus*.

Concept: A plan whereby threats are addressed and robust features are developed and enhanced will ensure that quality, multi-beneficial woodland continues.



Analysis: This area is soft and wet with significant complexities and gullies in places. Birch and hazel intrusion is prolific here.

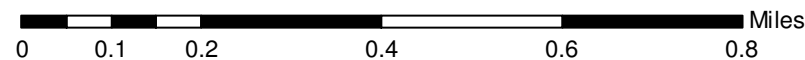
Concept: A sympathetic approach will be taken here to protect soil and enable water regulation whilst maintaining productive output.

Analysis: A number of watercourses traverse the forest, which feed into the River Lowman which then feeds into the River Exe at Tiverton. Some areas of birch, hazel, willow and ash dominated riparian woodland are situated along the stream sides.

Concept: Prescriptions will be sensitive to the important part the forests play in water management. This will be through targeted removal of some overly shade bearing conifers and management towards 50% open 50% dappled shade, provided by regenerated broadleaves. This may in places be achieved through the clearfelling of mature conifer cops on stream sides.

Legend

- Plant health risk
- Mature D. fir
- Wet area
- Primary River
- Secondary River
- Tertiary River

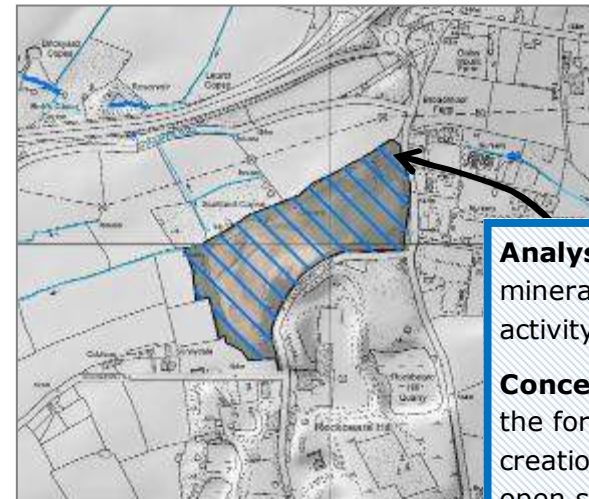


Strete Raleigh

Also known as Marsh Broadmoor, this small (10ha) isolated, site is situated between West Hill and Rockbeare 10 kilometres east of Exeter. The entirety of the site has been used as a mineral extraction quarry since, on lease to Aggregate Industries. With extraction ceased the site has since been used as an infill site for inert material from surrounding developments. This activity too is now drawing to a close with the site due to be capped in the coming years. As part of the agreement, and in line with a planning application trees will be replanted on the site to create a pleasant amenity broadleaved woodland.

Legend

- Aggregate Industries lease
- Primary River
- Secondary River
- Tertiary River



Analysis: The entirety of the area is leased and used for mineral purposes. The use of this site will change once this activity ends in the near future.

Concept: Prescriptions will be sensitive to the important part the forests play in the landscape. This will be through the creation of amenity woodland, with considerable allowance for open space and permissive access paths.

South Cleave

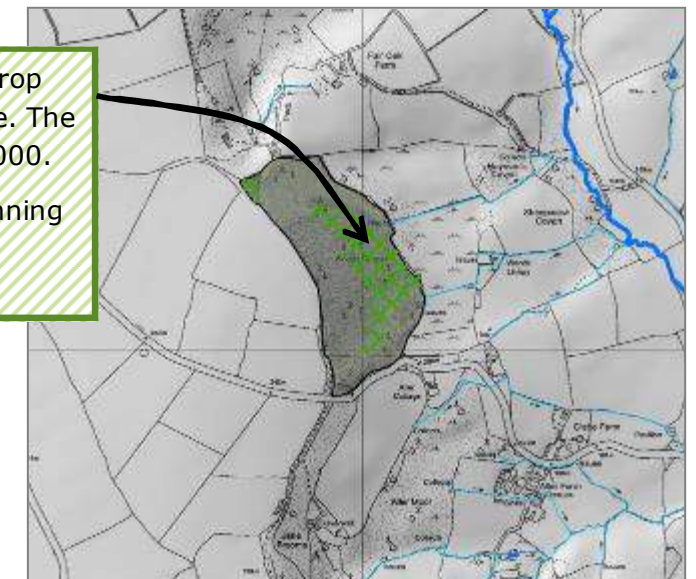
This small and secluded 10 hectare woodland is situated between Upottery and Dunkerswell. The woodland is made up of over 70% Douglas fir of varying ages, on deep and rich brown earth. The site is slightly sloping towards a southerly aspect and sits within an intimate valleyed and wooded landscape. The main objective within the woodland will be of productive conifer forestry, utilising continuous cover forestry principles where possible, sympathetic to the ecological and cultural assets of the woodland and surrounding landscape.

Analysis: Two discrete areas of mature Douglas fir crop remain (planted 1960) as overstorey and seed source. The remainder of the area is made up of planting since 2000.

Concept: Despite a small critical viable areas for thinning a continuous cover forestry approach will be taken to pursue efficient conifer timber production.

Legend

- Mature D. fir



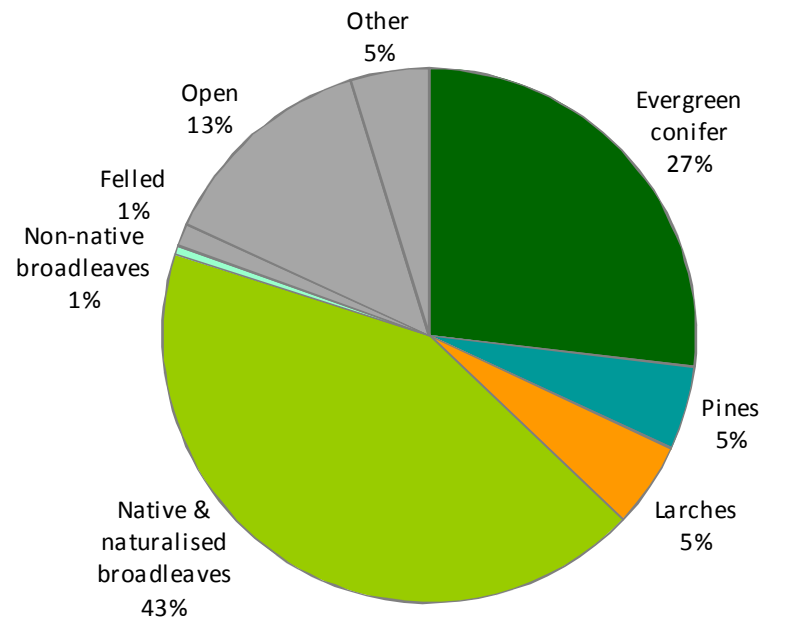


Woodland Composition

The Plan area is broadleaf dominated with some ancient semi-natural and conifer plantation. The vast majority of broadleaf components are made up of quality sessile, pedunculated and hybrid oak (147ha) with ash (119ha) and beech (129ha) the major supplementary species. Birch, alder and willow are evident as pioneer species within discrete parts of the Plan area. The broadleaf components comprise a mixture of ancient semi-natural oak, ash and beech assemblages and younger plantings and regeneration. The thinning of conifer crops has ensured that understorey development is beginning to establish, which in time will deliver a more structurally diverse woodland composition.

The majority of the conifer components are made up of Sitka spruce (95ha) and Douglas fir (90ha) with Norway spruce having been much more prevalent before significant clearing in the last decade reduced the areas to 64ha. The majority of stands are even aged with a significant amount of broadleaf intrusion and understorey development.

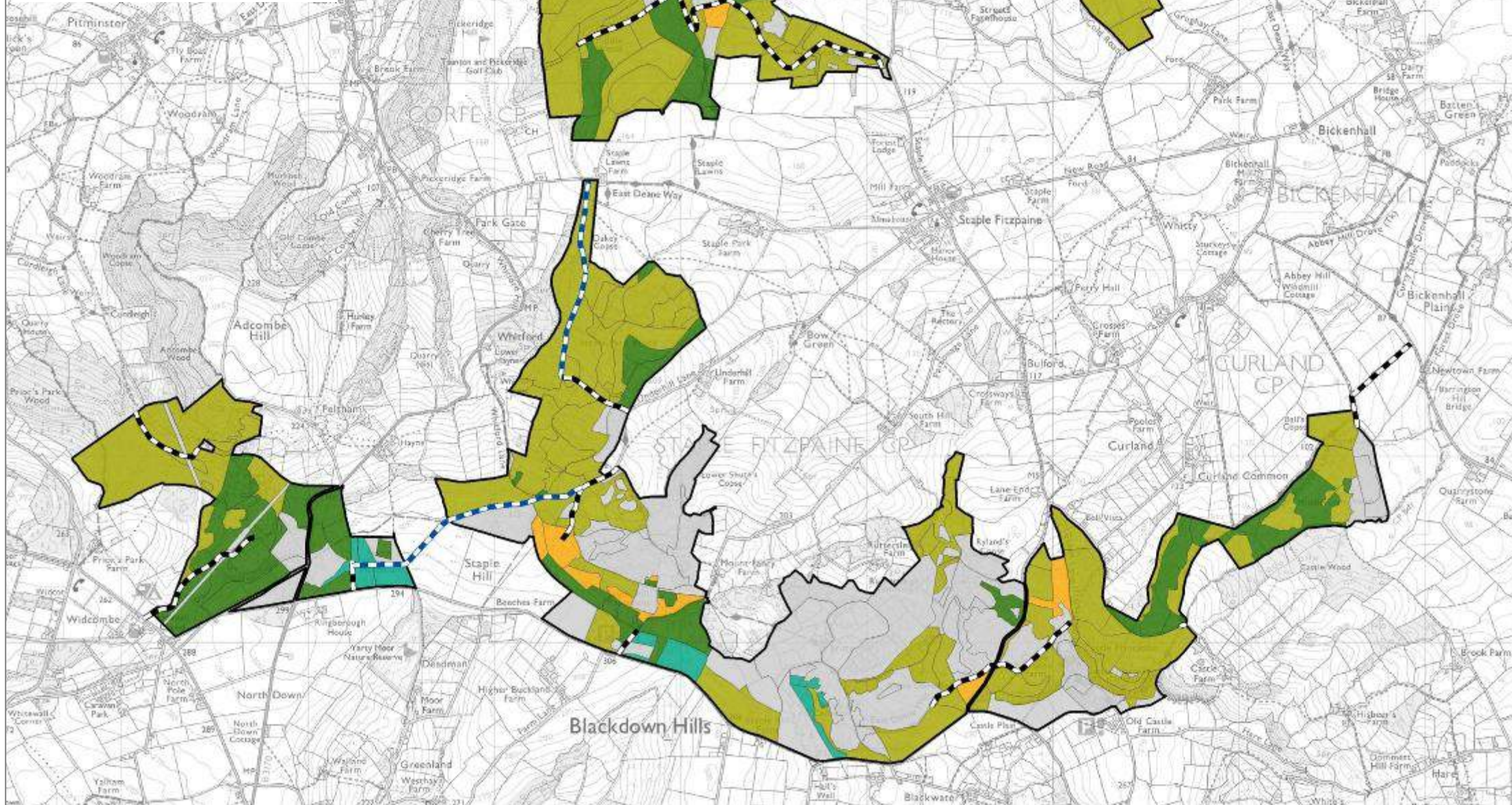
Open space makes up a considerable proportion of the Plan area, much of this was created in the last 10 years within the Neroche area and surrounding woodlands. The majority of this is restored wood pasture and wet heathland, much of which is grazed.

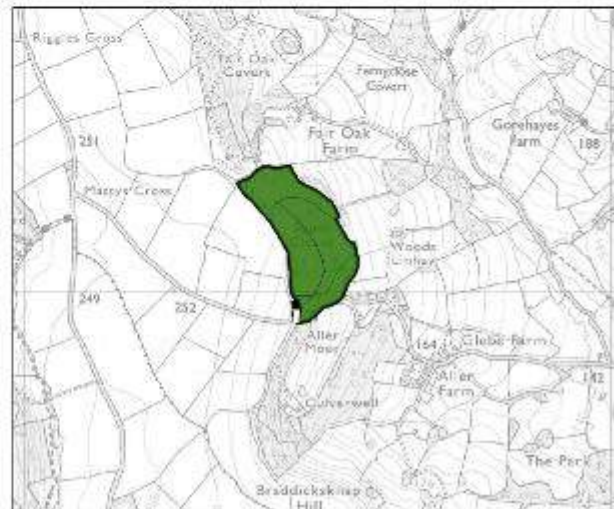
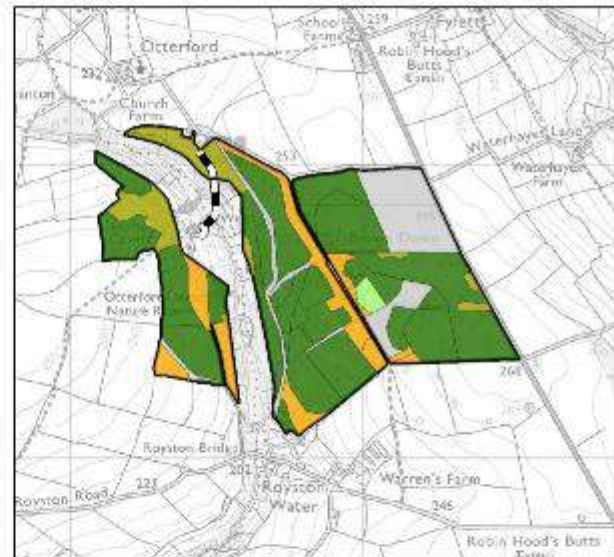
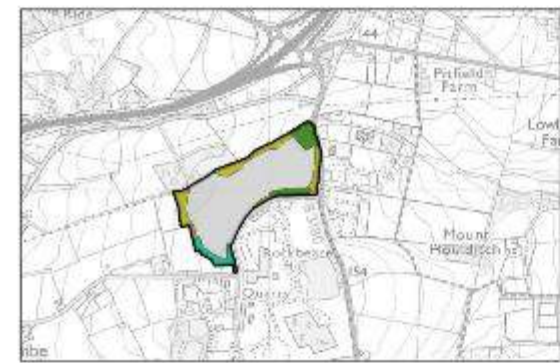
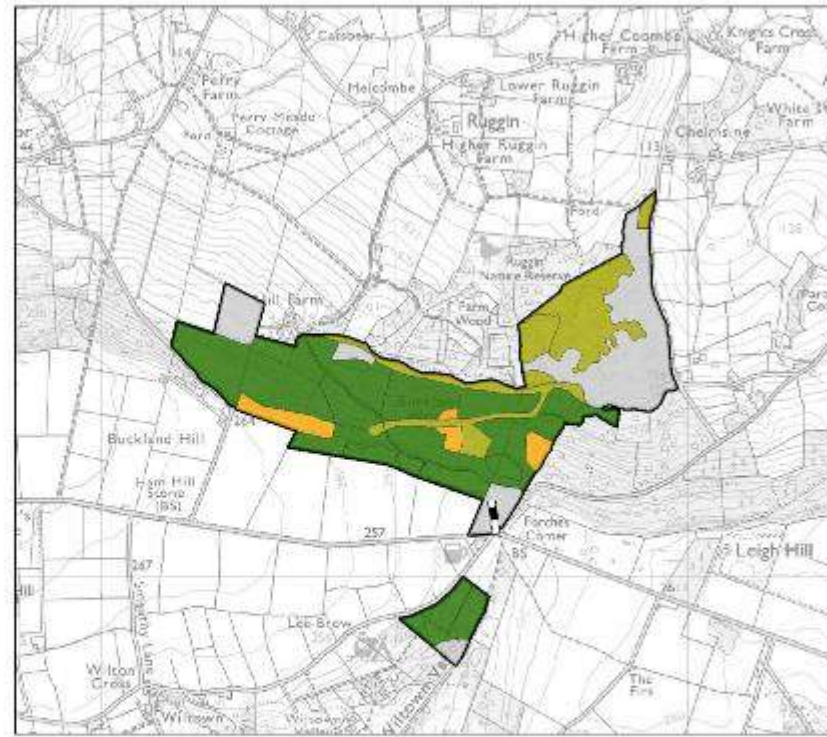
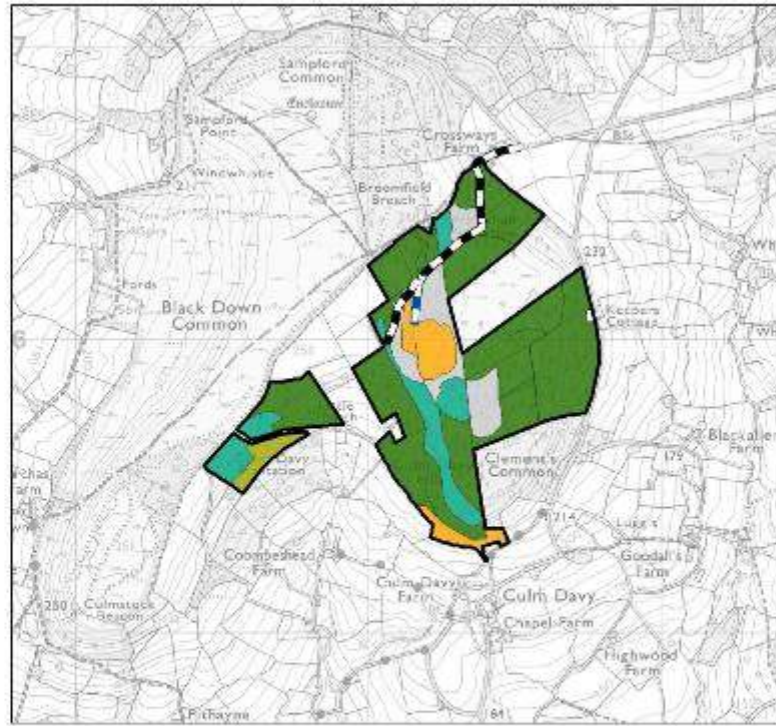
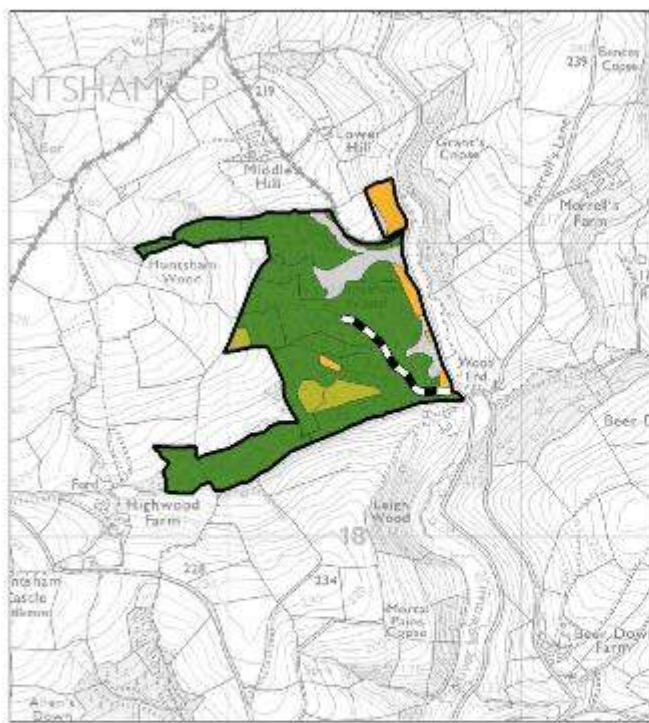


Note: Beech, sycamore and sweet chestnut are considered to be not within their native range but are considered to be 'naturalised'

Legend

- Evergreen Conifer
- Pines
- Larches
- Native & naturalized broadleaves
- Non-native broadleaves
- Open/other
- Class A/B Roads
- Class C Roads



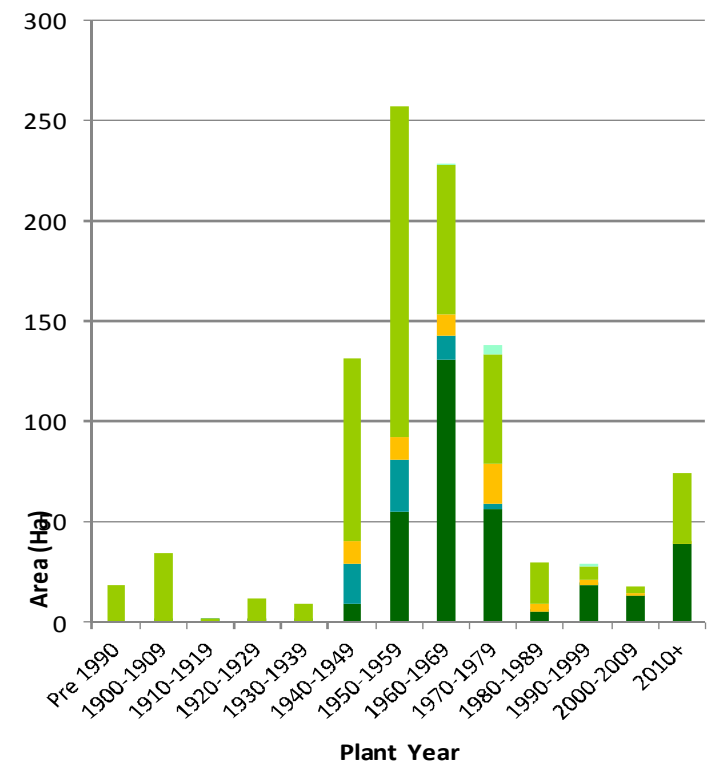


Legend

- Evergreen Conifer
- Pines
- Larches
- Native & naturalized broadleaves
- Non-native broadleaves
- Open/other
- Class A/B Roads
- Class C Roads

The majority of broadleaved stands are even aged with understory development evident but not always establishing as a secondary crop. Where broadleaf features within conifer crops these have been favoured and halo thinned where appropriate to assist crown development. Broadleaf crops also vary in age with significant planting and regeneration establishment occurring in the early 1900s.

The age of conifer crops is well spread with considerable levels of planting having occurred in the 1950s and 1960s.



Note: Beech, sycamore and sweet chestnut are considered to be not within their native range but are considered to be 'naturalised'



Class 4 – Plantation Woodland
(< 20% site native species)



Class 3 – Plantation Woodland
(20 - 50% site native species)



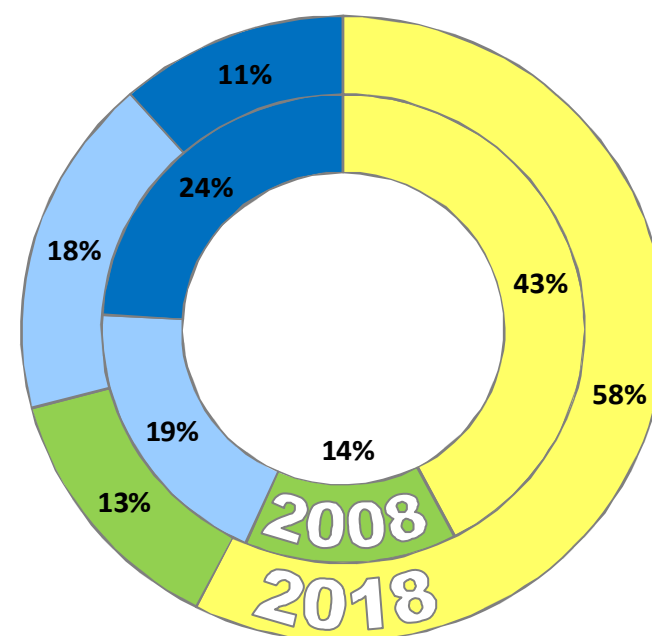
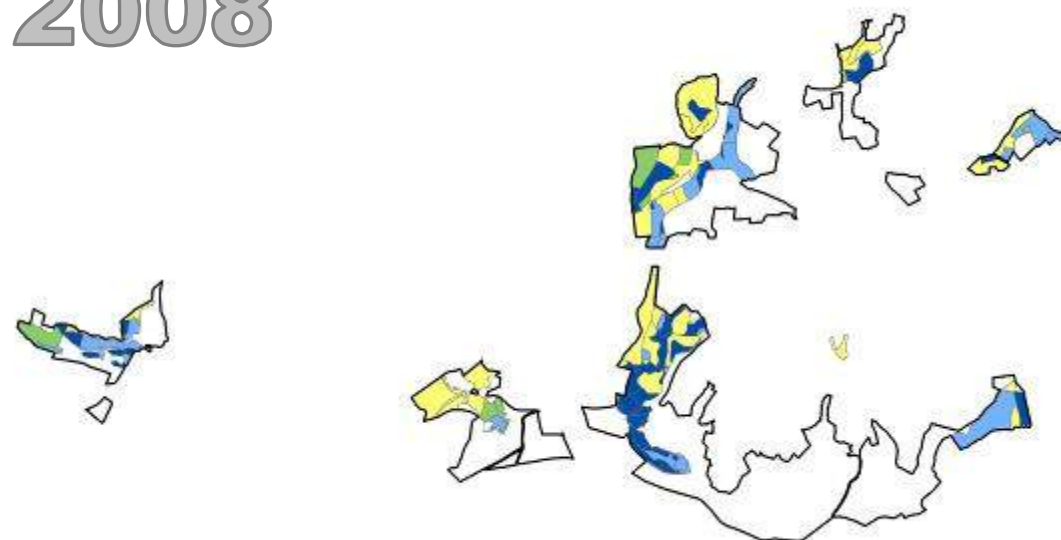
Class 2 – Plantation Woodland
(50 - 80% site native species)



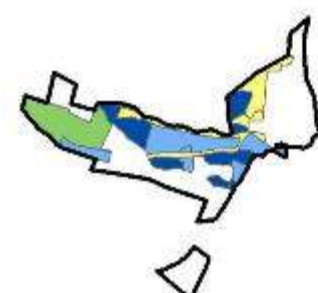
Class 1 – Semi-Natural Woodland
(> 80% site native species)



2008



2018



Legend

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

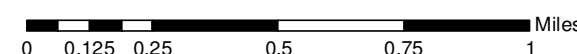
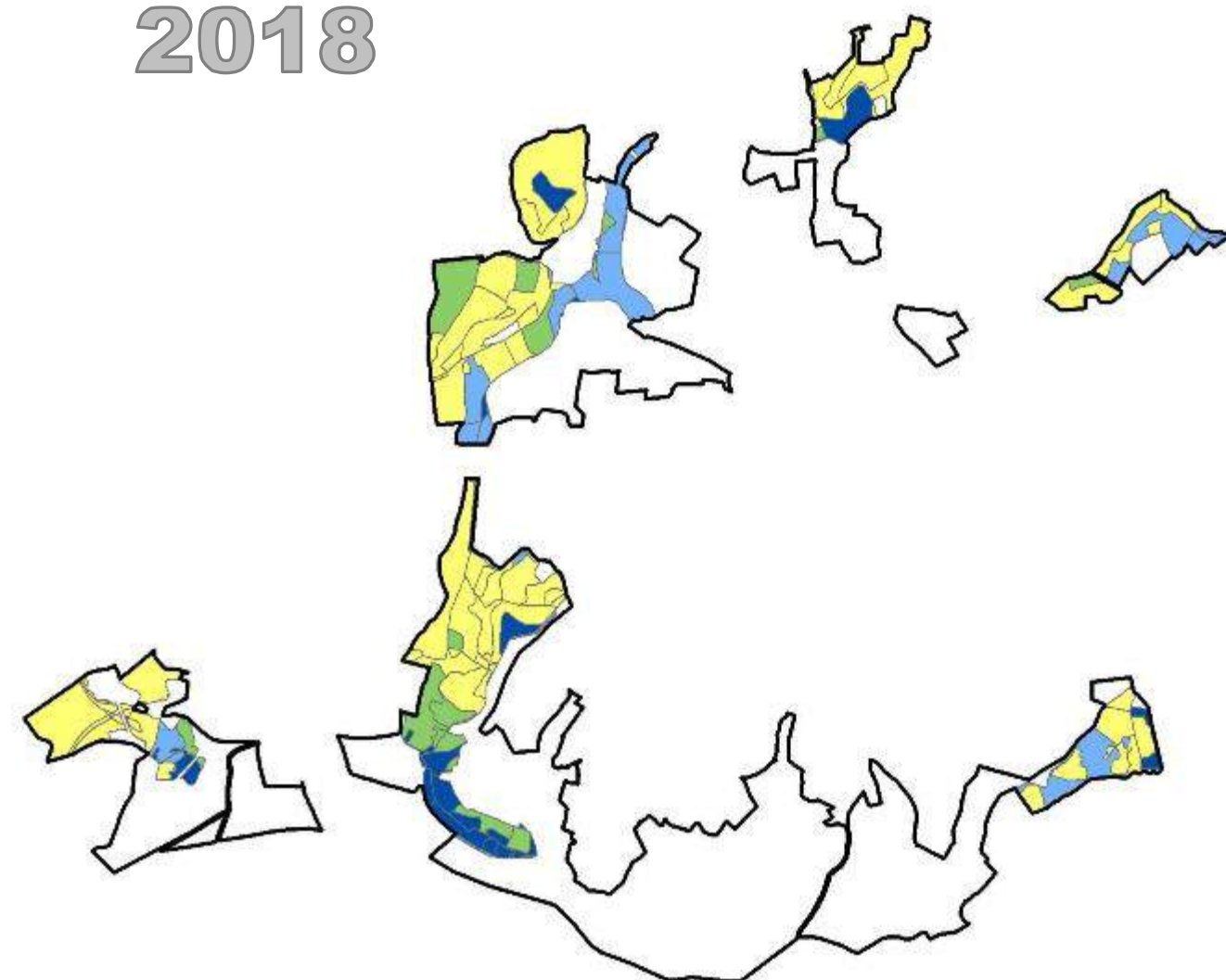
Naturalness on Ancient Woodland

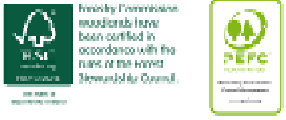
Naturalness is the measure to show the percentage of site native tree species in a given area. This measure is used to record and monitor the condition and restoration of Ancient Woodland Sites previously planted with non-native species. For this reason secondary woodland sites have been omitted from this chapter.

Classes 2, 3 and 4 are classified as Plantations on Ancient Woodland Sites (PAWS). Areas of Semi-Natural Woodland (Class 1 - > 80% site native species) are mostly found towards the bottom of valleys, in wetter riparian areas where the soils are richer.

The transformation of Classes 2, 3 and 4 AWS towards Class 1 is a key objective of this Plan and is in line with the Forestry Commission England, *Keepers of Time* Policy (Forestry Commission, 2005).

These maps and chart show the transition in naturalness across the ancient woodland in the Plan Area between 2008 and 2018.





Transition Zone

The indicative proportion of native tree species is 50% or more of the crop. Removal of remaining conifer will be achieved through repeated thinning operations.

The establishment period to predominantly native woodland within this category is anticipated to be 20 – 30 years but is dependant on successful regeneration and establishment although maybe sooner depending on the level of conifer needing to be removed. Scattered individual conifers or small groups may remain.

Preparation Zone

Areas within this category contain less than 50% of native tree species but have a proportion greater than 20% of the crop and the area neighbours an area of significant native species cover which can be utilised as a seed source. Enhancement of native content will continue through thinning of the conifer content.

These areas will be thinned heavily to release ancient woodland remnants and features and to encourage natural regeneration and intrusion in to the non-native crop.

The anticipated time scale for establishment of predominantly native species is expected be around 50 – 60 years or so, but could be as long as 70 - 80 depending on success of establishing the future crop.

Non-native Zone

The proportion of native tree species within a management area is less than 20% of the crop.

Thinning in both these sub-categories should encourage crown development of broadleaf components. Progress will be monitored and crops moved into the Preparation zone depending on development of stand structure and the response of natural regeneration.

Clearfell Zone

Two clearfells will be used to convert PAWS. This is felling of Western hemlock and wind vulnerable Norway spruce is required to ensure the integrity of the coupe which is predominantly secondary woodland. This will be restocked with site suitable native species

PAWS Management

Restoration of Plantations on Ancient Woodland Sites (PAWS) has already begun and this continued restoration is going to take a considerable amount of time and resource.

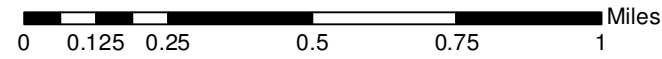
Therefore a proactive yet realistic approach will be used to transform these sites over a period of time.

The aim of the transitional period to woodland containing 80% or more of native species should be to achieve:

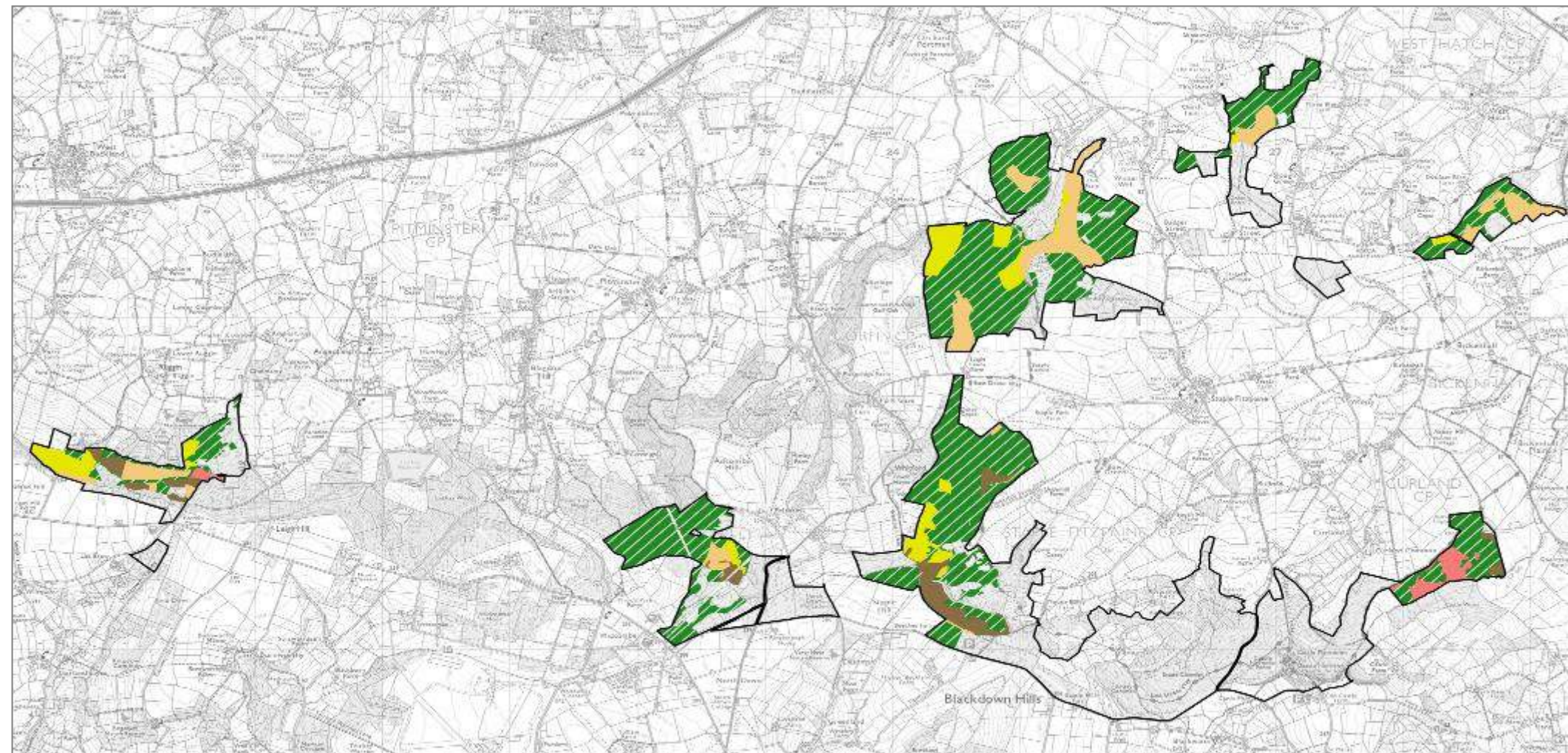
- a varied age structure with varying ratios of high canopy, secondary canopy and understory throughout.
- transition that ensures a minimum future content of 3 native species, with 4 to 5 species being the preferable target.
- a minimal reliance on monocultures especially of birch, ash, hazel or oak. In practice this may involve either underplanting or group felling and planting within existing mid rotation broadleaf crops.
- restoration of beech and sweet chestnut stands will not be prioritised as these species are considered to be naturalised and offer greater broadleaf diversity and therefore resilience.
- If adequate regeneration is not evident in the 'Transition' and 'Preparation' zones after 10 years a reappraisal of the prescription will be needed.

Legend

- Building Block (native seed source)
- Transition Zone
- Preparation Zone
- Non-native Zone
- Clearfell



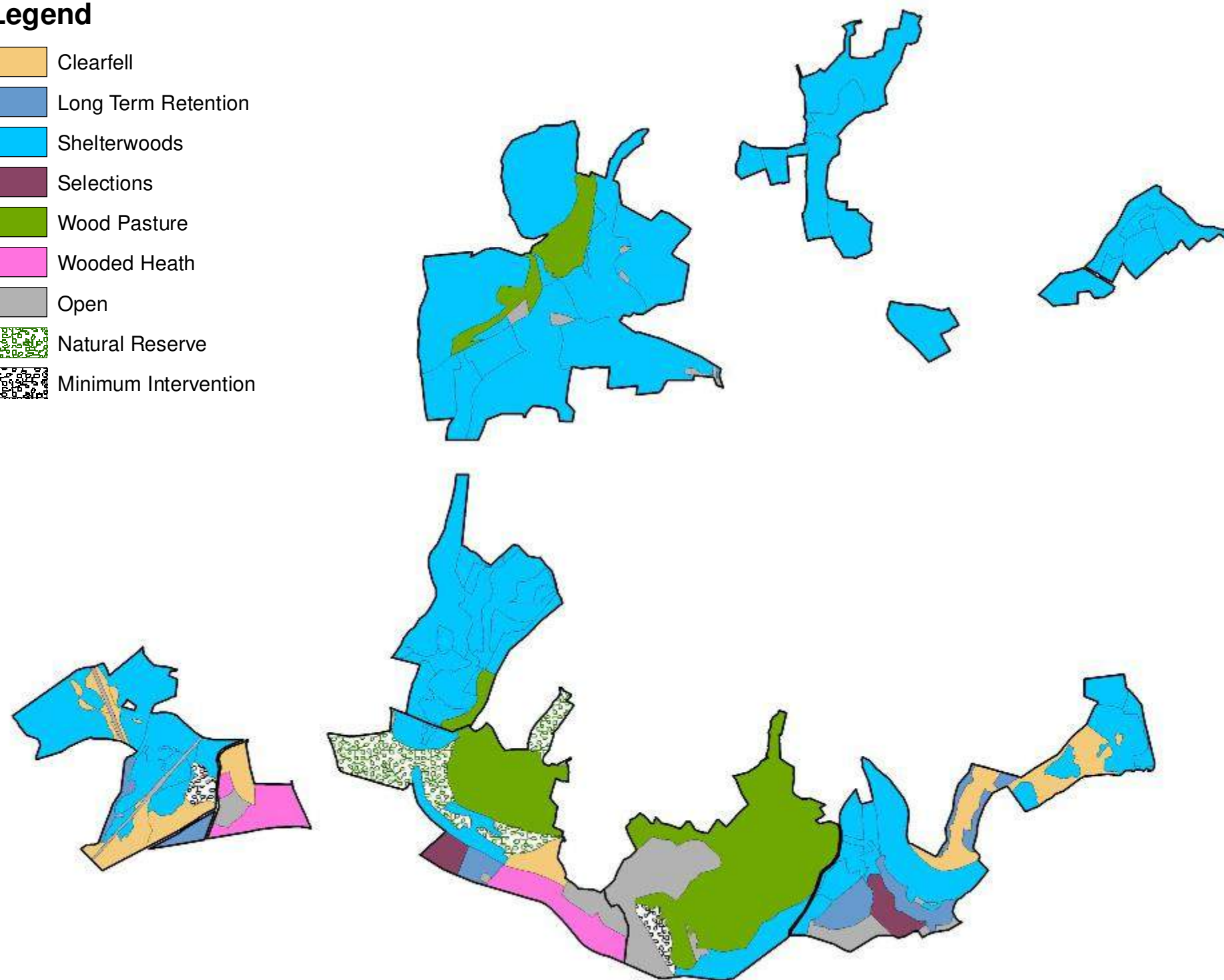
© Crown copyright and database right [2018]
Ordnance Survey [100021242]





Legend

- Clearfell
- Long Term Retention
- Shelterwoods
- Selections
- Wood Pasture
- Wooded Heath
- Open
- Natural Reserve
- Minimum Intervention



Silviculture

Clearfell coupes will simply be managed through clearcutting (of over 0.25ha) and restocked either through natural regeneration, replanting or a combination.

Long term retentions are in place where the landscape value of the woodland is key.

Minimum Interventions are predominantly inaccessible or ecologically valuable areas where intervention will only occur to protect and ensure the future succession of key habitats and species.

Open space is managed to ensure forest cover does not exceed 2m in height, a tolerance of 20% forest cover will be accepted on some lower priority sites.

Uniform shelterwoods are predominately broadleaved dominated and ASNW sites which will be managed using seeding fellings with possible under planting of site suitable species to control light levels and develop good timber quality. Small coppice coupes of less than 0.25ha may be used to inject diversity into the broadleaf woodland

Irregular shelterwoods will look to develop a complex CCF structure through the identification and thinning towards quality final crop trees for the future.

Group shelterwoods are used on windfirm, accessible crops to proactively diversify the woodland structure and composition, possibly through the use of enrichment replanting.

Coppicing of hazel, oak and sweet chestnut stands will be used in discrete riparian areas and areas historically managed as coppice. Standards will be retained where deemed as appropriate future crop trees.

Wooded Heath will be managed as transient heathland by creating dynamic habitats of patchy open space, conifer high forest and regenerating scrub. These areas will continue to be thinned heavily to reduce the density of conifer cover and to achieve a scattered distribution of widely space trees. In doing so the remaining trees will provide shade and cover for ground flora and fauna to thrive whilst suppressing weed growth. This will deliver ecosystem functioning for a wide array of species. These areas will continue to be grazed and mechanically maintained at the time of programmed operations.

Wood Pasture is a distinctive woodland type within Neroche characterised by open grown and usually old broadleaved trees in a habitat which will be kept open by grazing. It is not a plant community in its own right but a woodland structure type whose open characteristics have been determined by a history of grazing management. These areas will continue to be thinned to reduce remaining conifer cover as well as grazed and maintained through mechanical weeding. This will deliver ecosystem functioning for a wide array of flora and fauna species.



Thinning

Areas will be assessed and approved for thinning on a site-by-site basis by the local Beat Team. As attempts to improve the structural diversity of the crops are made, initiation of thinning may be made early (uneconomic) or later to address windfirm concerns. The intention to intervene every 5 years as well as on multiple occasions may not be appropriate and therefore will be administered in an adaptive approach by the Beat team.

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 levels, existing ground vegetation and any evidence of natural regeneration also impacting on how many trees are marked for removal.

Broadleaf Thinning

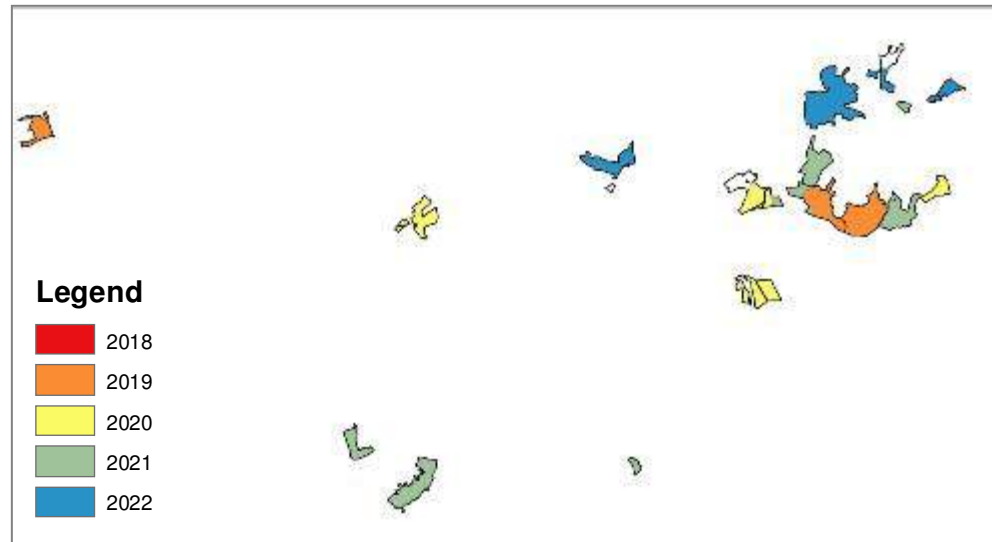
Broadleaf high forest will be assessed for thinning every 10 years with a visual inspection of the stand. Thinning will allow sub-dominant broadleaves sufficient light and space to mature or will release existing advanced regeneration. Younger patches of regeneration can be thinned to favour site native species with trees of good form and vigour being retained. Where broadleaves consist primarily of a single species, it may be possible to enlarge natural gaps through irregular thinning rather than create new gaps through group felling, however, in all cases the size of gap will be dependent on slope, aspect and site fertility and must not be detrimental to crop stability.

Legend

- Clearfell
- Long Term Retention
- Shelterwoods
- Selections
- Wood Pasture
- Wooded Heath
- Open
- Natural Reserve
- Minimum Intervention

0 0.125 0.25 0.5 0.75 1 Miles

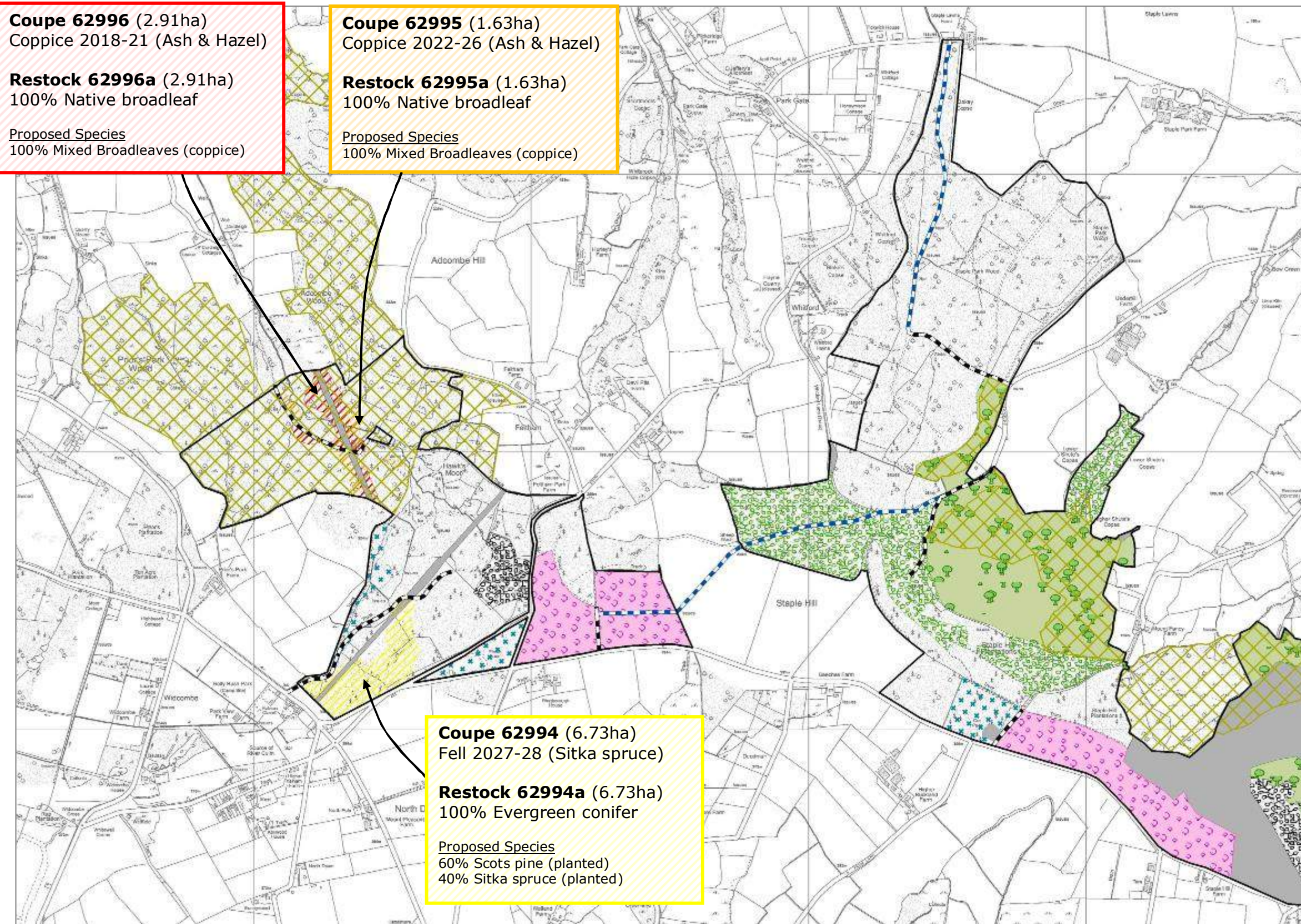
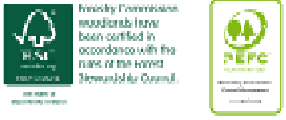
© Crown copyright and database right [2018]
Ordnance Survey [100021242]



Felling and Restocking

2018 - 2028

Priors Park, Staple Park and Staple Hill

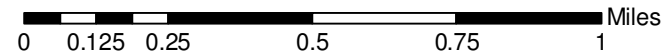


Detailed coupe prescriptions as a result of felling and restocking 2018-28 are outlined on pages 45-46.

NB. Whilst 'Restock Proportion' is often prescribed at 100% Evergreen Conifer the use of suitable broadleaves to build in resilience and utilise site conditions is anticipated and in places is proposed.

Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No 995/210)

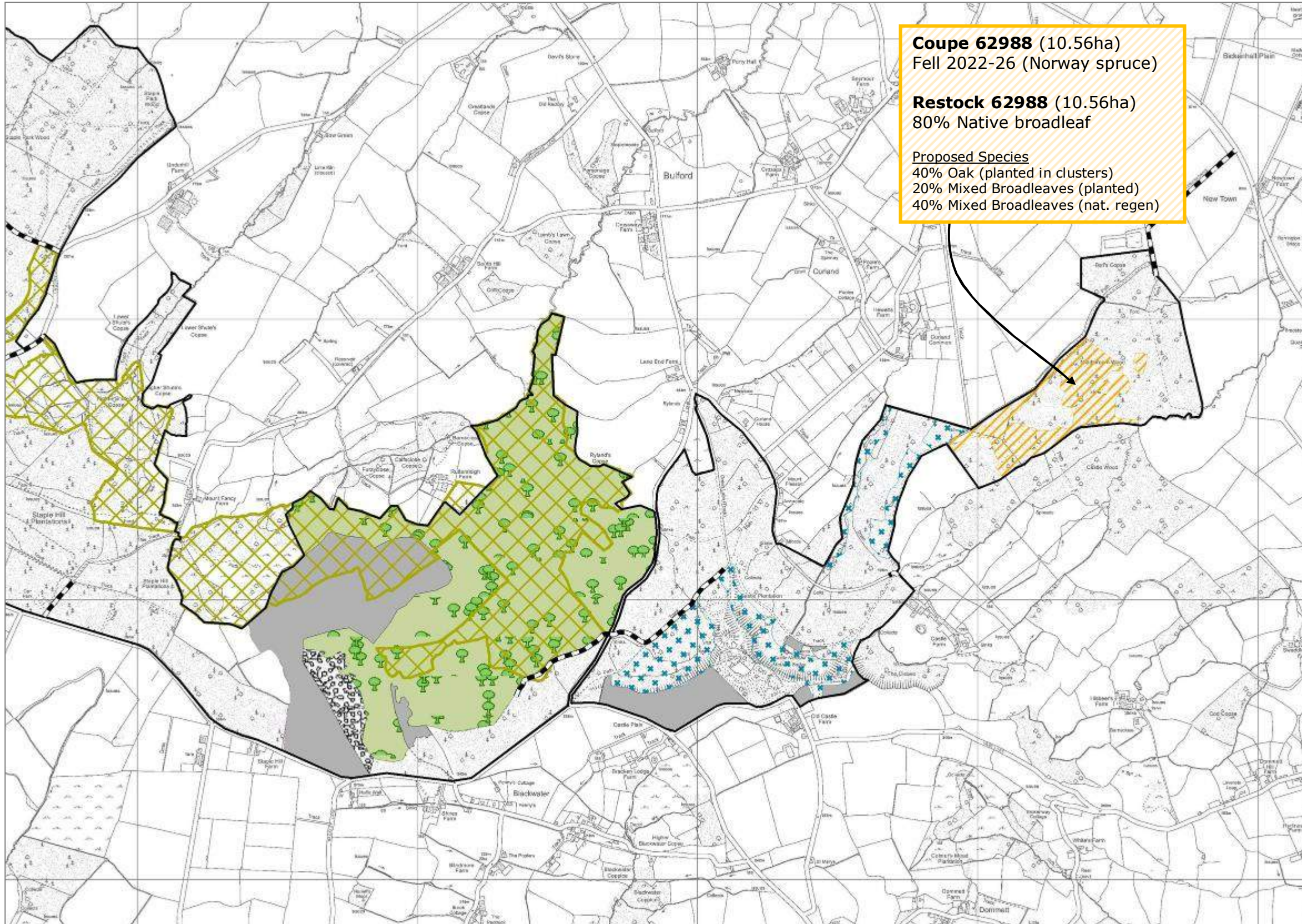
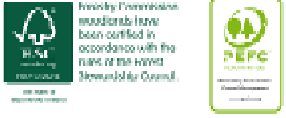


© Crown copyright and database right [2018]
Ordnance Survey [100021242]

Felling and Restocking

2018 - 2028

Castle Neroche and Staple Common



Legend

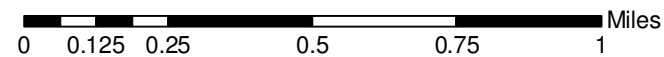
- SSSI
- Fell 2018 - 2021
- Fell 2022 - 2026
- Fell 2027 - 2028
- Coppice
- Wood Pasture
- Wooded Heath
- Retentions
- Minimum Intervention
- Natural Reserve
- Open

Detailed coupe prescriptions as a result of felling and restocking 2018-28 are outlined on pages 45 -46.

NB. Whilst 'Restock Proportion' is often prescribed at 100% Ever-green Conifer the use of suitable broadleaves to build in resilience and utilise site conditions is anticipated and in places is proposed.

Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No 995/210)

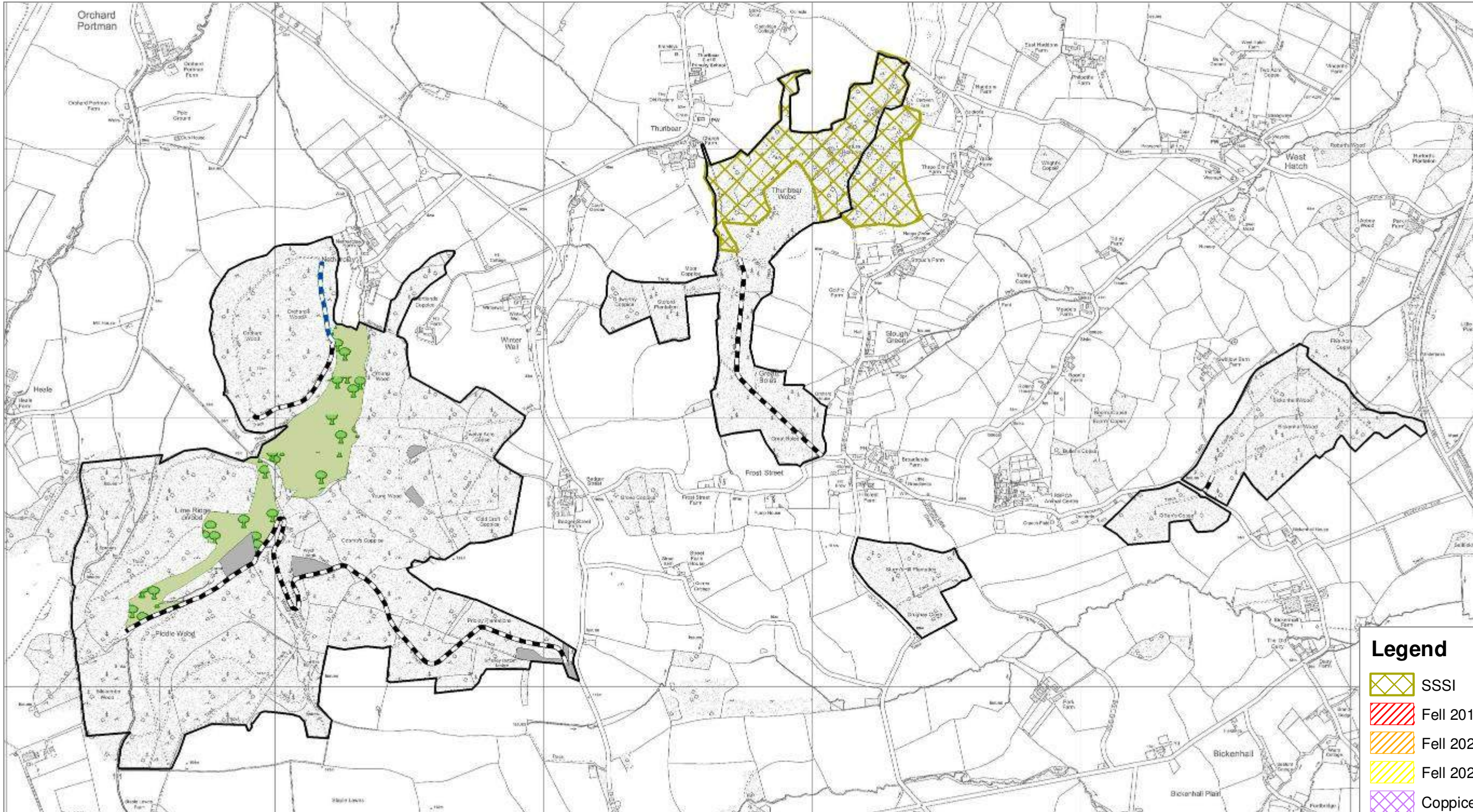
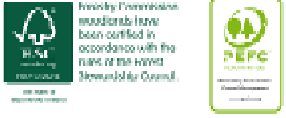


© Crown copyright and database right [2018]
Ordnance Survey [100021242]

Felling and Restocking

2018 - 2028

Wych Lodge, Thurlbear and Bickenhall



Legend

- SSSI
- Fell 2018 - 2021
- Fell 2022 - 2026
- Fell 2027 - 2028
- Coppice
- Wood Pasture
- Wooded Heath
- Retentions
- Minimum Intervention
- Natural Reserve
- Open

Detailed coupe prescriptions as a result of felling and restocking 2018-28 are outlined on pages 45-46.

NB. Whilst 'Restock Proportion' is often prescribed at 100% Evergreen Conifer the use of suitable broad-leaves to build in resilience and utilise site conditions is anticipated and in places is proposed.

0 0.125 0.25 0.5 0.75 1 Miles

Declaration by FC as an Operator.

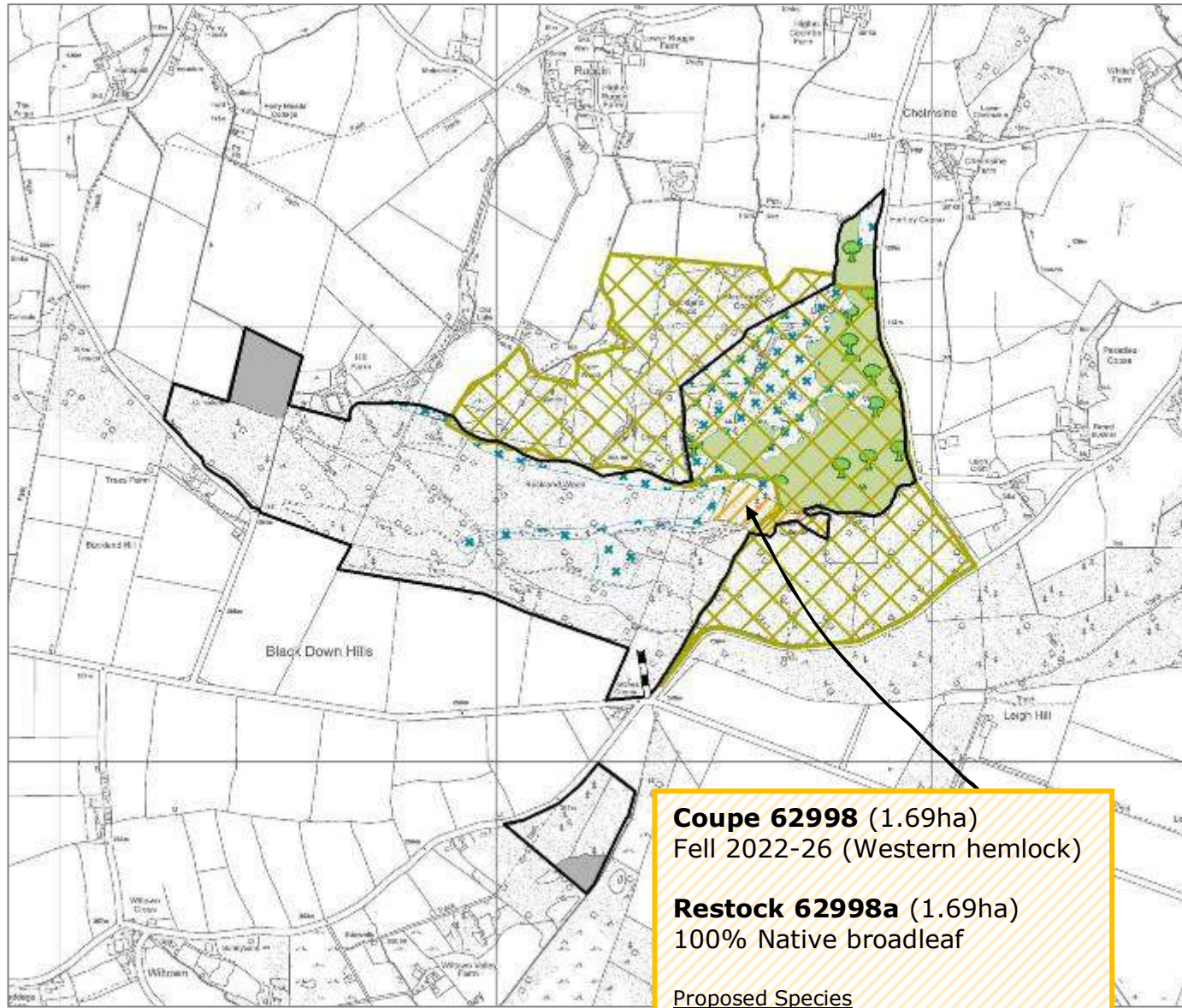
All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No 995/210)

© Crown copyright and database right [2018]
Ordnance Survey [100021242]



Buckland

Felling and Restocking 2018 - 2028 Culm Davy

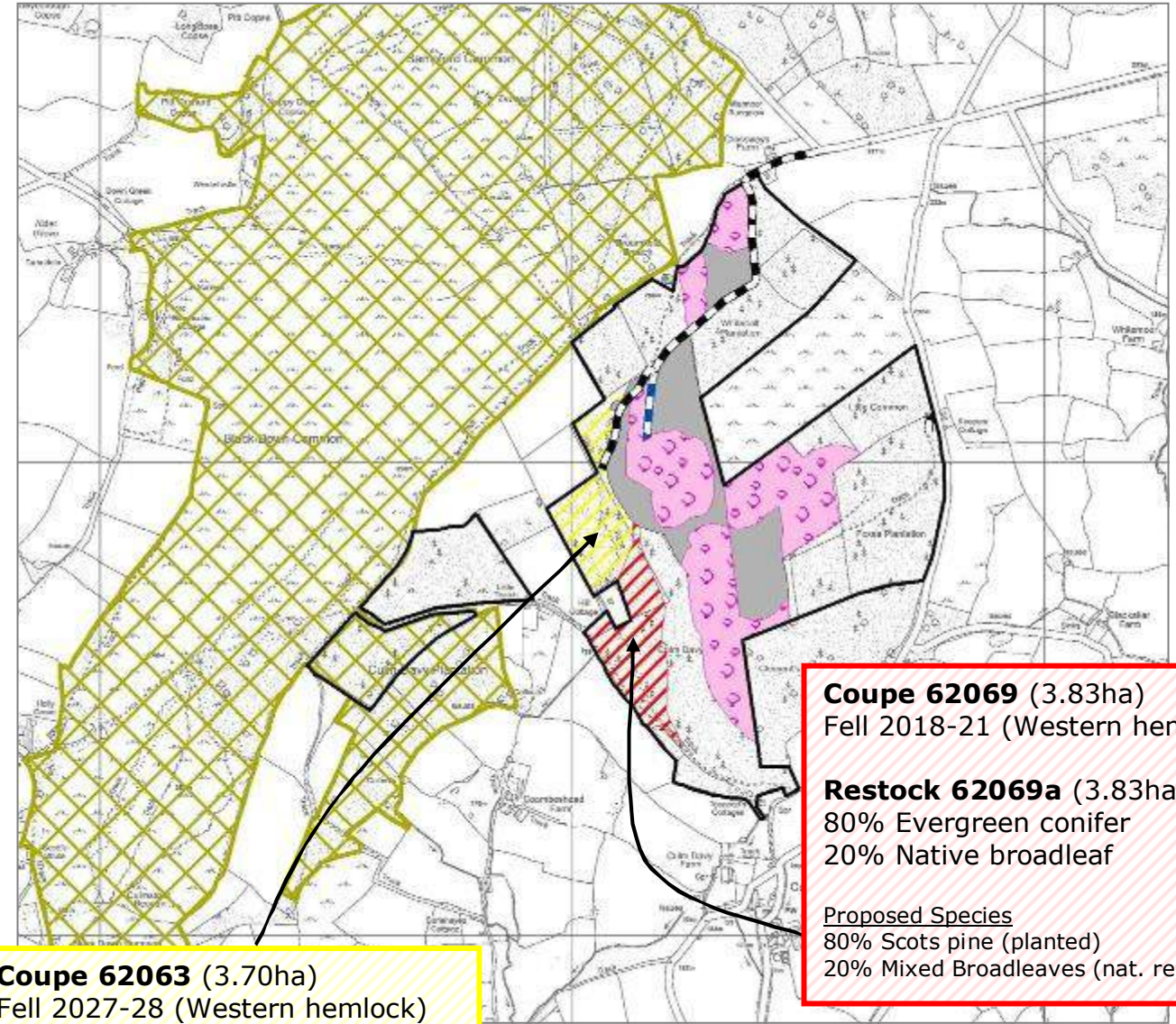
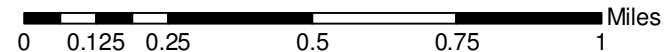


Detailed coupe prescriptions as a result of felling and restocking 2018-28 are outlined on pages 45-46.

NB. Whilst 'Restock Proportion' is often prescribed at 100% Evergreen Conifer the use of suitable broadleaves to build in resilience and utilise site conditions is anticipated and in places is proposed.

Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No 995/210)



Legend

- SSSI
- Fell 2018 - 2021
- Fell 2022 - 2026
- Fell 2027 - 2028
- Coppice
- Wood Pasture
- Wooded Heath
- Retentions
- Minimum Intervention
- Natural Reserve
- Open

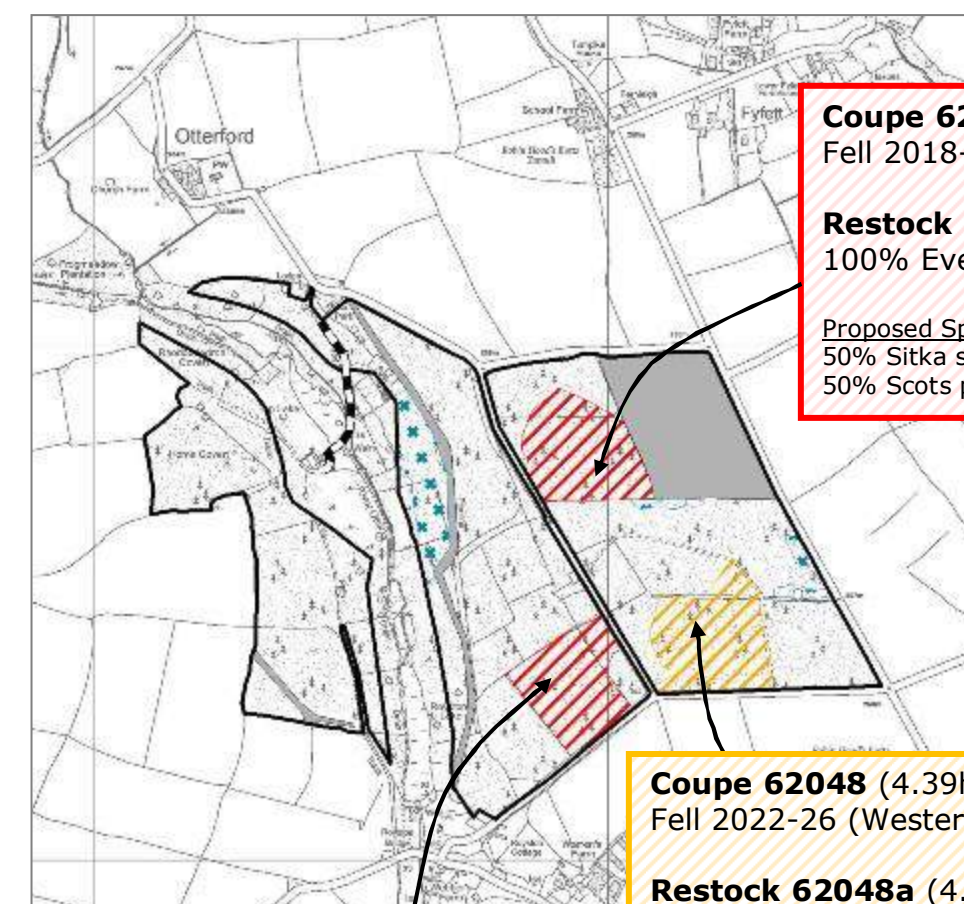
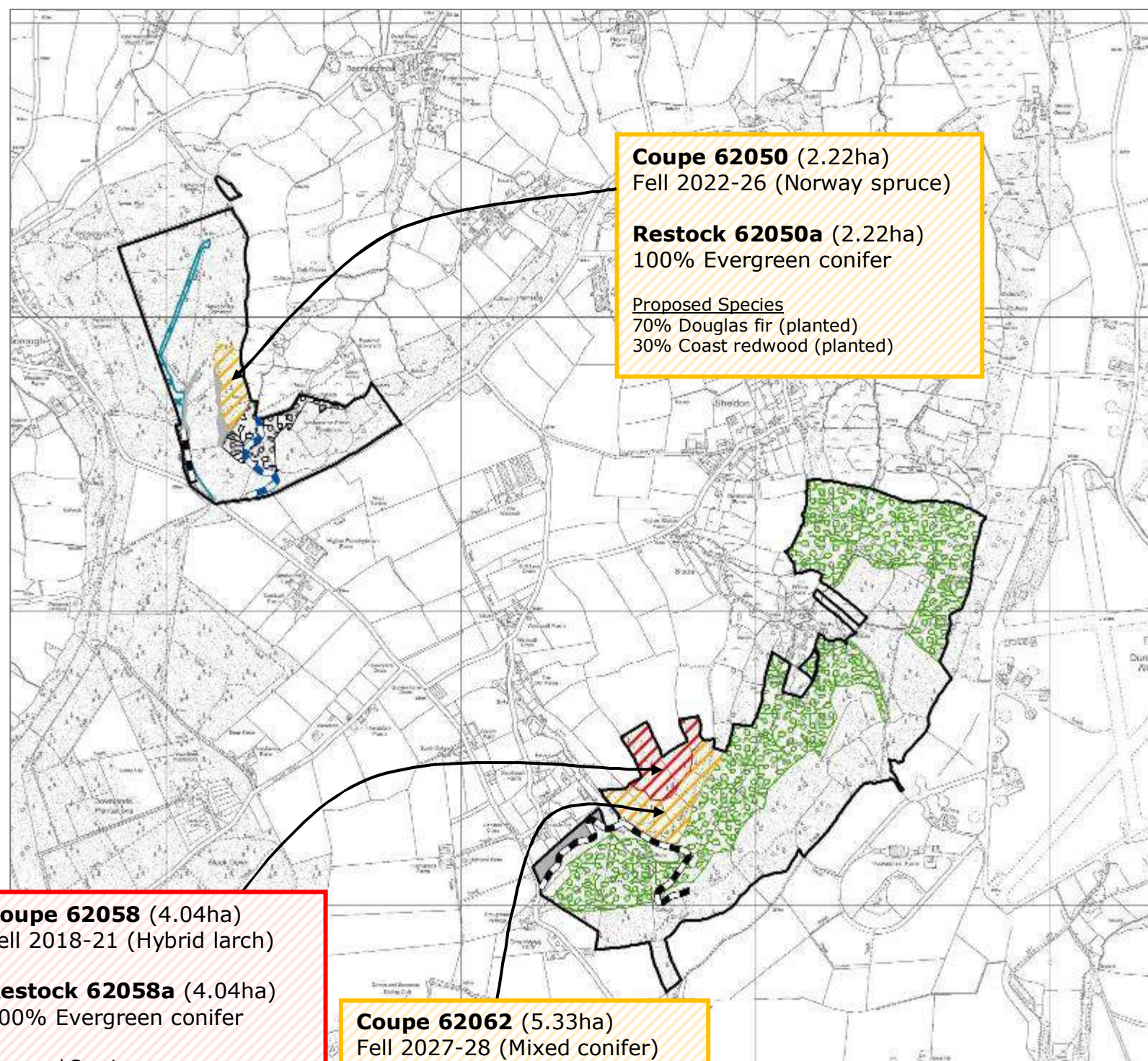


Sheldon & Blackborough

Felling and Restocking

2018 - 2028

Otterford



Coupe 62999 (3.16ha)
Fell 2018-21 (Lodgepole pine)

Restock 62999a (3.16ha)
100% Evergreen conifer

Proposed Species
80% Sitka spruce (planted)
20% Aspen (planted)

Legend

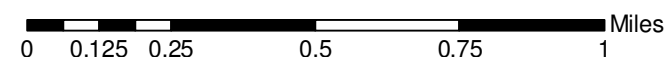
- SSSI
- Fell 2018 - 2021
- Fell 2022 - 2026
- Fell 2027 - 2028
- Coppice
- Wood Pasture
- Wooded Heath
- Retentions
- Minimum Intervention
- Natural Reserve
- Open

Detailed coupe prescriptions as a result of felling and restocking 2018 -28 are outlined on pages 45-46.

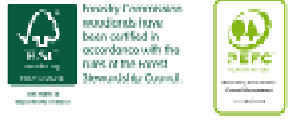
NB. Whilst 'Restock Proportion' is often prescribed at 100% Evergreen Conifer the use of suitable broad-leaves to build in resilience and utilise site conditions is anticipated and in places is proposed.

Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No 995/210)

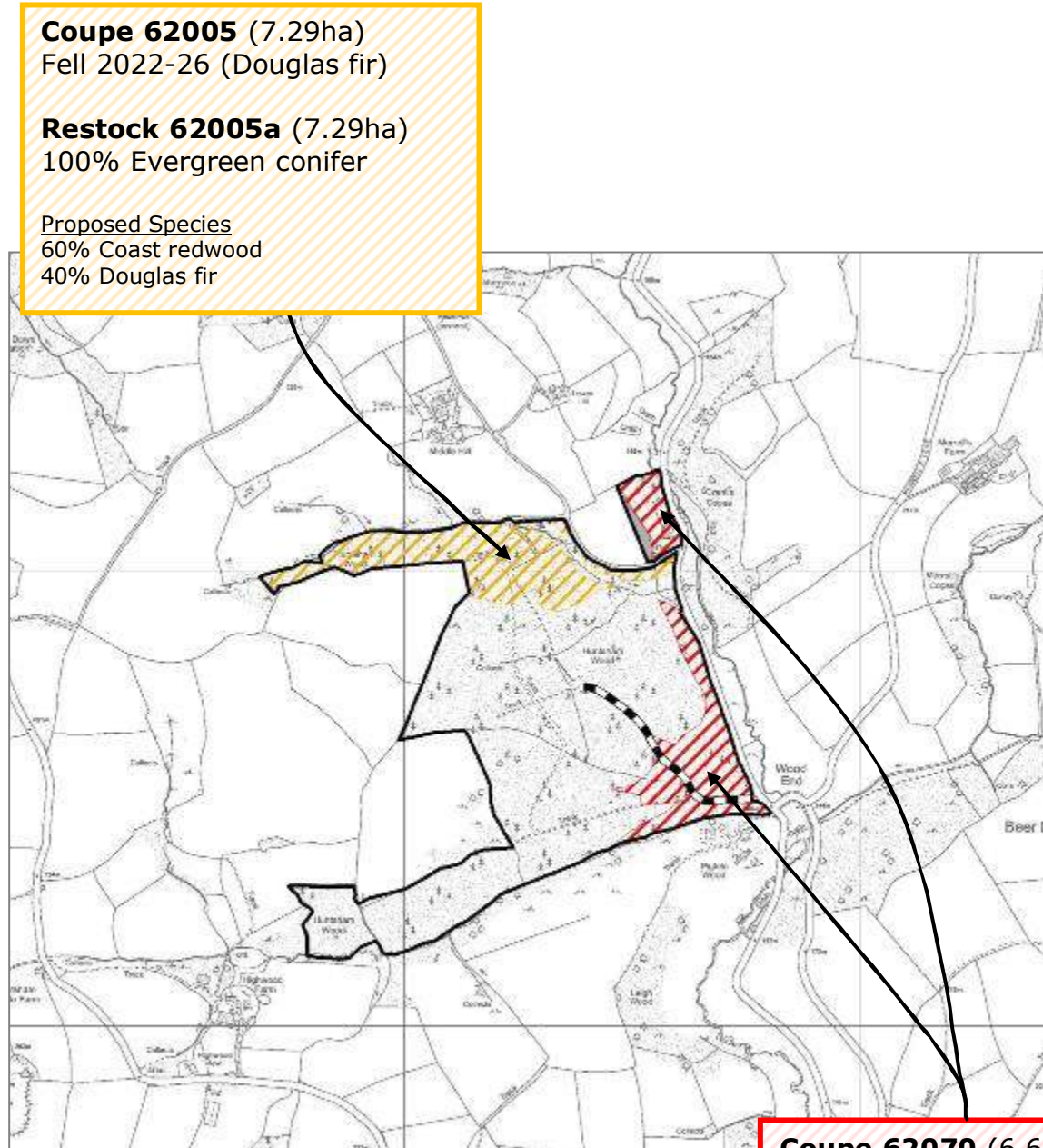


© Crown copyright and database right [2018]
Ordnance Survey [100021242]



Huntsham

Felling and Restocking 2018 - 2028 South Cleave



Coupe 62005 (7.29ha)
Fell 2022-26 (Douglas fir)

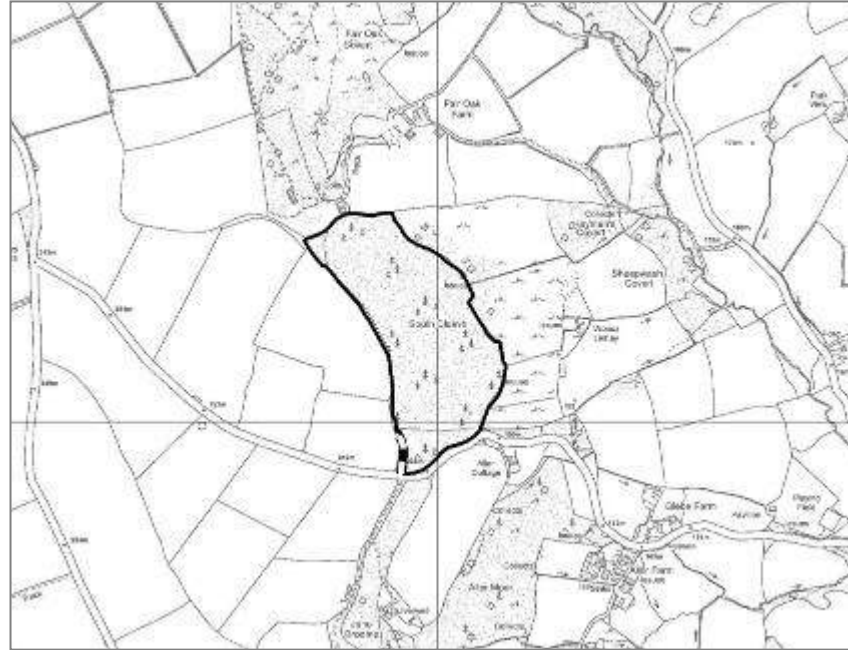
Restock 62005a (7.29ha)
100% Evergreen conifer

Proposed Species
60% Coast redwood
40% Douglas fir

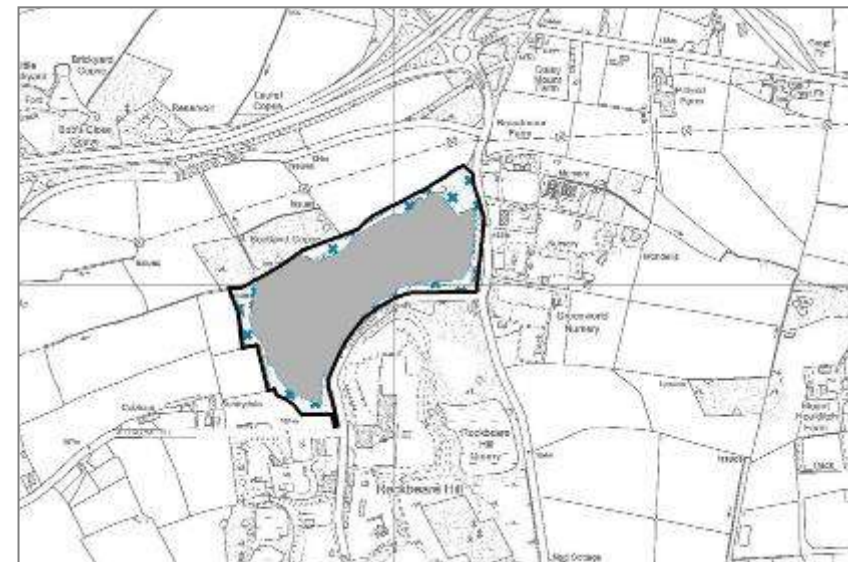
Coupe 62070 (6.67ha)
Fell 2018-21 (Douglas fir)

Restock 62070a (6.67ha)
100% Evergreen conifer

Proposed Species
70% Douglas fir
30% Black walnut



Strete Raleigh



Legend

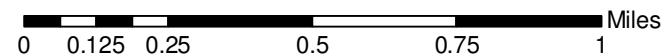
- SSSI
- Fell 2018 - 2021
- Fell 2022 - 2026
- Fell 2027 - 2028
- Coppice
- Wood Pasture
- Wooded Heath
- Retentions
- Minimum Intervention
- Natural Reserve
- Open

Detailed coupe prescriptions as a result of felling and restocking 2018-28 are outlined on pages 45-46.

NB. Whilst 'Restock Proportion' is often prescribed at 100% Evergreen Conifer the use of suitable broadleaves to build in resilience and utilise site conditions is anticipated and in places is proposed.

Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No 995/210)



Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No 995/210)



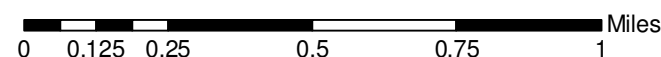
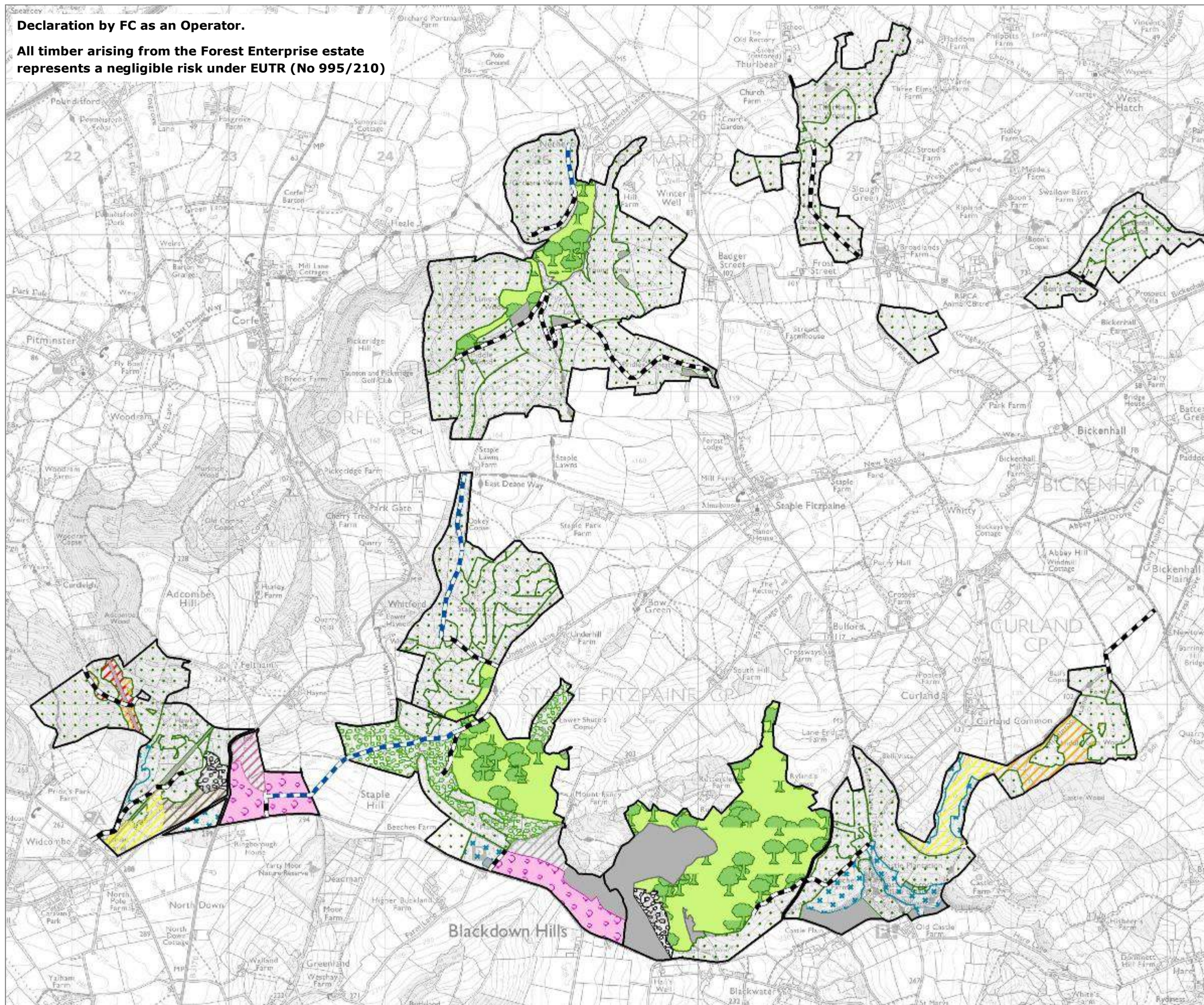
Management Prescriptions

2018 - 2048

An outline of the intended management prescriptions for the Plan area for the next 30 years, including silvicultural, felling and open proposals.

Legend

- Alternatives to Clearfell
- Fell 2017 - 2021
- Fell 2022 - 2026
- Fell 2027 - 2031
- Fell 2032 - 2036
- Fell 2037 - 2041
- Fell 2042 - 2046
- Fell post 2046
- Coppice
- Wood Pasture
- Wooded Heath
- Retentions
- Minimum Intervention
- Natural Reserve
- Open
- Class A/B Roads
- Class C Roads





Legend

- | | |
|---|------------------------------|
|  | Alternatives to Clearfelling |
|  | Fell 2017 - 2021 |
|  | Fell 2022 - 2026 |
|  | Fell 2027 - 2031 |
|  | Fell 2032 - 2036 |
|  | Fell 2037 - 2041 |
|  | Fell 2042 - 2046 |
|  | Fell post 2046 |
|  | Coppice |
|  | Wood Pasture |
|  | Wooded Heath |
|  | Retentions |
|  | Minimum Intervention |
|  | Natural Reserve |
|  | Open |
|  | Class A/B Roads |
|  | Class C Roads |

All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No 995/210)

Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No 995/210)

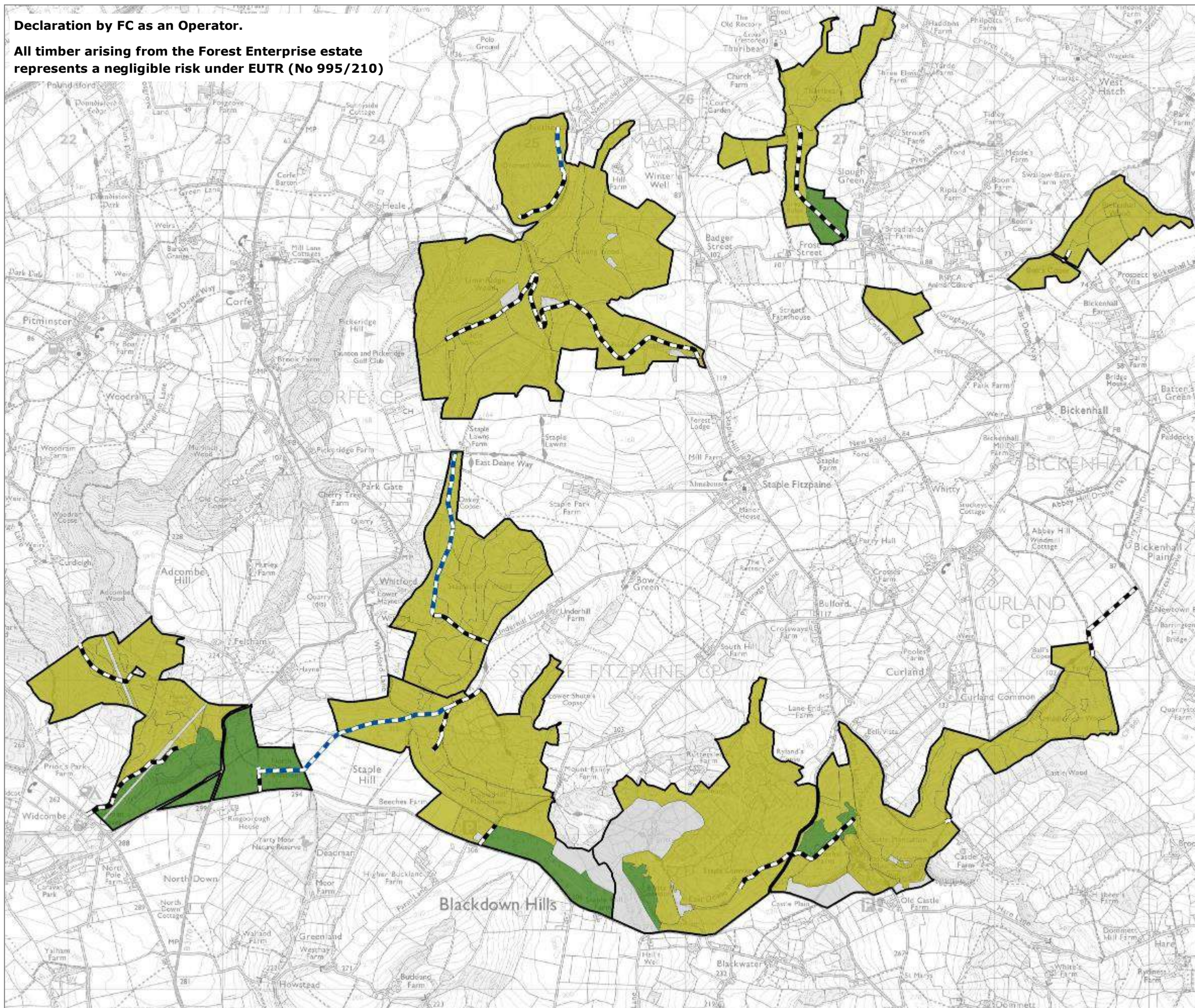


Restock Prescriptions

An outline of the intended restocking prescriptions through planting or natural regeneration for the next rotation, following the removal of the current stock.

Legend

- Conifer dominated cover
- Broadleaf dominated cover
- Open/other

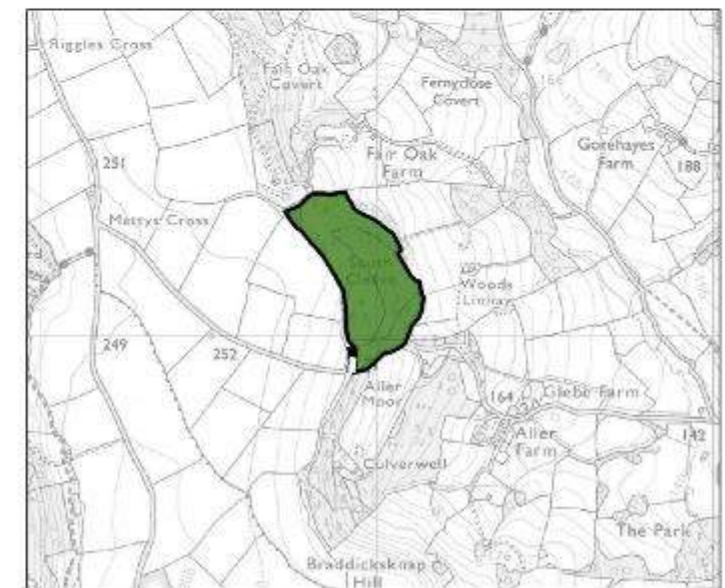
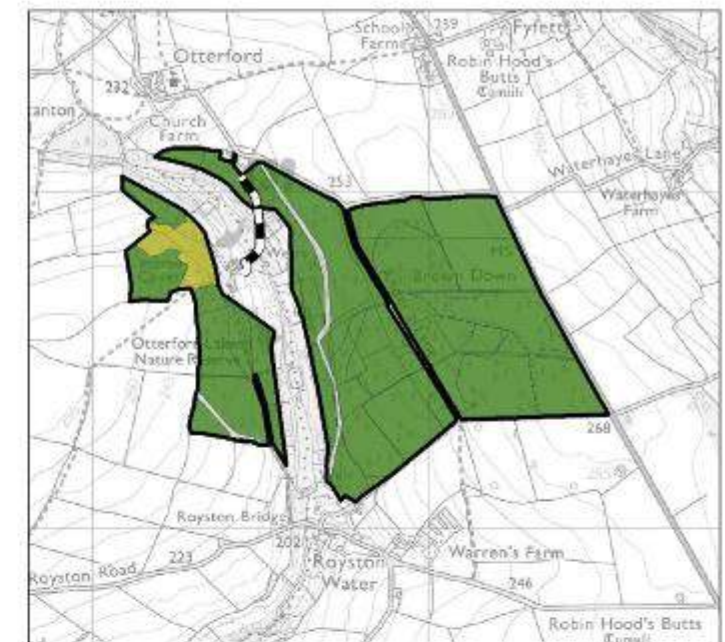
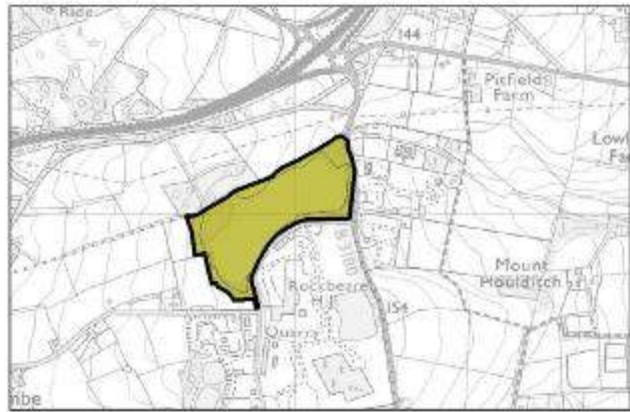
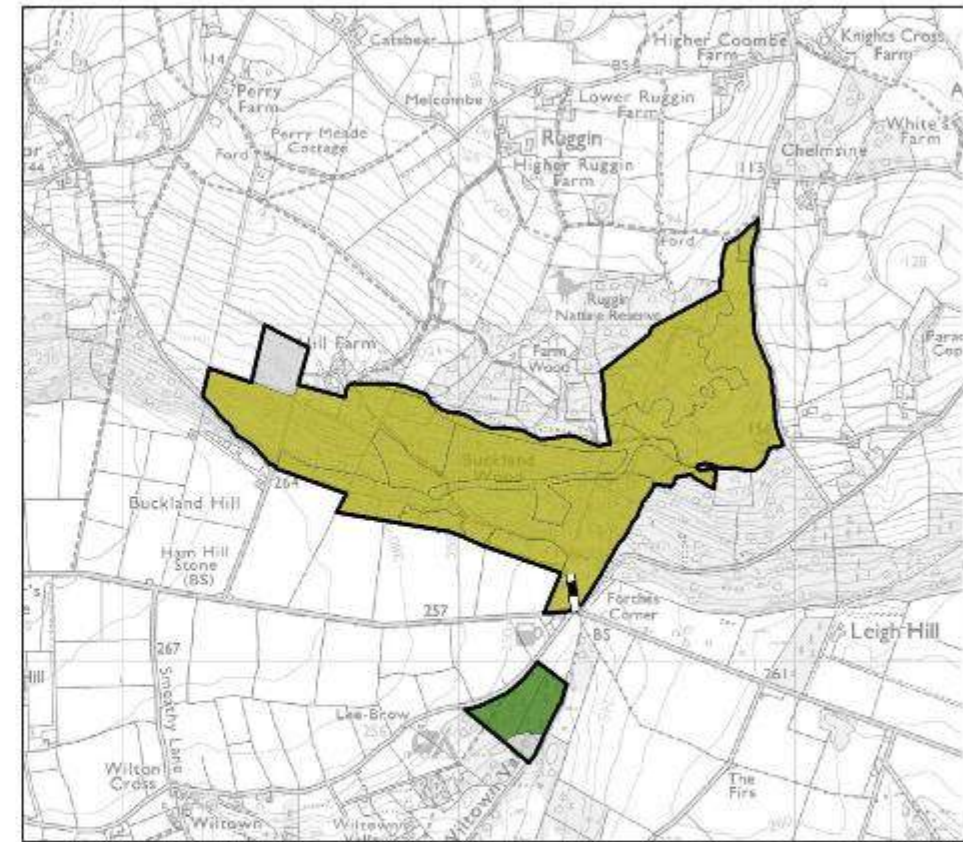
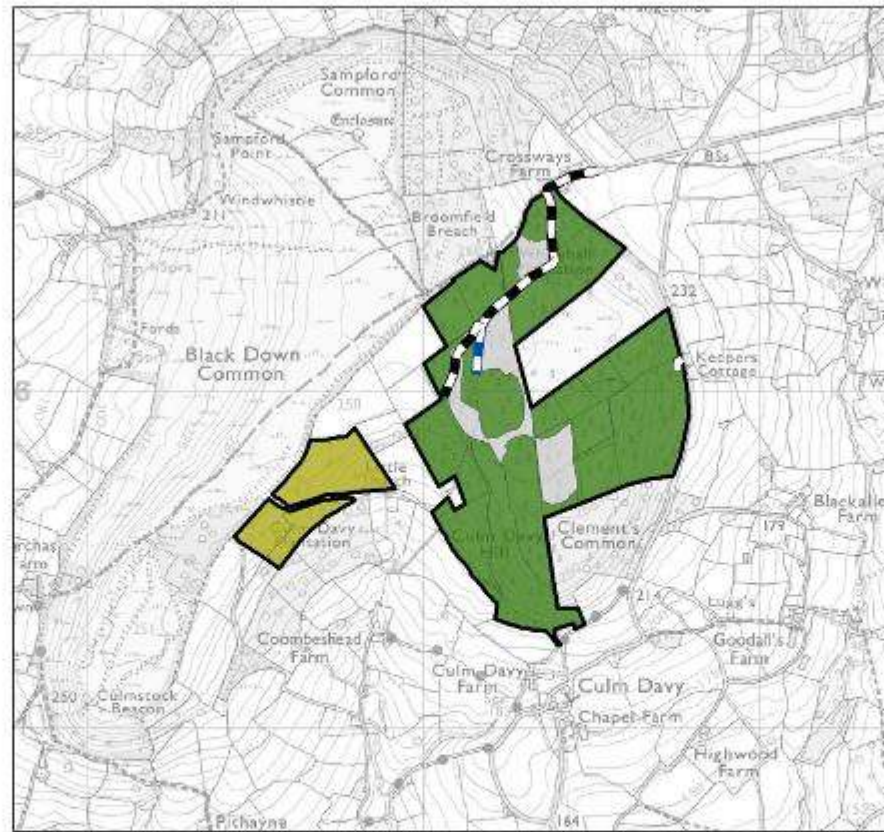
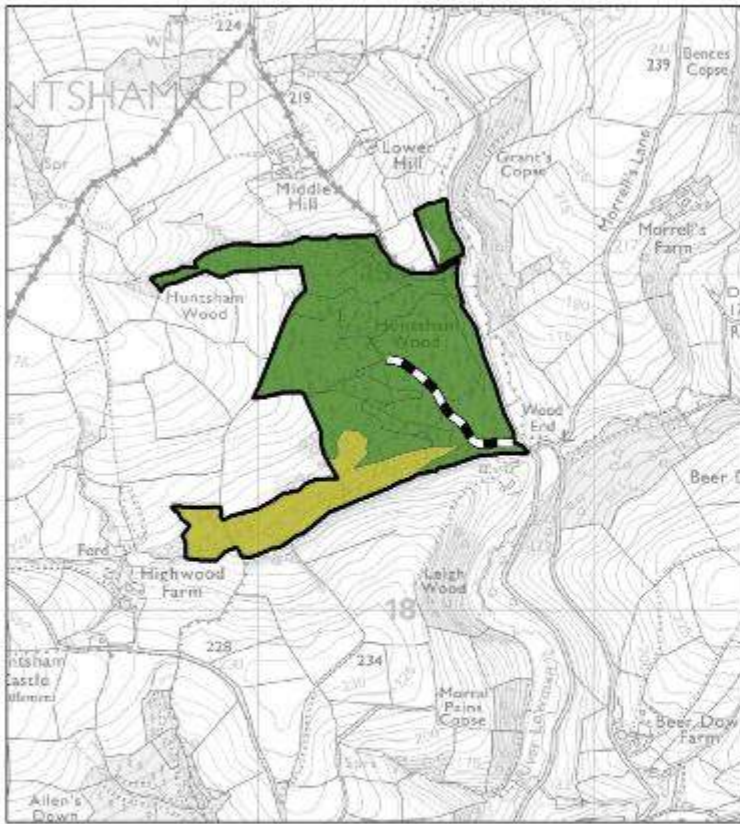




Restock Prescriptions

Legend

- Conifer dominated cover
- Broadleaf dominated cover
- Open/other



Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No 995/210)

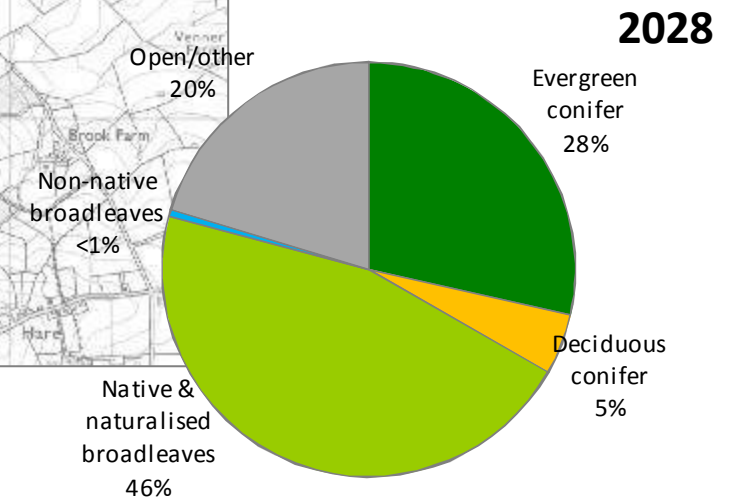
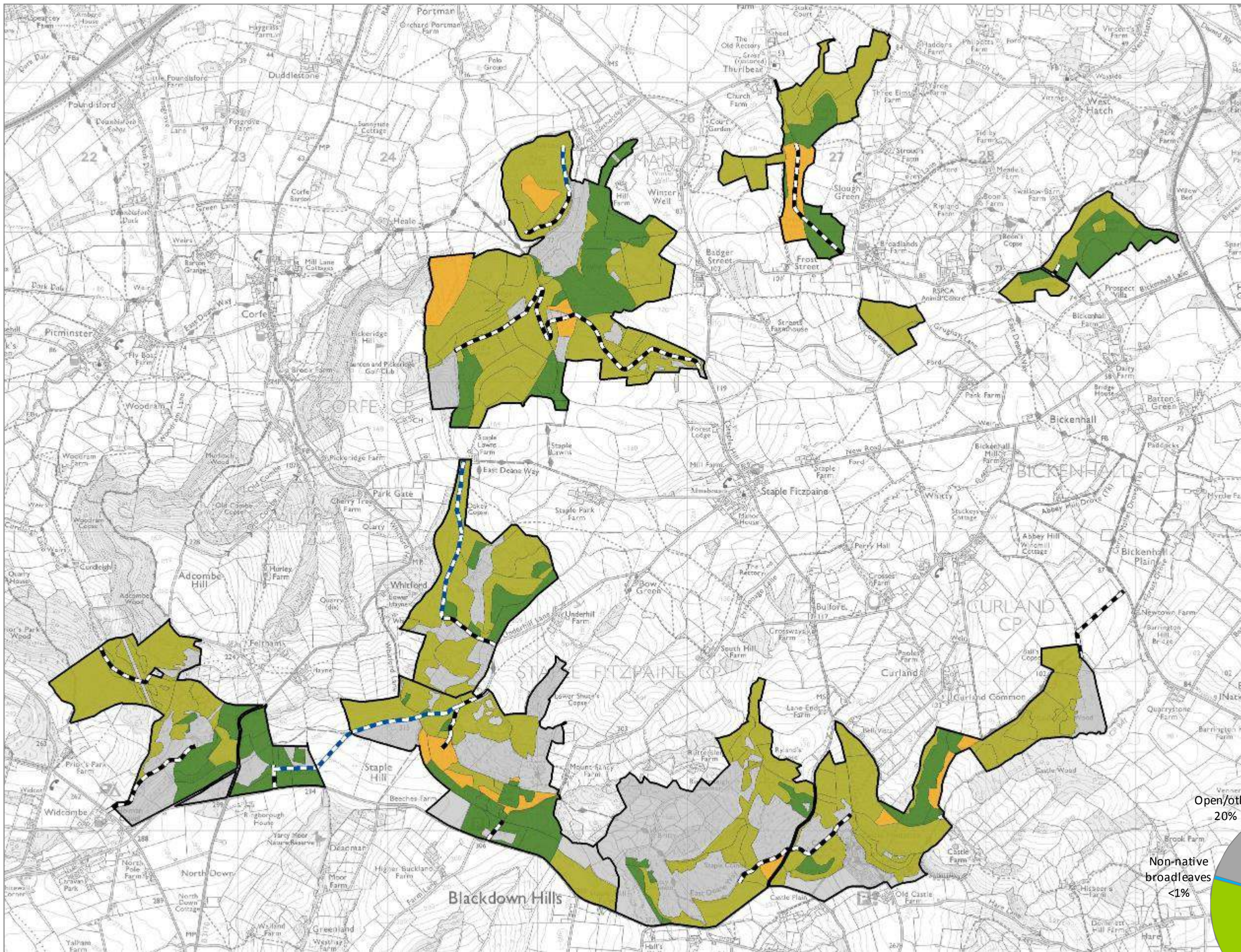


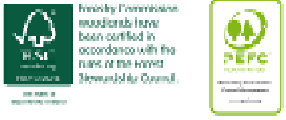
Indicative Future Species 2028

The projections made are indicative 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 Plan area will be delivered over time.

Legend

- Evergreen Conifer
- Deciduous Conifer
- Native & naturalized broadleaves
- Non-native broadleaves
- Open/other

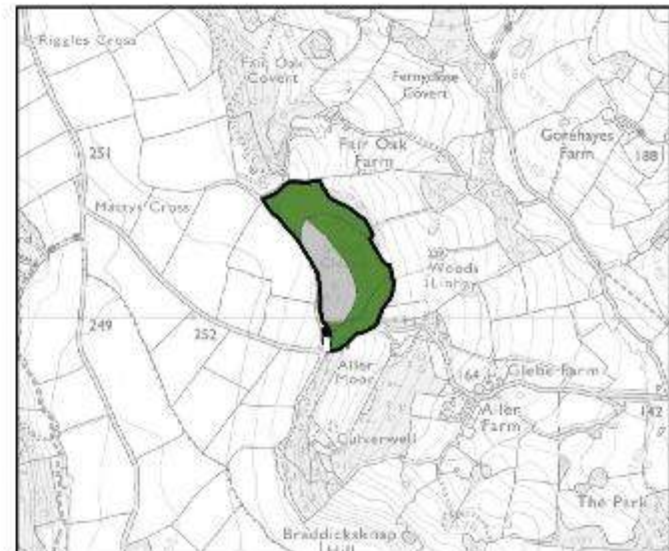
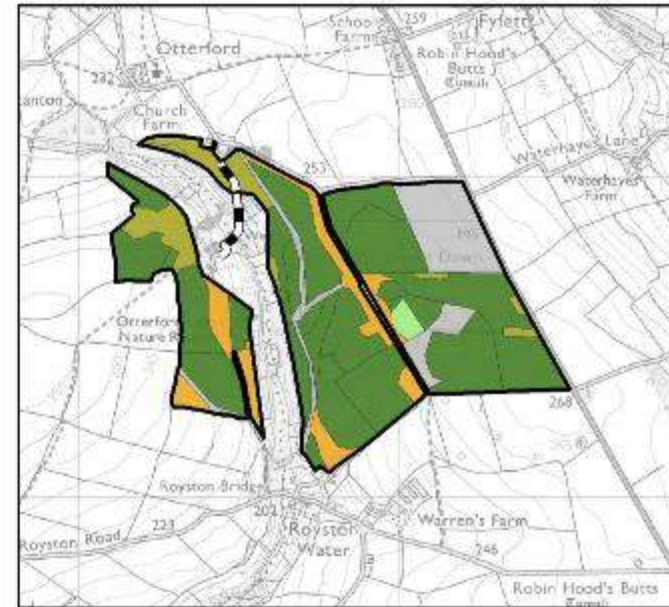
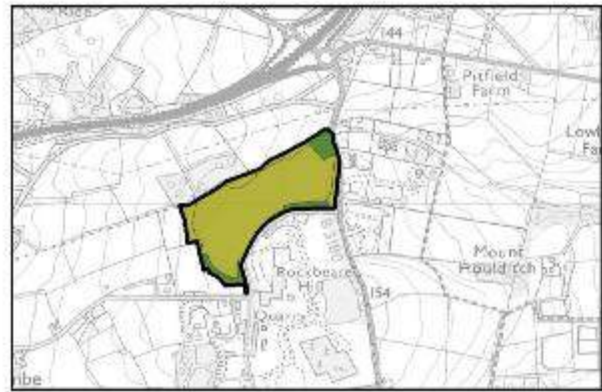
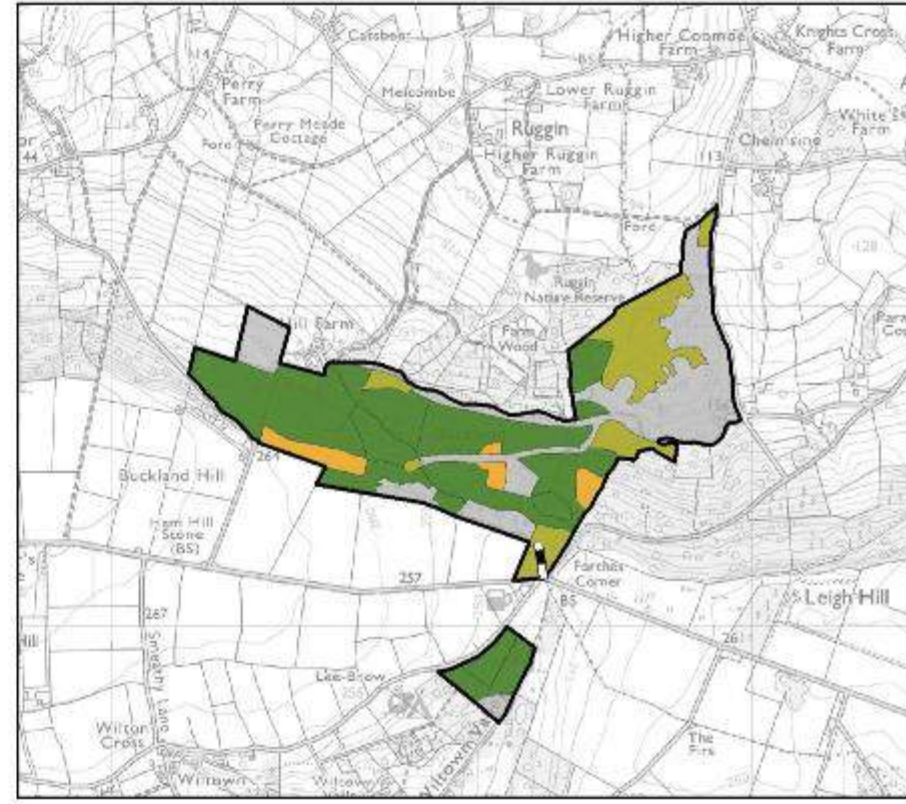
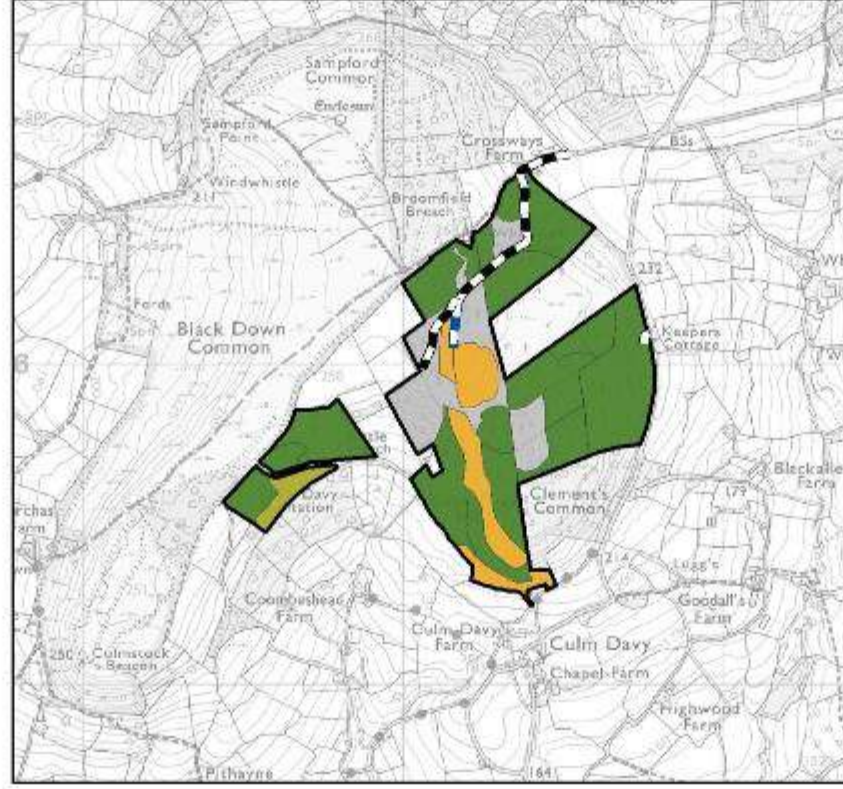




Indicative Future Species 2028

Legend

- Evergreen Conifer
- Deciduous Conifer
- Native & naturalized broadleaves
- Non-native broadleaves
- Open/other

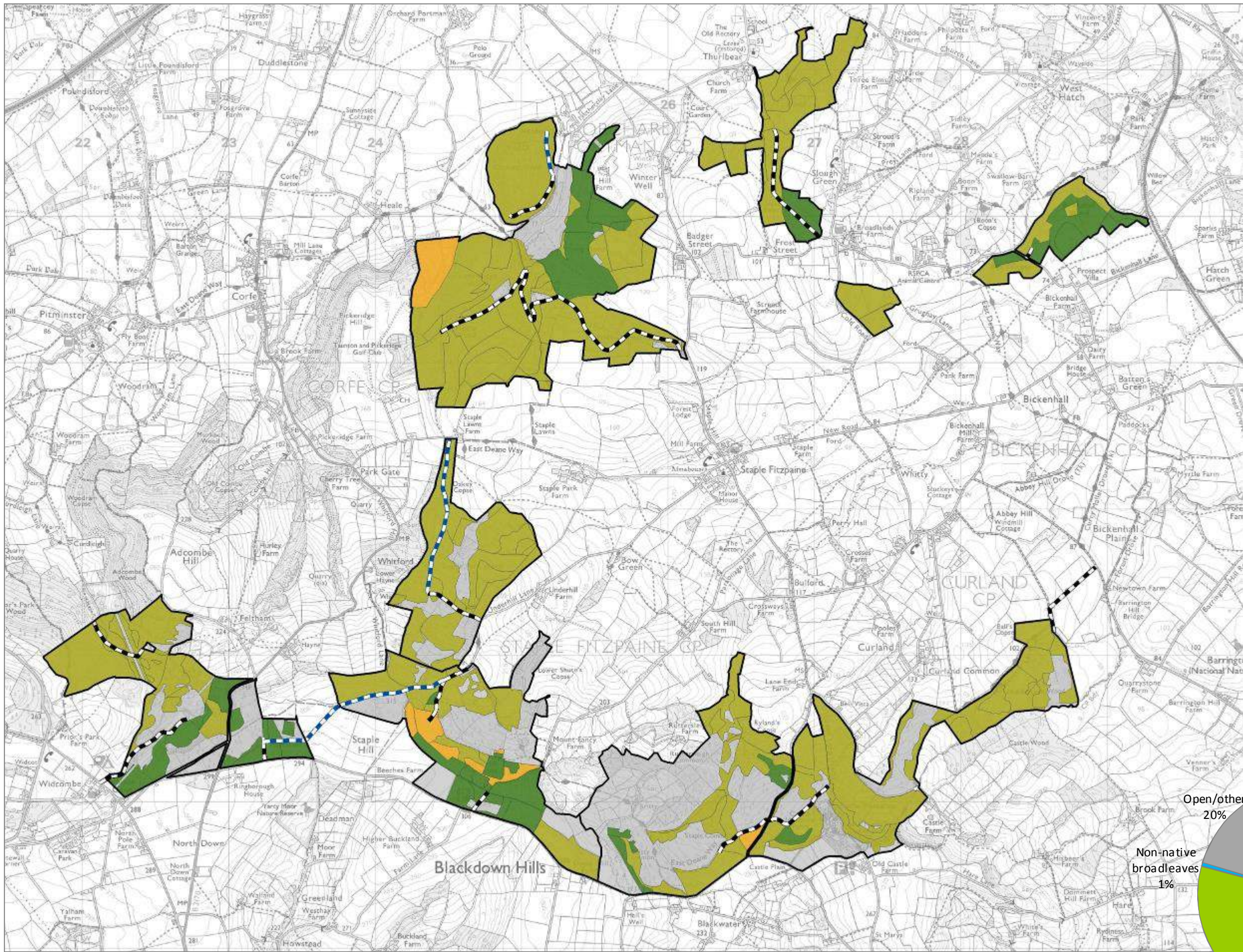




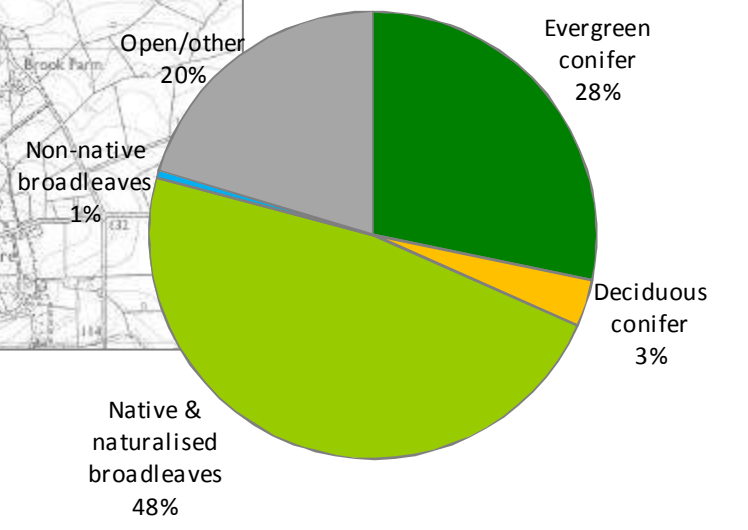
Indicative Future Species 2048

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

- Legend**
- Evergreen Conifer
 - Deciduous Conifer
 - Native & naturalized broadleaves
 - Non-native broadleaves
 - Open/other



2048

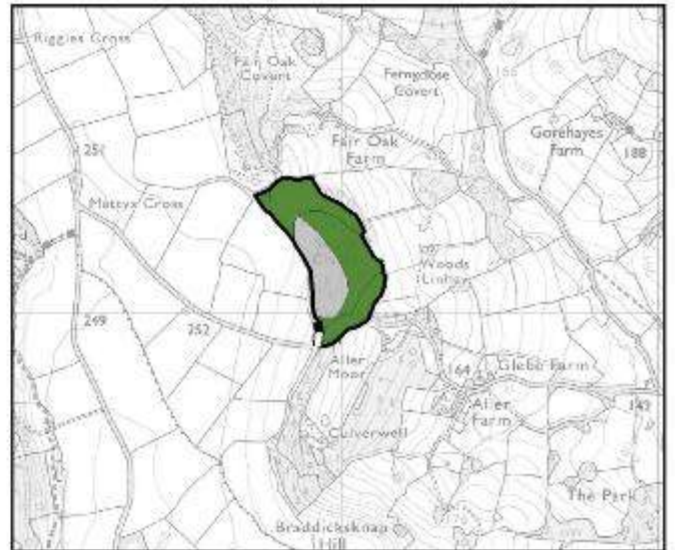
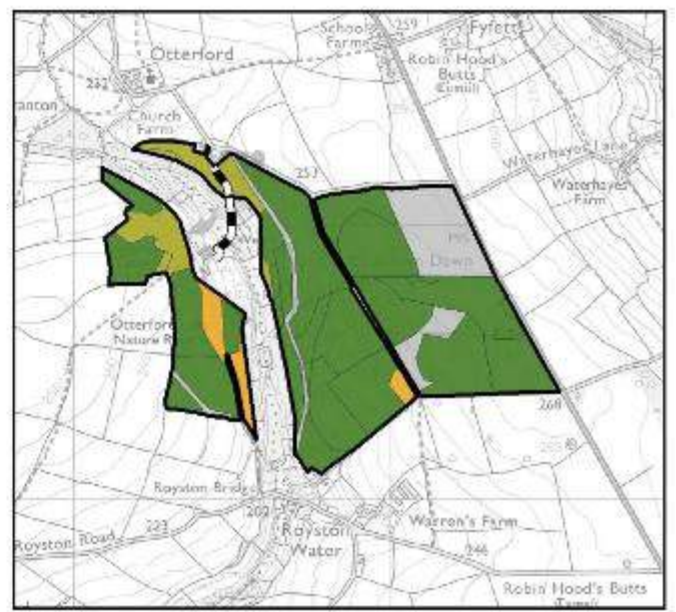
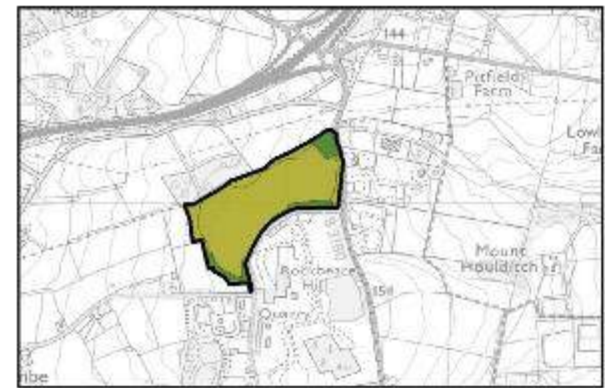
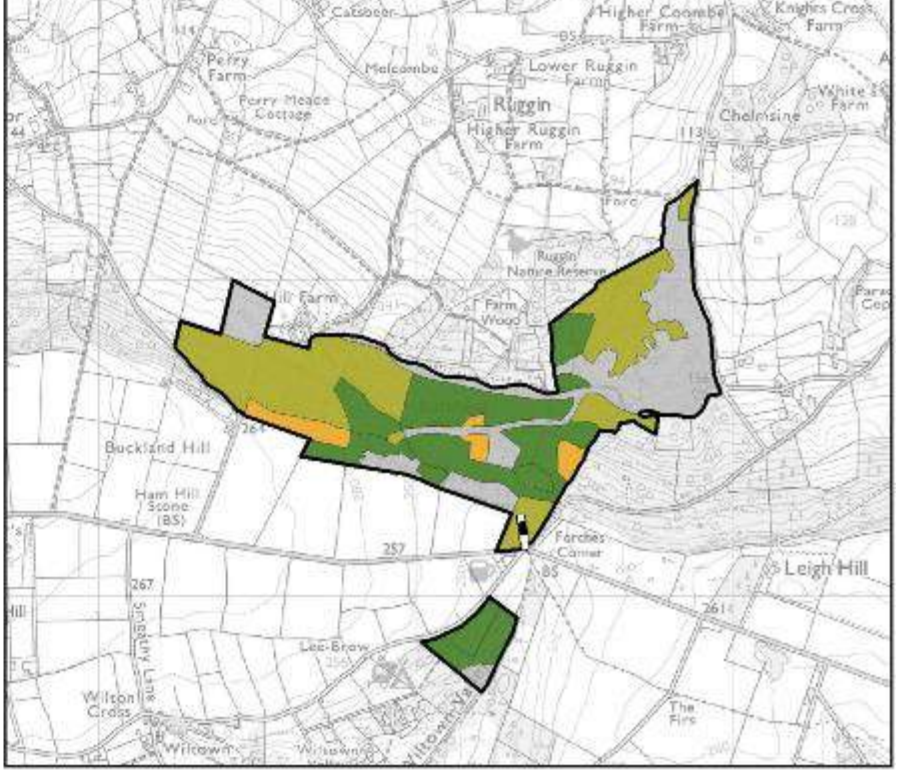
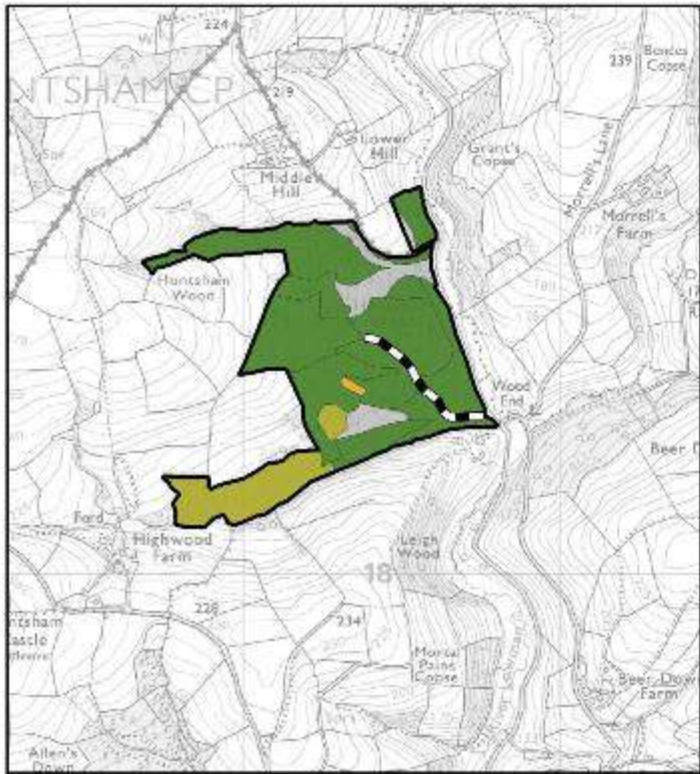




Indicative Future Species 2048

Legend

- Evergreen Conifer
- Deciduous Conifer
- Native & naturalized broadleaves
- Non-native broadleaves
- Open/other





Wood Pasture

Grazed pasture under woodland cover is important in the cultural landscape of the area. Remnant areas and those which have been extensively restored in recent years span across the Blackdown Hills ridge. Woodland cover will fluctuate according to grazing pressure, seeding propensity and other management but cover will be native broadleaf dominated. This will be to create a habitat rich in grasses, scrub and high forest suitable for a wide range of flora and fauna species to flourish. Restoration will continue primarily through the method of grazing with cattle, however if this method of management becomes no longer available a review of prescriptions may be required.

Wooded Heath

Wooded heath will be created and maintained as areas of transient heathland, creating dynamic habitats of patchy open space and regenerating scrub. This will deliver ecosystem functioning for a wide array of species. Woodland cover will fluctuate according to grazing pressure, seeding propensity and other management but cover will be conifer dominated. This will be to create a habitat rich in grasses, scrub and high forest suitable for a wide range of flora and fauna species to flourish. Restoration will continue primarily through the method of grazing with cattle, however if this method of management becomes no longer available a review of prescriptions may be required.

Lowland Mixed Deciduous Woodland

A number of areas of remnant lowland mixed deciduous woodland are found across the Plan area. These are predominantly made up of Sessile and pedunculated oak, ash, birch and beech. Some evidence of coppicing of hazel exists and looks to reassert. Management of these areas will be sensitive to ensure the quality is maintained in perpetuity. Thinning will be reviewed on a ten yearly cycle with the aim of enhancing and improving the condition of the habitat. Removal of invasive or un-suitable species, such as laurel, rhododendron or Western hemlock will ensure that this habitat is maintained and used as a building block for future native broadleaf restoration.

Wet Woodland Habitats

Numerous stream sides and wet areas are found at the bottom of hollows and small valleys within the Plan area and are valued as bogs, mires and wet woodland. These will remain predominantly willow and alder dominated broadleaf woodland. The majority of these sites will be managed at the time of intervention (if at all) to aid the recruitment of suitable wet woodland species such as alder, willow and birch encouraged as well as patchy open space to create dappled shade and light penetration. This will be achieved with the consideration of fauna and flora, such as rare lichen which flourish in these rich habitats

Corridor Habitats

Road and rides sides will conform to the prescriptions outlined in the District document, *Design and Management of Environmental Corridors*. The road and ride network within the Plan area will be utilised to extend and connect ride side habitats and transient open spaces, this will be achieved through targeted widening and unstocking of edges to some coupes following felling operations to create a mixed transient open and scrubby habitat for a multitude of species. In practice this means that regenerating vegetation on road sides will be regularly cut where access is easiest to create a dynamic edge habitat which the likes of Lepidoptera, insects and small birds choose to inhabit. Whilst wetter and often remote rides which are not used for deer control will be allowed to regenerate to provide habitat and linkage for a variety of species.

Deadwood

Mature established broadleaved trees with their moss and fauna will be retained as much as possible, and allowed to develop in senescent habitats. A variety of deadwood will be retained according to the level of ecological value and in line with Guidance (Humphrey & Bailey, 2012). Retaining decaying snags and logs as well as senescent trees throughout the forest will create suitable deadwood habitat for numerous associated species including raptor, smaller birds and an array of insects.

Conservation - Habitats



Typical restored wood pasture within Neroche, 2017



Trees of significance - are found throughout the Plan area but particularly around Neroche. These will be retained for perpetuity. The majority of these trees are oak but also beech, sycamore and field maple can be found, most of which are within Piddle Wood. When crops are thinned crowns will be released slowly to minimise the impact of sudden exposure to desiccating winds and sun scorch. Management will be in line with FC Guidance (Ops No. 31).



Conservation - Features

The Forest Plan area is used by an array of common and rare flora and fauna some of which are highlighted below. On the other hand some non-native flora and grazing fauna species can have a detrimental impact on the forest and its features if their numbers are too high. Species such as rhododendron, wild deer and squirrel will all be managed in line with District Strategy to ensure that their pressure does not have a negative impact on the condition of habitats and crops.

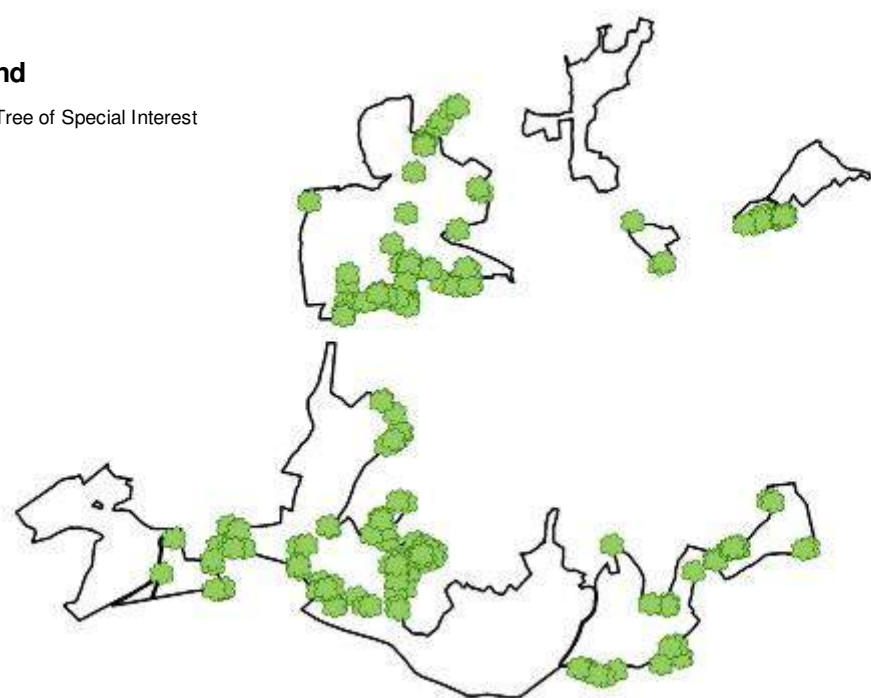
The introduction of new palatable tree species, in the bid to diversify the forest structure means that deer and small mammal impact will need to be taken into account. It is likely that protection and control will need to be increased and strategically targeted. This could include fencing, planting design and new deer glades which could be created following felling.

Lepidoptera — in particular Wood White, Brown Hairstreak, Duke of Burgundy and Silver-Washed Small Pearl Bordered Fritillary are becoming increasingly rare in the UK and have all been recorded in the Plan area in recent years. The Blackdown Hills escarpment used to be home to a vibrant population of the Marsh Fritillary (pictured) however these have not been recorded in the local landscape for a number of years. Favouring warm sheltered areas with sparse vegetation including ride sides, woodland clearings and abandoned quarries, these species will benefit from the clearfelling programme as well as the environmental corridor work proposed in this Plan.



Legend

Tree of Special Interest



Raptor - are known to nest and hunt within the forest areas. Many of the species choose to rest in high well branched conifer trees and then feed over open ground, making the forests ideal raptor habitat in an otherwise varied landscape. The management of appropriate large or potentially large trees for long retentions will ensure that habitat provision is maintained.

Unscheduled Monuments - are found across the Plan area, demonstrating its rich cultural significance. Staple Hill includes Britty Farm which was once a thriving smallholding, comprising a series of small fields cut out of the expanse of unenclosed heath. Quants also contains the remains of Farm Wood Bungalow, a smallholding abandoned early in the C20th and the remains of an unfinished reservoir.

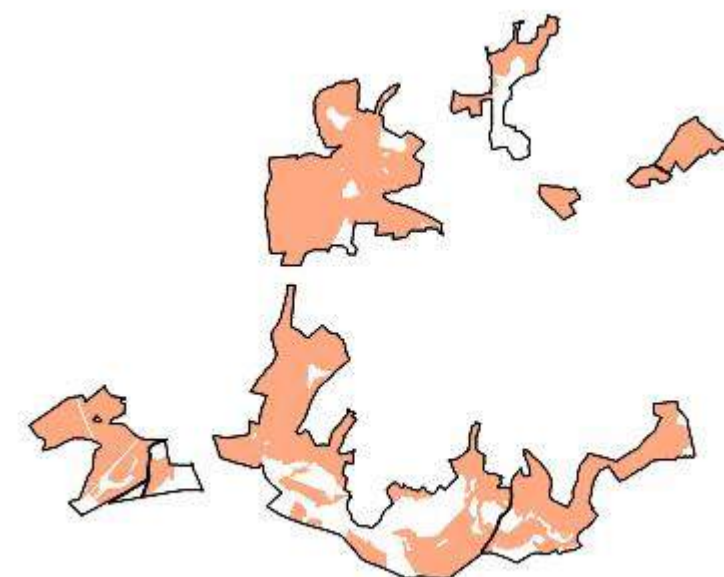
During the C13th there were two deer parks in Staple Fitzpaine; Staple Park and a smaller one at Park Farm. By 1583 the smaller park had vanished leaving Staple Park which was sold to Hugh Portman in 1595. The Portman's were keen huntsmen - they added a pale to the park boundary and in 1690 a lodge and kennels were built.

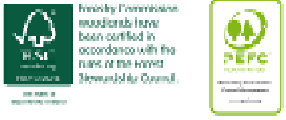
These features and the internal surrounding landscape needs to be preserved, and enhanced where possible, to retain and develop the Plan Area's cultural heritage. All unscheduled monuments will be identified and treated sympathetically at the time of operation in consultation with the county archaeology team.

Dormouse suitable habitat is found throughout the Plan area but particularly around Neroche and this species is known to be inhabiting the woodlands. This European Protected Species requires pinch points across corridors to allow habitat connectivity between broadleaved woodland, particularly in stands with a high hazel component. The increase in coppicing in hazel dominated stands will significantly enhance habitat quality with prescriptions outlined in the Environmental Corridors document also ensuring appropriate habitat provision and management will be in line with Best Practice Guidance (FC & NE, 2007).

Legend

Suitable Habitat





Recreation and Access

Blackdown Hills Forest Plan area experiences a high level of low-key recreational usage. The majority of the Plan area is permitted open access, with the exception of Priors Park, Buckland, Huntsham and Otterford which are de facto access due to the nature of the landholding.

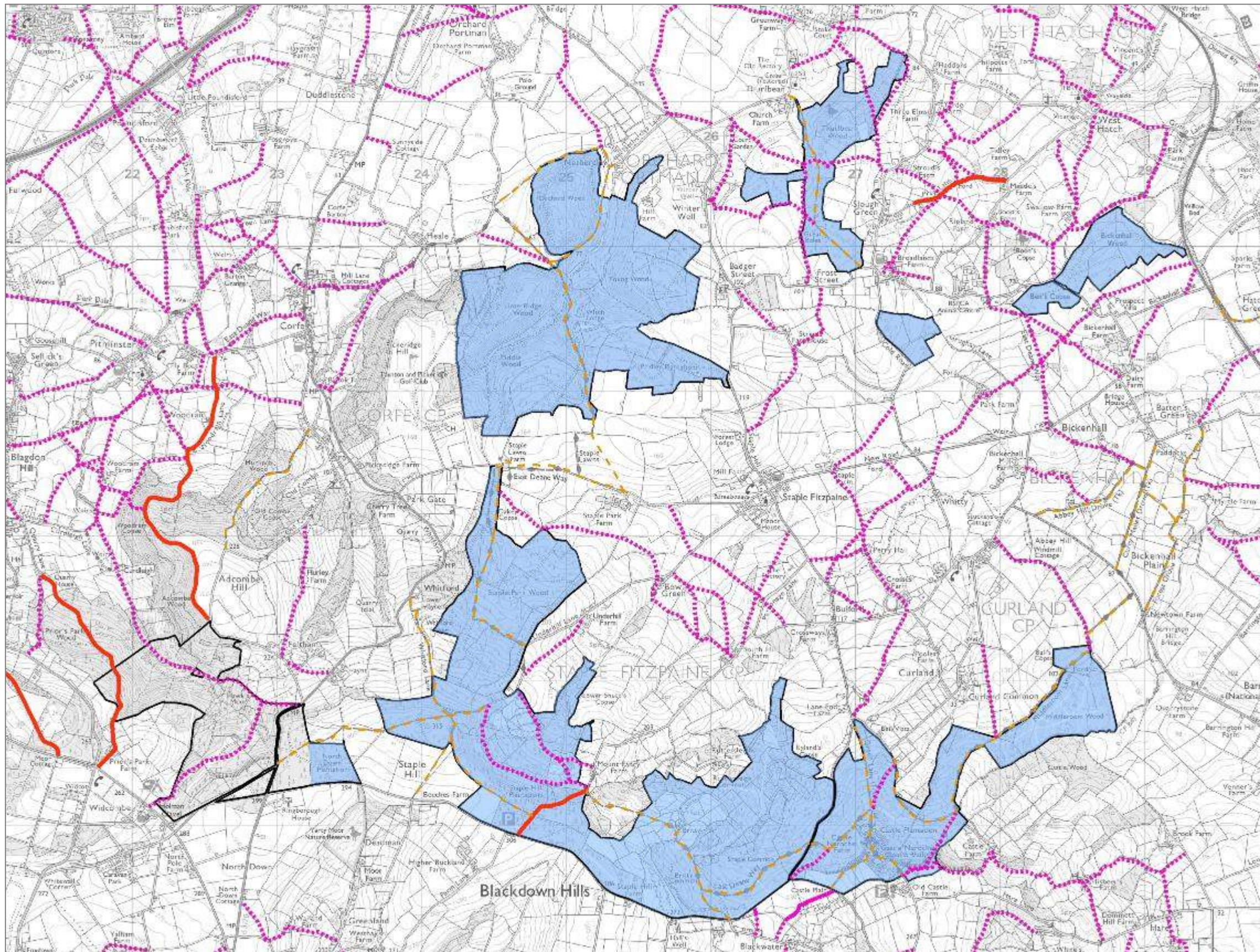
The use of the Plan area by local individuals as well as numerous visitors and tourists demonstrates the value of the forests to the local community, these features will be maintained in balance with ecological value.

Two maintained car parks are found at Neroche and a number of Public Rights of Way in the form of footpaths and bridleways traverse the Plan area and connect with the surrounding landscape. Many of these Rights of Way are designated and/or signposted.

Numerous one-off and annual permissions are granted throughout the Plan area for recreational purposes. These include educational visits and community events.

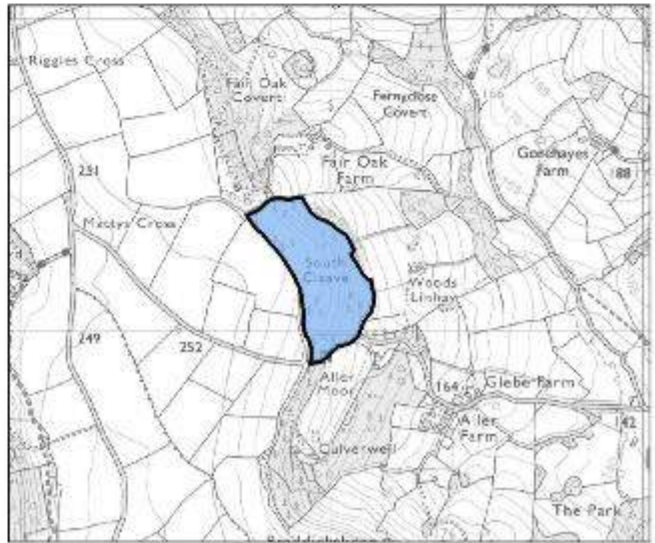
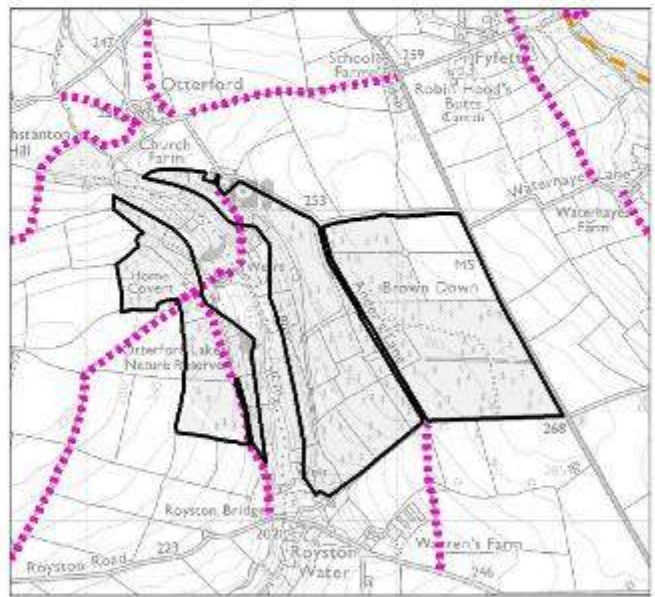
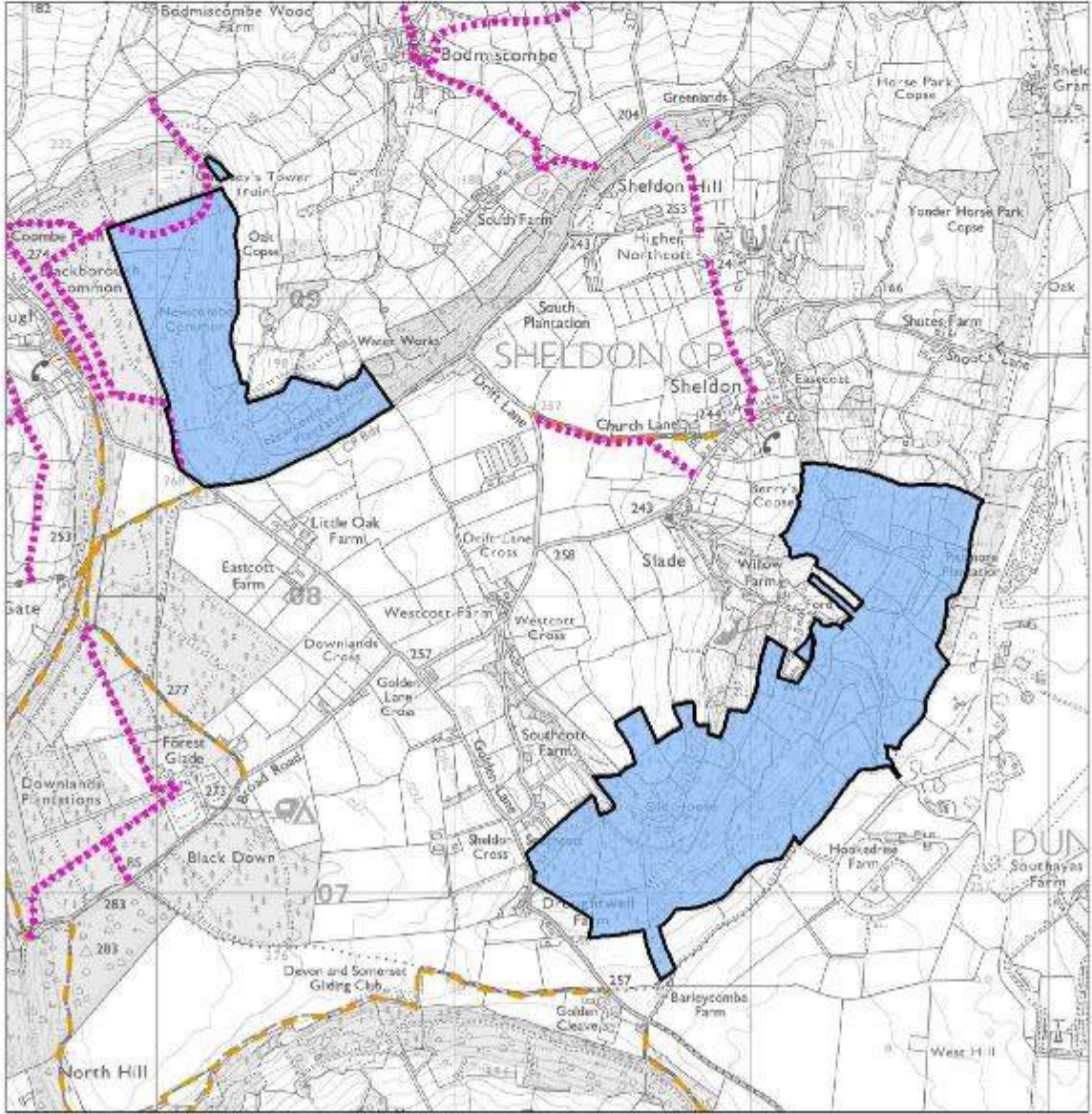
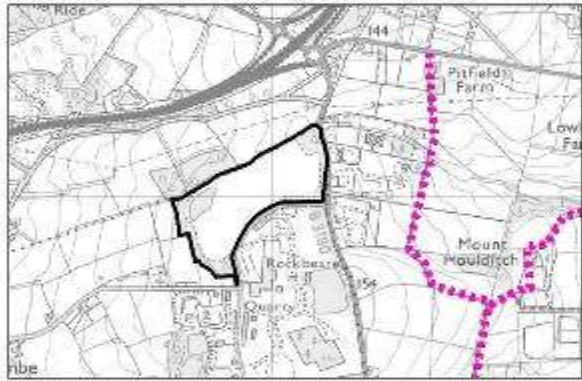
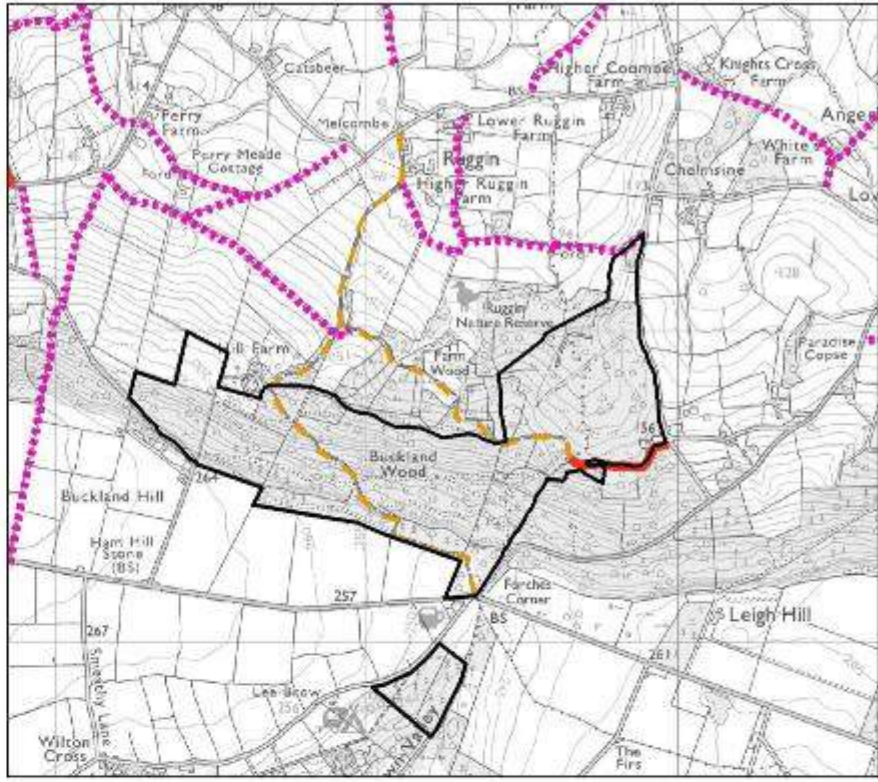
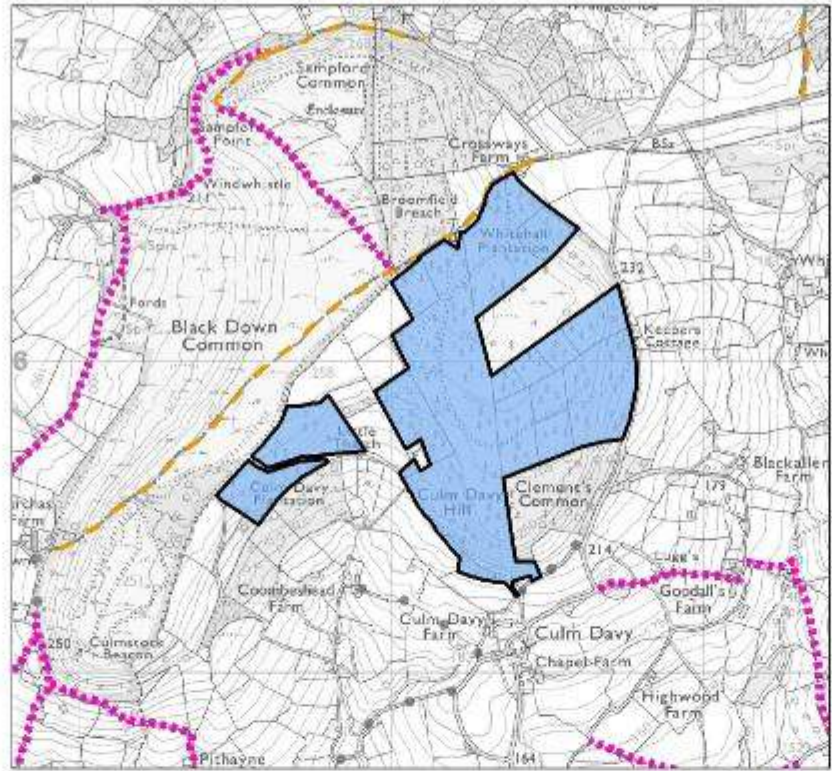
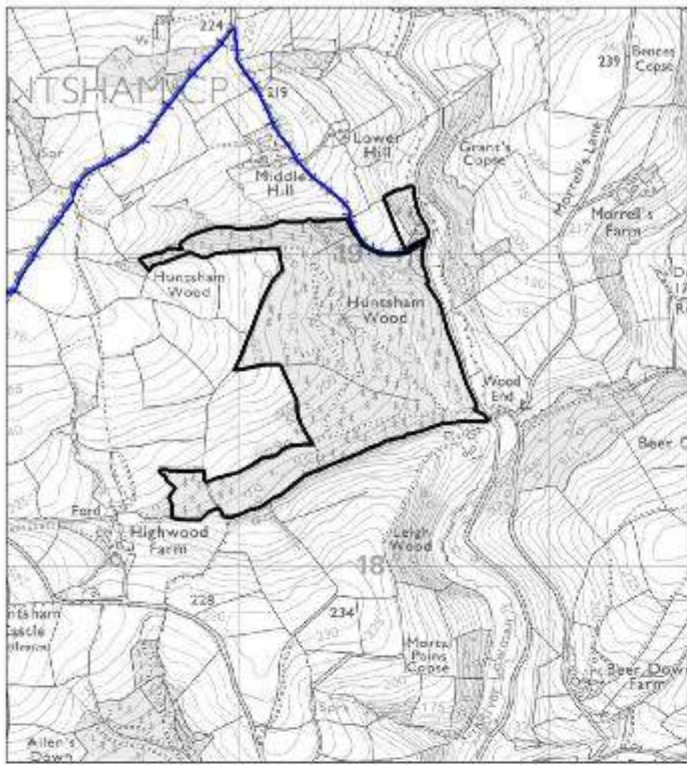
Legend

- Footpath
- - - - - Bridleway
- + + + + + Byway
- Restricted Byway
- Open Access





Recreation and Access

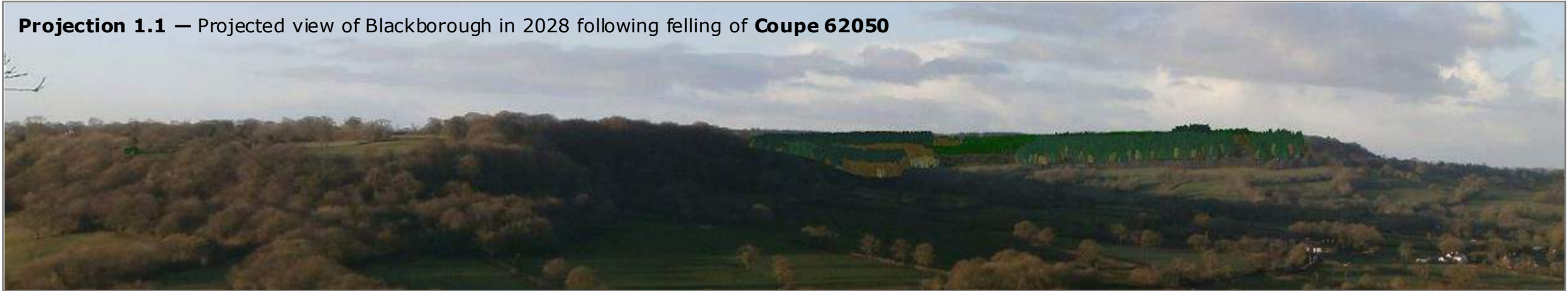
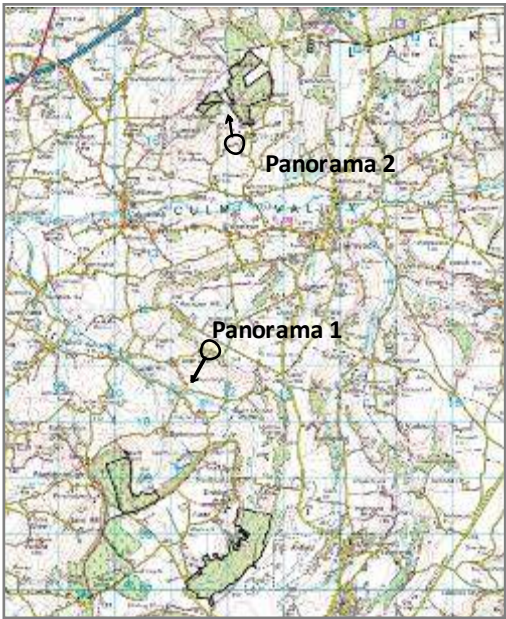


Legend

- Footpath
- - - - - Bridleway
- + + + + + Byway
- Restricted Byway
- Open Access

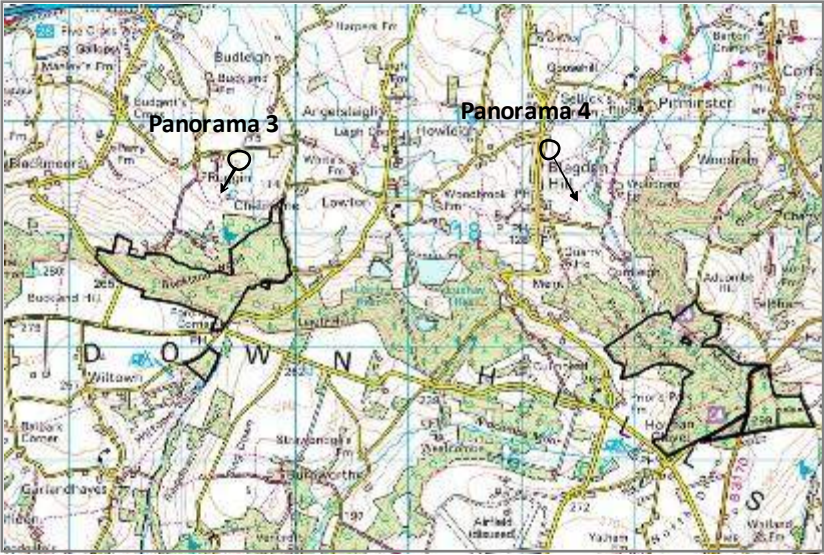
Landscape Analysis

The proposed felling and restocking of coupes has been analysed from a number of significant viewpoints. These viewpoints have been identified because of the amount of foot and vehicle traffic they experience and the influence the forest has at these locations. Given the nature of the landscape around the Plan area, there are minimal settlements from which the Forest Plan area can be seen. The majority landscape analyses have been done along highpoints of these roads.



Landscape Analysis

Panorama 3— Current view of Buckland in 2018 with model overlaid



Projection 3.1 — Projected view of Buckland in 2028 following felling of **Coupe 62998**



Panorama 4— Current view of Priors Park in 2018 with model overlaid



Projection 4.1 — Projected view of Priors Park in 2028 following felling of **Coupe 62994**





Riparian Management

All watercourses and riverine areas will be managed sensitively to protect and enhance water and soil quality in line with best practice. Riparian zones will be developed to create and maintain areas of up to 50% continuous forest cover through gradual regeneration or enrichment with site appropriate tree species, such as *Alnus*, *Salix* and *Ulmus* spp. A gradual change to this type of wet woodland habitat through coppicing at the time of intervention (usually clearfell), will create an environment of dappled shade with good light penetration and aeration as well as buffer the riverine systems from forestry operations.

Clearfells within the area have been designed and phased to minimise surface water runoff and soil erosion ensuring the riverine systems and SSSI are protected and improved into the future. All felling and restocking operations will work within the guidelines set out in UKFS, Forests and Water with the aim of developing further riparian areas at the time of intervention to stimulate native species regeneration.

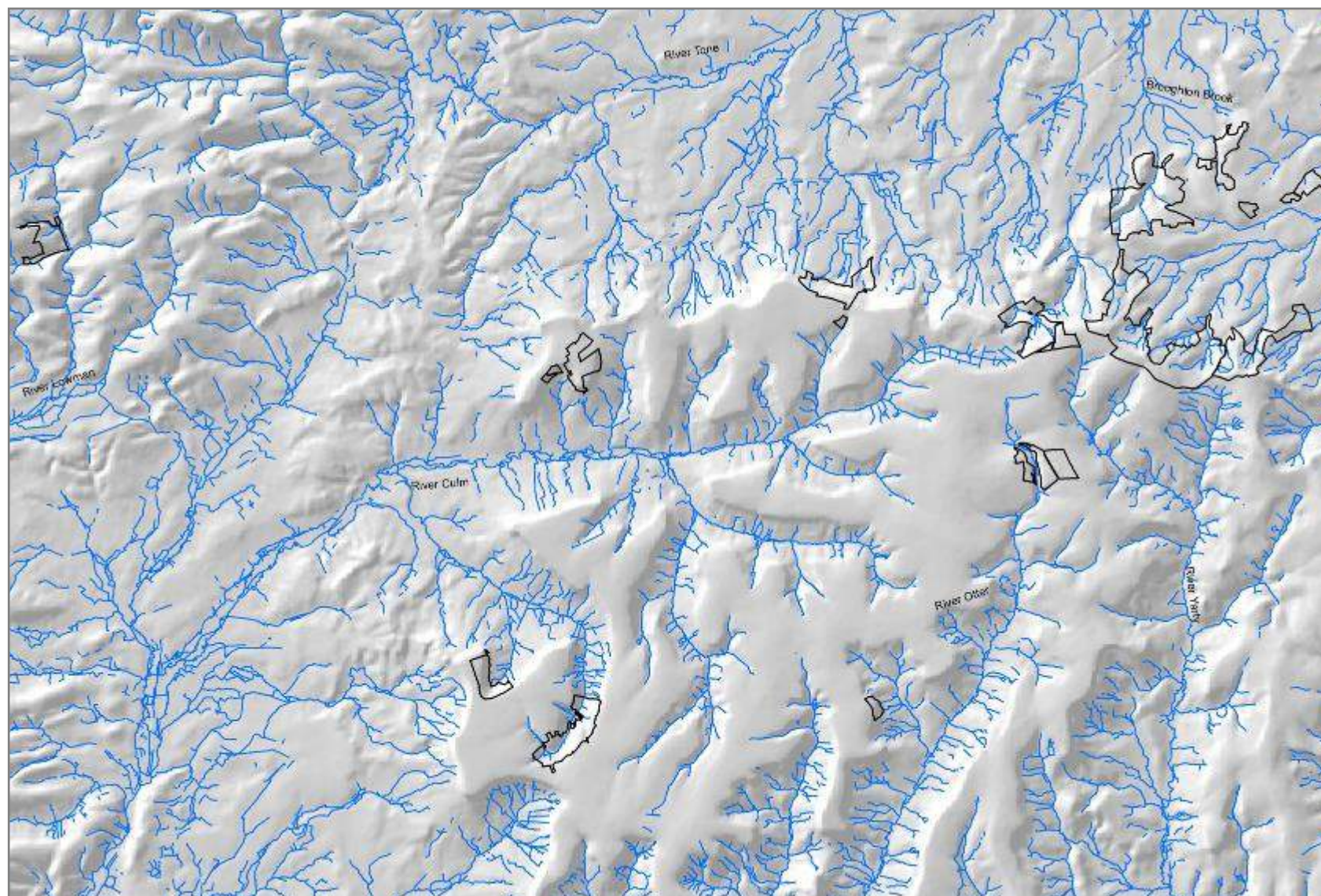
The Blackdown Hills Plan area is a positive component of rivers Culm, Otter and Tone catchments through soil stabilisation and surface runoff, retaining forest cover and a move towards continuous cover systems together with maintained drains and water storage will ensure this continues to slow down peak flows into the future. As such the Forestry Commission is an important stakeholder in the Somerset Catchment Partnership aimed at a sustainable approach to water and land use management that, wherever possible.

South West Catchment District

Just over 3 million people live in the South West River Basin District. The economy is dominated by the service sector, and each year millions of visitors to the district make a vital contribution to the economy. However, the resulting seasonal fluctuations in population bring challenges for protecting the water environment, especially in coastal areas.

The district has a huge network of internationally, nationally and locally recognised wildlife sites, from the uplands of Dartmoor and Exmoor and outstanding rivers such as the Camel and Hampshire Avon, to the fantastic estuaries and coastline. There are two national parks, and the Jurassic Coast in Devon and Dorset is the only natural world heritage site in England.

The farming and land management sector has a big role in looking after and improving the quality of the rural environment. Agriculture accounts for approximately three quarters of the land area in the South West River Basin District.



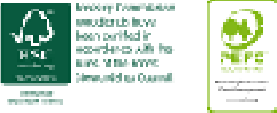
Water & Riparian Management

East Devon Basin

This catchment is characterised by diverse habitats ranging from the moorland of Exmoor National Park at the headwaters of the River Exe, to the Exe Estuary at Exmouth, the gateway to the Jurassic Coast World Heritage Site.

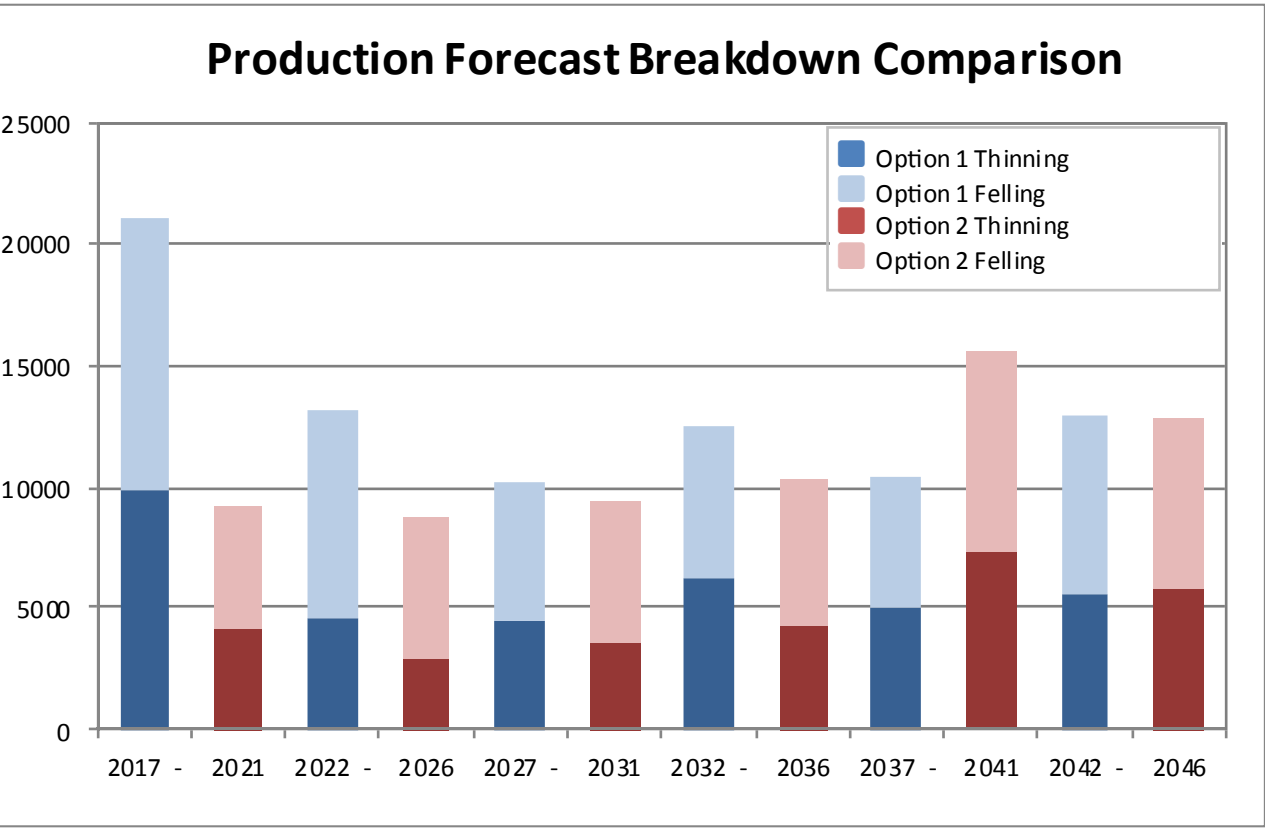
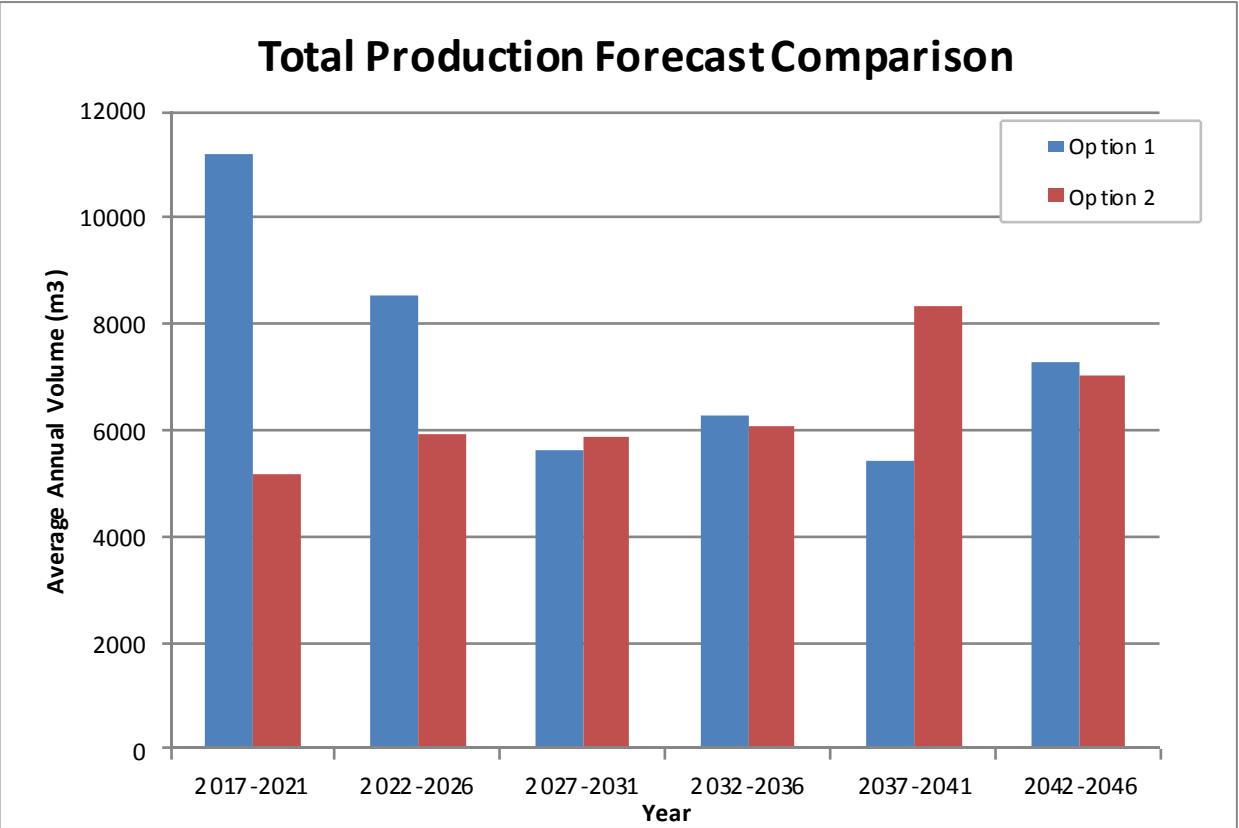
There are 103 river water bodies in the catchment, with a combined length of almost 1050 km, and four lakes. Currently, 27 per cent of surface waters (260 km or 25 per cent of river length and three or 75 per cent of the lakes) achieve good or better ecological status/potential. Waters at good status now include the Lowman, part of the Otter and large parts of the Exe catchment.

The main reasons for less than good status are, in order, impacted fish communities, high levels of phosphate, impacted diatom communities and physical modification. 33 per cent of waters assessed are at good or high biological status now.



APPENDIX 2 -
Option Testing

Option 1 – Current Forest Plan (Master)	Option 2 – Proposed Forest Plan (Scenario)
The protection and enhancement of woodland and open habitats and their associated species. - The restoration and management of the Site of Special Scientific Interest. - To protect and enhance areas of Ancient Semi-natural Woodland and restore areas of PAWs in line with ‘Keepers of Time’.	
Acknowledgement is made of the need to restore ancient woodland and SSSI. Restoration would be achieved through a mixture of clear felling and restocking, and group selection through natural regeneration over a short period.	The Plan integrates SSSI and PAWS management. A clear strategy for PAWS restoration through thinning and felling of threats and native species enhancement will ensure a proactive restoration of the SSSI and ancient woodland will occur over time.
Deliver well-designed forests that both protect and enhance the internal and external landscape in keeping with the AONB and local landscape character.	
The proposals consider the landscape context but do not demonstrate delivery of high quality, well design forests both internally and externally.	The majority of stands have been moved to CCF and where appropriate these have been altered in an attempt to extend rotations and address wind issues. This has then been modelled to ensure proposals contribute to a high value landscape. Coppicing is a key component to retain high landscape value.
The continued production of sustainable and marketable woodland products.	
The production of timber is somewhat reliant on volume resulting from clearfelling. This felling programme experiences considerable peaks and troughs, not least in the next 5 years. This combines together to make a less sustainable production model for woodland products.	The Plan attempts to spread the production over a longer period by extending rotations and moving towards CCF where appropriate.
To conserve, maintain and enhance cultural and heritage assets.	
The Plan makes minimal reference to location and importance of cultural landscape and heritage assets.	The Plan looks to integrate scheduled and unscheduled heritage assets into management as well as considering the cultural significance of the landscape and forests role within this.
The provision and maintenance of recreation facilities.	
The Plan acknowledges the role of informal recreation and public rights of way.	The Plan acknowledges the role of informal and formal recreation and public rights of way as well as the role Neroche has to play in the social context given recent projects to engage with the community and its proximity to Taunton.



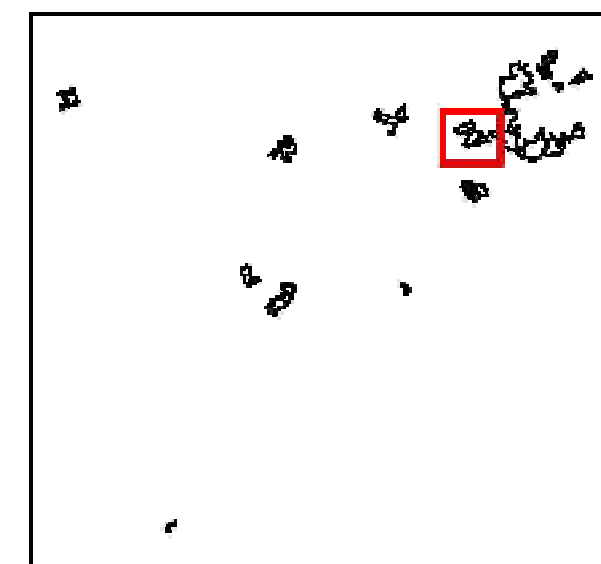
Coupe Prescriptions

Detailed coupe prescriptions as a result of felling and restocking 2018-28 as outlined on pages 23-28.

	Coupe	Area (ha)	Existing Crop	Rationale/Prescription	Restock	Area (ha)	Restock Proportion	Rationale/Prescription
Neorche	62996	2.91	Mixed AH, AR & HAZ	Coppice felling of hazel and ash as well as targeted removal of NS, particularly along ride and river sides will enhance the species and structural diversity of the woodland and Prior's Park and Adcombe Wood SSSI.	62996a	2.91	100% Native broadleaf	Coppice regrowth of hazel and ash will enhance the structural diversity of the woodland and provide additional habitat to the designated features with the anticipated affect of this will be to move the SSSI to 'favourable' condition.
	62995	1.63	Mixed AH, AR & HAZ	Coppice felling of hazel and ash as well as targeted removal of NS, particularly along ride and river sides will enhance the species and structural diversity of the woodland and Prior's Park and Adcombe Wood SSSI.	62995a	1.63	100% Native broadleaf	Coppice regrowth of hazel and ash will enhance the structural diversity of the woodland and provide additional habitat to the designated features with the anticipated affect of this will be to move the SSSI to 'favourable' condition.
	62994	9.3	p.64 SS	Stand is well thinned and nearing economic maturity. With the high road frontage, poor access and high landscape impact mean continued thinning to CCF is not feasible with clearfell the most appropriate form of felling with coupe design integral to success.	69994a	9.3	100% Evergreen conifer	Site is rich, wet and exposed. So restock design will need to be robust to enable efficient access and production but sympathetic to the sites complexities. Consider Scots pine, Leyland cypress, aspen and Sitka spruce.
	62988	10.6	p.68 NS	Spruce is underthinned, nearing terminal height and therefore at increasing risk of windblow. Gradual restoration to native woodland is not feasible.	62988a	10.6	100% Native broadleaf	Restocking should look to build on the structure and lessons of adjacent cluster planting from 2016. Using NVC type and site indicators as a guide native woodland restoration should be through a mixture of planting and natural regeneration. Consider planting oak, wild service and field maple.
Buckland	62998	1.7	p.69 WH	Western hemlock is seeding in ancient woodland threatening restoration potential into the future. Although not yet, if allowed to perpetuate this coupe could also seed into SAC and threaten conservation status. Therefore a buffer clearfell of the SAC is appropriate, with heavy thinning of remaining WH also advocated.	62998a	1.7	100% Native broadleaf	Using NVC type and site indicators as a guide native woodland restoration should be pursued through a mixture of planting and natural regeneration. Consider planting oak, wild service and field maple.
Culm Davy	62069	3.8	p.78 WH	Mature conifer crop is on the windward edge and seeding freely into the surrounding area. Continued thinning will only perpetuate further colonisation with hemlock. Retain broadleaves where viable.	62069a	3.8	80% Evergreen conifer 20% Native broadleaf	Ground is mildly richer and better drained when compared with surrounding areas. However soils remain thin and to create convergence between heath and wooded agricultural areas a mixture of pine and broadleaf species should be used. Consider Scots pine, aspen, oak or beech.
	62063	3.7	p.78 WH	Mature conifer crop is on the windward edge and seeding freely into the surrounding area. Continued thinning will only perpetuate further colonisation with hemlock. Retain broadleaves where viable.	62063a	3.7	80% Evergreen conifer 20% Native broadleaf	Soils remain thin and to create convergence between heath and wooded agricultural areas a mixture of pine and broadleaf species should be used. Consider Scots pine, aspen, oak or beech.
Sheldon & Blackborough	62058	4.0	p.79 HL	Stand is well thinned and nearing economic maturity. With the disease risk and poor access mean continued thinning to CCF is not feasible with clearfell is the most appropriate form of felling with coupe design integral to success.	62058a	4.0	100% Evergreen conifer	Site is fairly rich, wet and exposed. So restock design will need to be robust to enable efficient access and production but sympathetic to the sites complexities and high landscape profile. Consider Scots pine and Douglas fir.
	62062	5.3	p.68 JL p.69 NS p.79 LC	Stand is well thinned and at economic maturity. With poor access, wet site conditions and unsuitable species on site for the future continued thinning to CCF is not feasible. Adjacent crop is to be felled in previous period and will need to reach 2 metres in height prior to felling.	62062a	5.3	100% Evergreen conifer	Site is relatively acidic and wet with soils thin somewhat limiting conifer species choice. Consider Scots pine, Sitka spruce and Noble fir.
	62050	2.2	p.56 NS p.56 SS	Stand is well thinned and at economic maturity. With poor access and unsuitable species on site for the future, continued thinning to CCF is not feasible with clearfell is the most appropriate form of felling to aid thinning of the wider forest.	62050a	2.2	100% Evergreen conifer	Site is rich and well drained and continued conifer production should be pursued. Restock design will need to be sympathetic to the sites high landscape profile. Consider Scots pine, Sitka spruce and Douglas fir.
Otterford	62171	4.1	p.78 LP	Seed stand is now defunct and offers limited further yield due to previous management and <i>Dothistroma</i> needle blight infection.	62171a	4.1	100% Evergreen conifer	Site is relatively acidic and wet with soils thin somewhat limiting species choice. Consider Scots pine, Sitka spruce with aspen to soften edges.
	62999	3.2	p.78 LP	Seed stand is now defunct and offers limited further yield due to previous management and <i>Dothistroma</i> needle blight infection.	62999a	3.2	100% Evergreen conifer	Site is relatively acidic and wet with soils thin somewhat limiting species choice. Consider Scots pine, Sitka spruce with aspen to soften edges.
	62048	4.4	p.78 WH p.78 DF p.78 JL	Crop has now reach economic maturity and is not suitable for transformation to CCF due to limited access, thin and waterlogged soils and exposed edges.	62048a	4.4	100% Evergreen conifer	Site is relatively acidic and wet with soils thin somewhat limiting species choice. Consider Scots pine, Sitka spruce with aspen to soften edges.
Hunstharn	62070	6.7	p.59 DF p.67 JL	Crop has now reach economic maturity and is not suitable for transformation to CCF due to limited access, thin and waterlogged soils and exposed edges.	62070a	6.7	100% Evergreen conifer	Site is rich and relatively wet so restock design will need to be robust to enable efficient access and production but sympathetic to the sites complexities . Consider Scots pine, Sitka spruce and Douglas fir.
	62005	7.3	p.59 DF	Crop has now reach economic maturity and is not suitable for transformation to CCF due to limited access and exposed edges.	62005a	7.3	100% Evergreen conifer	Site is rich and relatively wet and continued conifer production should be pursued. So restock design will need to be robust to enable efficient access and production but sympathetic to the sites complexities and high landscape profile. Consider Scots pine, Sitka spruce and Douglas fir.



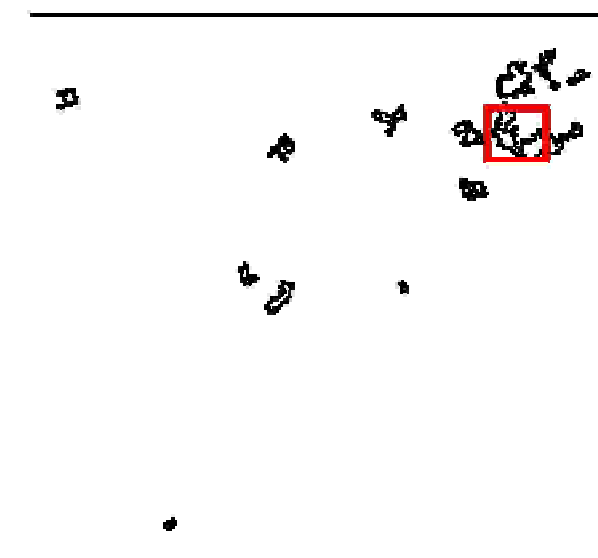
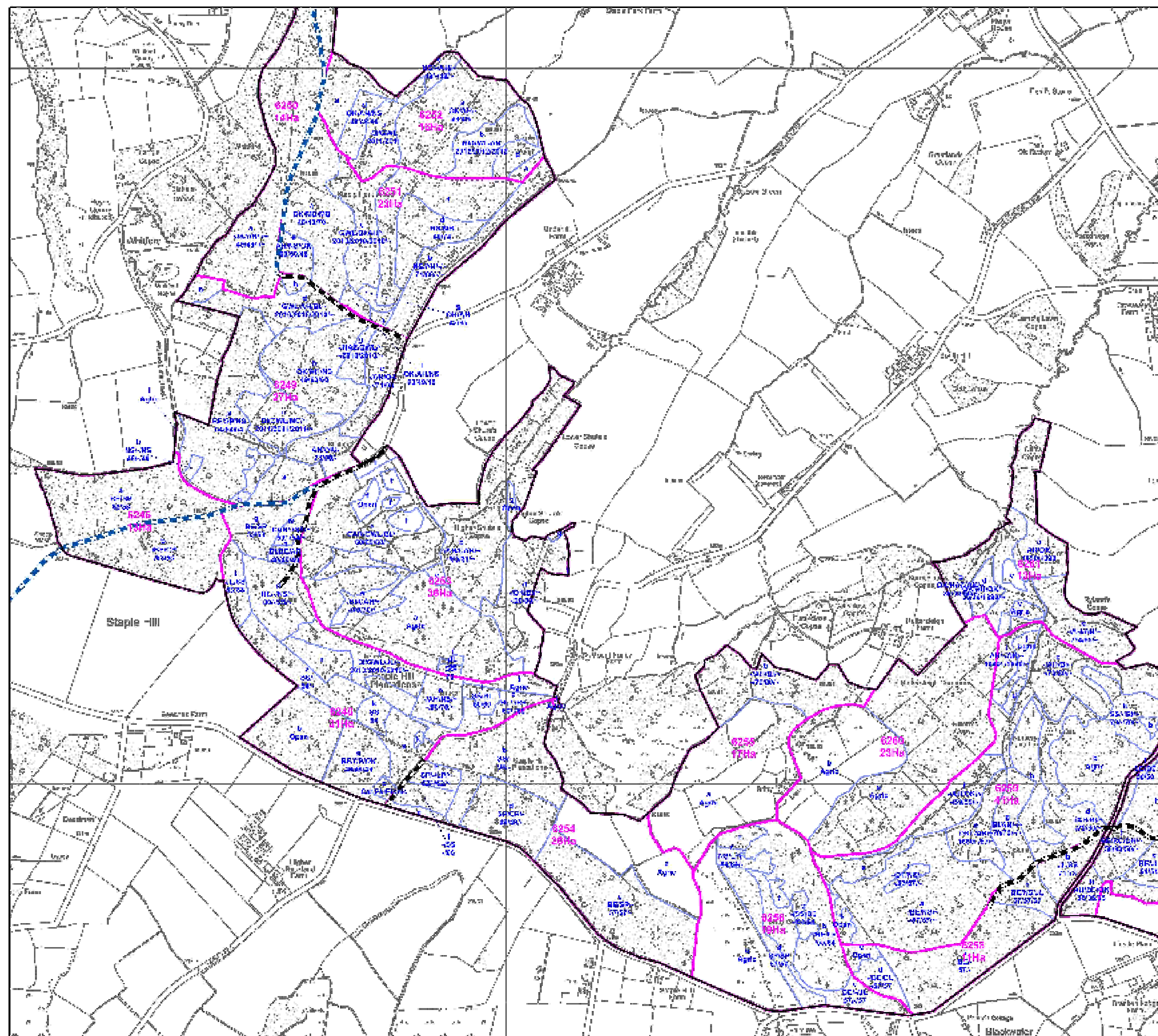
Prior Park

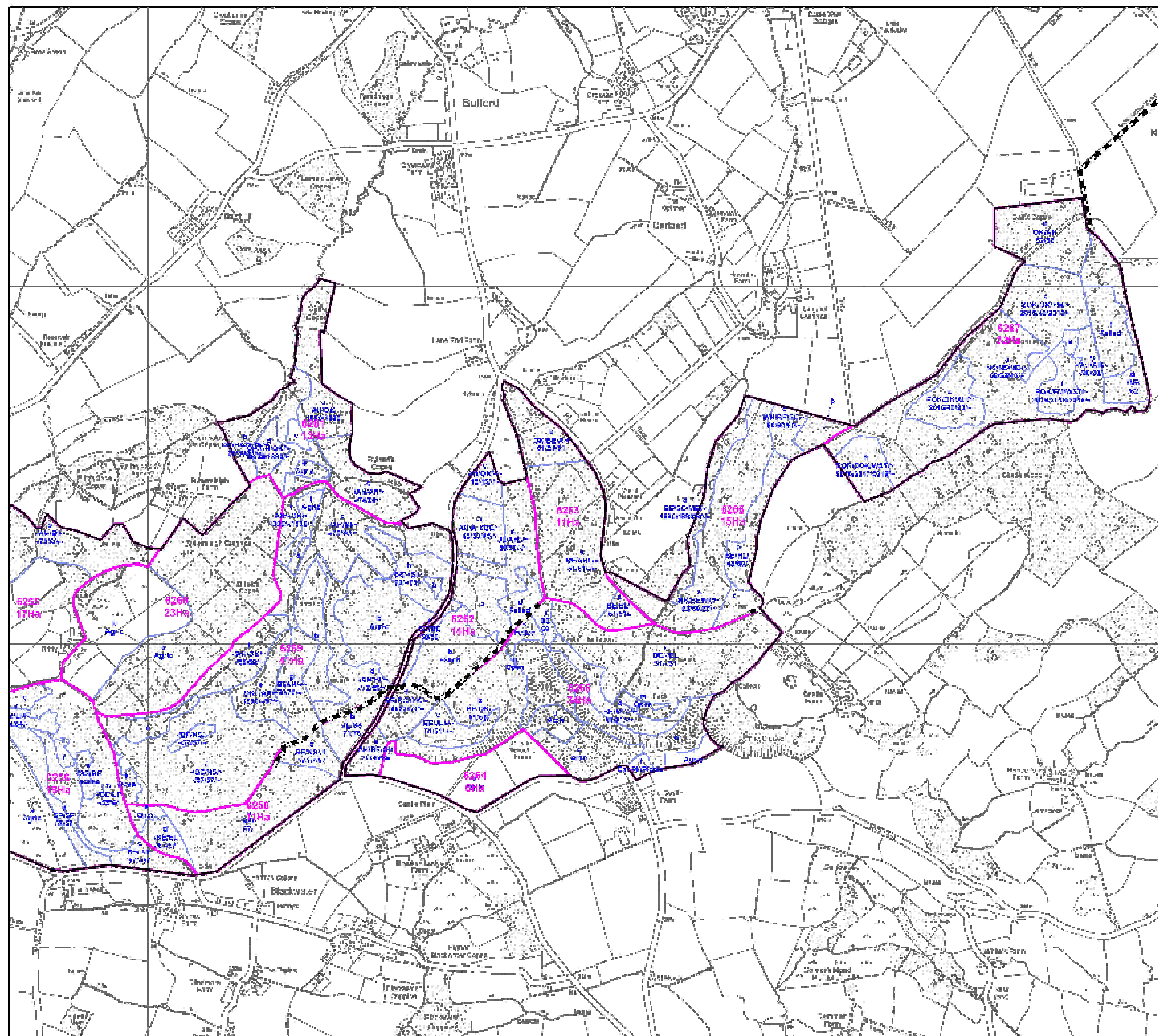




Stock Data 2018

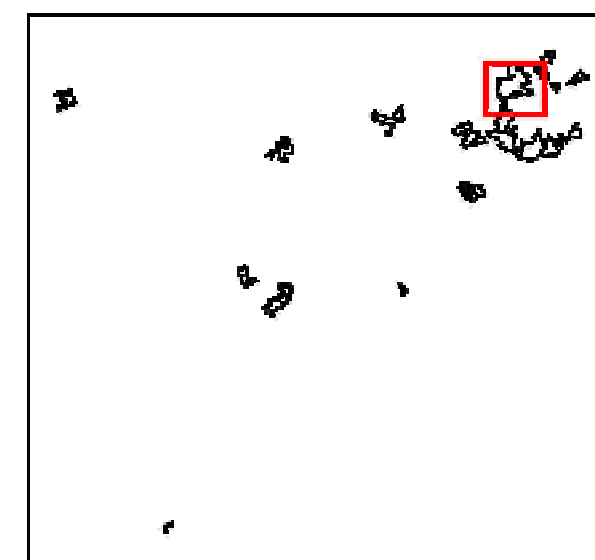
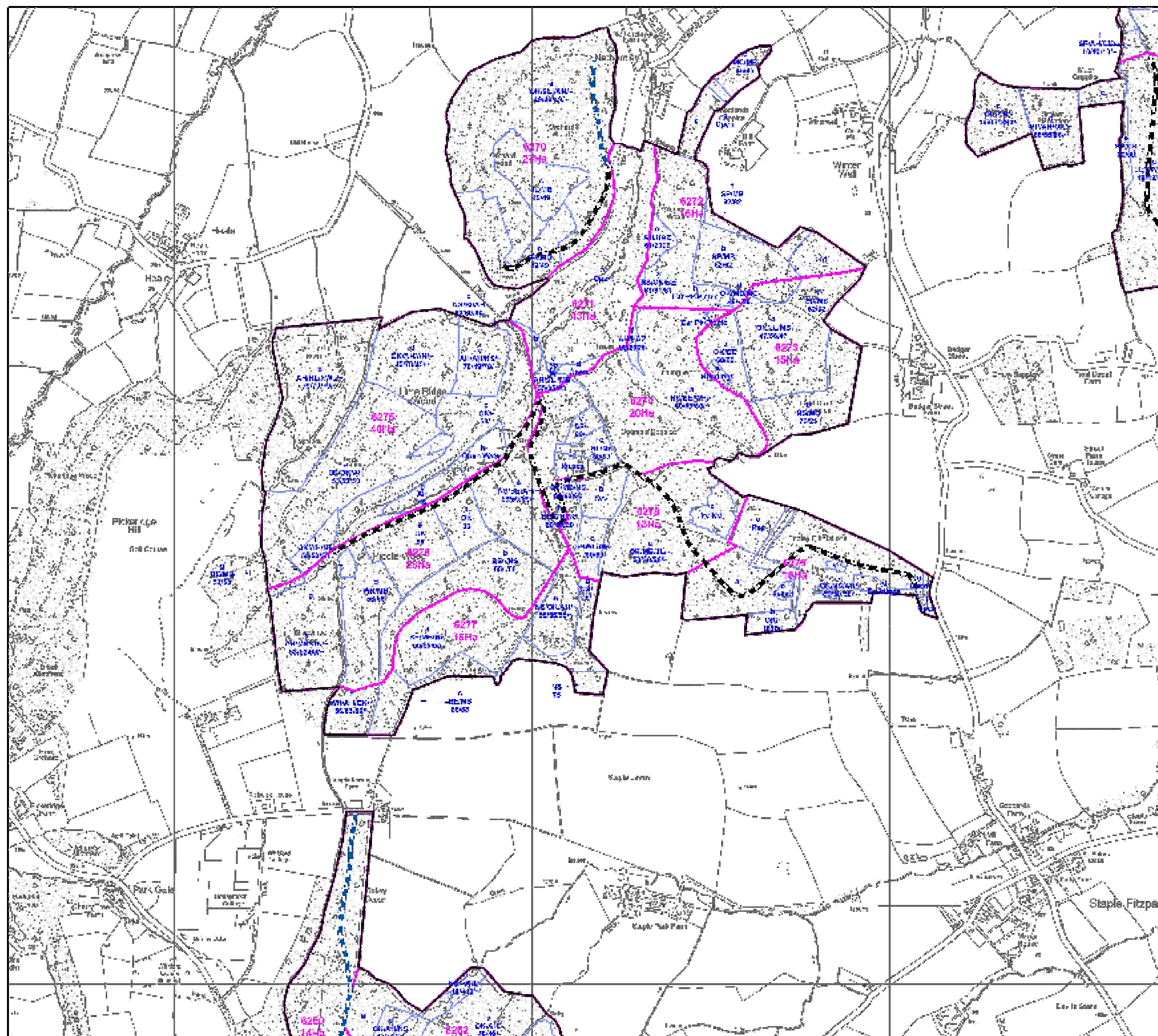
Neroche — West





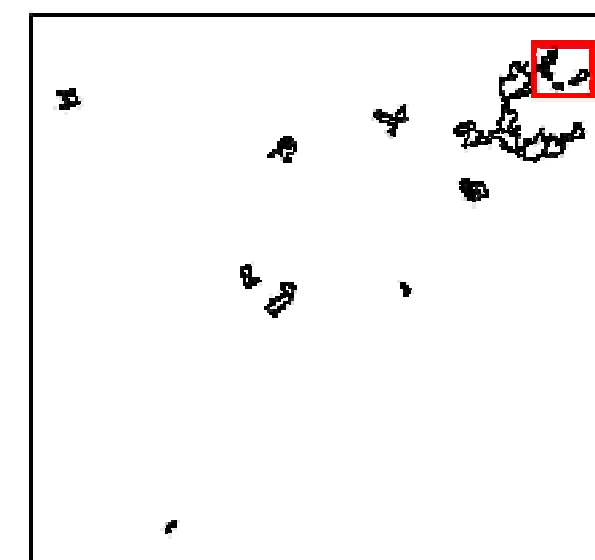
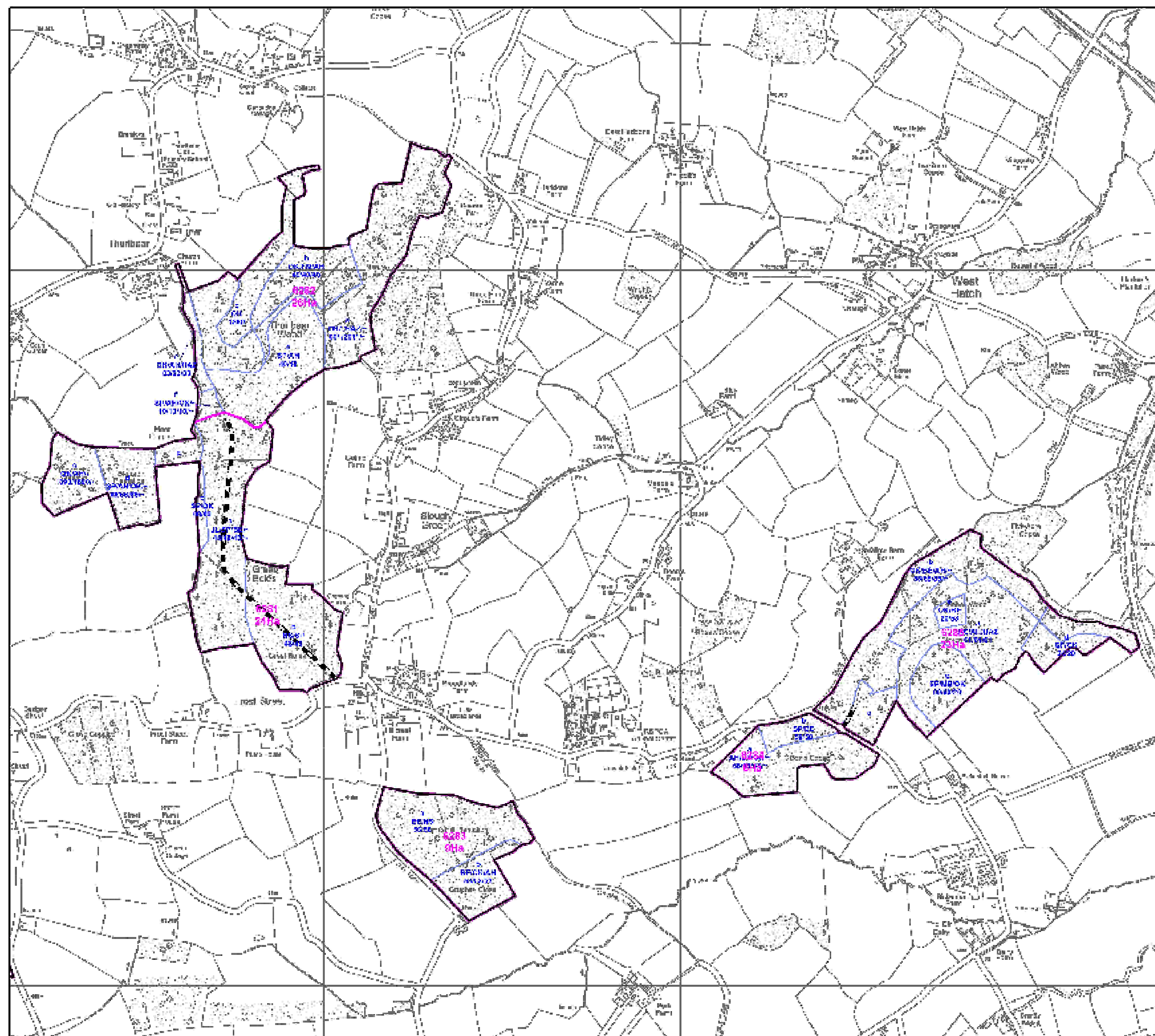


Stock Data 2018 Wych Lodge



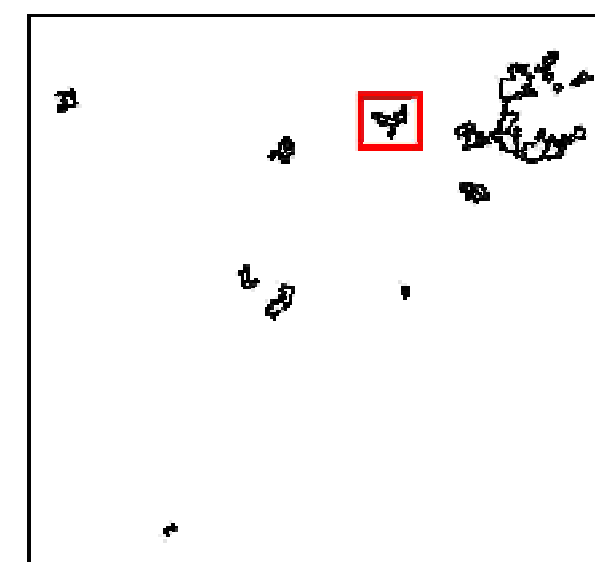
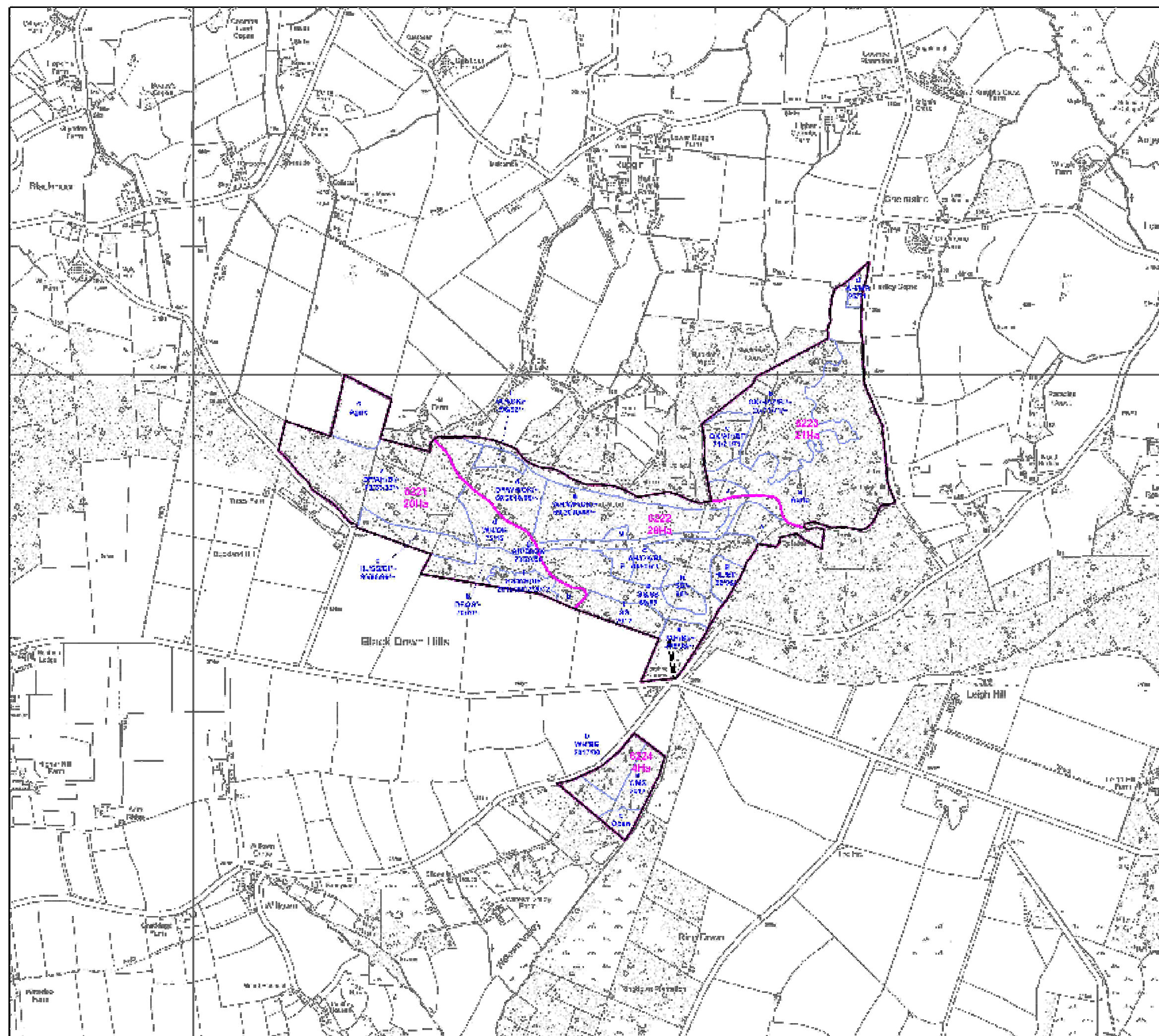


Thurlbear & Bickenhall



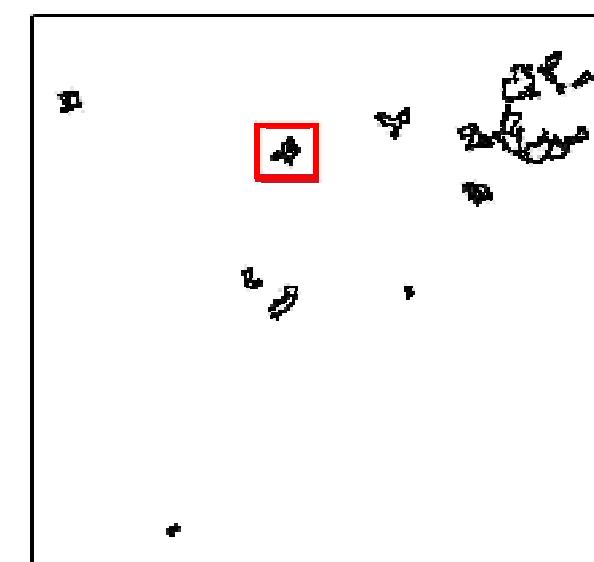
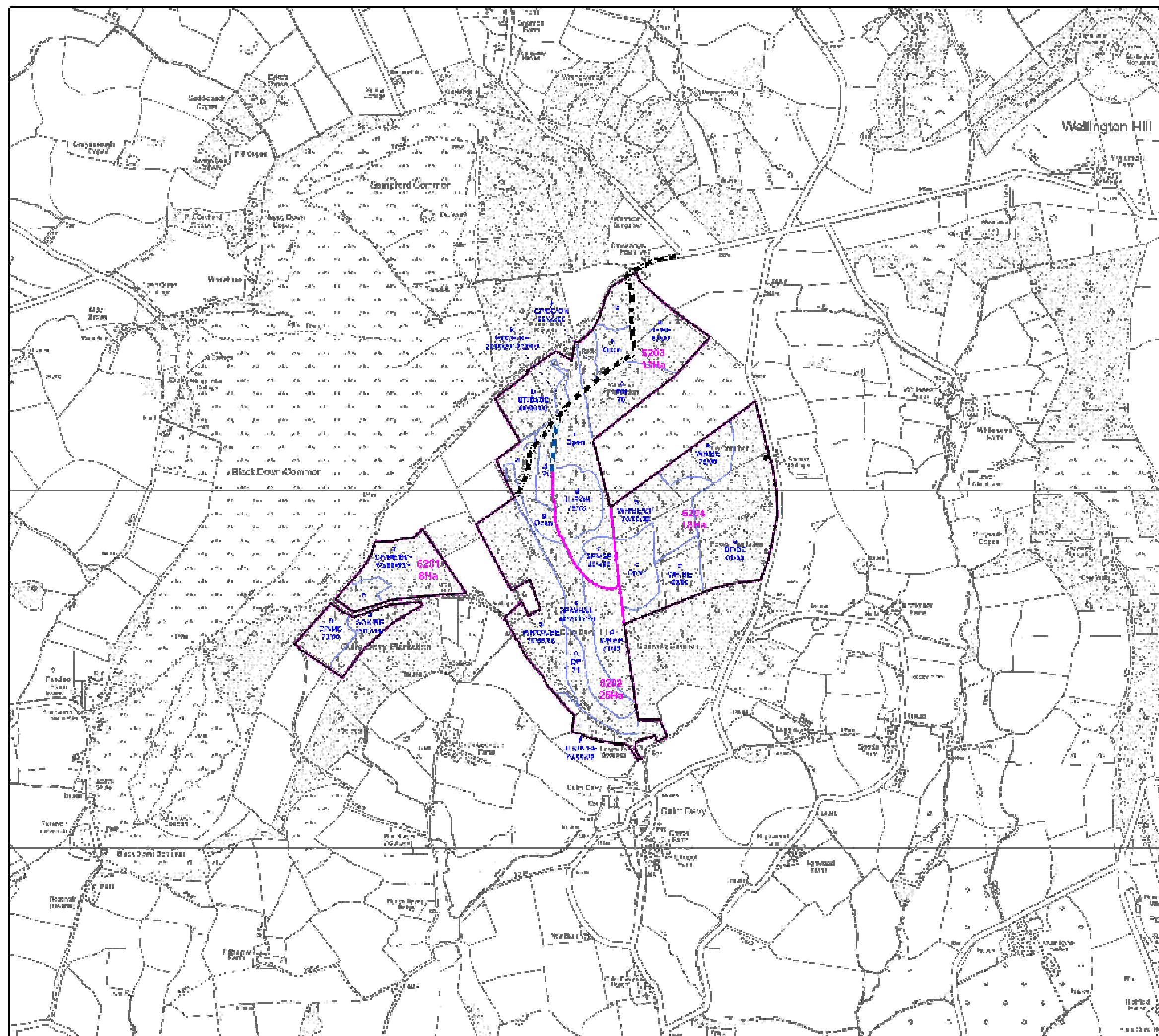


Buckland





Culm Davey

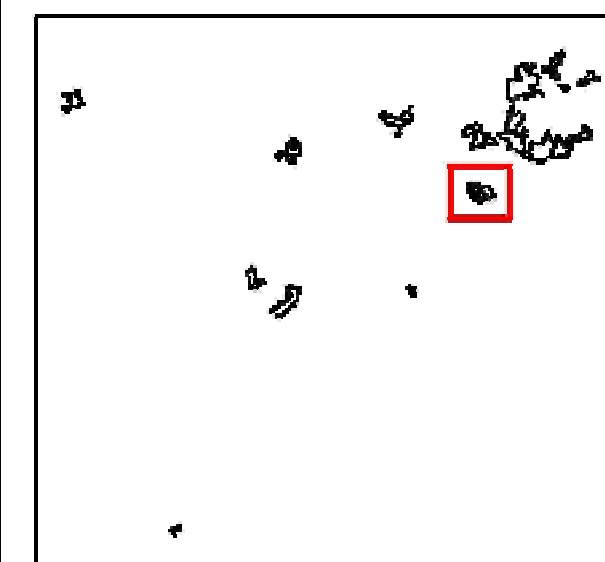
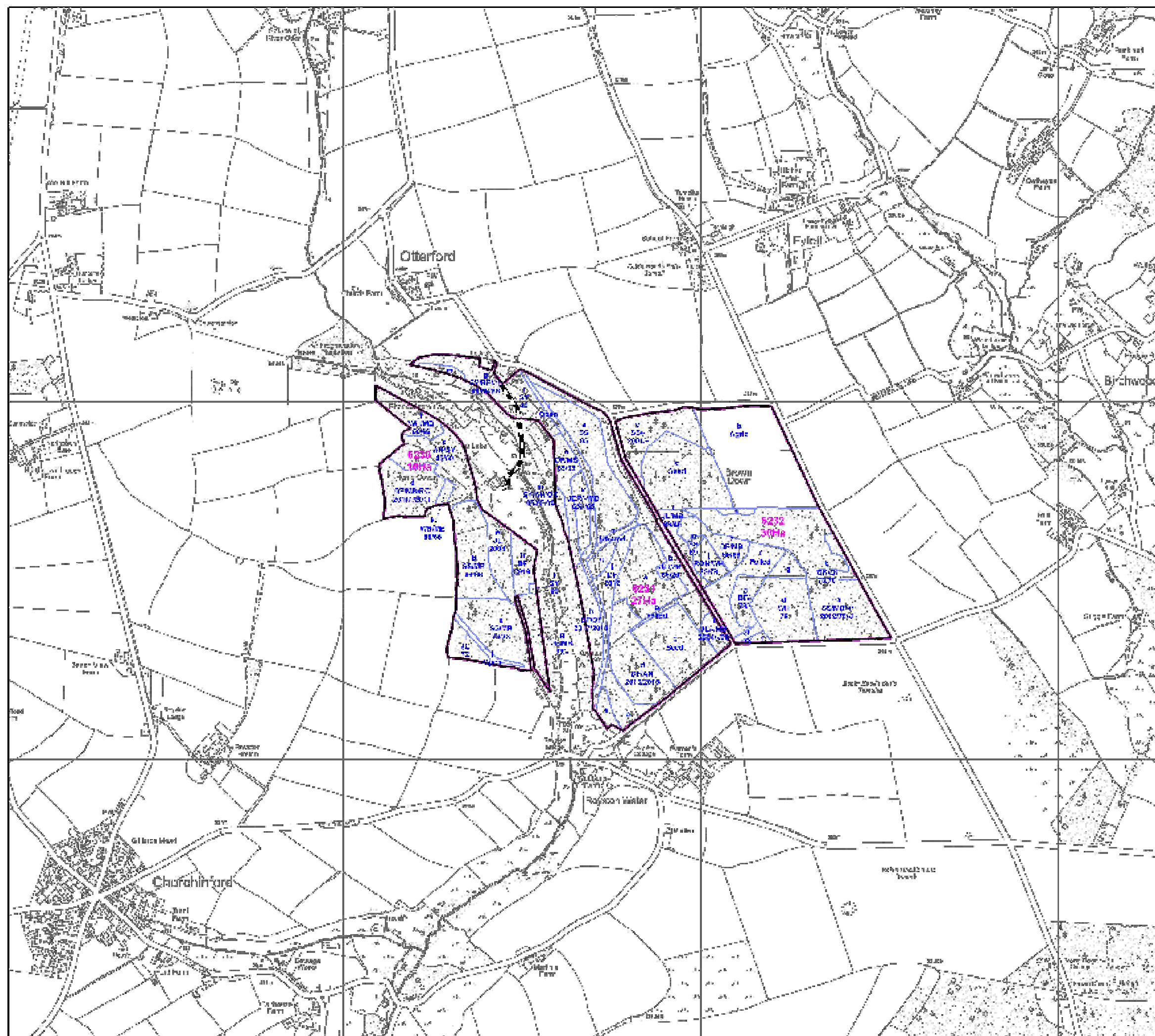






Stock Data 2018

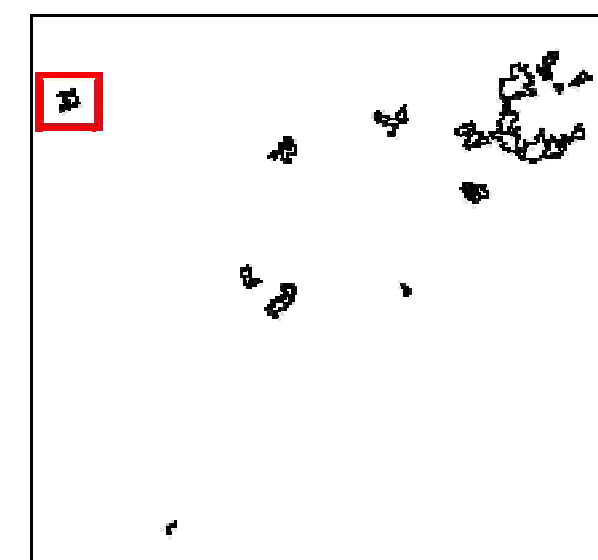
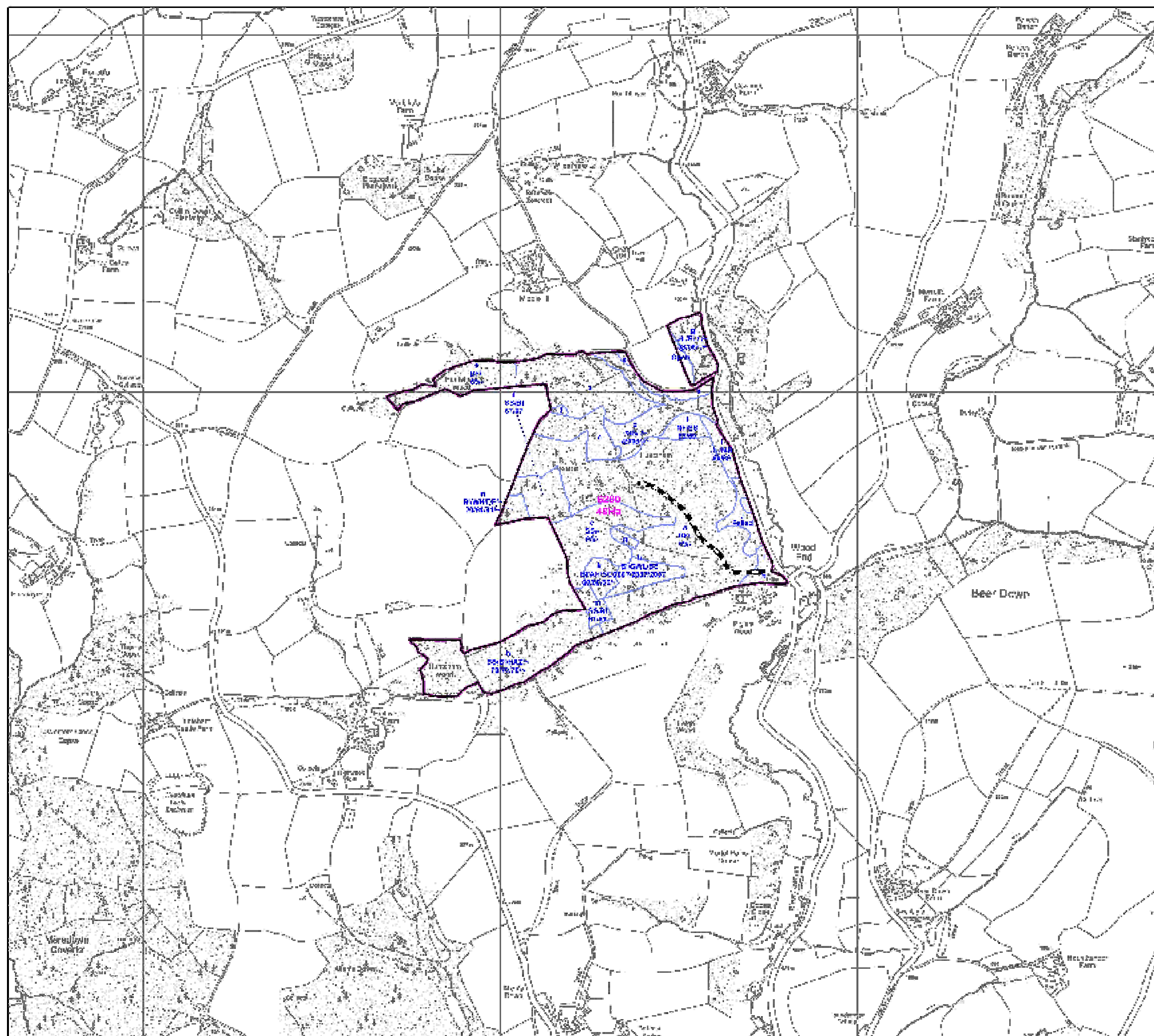
Otterford

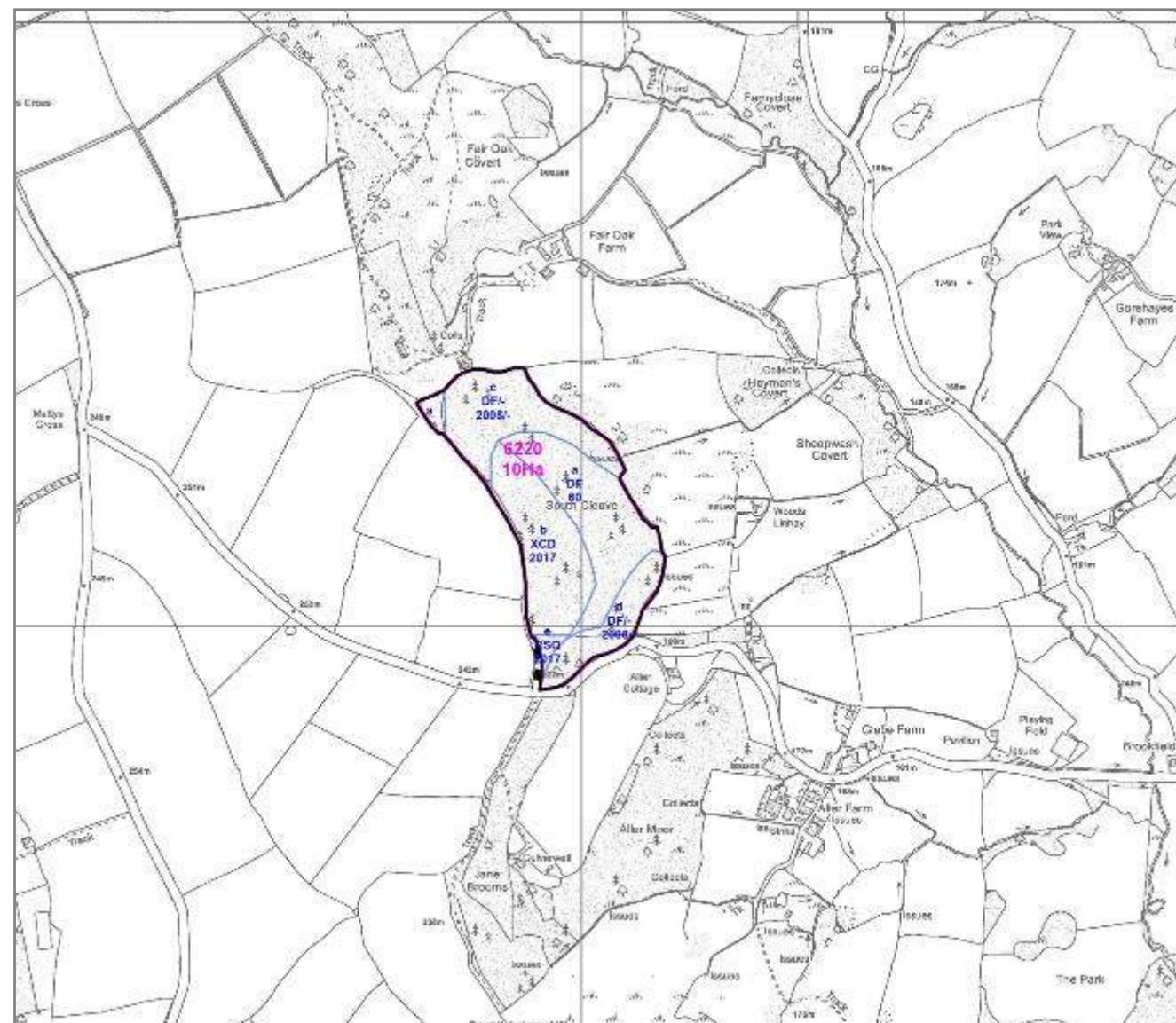




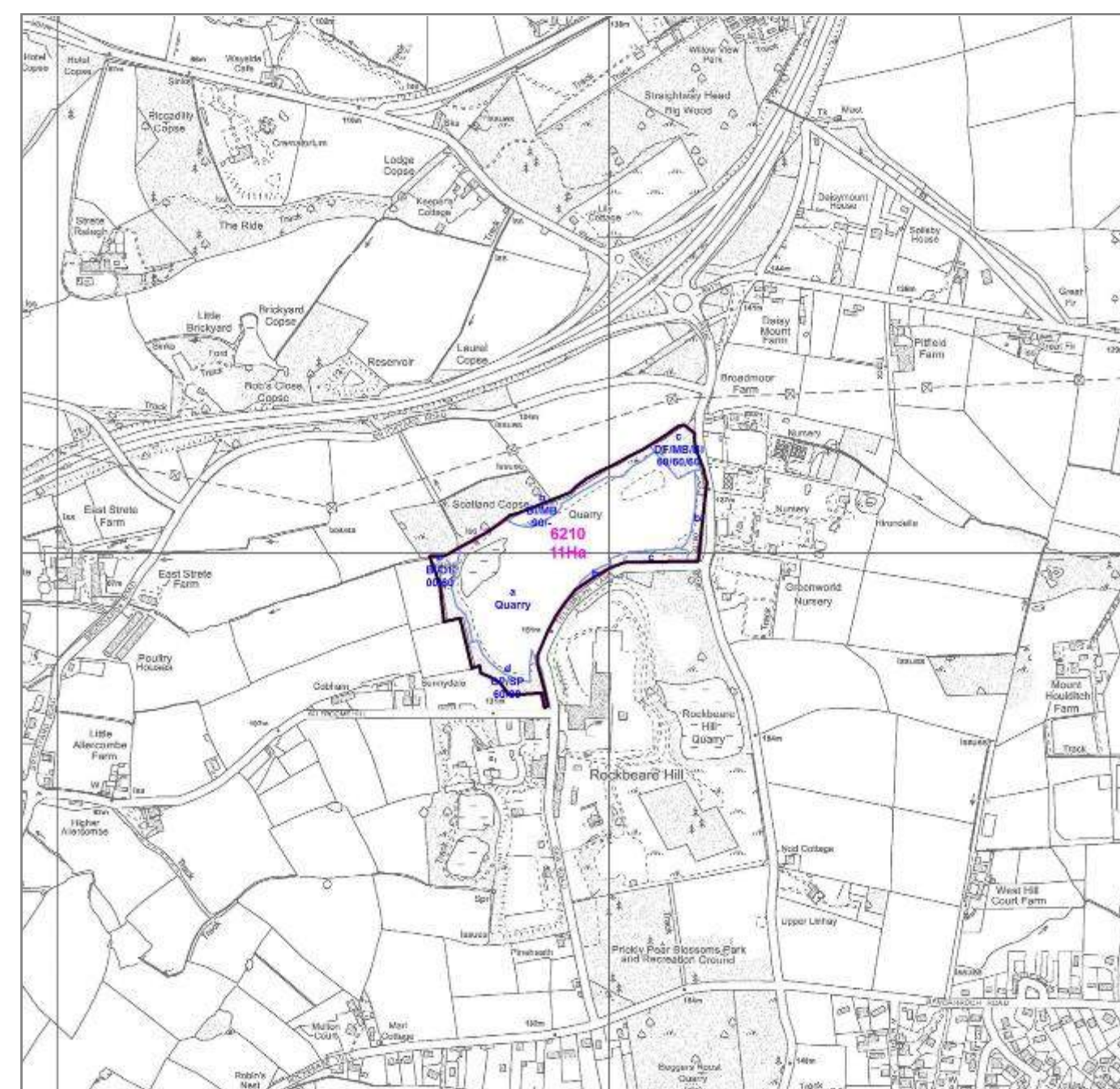
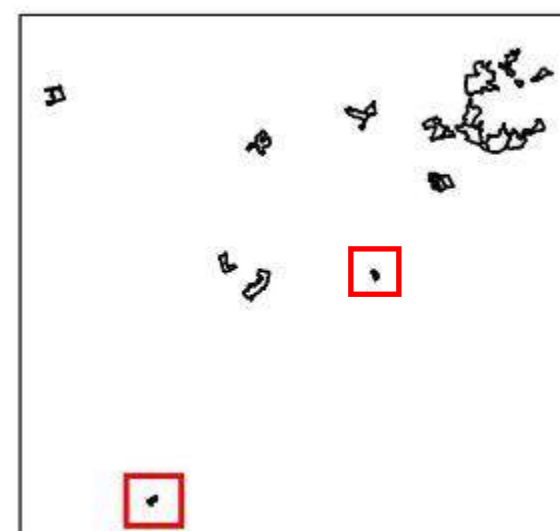
Stock Data 2018

Huntsham





Strete Raleigh





Pests & Diseases

Name: *Dothistroma Needle Blight (DBN)*

First appearance: mid 1990s

Attacks: Pine species

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.

Name: *Phytophthora ramorum (PR)*

First appearance: 2009

Attacks: Larches

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.

Name: *Hymenoscyphus fraxineus*

First appearance: currently N/A

Attacks: Ash

First confirmed in Britain in 2012, Chalara dieback of ash, also known as 'Chalara', ash dieback or Chalara ash dieback, is a disease of ash trees caused by a fungus called *Hymenoscyphus fraxineus*. The disease is now widespread throughout England and poses a threat to areas of the Plan area dominated by Ash, e.g. NVC type W8, particularly within Neroche.

Name: Oak 'dieback' or 'decline'

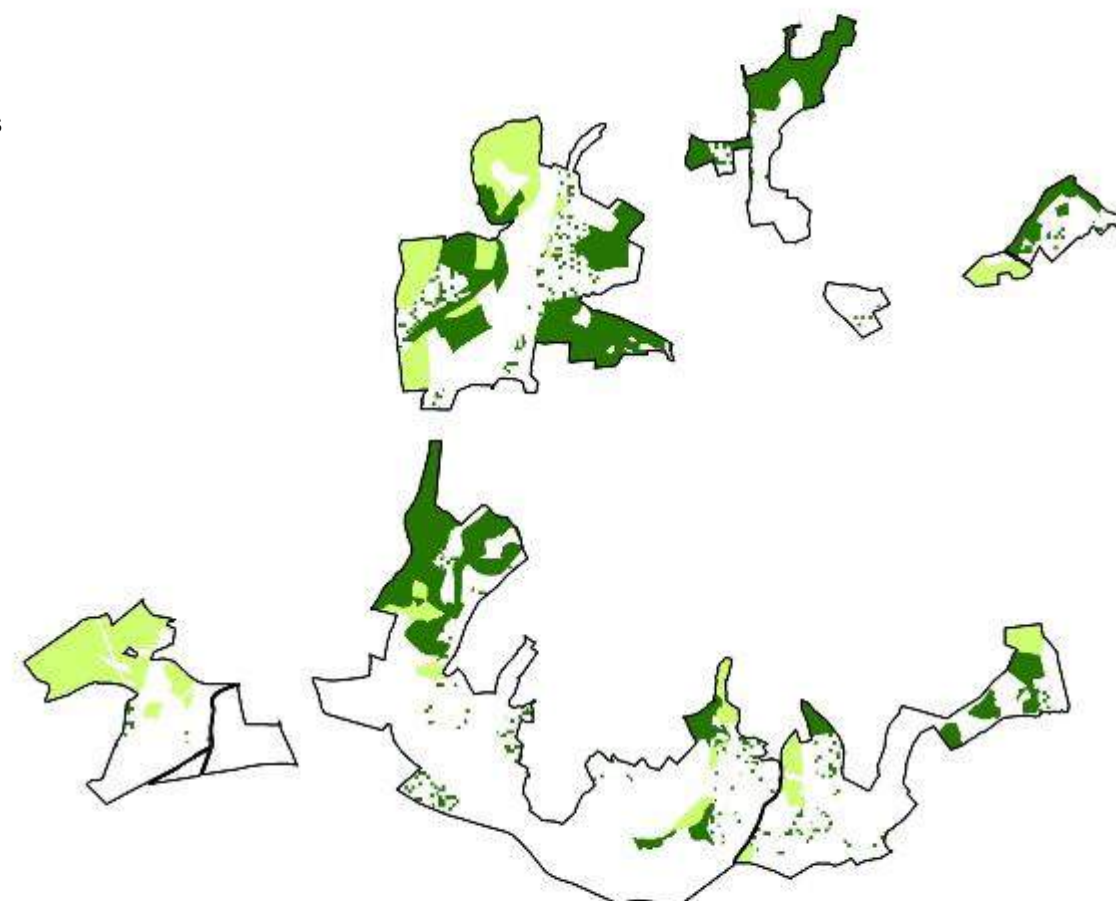
First appearance: unknown

Affects: Oak

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*). This disease poses a significant risk to the Plan area given the proportion of oak found within it, particularly within Neroche. The areas of SSSI designation where native oak woodland are cited will be used as a gauge of the progress of any decline, whilst the rest of the Plan area will be also monitored closely.

Legend

Ash
Oaks



Term	Abbreviation	Description
Ancient Semi-Natural Wood-land	ASNW	An ancient woodland site, 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 Wood-land Site	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 one or more 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.
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 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 fu- ture 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.
Native (and honorary na- tive)		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 Regen- eration	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 ger- minate, 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.

APPENDIX 3

Glossary



Rotation		<p>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.</p> <p>*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.</p> <p>"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.</p>
Shelterwood		<p>A management system that is applicable to conifer or broadleaf, where tree canopy is maintained at one or more levels without the need to clear-fell 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"</p> <p>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.</p>
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.
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	<p>Selective removal of trees from a wooded area, giving remaining trees more space to grow into larger trees. Thinning is done to:</p> <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.



References

Devon County Council, 2008, *CHARACTER ASSESSMENT — BLACKDOWN HILLS SCARP*, Devon CC, Exeter

Devon County Council, 2008, *CHARACTER ASSESSMENT — BLACKDOWN HILLS*, Devon CC, Exeter

Environment Agency, 2011, *River Basin Management Plan, South West River Basin District*, DEFRA, Bristol

Forestry Commission, 2011, *The UK Forestry Standard*, Forestry Commission, Edinburgh

Forestry Commission, 2013a, *West England Forestry District Strategy 2013-2020*, Forestry Commission, Bristol

Forestry Commission, 2013b, *Strategic Plan for the Public Forest Estate in England*, Forestry Commission, Bristol

Humphrey, J. & Bailey, S., 2012, *Managing deadwood in forests and woodlands*, Forestry Commission, Edinburgh


Lucas, O., 2006, *Design and Management of Environmental Corridors*, Peninsula Forest District, Forestry Commission, Exeter

Natural England, 2012, *147 Blackdowns National Character Assessment Profile*, Natural England, York

UKWAS, 2012, *United Kingdom Woodland Assurance Standard*, UKWAS, Edinburgh

1. Agreement and Consent

District West England Forest District
Name of SSSI Ruttersleigh
Compartment Numbers 6249, 6253, 6255, 6259-61
OS Grid reference ST260160
Period of Plan 2018 - 2028

 (J. GILLET)

15/10/2018

 H. G. STANWAY

West England Forest District

Date:

14/5/2018

* Agreement is conditional to a Notice of Proposal being submitted with detail prescription of works

The signing of this plan by Natural England gives the necessary consent under Section 28 (6) of the Wildlife and Countryside Act (1981), as amended, for the management prescriptions detailed in this plan and to be undertaken without necessity to consult prior to each operation during the plan.

FC England will keep a written record of work carried out during the period of this plan.

2. SSSI Notification

County Somerset
Site Name Ruttersleigh
District Taunton Deane
Status Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended
Local Planning Authority Somerset County Council, Taunton Deane Borough Council
National Grid Reference ST260160
Area 97 ha
Ordnance Survey Sheet 1:50,000: 193
 1:10,000: ST 21NW
Date Notified (Under 1981 Act) 1991

The Forestry Commission managed unit of the SSSI is in Unfavourable Recovering condition



3. Potentially Damaging Operations

Ref. No.	Type of Operation
1	Cultivation, including ploughing, rotovating, harrowing, and re-seeding.
2	Grazing and changes in the grazing regime, including type of stock or intensity or seasonal pattern of grazing and cessation of grazing.
3	The introduction of stock feeding and changes in stock feeding practice.
4	The introduction of mowing or other methods of cutting vegetation and changes in the mowing or cutting regime, including cessation.
5	Application of manure, fertilisers and lime.
6	Application of pesticides, including herbicides (weed killers).
7	Dumping, spreading or discharge of any materials.
8	Burning.
9	The release into the site of any wild, feral or domestic animal, plant or seed.
10	The killing or removal of any wild animal*, other than pest control.
11	The destruction, displacement, removal or cutting of any plant or plant remains, including shrub, herb, dead or decaying wood, moss, lichen, fungus, leaf-mould and turf.
12	Changes in tree and/or woodland management including afforestation, planting, clear and selective felling, thinning, coppicing, modification of the stand or underwood, changes in species composition, cessation of management.
13a	Drainage (including use of mole, tile, tunnel or other artificial drains)
13b	Modification of the structure of watercourses (eg. streams), including their banks and beds, as by re-alignment, re-grading or dredging
13c	Management of aquatic and bank vegetation
14	The changing of water levels and tables and water utilisation, including irrigation, storage and abstraction through boreholes.
15	Infilling of ditches, ponds, pools or marshes
16a	The introduction of or subsequent changes in freshwater fishery production and/or management, including sporting fishing and angling.
20	Extraction of minerals, including topsoil and subsoil.
21	Construction, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.
22	Storage of materials
23	Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.
26	Use of vehicles likely to damage or disturb features of interest.
27	Recreational or other activities likely to damage the trees and epiphytic lichens.
28	Introduction of game management and changes in game management and hunting practice.



4. Important Evaluation Criteria

Diversity

A majority of the unit is designated for the types of grassland identified and a significant proportion of the SSSI is woodland supporting W7, W8 and W10 woodland NVC types. These habitats are not compartmentalised through the site despite being split into 10 units, with numerous units identified as containing multiple habitats.

The lichen assemblages are linked very strongly with ancient trees, mostly pollards, that indicate a previously open woodland landscape where trees were not frequent enough to shade out the grassland elements but were commonplace enough to create woodland conditions in some locations.

The Wood White is spread across the units as a unifying theme. This acts as an indicator species for the health of several other rare butterfly species. This is a butterfly of woodland glades.

Naturalness

Intervention in the landscape has seen two dramatic changes, one when the landscape was coniferised in the 1940's and 50's, and then deforested as a result of the partnership Neroche Project in the early 2000's. At the time of writing the landscape is settling down after the changes and much of the landscape is now grazed by Exmoor ponies and Longhorn cattle. The natural flora and fauna identified in the citation is able to reassert itself however scrub and bramble are becoming a significant threat to the designed open landscape. Some conifers remain and are seeding, which is potentially problematic if too great in number.

Rarity

The lichens were surveyed in 2007 and a report identified lichens of international importance.

The Wood White is a butterfly in rapid decline and Butterfly Conservation state it is important to protect the strongholds where viable populations still exist. However in recent years numbers of the butterfly have also been heavily reduced with the last recorded sighting made in a survey in 2014, even as the conservation works have followed best practise.

The ancient trees are of great interest in themselves and for the lichens they support.

Four separate types of NVC mire grassland are listed:

- MG5 Neutral grassland *Cynosurus cristatus* – *Centaurea nigra* (area 2.1ha)
- M23 Neutral rush pasture *Juncus effusus/acutiflorus* – *Galium palustre* (0.8ha)
- M24c Marshy grassland *Molinia caerulea* – *Cirsium dissectum* (1.2ha)
- M29 Soakway *Hypericum elodes* – *Potamogeton polygonifolius* (<0.1ha)

5. Factors Influencing Management

Difficult access

Although access to the site is possible at certain drier times of the year the topography of the site makes it difficult to manage. Soil is prone to waterlogging and many springline mires feed streams throughout the site. One of the main access routes has been prone to landslips which are difficult and expensive to remedy, this can cut off large areas of the site from vehicular access.

Progression to scrub

In many of the habitats there is a requirement of grazing or mowing to prevent the invasion of scrub and rank vegetation. This is usually summarised in the management plans as 'lack of grazing'. At the time of writing a herd of English Longhorn cattle and some supplementary Exmoor ponies are used to provide rough grazing.

6. Conservation Objectives and Management Aims

The aim is to maintain the habitats currently in unfavourable recovering condition and carry out any necessary management practices as suggested by Natural England to move the SSSI toward favourable condition. The condition status of the SSSI is monitored by Natural England at regular intervals conforming to the reporting cycle for SSSI.

The aim of the Forestry Commission will be to provide an overview of the different organisations working toward an improving SSSI, if necessary to provide a coordinating role ensuring best use of resources and that the people involved continue to communicate.

The general principle is to let natural processes continue to develop and to manually aid the gradual creation of sustainable open space in mosaic with semi-natural woodland.

7. Agreed Habitat Management

To be conducted directly by the Forestry Commission

Management Prescriptions for the period 2018 - 2028		1	2	3	4	5	6	7	8	9	10
1	Survey and GPS location of veteran trees	♦									
2	Halo thin trees casting heaviest shade on Veteran trees to benefit lichen communities	♦	♦	♦							
3	Thin non-native stands toward predominantly native composition		♦		♦		♦		♦		♦
4	Cut scrub mechanically to keep grassland open			♦			♦			♦	
5	Undertake survey for Wood White and habitat throughout the SSSI	♦									

To be conducted directly by other organisations

Scrub control through grazing and mechanical cutting will be undertaken by external bodies. This will be aided through HLS until 2022.

Actions in support of other organisations

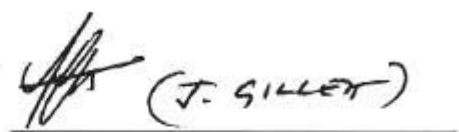
The FC will commit to actively support other land managers across the SSSI. They will freely offer and share their knowledge, skills, contacts and experience and wherever possible equipment, resources, staff time and budgetary contribution.

8. Record of SSSI Management

[illegible]

1. Agreement and Consent

District West England Forest District
Name of SSSI Quants
Compartment Numbers 6222 and 6223
OS Grid reference ST187178
Period of Plan 2018 - 2028


 (J. GILLER)

15/10/2018


 H. G. STANBURY

West England Forest District

Date:

14/5/2018

* Agreement is conditional to a Notice of Proposal being submitted with detail prescription of works

The signing of this plan by Natural England gives the necessary consent under Section 28 (6) of the Wildlife and Countryside Act (1981), as amended, for the management prescriptions detailed in this plan and to be undertaken without necessity to consult prior to each operation during the plan.

FC England will keep a written record of work carried out during the period of this plan.

2. SSSI Notification

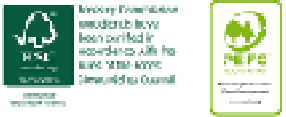
County Somerset
Site Name Quants
District Taunton Deane
Status Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended
Local Planning Authority Somerset County Council, Taunton Deane Borough Council
National Grid Reference ST187178
Area 20 ha
Ordnance Survey Sheet 1:50,000: 193
 1:10,000: ST 11NE
Date Notified (Under 1981 Act) 1991

The Forestry Commission managed unit of the SSSI is in Unfavourable Recovering condition



3. Potentially Damaging Operations

Ref. No.	Type of Operation
1	Cultivation, including ploughing, rotovating, harrowing, and re-seeding.
2	Grazing and changes in the grazing regime, including type of stock or intensity or seasonal pattern of grazing and cessation of grazing.
3	The introduction of stock feeding and changes in stock feeding practice.
4	The introduction of mowing or other methods of cutting vegetation and changes in the mowing or cutting regime, including cessation.
5	Application of manure, fertilisers and lime.
6	Application of pesticides, including herbicides (weed killers).
7	Dumping, spreading or discharge of any materials.
8	Burning.
9	The release into the site of any wild, feral or domestic animal, plant or seed.
10	The killing or removal of any wild animal*, other than pest control.
11	The destruction, displacement, removal or cutting of any plant or plant remains, including shrub, herb, dead or decaying wood, moss, lichen, fungus, leaf-mould and turf.
12	Changes in tree and/or woodland management including afforestation, planting, clear and selective felling, thinning, coppicing, modification of the stand or underwood, changes in species composition, cessation of management.
13a	Drainage (including use of mole, tile, tunnel or other artificial drains)
13b	Modification of the structure of watercourses (eg. streams), including their banks and beds, as by re-alignment, re-grading or dredging
13c	Management of aquatic and bank vegetation
14	The changing of water levels and tables and water utilisation, including irrigation, storage and abstraction through boreholes.
15	Infilling of ditches, ponds, pools or marshes
16a	The introduction of or subsequent changes in freshwater fishery production and/or management, including sporting fishing and angling.
20	Extraction of minerals, including topsoil and subsoil.
21	Construction, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.
22	Storage of materials
23	Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.
26	Use of vehicles likely to damage or disturb features of interest.
27	Recreational or other activities likely to damage the trees and epiphytic lichens.
28	Introduction of game management and changes in game management and hunting practice.



4. Important Evaluation Criteria

Butterfly meadows and rides

Unimproved calcareous and neutral grassland of, the False Oat-grass - Wild Parsnip type, with False Oat-grass, Devil's-bit Scabious, Cowslip, Hairy Violet, Common Bird's-foot-trefoil. Rarer plants include Bee Orchid, with Marsh Helleborine and Greater Butterfly-orchid under shady margins. There are frequent old anthills supporting a contrasting flora, and one area has a more acid flora including Heather.

This vegetation supports a diverse breeding butterfly and moth fauna including Duke of Burgundy, Dingy Skipper, Grizzled Skipper, Green Hairstreak and Narrow-bordered Bee Hawkmoth. Marsh Fritillary has maintained a small but significant population on the site for many years, and led to the SAC designation, but the species has declined sharply and the current status is unclear. Wood White was present until 2005. Other species present include Silver-washed Fritillary (nectaring).

Restored open space

From being bare of all vegetation following conifer harvesting in 2006, these areas developed a moderately diverse vegetation within four years. The sward is a tussocky covering of Soft Rush and Yorkshire Fog with Bramble patches, scattered with remaining conifer tree stumps, and a flora including Greater Birdsfoot-trefoil, Common Centaury, Meadowsweet, Sharp-flowered Rush, Cowslip and Fleabane. Willow, Birch and Alder scrub remains an aggressive component, and in some areas European Gorse is abundant. Mature ash and oak are scattered throughout, sometimes dense enough to form wood pasture.

Ancient semi-natural and PAWS woodland

The woodland is dominated by Ash with some Pedunculate Oak, with a few remnant 1971 plantings of Douglas Fir and Western Hemlock, with wetter areas of Goat Willow and groups of large Aspen. There is a large Black Poplar on the edge of the southern bridleway. The understorey is mostly Hazel with Field Maple, Hawthorn, Holly, Dogwood, Blackthorn and Rowan. Wild Service Tree occurs rarely. The ground flora is dominated in parts by Pendulous Sedge with drier areas carrying Bluebell and Dog's Mercury.

Hartley Field

This discrete field contains unimproved neutral grassland of the Crested Dog's tail - Common Knapweed type, with Yorkshire Fog, Sweet Vernal-grass, Meadow Vetchling, Common Bird's-foot Trefoil, Devil's-bit Scabious, Meadowsweet and Cowslip

5. Factors Influencing Management

Progression to scrub

In many of the habitats there is a requirement of grazing or mowing to prevent the invasion of scrub and rank vegetation. This is usually summarised in the management plans as 'lack of grazing'. At the time of writing a herd of English Longhorn cattle and some supplementary Exmoor ponies are used to provide rough grazing. The wooded and scrub component of the site is very important for the extensive edge habitat it provides, giving sheltered microclimates and variable structure for protection, nesting, roosting and hibernation. The challenge is to maintain a sensible balance between scrub and open space.

6. Conservation Objectives and Management Aims

The aim is to maintain the habitats currently in unfavourable recovering condition and carry out any necessary management practices as suggested by Natural England to move the SSSI toward favourable condition. The condition status of the SSSI is monitored by Natural England at regular intervals conforming to the reporting cycle for SSSI.

The aim of the Forestry Commission will be to provide an overview of the different organisations working toward an improving SSSI, if necessary to provide a coordinating role ensuring best use of resources and that the people involved continue to communicate. Within this overall objective, to seek to maintain the suitability of the site for specific threatened species, notably Marsh Fritillary, plus Duke of Burgundy, Dingy and Grizzled Skipper, Narrow-bordered Bee-hawkmoth.

The general principle is to let natural processes continue to develop and to manually aid the gradual creation of sustainable open space in mosaic with semi-natural woodland.

7. Agreed Habitat Management

To be conducted directly by the Forestry Commission

Management Prescriptions for the period 2018 - 2028		1	2	3	4	5	6	7	8	9	10
1	Survey and GPS location of veteran trees	◆									
2	Halo thin trees casting heaviest shade on Veteran trees to benefit lichen communities		◆				◆				◆
3	Thin out or deaden all non-native specimens		◆				◆				

To be conducted directly by other organisations


Scrub control through grazing and mechanical cutting will be undertaken by external bodies. This will be aided through HLS until 2022.

Actions in support of other organisations


The FC will commit to actively support other land managers across the SSSI. They will freely offer and share their knowledge, skills, contacts and experience and wherever possible equipment, resources, staff time and budgetary contribution.

1. Agreement and Consent

District West England Forest District
Name of SSSI Prior's Park and Adcombe Wood
Compartment Numbers 6240 and 6241
OS Grid reference ST225170
Period of Plan 2018 - 2028

 (J. GILLER)

15/10/2018

 H. G. STANBURY

West England Forest District

Date:

14/5/2018

* Agreement is conditional to a Notice of Proposal being submitted with detail prescription of works

The signing of this plan by Natural England gives the necessary consent under Section 28 (6) of the Wildlife and Countryside Act (1981), as amended, for the management prescriptions detailed in this plan and to be undertaken without necessity to consult prior to each operation during the plan.

FC England will keep a written record of work carried out during the period of this plan.

2. SSSI Notification

County Somerset
Site Name Prior's Park and Adcombe Wood
District Taunton Deane
Status Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended
Local Planning Authority Somerset County Council, Taunton Deane Borough Council
National Grid Reference ST225170
Area 103.6 ha
Ordnance Survey Sheet 1:50,000: 193
 1:10,000: ST 21NW
Date Notified (Under 1981 Act) 1985

Unit 3, managed by Forestry Commission England is currently in Unfavourable Recovering condition.



3. Potentially Damaging Operations

Ref. No.	Type of Operation
1	Cultivation, including ploughing, rotovating, harrowing, and re-seeding.
2	Grazing and changes in the grazing regime, including type of stock or intensity or seasonal pattern of grazing and cessation of grazing.
3	The introduction of stock feeding and changes in stock feeding practice.
4	The introduction of mowing or other methods of cutting vegetation and changes in the mowing or cutting regime, including cessation.
5	Application of manure, fertilisers and lime.
6	Application of pesticides, including herbicides (weed killers).
7	Dumping, spreading or discharge of any materials.
8	Burning.
9	The release into the site of any wild, feral or domestic animal, plant or seed.
10	The killing or removal of any wild animal*, other than pest control.
11	The destruction, displacement, removal or cutting of any plant or plant remains, including shrub, herb, dead or decaying wood, moss, lichen, fungus, leaf-mould and turf.
12	Changes in tree and/or woodland management including afforestation, planting, clear and selective felling, thinning, coppicing, modification of the stand or underwood, changes in species composition, cessation of management.
13a	Drainage (including use of mole, tile, tunnel or other artificial drains)
13b	Modification of the structure of watercourses (eg. streams), including their banks and beds, as by re-alignment, re-grading or dredging
13c	Management of aquatic and bank vegetation
14	The changing of water levels and tables and water utilisation, including irrigation, storage and abstraction through boreholes.
15	Infilling of ditches, ponds, pools or marshes
16a	The introduction of or subsequent changes in freshwater fishery production and/or management, including sporting fishing and angling.
20	Extraction of minerals, including topsoil and subsoil.
21	Construction, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.
22	Storage of materials
23	Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.
26	Use of vehicles likely to damage or disturb features of interest.
27	Recreational or other activities likely to damage the trees and epiphytic lichens.
28	Introduction of game management and changes in game management and hunting practice.



8. Record of SSSI Management

[illegible]