

Quantock Forest Plan

2016 - 2026

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: OP10/60
(Old PE42, 43, 44 & 45)

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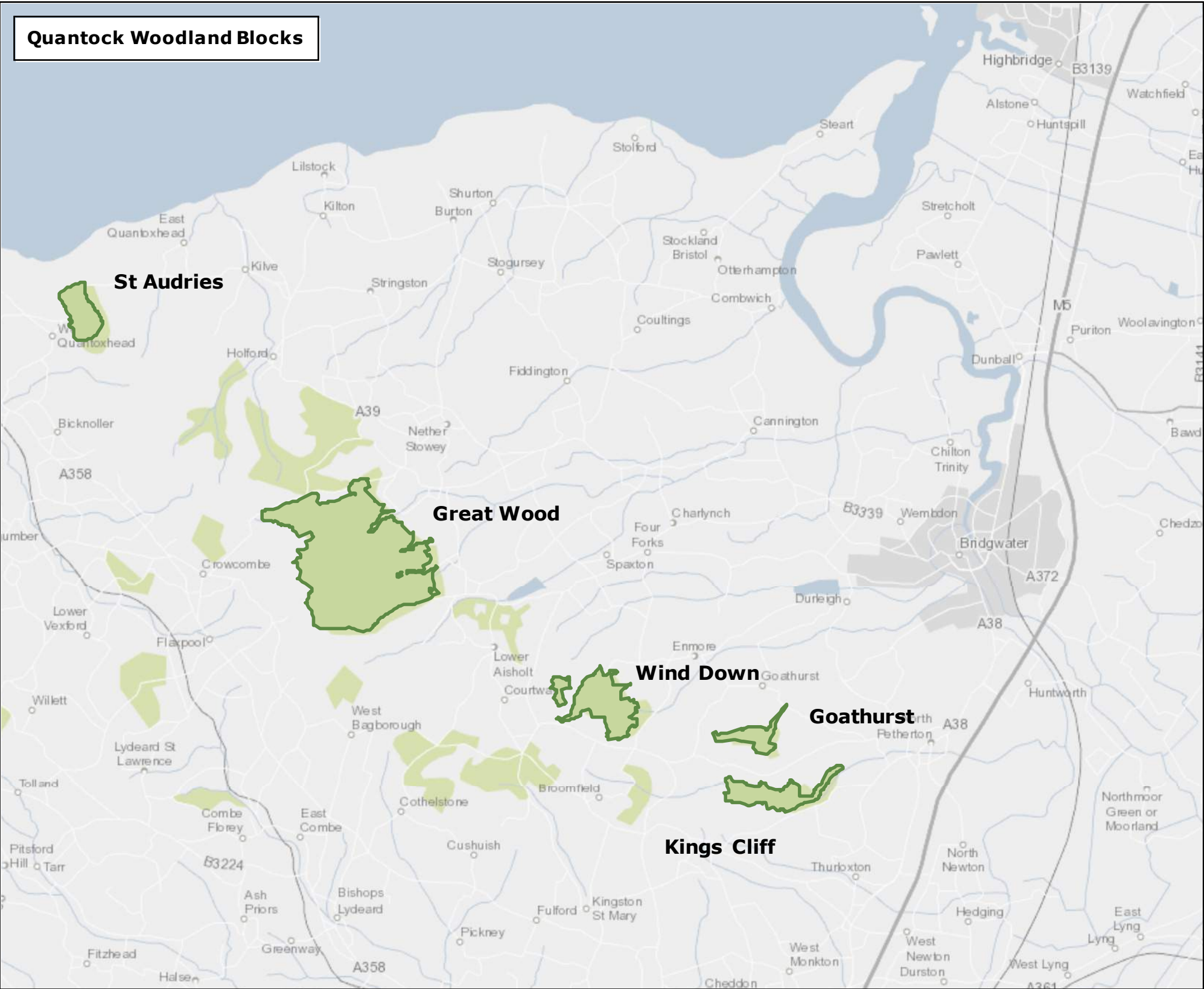
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Introduction

The Quantock Forest Plan area is made up of 5 individual woodland blocks totalling 943 hectares (ha) in the county of Somerset. They stretch from **St Audries** in the north, half a mile from the Bristol Channel to **Goathurst** and **Kings Cliff** in the south which are 3 miles from Bridgwater and the M5 motorway.

St Audries	63 ha
Great Wood	629 ha
Wind Down	126 ha
Goathurst	42 ha
Kings Cliff	82 ha

The majority of the Plan area lies within and make up 8.8% of the Quantock Hills Area of Outstanding Natural Beauty (AONB). The woodlands are prominent and valuable features within a predominantly lowland heath landscape setting.

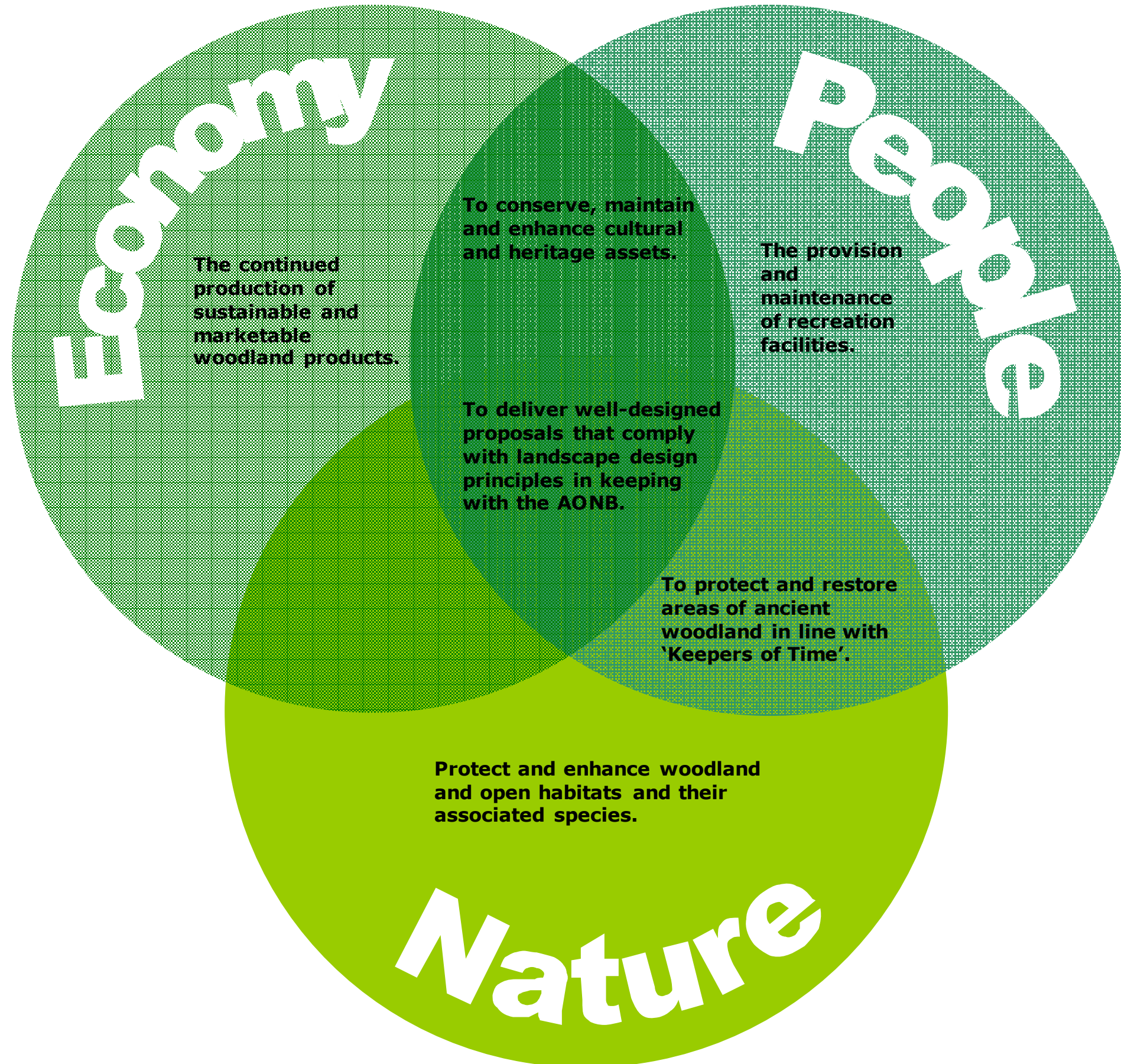
The current major conifer components are quality Douglas fir (357ha) and Sitka spruce (138ha), with beech (67ha) and oak (31ha) making up a significant part of the broadleaf element. 93ha (10%) of the Plan area is made up of open space. A significant proportion (599ha or 63%) of the Plan area is designated as Ancient Woodland Sites (AWS), with 533ha as Plantations on Ancient Woodland Sites (PAWS) and 66ha as Ancient Semi-Natural Woodland (ANSW).

There is high level yet low intensity recreational usage of the woodlands, prominently focused around **Great Wood**. With campsites, picnic facilities and informal but renowned mountain biking the robust nature of the woodland allows it to play host to multiple organised events and individual visitor experiences.

As individual woodlands sitting within a mixture of lowland heath common and farmland the woodlands offer an exceptionally high biodiversity value. The woodlands support a wide variety of biodiversity, notably nightjar, raptor, badger and bats.

The Plan area contains three Scheduled Monuments two of which are currently recorded on the Historic England 'At Risk' Register. The Halswell Registered Park and Garden (Grade II) is also designated for its cultural significance and also 'At Risk'.

This document will outline the plans and prescriptions for these woodlands for the next 10 years in the context of a wider future vision for the Plan area.



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.



The mark of
responsible forestry

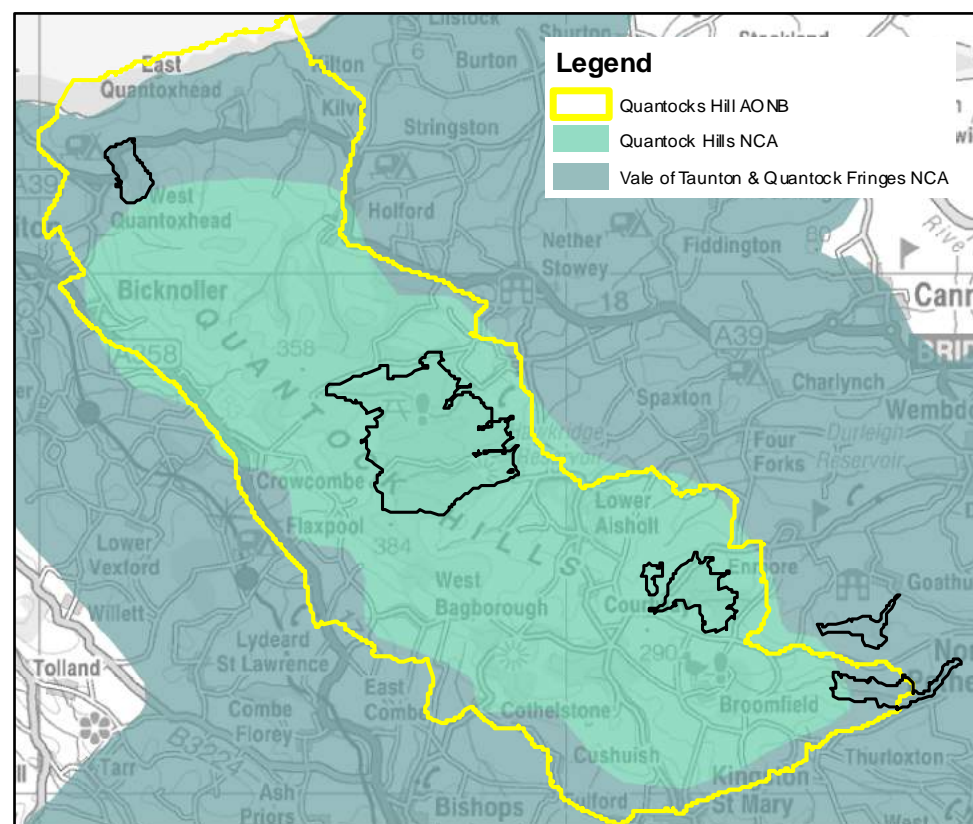
Forestry Commission
woodlands have
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accordance with the
rules of the Forest
Stewardship Council.



Promoting Sustainable
Forest Management
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Objective	Meeting Objective	Monitoring
The continued production of sustainable and marketable woodland products.	<ul style="list-style-type: none"> The majority of the woodland will remain productive through thinning yield. Some clearfell timber production, majority from the conifers 	<ul style="list-style-type: none"> Five year production forecast and at the Forest Plan (FP) five-year review. This process is audited as part of the FSC forest certification process. Annual pre-thinning survey. Production forecast comparison with actual output to assess accuracy of forecast.
To conserve, maintain and enhance cultural and heritage assets	<ul style="list-style-type: none"> Manage to relevant SM management plans during the planning of operations. Liaise with Somerset Archaeology Service and /or Historic England prior to commencement of works. 	<ul style="list-style-type: none"> Operational site planning of harvesting and restocking operations will help monitor the effect of management. 'At Risk' Scheduled Monuments and Registered Park and Garden moving towards stable condition reviewed at the time of Forest Plan review
The provision and maintenance of recreation facilities.	<ul style="list-style-type: none"> Management of facilities points during be monitored and maintained at by the Beat team. Visitor numbers maintained at Great Wood 	<ul style="list-style-type: none"> Beat team will monitor usage and ensure the up keep of the signage. Visitor counts reviewed at the time of Forest Plan review
To protect and restore areas of ancient woodland in line with 'Keepers of Time'.	<ul style="list-style-type: none"> Targeted felling of conifer crops and suppression of non-native regeneration to aid natural native regeneration and native species replanting 	<ul style="list-style-type: none"> Analysis and comparison of SCDB 'naturalness' scores through the Forest Plan review process.
Protect and enhance woodland and open habitats and their associated species.	<ul style="list-style-type: none"> Felling together with a delayed restock program will continue to diversify stand and age structure. Operational site planning should highlight opportunities where conservation benefits can be delivered. Appropriate reinstatement works will be carried out once operations have been concluded. Creation of >10% transitory and permanent open space 	<ul style="list-style-type: none"> Monitored via Review process, through local records and updated sightings. Analysis and comparison of SCDB open space 10% through the Forest Plan review process. Operational site planning of harvesting and restocking operations will help monitor the effect of management
To deliver well-designed proposals that comply with landscape design principles in keeping with the AONB.	<ul style="list-style-type: none"> Implementation of proposals will soften and better integrate the woodland with the surrounding landscape 	<ul style="list-style-type: none"> Fixed point photography analysis at Forest Plan review stage

Landscape Character



The majority of the Plan area lies within the **Quantock Hills AONB**, the specific qualities, which are identified below (Quantock Hills AONB, 2014), can be directly delivered and enhanced by the proposals of this Plan:

- Upland oak-woods to the north-east AONB that include deep stream-cut combes that climb towards small flower-rich bogs in the extensive high heathland common of gorse, heather, bilberry, bracken and thorn.
- The Quantocks comprise one of the few remaining moorland landscapes in southern Britain of national importance for the legible survival of monuments these include defended Iron Age enclosures such as Ruborough Camp.
- Distinctive beech hedgebanks separating the upland commons from surrounding conifer plantations and historic parkland.
- Populations of nightjar over 1% of the total UK population
- The Ash-hazel woodland mix more common in the southern hills allows good light levels at the woodland floor leading to a healthy ground flora in some cases including extensive bluebell cover
- The Quantock Hills AONB offers extensive opportunities for quiet outdoor recreation the area has 3,000 hectares of public Access Land and approximately 250 kilometres (150 miles) of rights of way.
- The Quantock Hills are a living, working landscape with a distinct cultural heritage and varied village communities.

The Plan area sits within the **Quantock Hills** and **Vale of Taunton and Quantock Fringes National Character Areas (NCA)** (Natural England, 2013). The proposals made in this Plan are in keeping with the characteristics of these areas and look to enhance the landscape character where appropriate.

NCA 144 - Quantock Hills

- The Quantock Hills tops provide important habitats of sessile oak woodland with a wealth of lichens and bryophytes; and lowland heath, which includes heather, whortleberry, bell heather, western gorse and cross-leaved heath. A high heathland ridge below which much of the dip slope, and particularly the valleys and combes, are cloaked in woodland, which in turn is surrounded by a mantle of rural agricultural land.

- A well-wooded landscape with large areas of ancient woodland and coniferous forestry plantation. Beech hedgebanks bound the rectangular fields around the edge of the open plateau and on the lower agricultural land in the south. Mixed hedgerows are used elsewhere to enclose smaller, irregular fields.



- Iconic species for the area include red deer and buzzards. The NCAs also provide habitats for rarer species such as Bechstein's bat, pied flycatcher, Dartford warbler, and nightjar.
- Bronze-age burial mounds, iron-age hill forts, standing stones, medieval manor houses and industrial heritage contribute to a strong historic environment.
- The Quantock Hills are a popular destination for day-trippers from around the region. The upland areas are most popular for visitors who enjoy the natural and historic landscape, the views and heritage assets of the NCA.

NCA 146 - Vale of Taunton and Quantock Fringes

- A number of tree-lined streams and rivers wind through the area. The River Tone and its tributaries drain the area to the south, while in the north Doniford Stream, fed by tributaries arising from the Quantocks and Brendon Hills, drains into the sea at Watchet. To the east many streams drain off the Quantock dip slopes and flow into the River Parrett. The Bridgwater and Taunton Canal runs across the south of the area.

- Woodland cover is generally low, at 6 per cent, although the area has a wooded feel as there are many hedgerow trees (such as oak), orchards, remnants of parkland, small woodlands with ash and oak and bankside trees such as alder and, rarely, black poplar.

- Scattered patches of floristically rich lowland meadow and limestone grasslands characterised by lesser knapweed, field scabious, milkwort and thyme; coastal and flood plain grazing marsh; intertidal sand and mudflats; parkland; maritime cliff and slope; and small patches of heath, fen and marsh.

- Sweeping views from the coast across the bay to Wales; to Hinkley Point power station in the east; and to Minehead in the west. Exmoor, the Blackdown Hills and the Quantock Hills provide a backdrop to the area and expansive views from these uplands emphasise the lush pastoral nature of this area.



Analysis: Western edge forms a fine backdrop to the village of West Quantoxhead. Conifer dominated crops currently cover this steep slope with beech and oak riparian zones found towards the more northerly end.

Concept: A mixture of staged clearfells and shelterwood system will create an operationally achievable management regime whilst retaining the high landscape value.

Photo 1



Analysis: The linear powerline and its wayleave are prominent features of the skyline and are particularly visible from the west and the Brendon Hills.

Concept: Open space creation and diversification of the forest structure through thinning and shelterwood systems will minimise the impact of this hard feature.

Analysis: An iron boundary fence remains as a feature of the old Deerpark, which encloses much of the southern, eastern and western woodland boundary.

Concept: This feature will be retained and maintained, clear of scrub, to preserve its visual and cultural significance for perpetuity.

Photo 2



Analysis: The woodland border the St Audries House, Registered Park and Garden, Grade II.

Concept: Consideration will be made of this designation so that proposals for the woodland, compliment the neighbouring heritage landscape.

Analysis: Douglas fir crops, planted in 1980, have suffered from lack of active management in the past this is now in the process of being rectified.

Concept: Crops will continue to be cleaned and respaced to bring on crop to full economic maturity in order to maximise productive capacity.

St Audries - Analysis & Concept

St Audries woodland (also known as 'Deerpark') lies at the extreme north end of the AONB, 800m from the Bristol Channel. The majority of the woodland has a north-western aspect with slope rising dramatically towards the south-eastern corner where it reaches an altitude of around 270m. The woodland is therefore quite exposed and experiences some strong coastal breezes and salt exposure as well as being prominent on the landscape, particularly from southern and western aspects.

Historically the area formed part of the Quantoxhead Estate and was planted in the late 18th Century and by 1911 supported 120 fallow and 25 red deer.

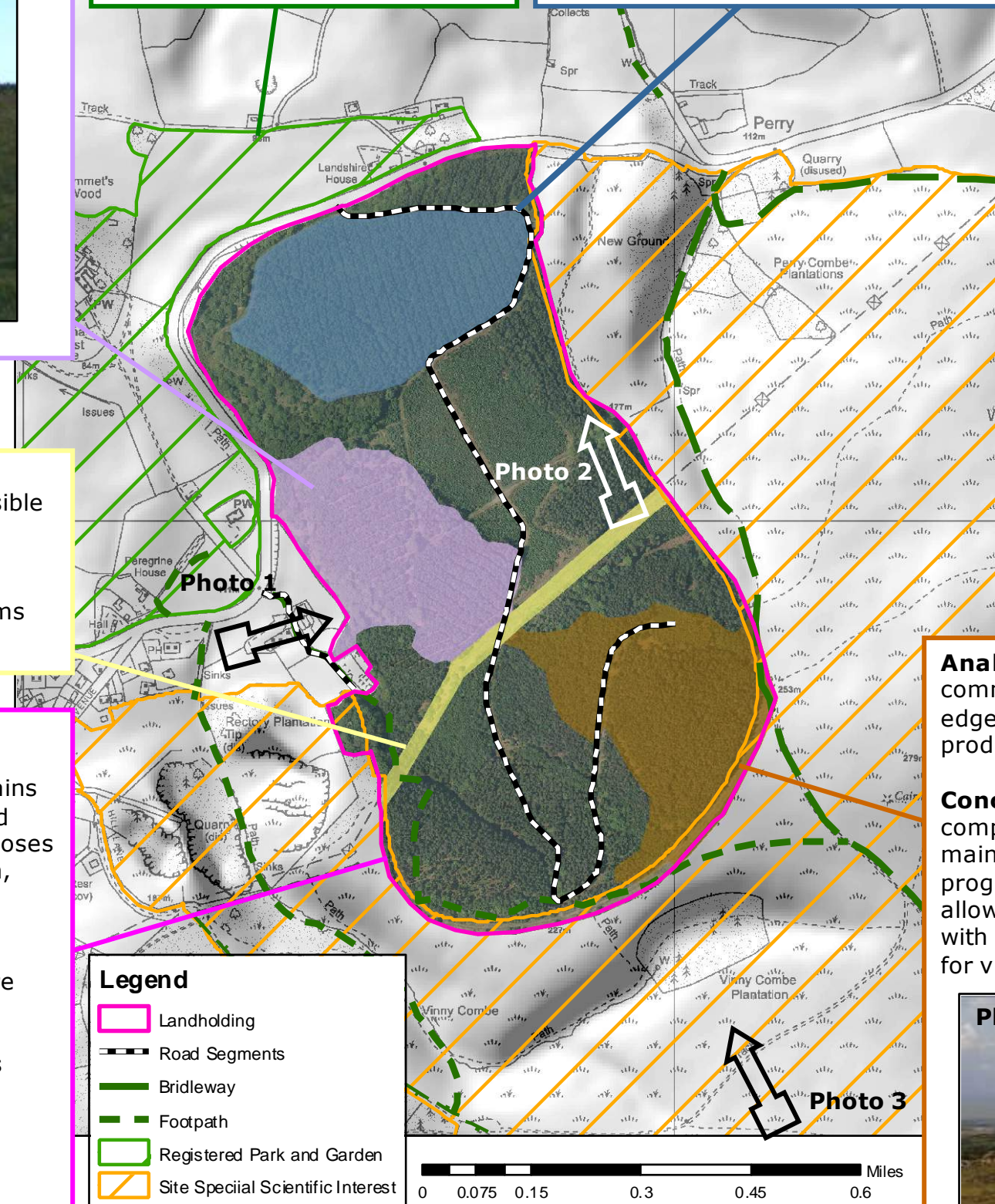
St Audries is now a conifer dominated productive woodland which experiences low intensity recreational use in the form of public footpaths and bridleways. St Audries hosts a number of significant ecological features namely nightjar, deer, owl and adder. A number of considerable beech trees are found within the woodland block, which are a key feature of the AONB (2014).

Into the future, the woodland will continue to be a conifer dominated productive woodland, containing some broadleaf components for amenity and biodiversity value.

Analysis: The woodland borders the upland heath SSSI common land which is a key feature of the AONB. This hard edge has created a step on the landscape between productive high forest and managed lowland heath.

Concept: A well designed coupe of permanent open space to compliment the SSSI has been created and will be maintained through stump grinding followed by a cutting programme. A gradated edge, of upto 20% cover, will be allowed to natural regenerate to better integrate the forest with the heathland. The iron boundary fence will be retained for visual and cultural value.

Photo 3



Great Wood - Analysis & Concept

Great Wood is located in the middle of the Quantock Hills and within the AONB, between the north and south lowland heath grazed commons (SSSI). Defined by its distinct landscape of three deep combs running west to east from the high point ridgeline on the western boundary, Great Wood is in close proximity of Taunton (7 miles) and Bridgwater (6 miles).

There are records of planting of Scot's pine, beech, larch and sycamore as early as 1797 and at this time the older oak and elm timbers were used for shipbuilding while the traditional woodland management technique of coppicing was practised. Between 1857-1860 the last Lord of Taunton had Quantock Lodge built and the woodland provided a sporting venue. After gradual decline the house and forestry land was put up for auction and many parts of the forest were clearfelled during the Great War.

Great Wood is a conifer dominated block, delivering quality Douglas fir and Sitka spruce within shelterwood systems. Broadleaf components are made up of beech stands and oak in mixture together with ash, sycamore and birch. The woodland is ecologically diverse and home to numerous fauna species, particularly red deer, badger, owl, nightjar, lepidophora and bats as well as a number of veteran trees and beech hedge banks. Great Wood experiences a high level of low intensity recreation walks and horse riders together with informal mountain bike tracks. A number of free and paid facilities are available to the public which sees approximately 22,000 car visits per year.

Great Wood will go through a period of significant transformation over the coming decades towards a more native broadleaved dominated woodland. The block will continue to be a productive woodland, renowned for its 'big trees', with a strong recreation, cultural and ecological value.

Analysis: Dead Women's Ditch SM currently 'At Risk' due to mature DF and WH stands. However its exact location is currently unknown.

Concept: Establish exact location of SM through survey with expert input and then remove trees, whilst being sensitive to landscape and maintain as open space.

Analysis: Some clearfell sites managed through 'successional' restock are under performing either due to weed encroachment or the regeneration of undesired species.

Concept: Proactive restocking of these areas which will occur when 'successional' prescription is not delivering with parameters for initiating intervention.

Analysis: Quality Douglas fir continuous cover systems being realised throughout the woodland.

Concept: Continue to manage these stands to economic maturity, favouring broadleaf regeneration where possible.



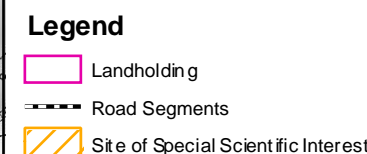
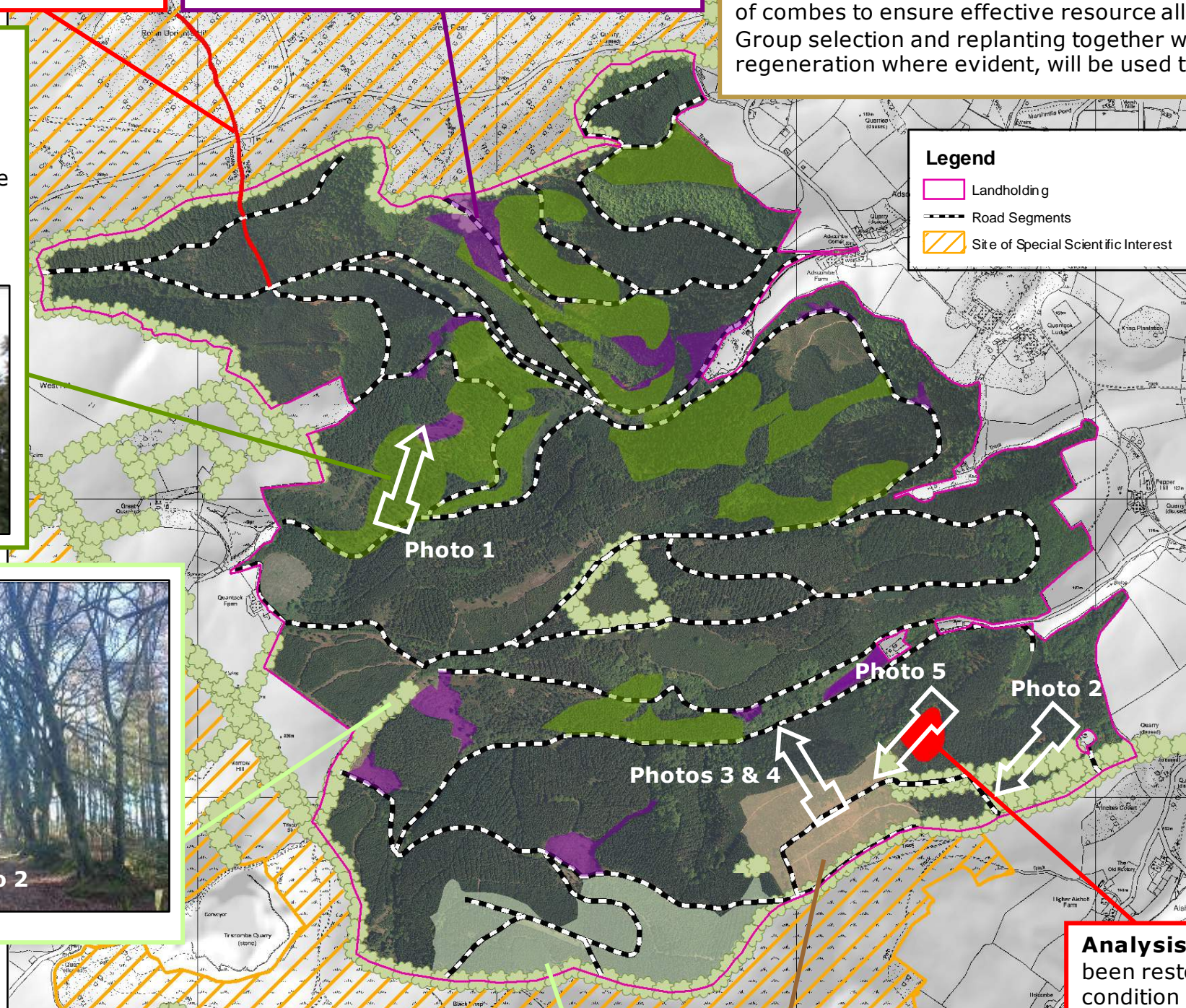
Photo 1

Analysis: Overstood beech hedge banks, key features of the AONB landscape, border the northern and southern woodland edges.

Concept: Manage in line with AONB Restoration Plan and in agreement with AONB



Photo 2



0 0.075 0.15 0.3 0.45 0.6 Miles

Analysis: Proposals for area of high forest on poor upland soils proposed to be converted to open space in previous plans to create linkage with open space created in previous Plan period.

Concept: Remove trees permanently using stump grinding and annual cutting programme. Maintenance will need to be ongoing and targeted following experience in adjoining site.



Photo 3



Photo 4

Analysis: Plainsfield Camp has been restored to a stable condition with minor encroachment on banks from surrounding seed source.

Concept: Continue to manage accordingly, with the removal of upturned tree stumps together with encroachment removal possible where considered appropriate.



Photo 5

Analysis: The woodland sits in a prominent position within a lowland landscape and is visible from many local focal points including Bridgwater.

Concept: The high quality coupe design and principles will be retained to ensure the woodlands prominent external value is not damaged.

Photo 1



Analysis: A large extent of the valley bottoms are designated as AWS. Planted with conifer these sites are Plantation on Ancient Woodland Site (PAWS) delivering quality timber within continuously cover system

Concept: Crops will continue to be managed on a shelterwood system, with focus on removal of conifers through thinning and group felling. Enrichment planting will be considered where appropriate.

Analysis: Trees of significant interest are found throughout the crops providing cultural and ecological value.

Concept: Where appropriate these will be managed for perpetuity through crown thinning and minimal ground disturbance



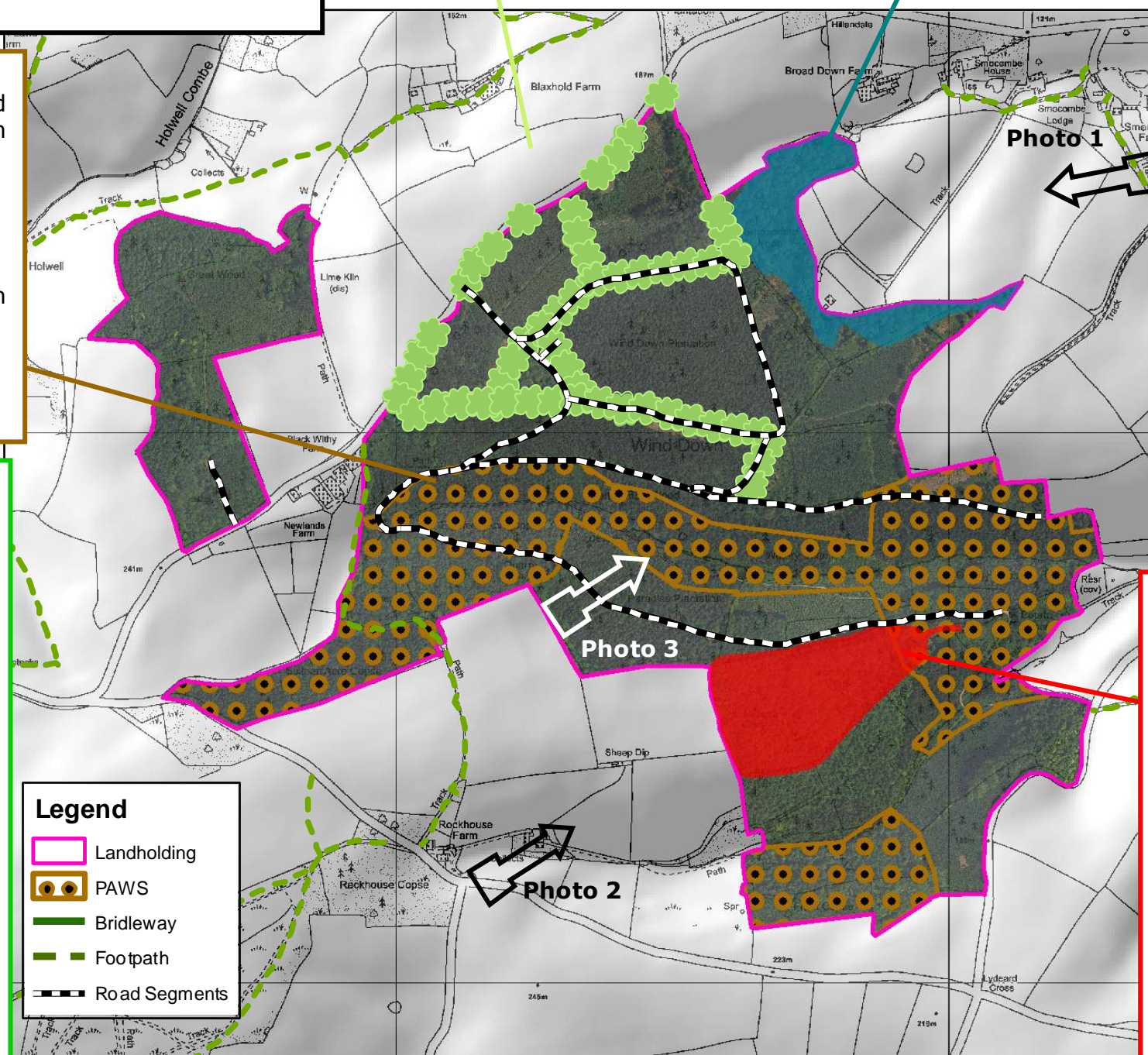
Photo 3

Analysis: Significant beech hedge banks are found both as external and internal edges of the woodland in varying condition, from stable to declining.

Concept: Where appropriate and apply prescriptions which favour and enable the perpetuity of these culturally significant features.

Analysis: Quality p.1860 beech/ash woodland sits well in the basin of this small valley and provides a fine back drop to the dwelling here.

Concept: The majority is currently managed under minimal intervention or natural reserve and this will be extended so as to protect this valued area of woodland



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Ordnance Survey [100021242]

0 0.075 0.15 0.3 0.45 0.6 Miles

Wind Down - Analysis & Concept

Wind Down and Little Great Wood are located on the northern slopes of the Quantock Hills, within the AONB. They are seen in longer views as part of the general pattern of woodland agricultural land that is characteristic of the area, as is the mix of broadleaved and conifer woodland species.

It is assumed that Wind Down was part of the Enmore Estate associated with Enmore Castle located within a mile of the woodland. The Estate had a large mixture of diverse woodlands with a strong productive capacity with species including, Spanish chestnut, hornbeam and witch elm, most of these woodlands have now been cleared

Wind Down is a mixed woodland with large areas of productive broadleaf and conifer shelterwoods. In recent years felling of larch due to *Phytophthora ramorum* has significantly altered the felling programme and crop structures. The majority of recreational use is through walkers and horse riders on the network of tracks and paths. Wind Down is home to live badger setts, owl and night jar roosts as well as red and roe deer.

The vision of Wind Down is for a mixed woodland of a variety of broadleaved species and management systems, delivering cultural, ecological and recreational value as well as significant timber yields.

Analysis: Ruborough Camp Scheduled Monument is registered as 'At Risk' from rooting damage of forestry. This risk has increased due to stand instability following recent felling.

Concept: Removal of the unstable beech together with older broadleaved woodland in agreement with Historic England and managed to a condition to keep it from risk.

Photo 2



Analysis: Halswell Park and Garden is a Grade II Registered Park and Garden. Goathurst (or the Thickets) is an important historical feature of the Park, providing a backdrop to Robins Wood Hut. The woodland was also part of the Woodland Riding which traverses the landscape, much of which is still intact today. The Park is currently on the 'At Risk' register.

Concept: A transformation towards a more mixed woodland composition of conifer and broadleaves, together with the maintenance of the dark backdrop to Robins Wood Hut, in the context of normal forest operations (i.e. periodic clearfelling with retention of edge trees) will enhance the impact the landscape. An aspiration will be to maintain and restore the Woodland Riding overtime, in concurrence with programmed forestry operations.

Photo 1



Legend

- Landholding
- Road Segments
- Footpath
- Woodland Riding

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Ordnance Survey [100021242]

Analysis: Trees of significant interest are found throughout the crops providing cultural and ecological value. These are most likely part of the historic parkland landscape.

Concept: The very old native veteran oak trees will be retain for perpetuity. When crops are thinned it will be done to favour the regeneration of native broadleaf species but will also release the veterans crowns slowly on so to minimise the impact of sudden exposure to desiccating winds and sun scorch.

Goathurst - Analysis & Concept

Goathurst, or locally known as The Thickets, is a small woodland which occupies the upper slopes and undulating plateau of the ridge of land overlooking Halswell Park and Goathurst. The woodland lies just outside the AONB but is a very important part of this landscape being visible from local villages, minor and trunk roads to the north, and also from 20 miles away while travelling south on the M5 motorway. It lies approximately 3km west of the village of North Petherton and 5km to the south west of Bridgwater.

Goathurst was planted as a back drop to Halswell House in the early 18th Century and is now a part of the Halswell Park Registered Park and Garden. The designation covers a larger area of features, noted for its parkland and structural assets as well as its woodland. Individual unscheduled features such as stone tablets and veteran tress are found within the woodland as remnants of a rich heritage

The woodland comprises of more than 59% broadleaf species consisting of very old remnant oak. This is a quiet wood with public access in the form of a few local dog walkers and occasional horse riders. There is a differing wildlife in the woodland from the smaller bugs and beetles and bats associated with the veteran oak trees, to the raptors, roe and occasional red deer and also live badger setts.

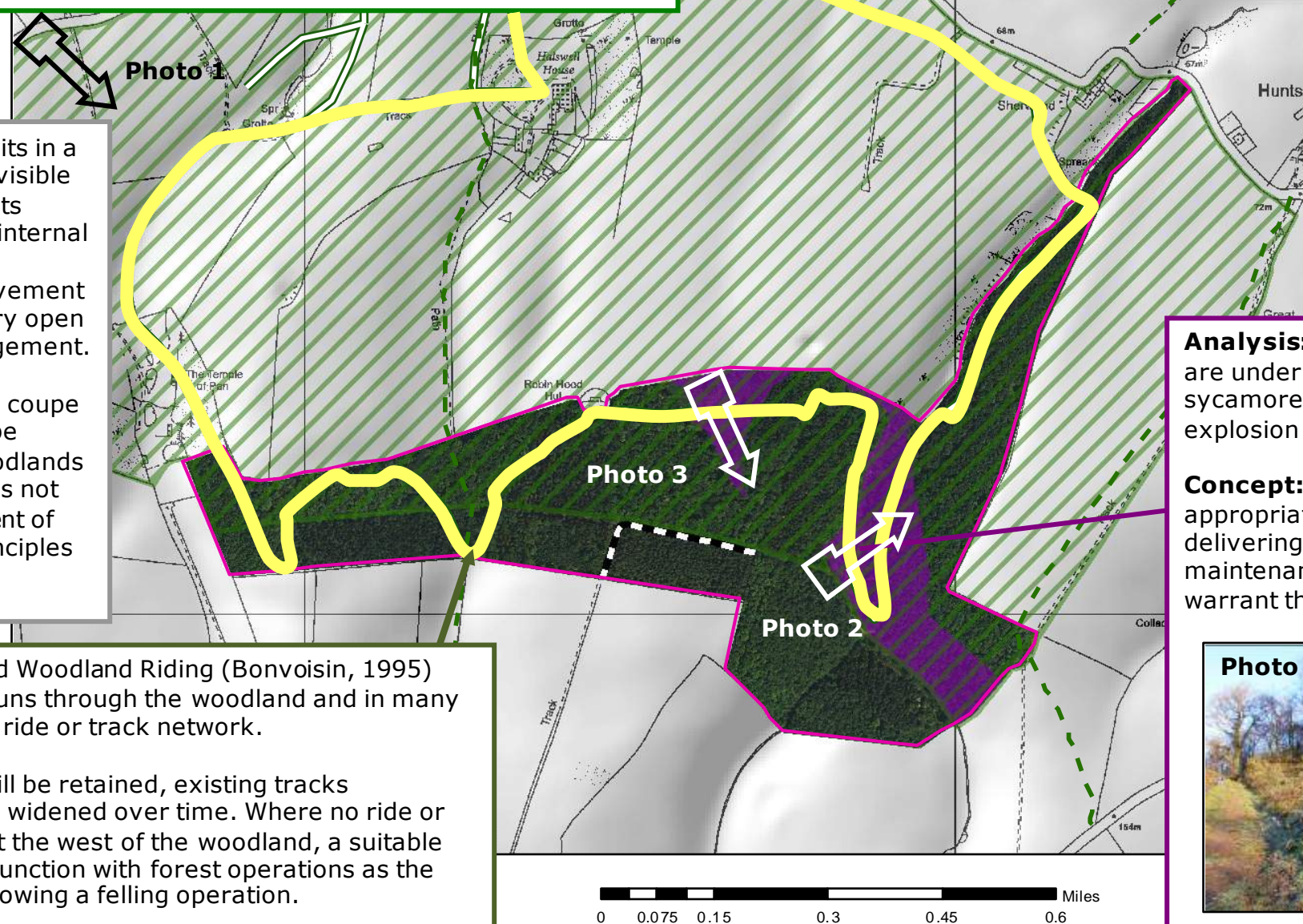
Goathurst's value to the wider landscape will be preserved and enhanced into the future. A greater proportion of broadleaves will create a species diverse mixed productive woodland.

Analysis: The woodland sits in a prominent position and is visible from many local focal points including Bridgwater. The internal landscape has been going through a period of improvement through areas of temporary open space and ride side management.

Concept: The high quality coupe design and principles will be retained to ensure the woodlands external prominent value is not damaged. The improvement of the internal landscape principles will remain ongoing.

Analysis: The conjectured Woodland Riding (Bonvoisin, 1995) created by Arthur Young runs through the woodland and in many places follows the existing ride or track network.

Concept: Existing rides will be retained, existing tracks insufficient in width will be widened over time. Where no ride or track already exists, i.e. at the west of the woodland, a suitable ride will be created in conjunction with forest operations as the opportunity arises, i.e. following a felling operation.



Analysis: Some clearfell sites managed through 'successional' restock are under performing. Regeneration is reliant on ash seed trees with sycamore and beech also present. The site also suffers from an explosion of bramble following felling operations, stifles regeneration.

Concept: Proactive restocking of these areas with historically appropriate species will occur when 'successional' prescription is not delivering with parameters for initiating intervention. A significant maintenance regime would be required but the extent of these sites warrant this proactive approach.

Photo 2



Photo 3



Analysis: Corsican pine, originally due for clearfell in 2012-2016 is now worked as a shelterwood through heavy thinning to reduce the threat of *Dothistroma Needle Blight*. Regeneration of beech and sweet chestnut most likely but evidence of hazel understorey too.

Concept: The regenerating broadleaf understorey will be enabled and released where evident. Bramble control may be required. Targeted underplanting will proactively achieve greater diversity in the species structure and restore PAWS.



Photo 1

Analysis: Extensive areas of beech p. 1950-51 are delivering fairly monocultured stand conditions on an Ancient Woodland Site. Any natural significant regeneration is comprised of beech or Sweet chestnut.

Concept: Break up the stands' age and species structure through group felling programme with natural regeneration to diversify the woodland age and species structure, further resilience and restore PAWS.



Photo 2

Analysis: Some areas of planned and existing open space are suffering from encroachment due to operational constraints.

Concept: Work to a internal, temporary open space regime which is operationally achievable.

Kings Cliff- Analysis & Concept

Kings Cliff is a valley bound woodland, the majority of which lies within the AONB, 3km west of the village of North Petherton and 6km to the south-west of Bridgwater. This woodland takes the form of two opposing reasonably steep north and south facing valley sides that lie parallel with and adjacent to the stream that runs east/north-east towards North Petherton. The woodland is only seen in the landscape as glimpses from the roadside edge and from a couple of adjacent farmhouses.

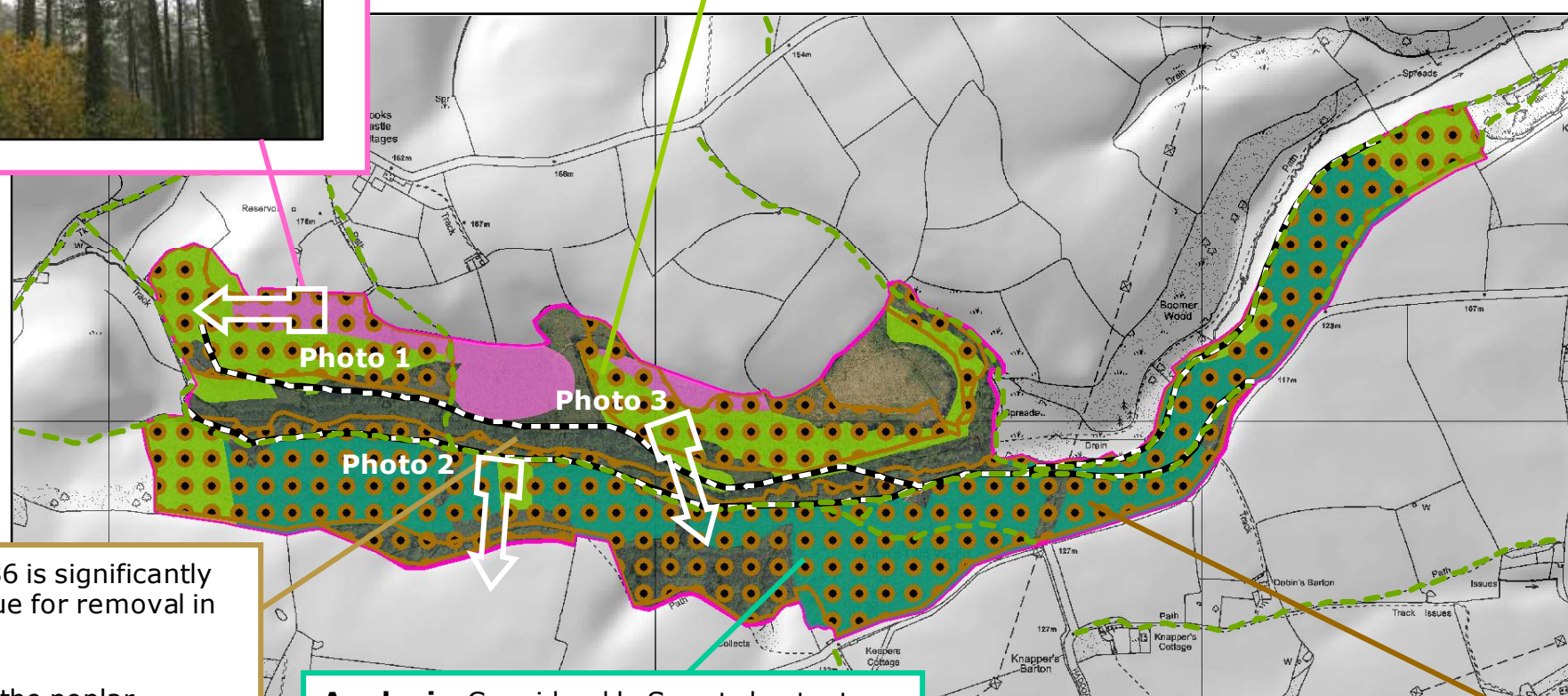
The woodland comprises of more than 80% broadleaf species consisting of old remnant oak, Sweet chestnut planted and coppiced with standards since the 1930's, together with more recent plantings of beech and Corsican pine in the 1950's.

This is a quietly popular wood with public access in the form of quite a number of local dog walkers, horse riders and cyclists. There are raptors in the woodland, roe and red deer and a couple of live badger setts together with a Forest Research plot investigating Oriental Chestnut Gall Wasp.

Kings Cliff will remain a broadleaved woodland, with a greater diversity of native tree species delivering a resilient woodland from which all can benefit.

Legend

- Landholding
- ASNW
- PAWS
- Road Segments
- Bridleway
- Footpath



Analysis: Poplar p. 1986 is significantly underperforming and due for removal in 2040.

Concept: The felling of the poplar component will create corridor linkages, through temporary open space with restocking through natural regeneration from surrounding broadleaf seed source.



Analysis: Considerable Sweet chestnut components on north facing valley side are delivering fairly monocultured conditions on an Ancient Woodland Site. Any natural regeneration is dominated by SC. This high proportion of SC together with larch is under significant threat as a result of *Phytophthora ramorum*, of which these species are susceptible.

Concept: Break up the stands' age and species structure through targeted felling programme with native species planting to diversify the woodland species structure, further resilience and restore PAWS.

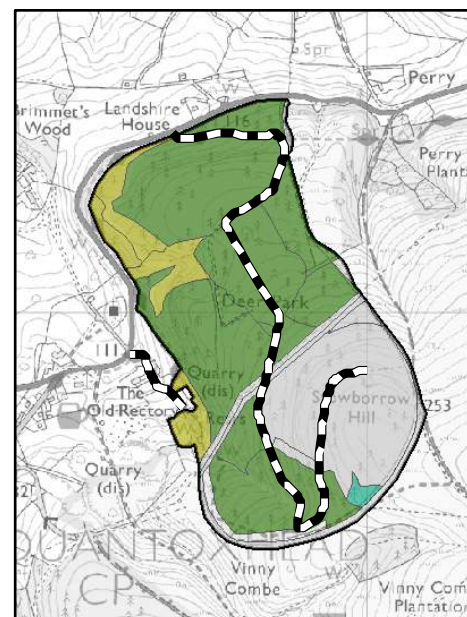
Analysis: Historic beech, oak and yew hedge bank exists internally within the woodland and appears to be in a managed and stable condition.

Concept: These will continue to managed for perpetuity through crown thinning.

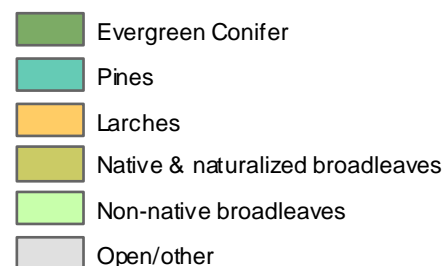
Analysis: The majority of the woodland is an Ancient Woodland Site, most of which has been planted with naturalised species, namely, Sweet chestnut and beech.

Concept: The majority of crops will continue to be managed on a shelterwood system, with focus on removal of conifers through thinning and group felling. Enrichment planting will be considered where appropriate. Some clearfell and restocks will be used to accelerate restoration of PAWS.

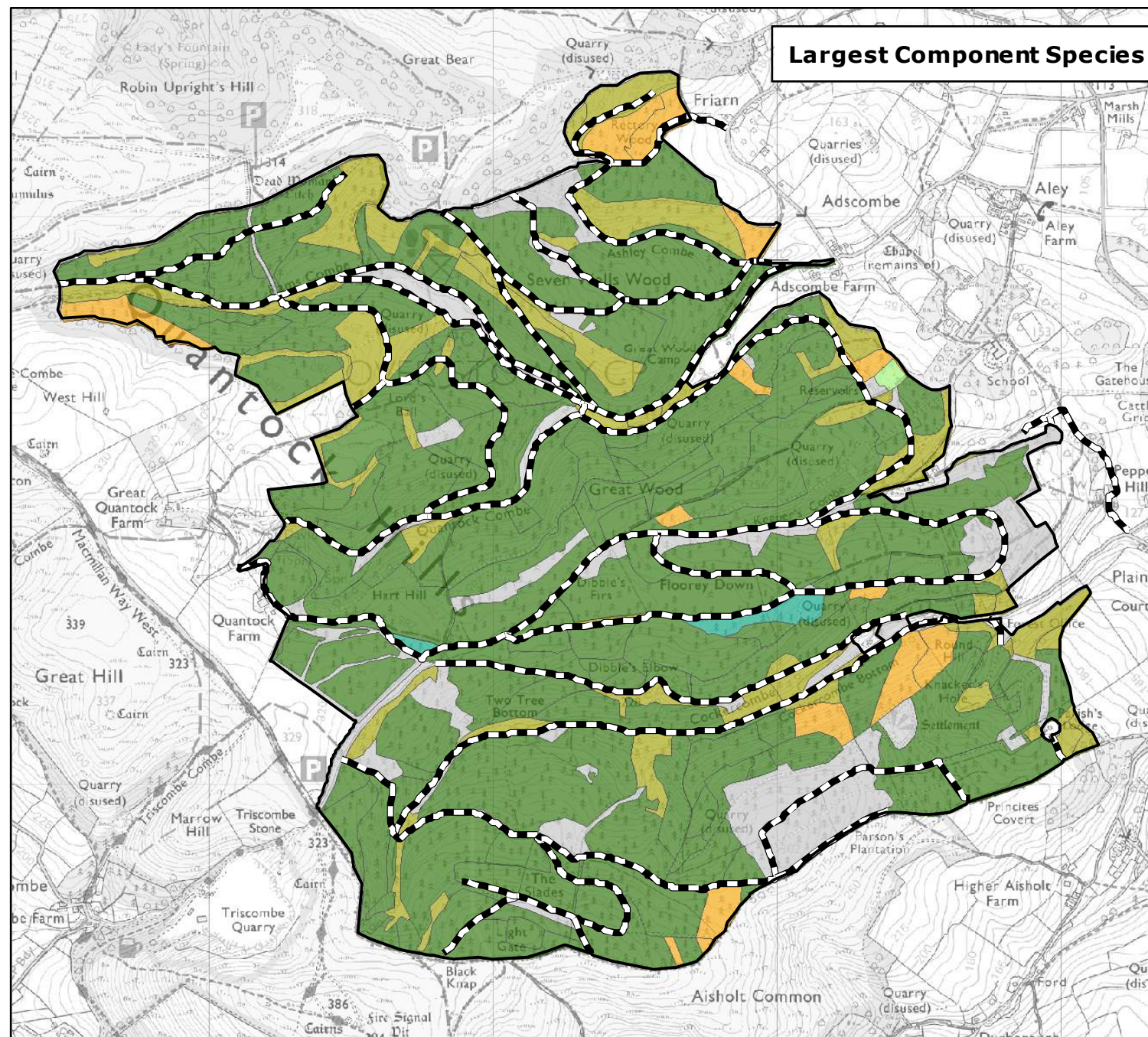
0 0.075 0.15 0.3 0.45 0.6 Miles



Legend



Note: Beech and sweet chestnut are considered to be not within their native range however their historic placement within the landscape means they are to be treated as 'naturalised' species



Largest Component Species

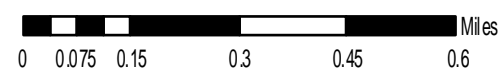
Current Species

The Quantock Plan area consists of a large conifer element, primarily highly productive Douglas fir and Sitka spruce, which thrive in the conditions found in the area. With an average Yield Class of 14, these components are more prevalent on sites where soil are thinner and crops exposed to more severe climate conditions. **Great Wood** and **St Audries** host the greatest proportion of conifer cover.

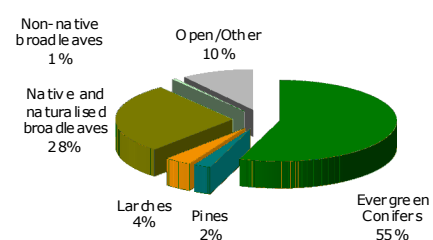
Considerable larch components are also present despite significant *Phytophthora ramorum* infection and consequential felling in **Wind Down**.

Broadleaves are found throughout the Blocks both planted and naturally regenerating. These are more prevalent in areas of richer soil, particularly in valley bottoms and riparian zones. Beech (65ha), oak (30ha) and Sweet chestnut (20ha) are the predominant broadleaf species found, whilst ash, sycamore and birch are the key regenerating broadleaf sub-species. **Goathurst** and **Kings Cliff** have the highest relative proportion of broadleaved cover.

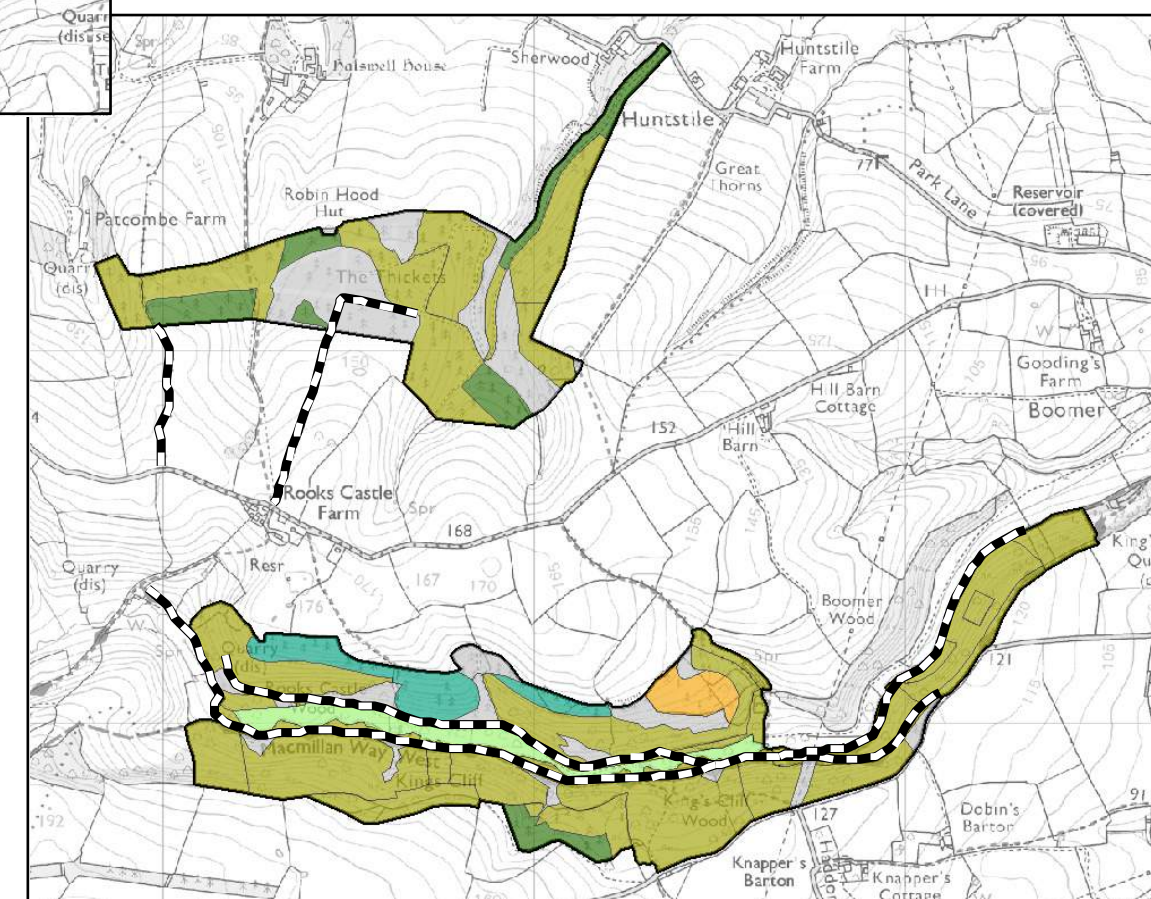
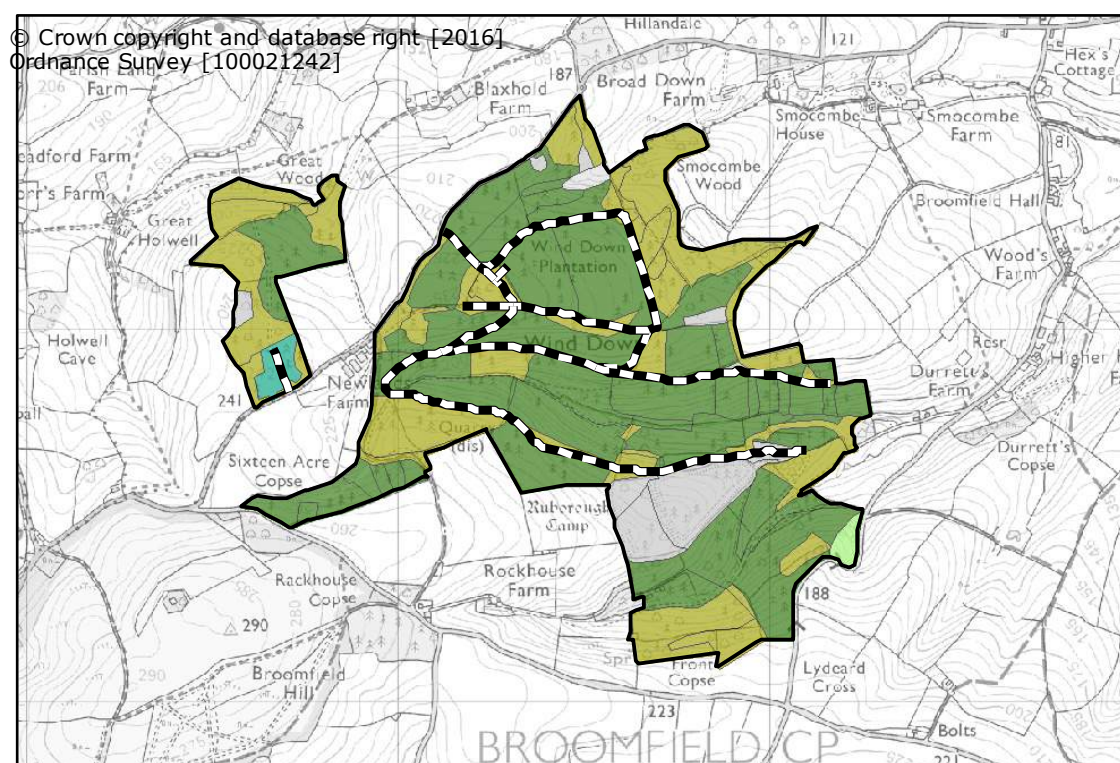
A total of 93ha of the Plan area is made up of open space which equates to 10%; this is made up of a mixture of permanent open space, such as heathland, ride sides and transient forest following felling operations.



Total Species Component Area



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Current Structure

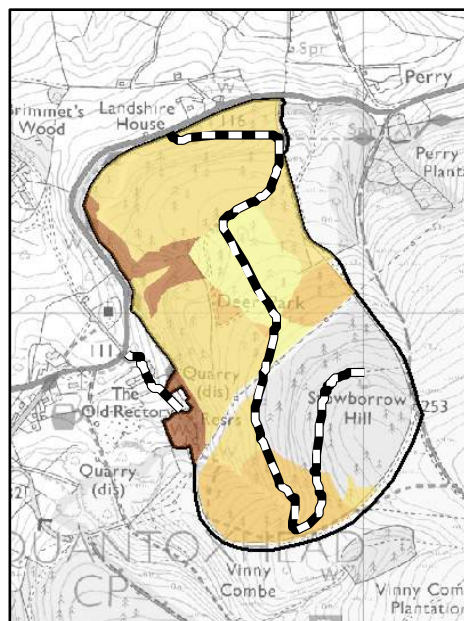
The Quantock Plan area is comprised of a set of diversely structured woodlands. **Great Wood** has seen the majority of planting between 1960s and 1990s, much of which has been, and continues to be, transformed to continuous cover systems (CCF). This is being achieved with the retention of some old Douglas fir within a shelterwood system which is furthering the diversity of the structure.

Wind Down hosts a diverse woodland structure with multiple shelterwood systems and plant years as well as some of the oldest crops in the Plan area. Most crops are in mixture and with multiple storeys.

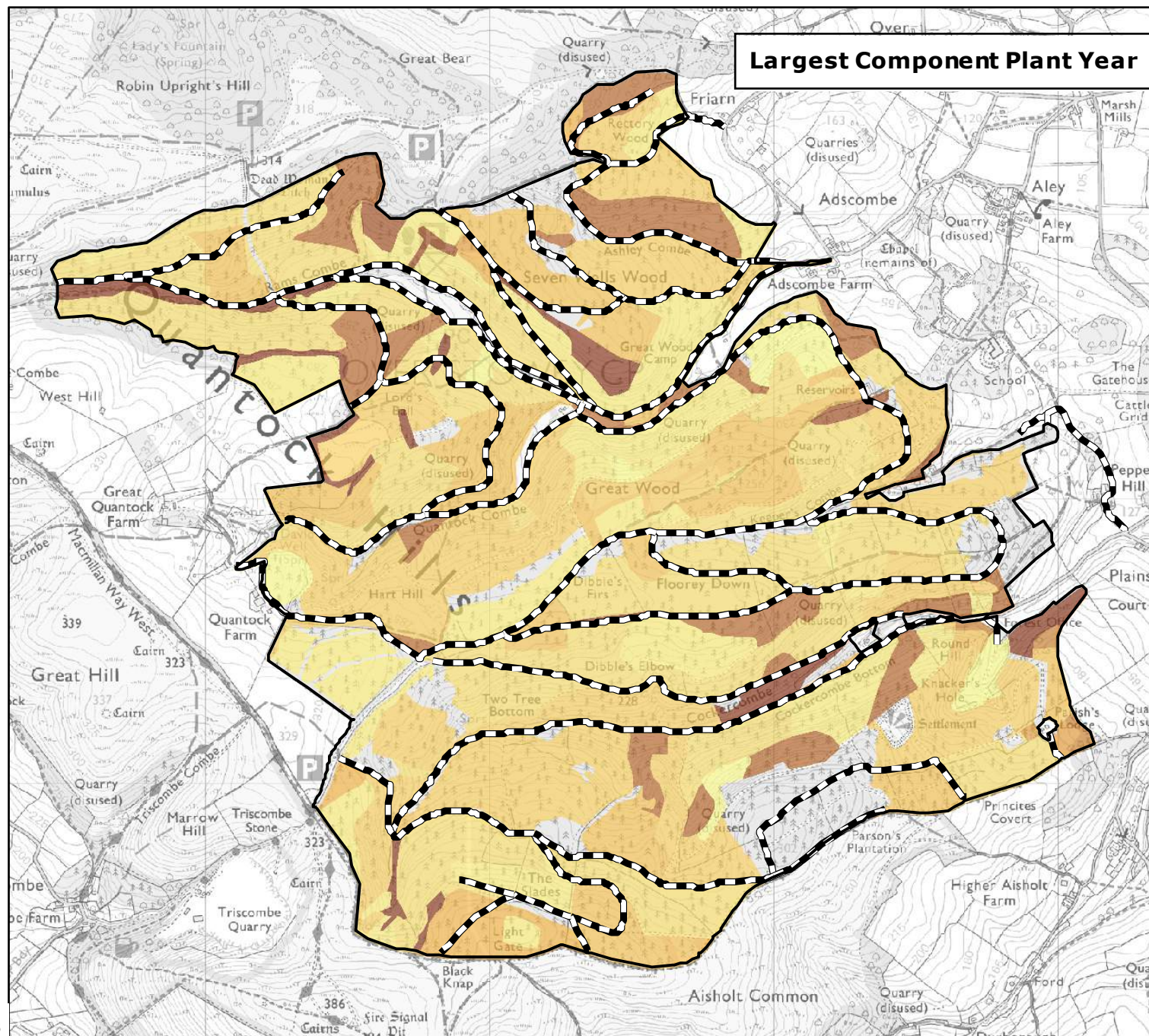
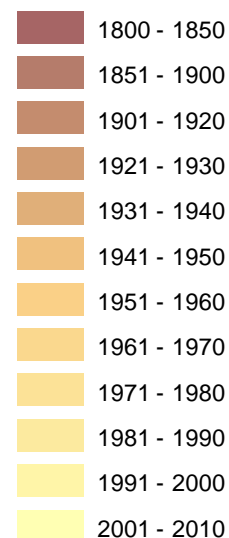
Goathurst is a relatively even-aged block with the majority of planting occurring in the 1956 of beech, larch and evergreen conifer all in mixture. Steps to restructure and diversity the age class of this woodland are ongoing.

St Audries is similarly relatively even-aged with the planting focused around 1980s, a number of pure Corsican pine, Sitka spruce and Douglas fir are being managed on a clearfell rotation.

Kings Cliff has seen consistent restocking programmes over recent decades so that whilst there is large proportion of pure Sweet chestnut and beech crops aged at around 50 years, the overall structure is fairly diverse.

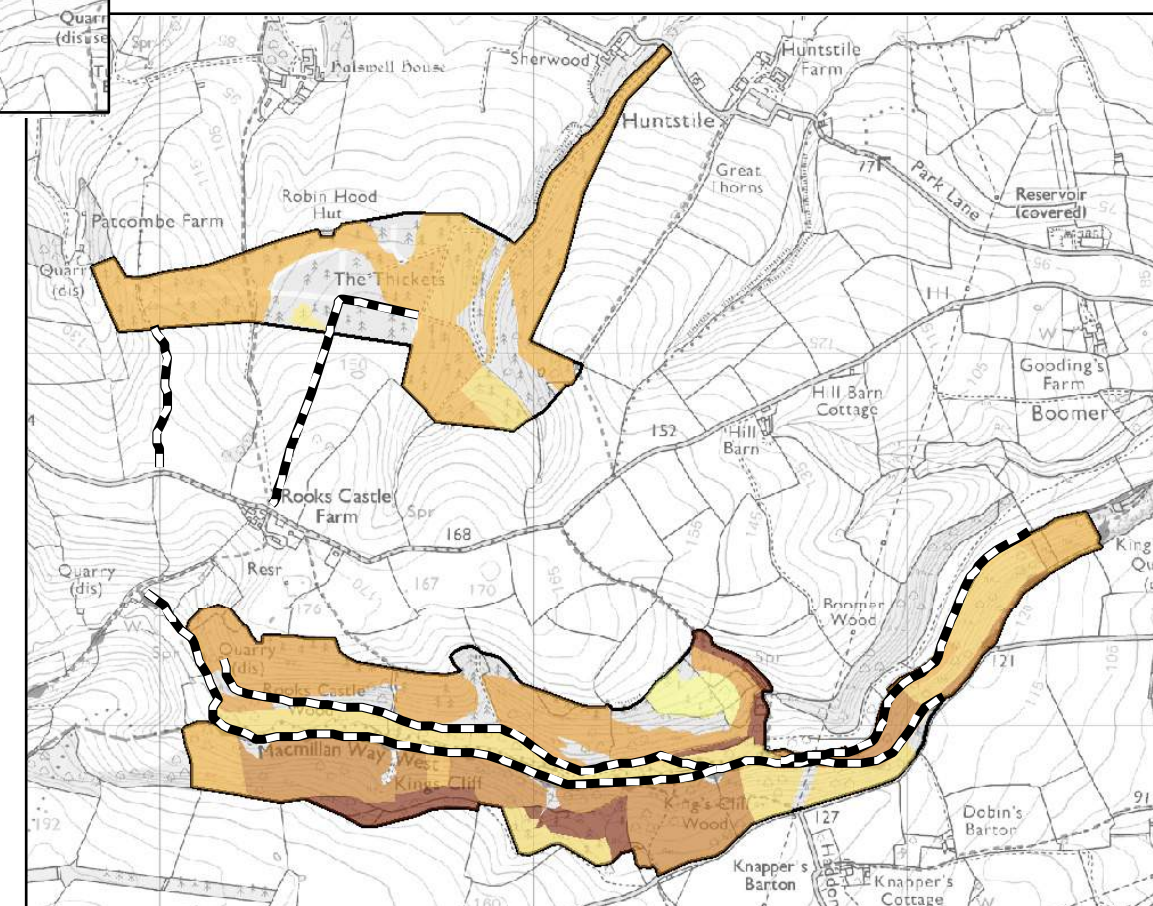
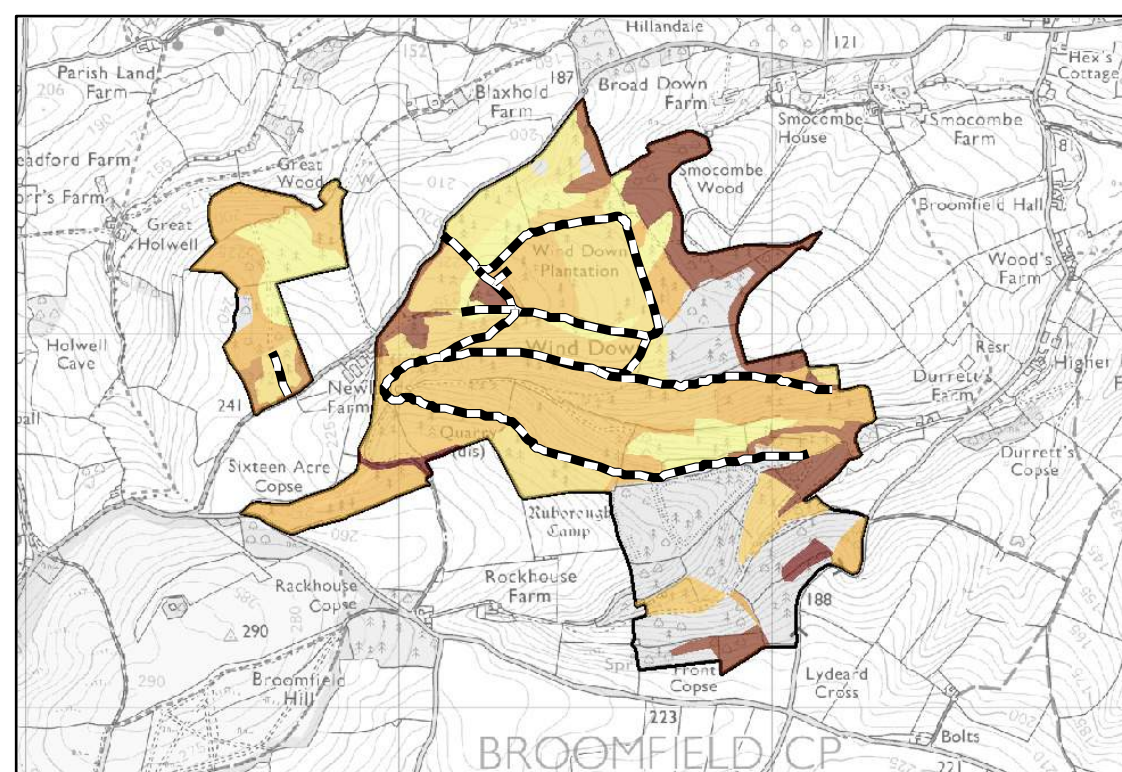
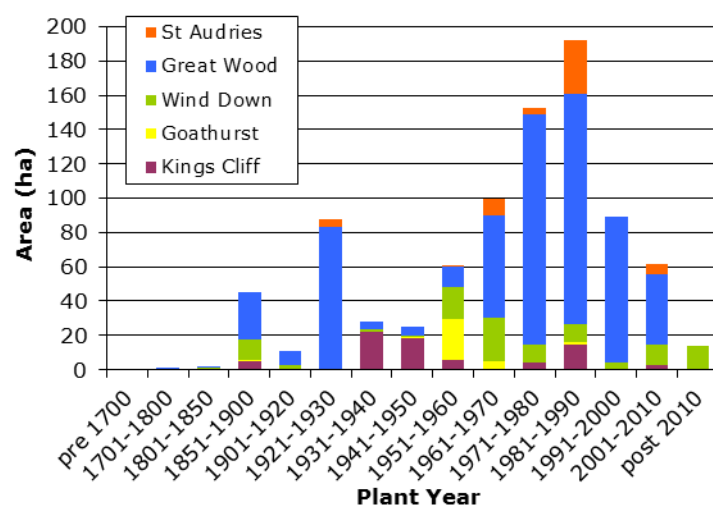


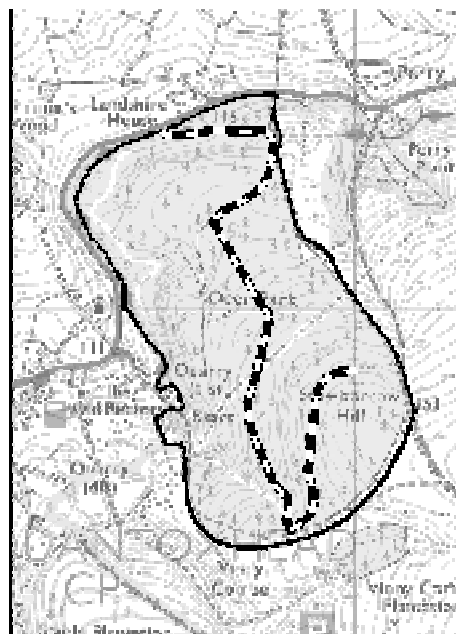
Legend



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Ordnance Survey [100021242]

Total Plant Year Component Area



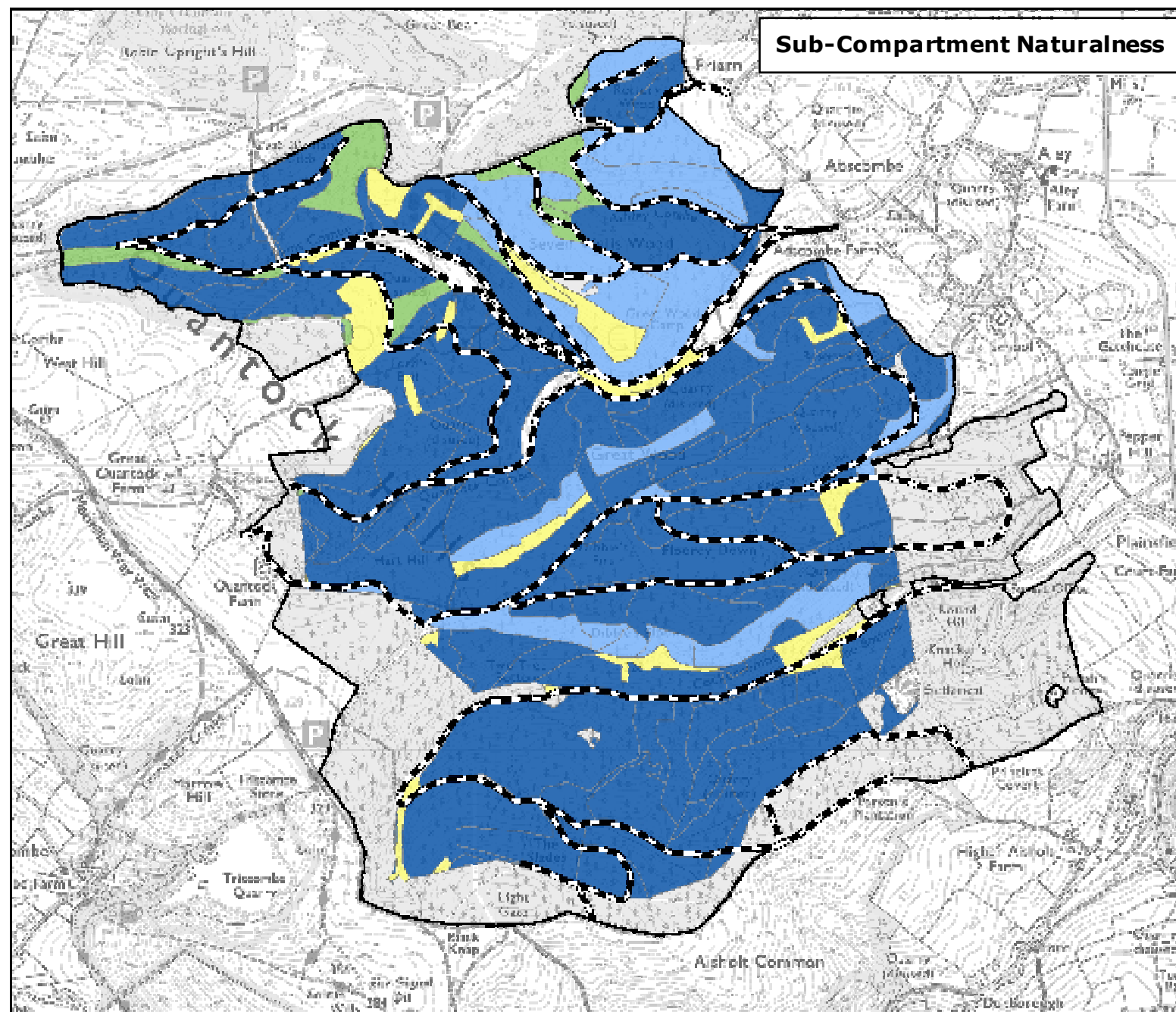


Legend

- 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

Note: Beech and sweet chestnut are considered to be not within their native range and therefore contribute to a non-native score.

Felled areas which are in transition towards restocking are represented as Class 4.



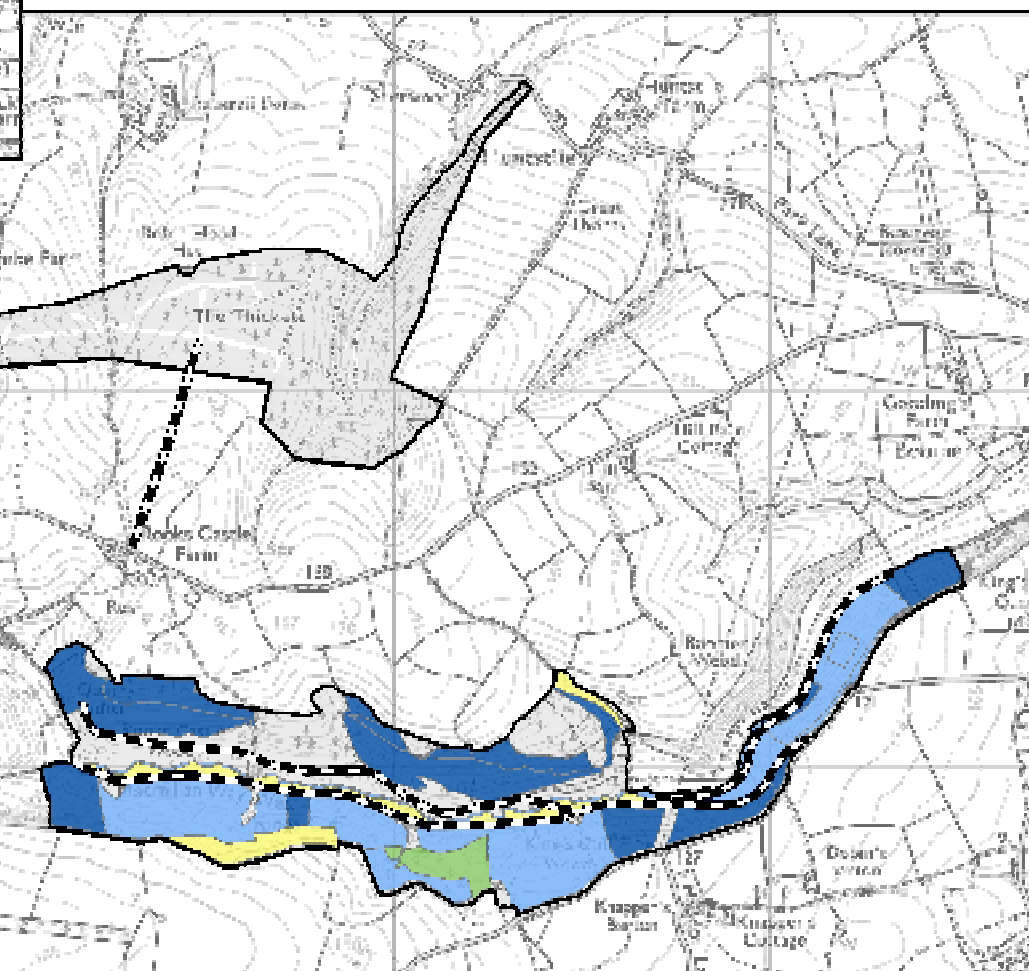
Ancient Woodland Sites

A total of 56% of the Quantock Plan area is designated as being an Ancient Woodland Site (AWS). The majority of this is in **Great Wood**, with smaller sections found in **Wind Down** and **Kings Cliff**.

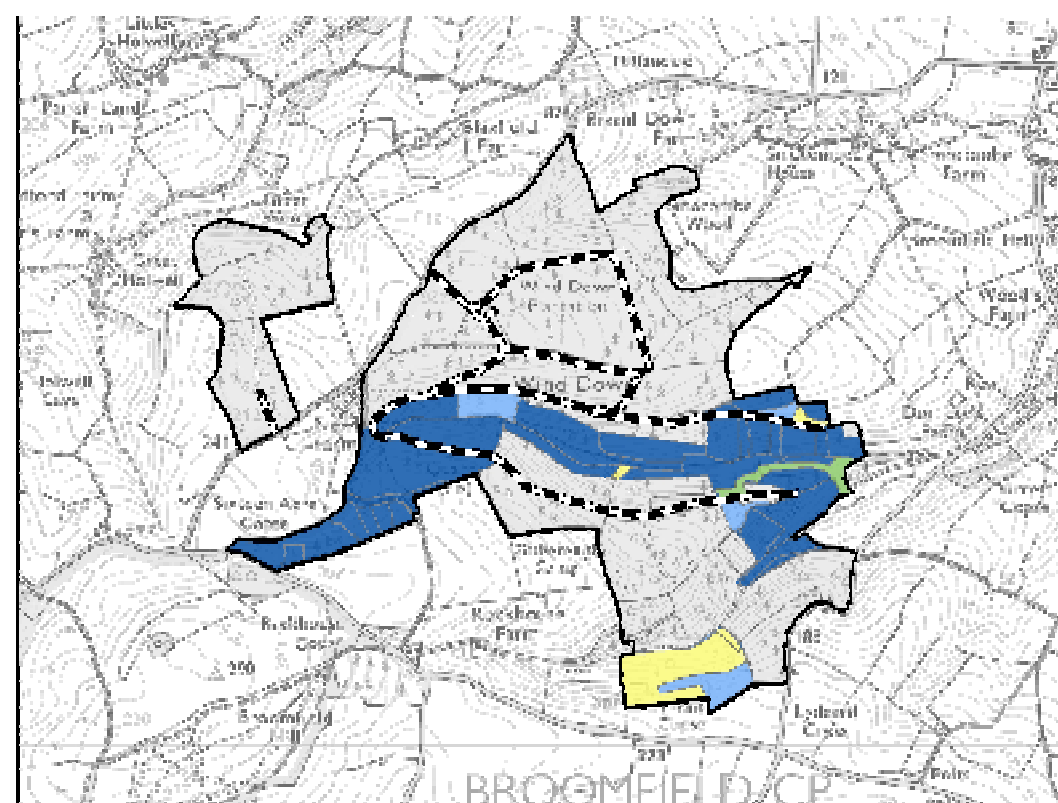
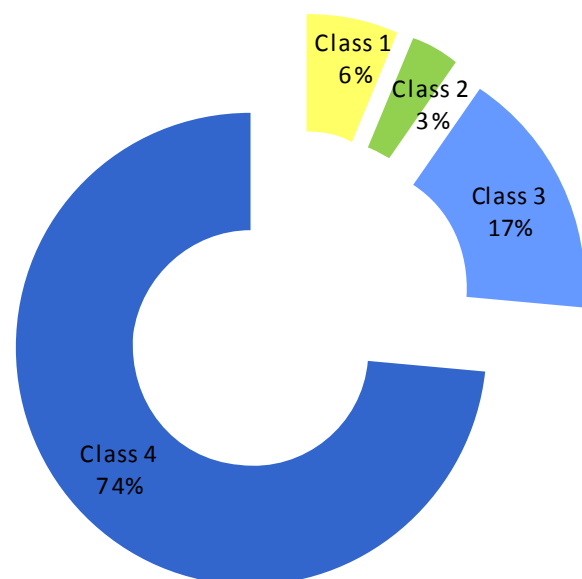
The majority of these AWS are currently classified as Naturalness Class 4, meaning that less than 20% of the tree species currently found there are site native. These sites are predominantly Douglas fir or Sitka spruce crops, many of which are now operating on productive continuous cover systems. With limited site native seed source, conifer regeneration is in abundance. Areas with less non-native dominance, Classes 2 and 3 exist with planted oak and beech together with intruding birch and ash making up the majority of the native components. Classes 2, 3 and 4 are classified as Plantations on Ancient Woodland Sites (PAWS).

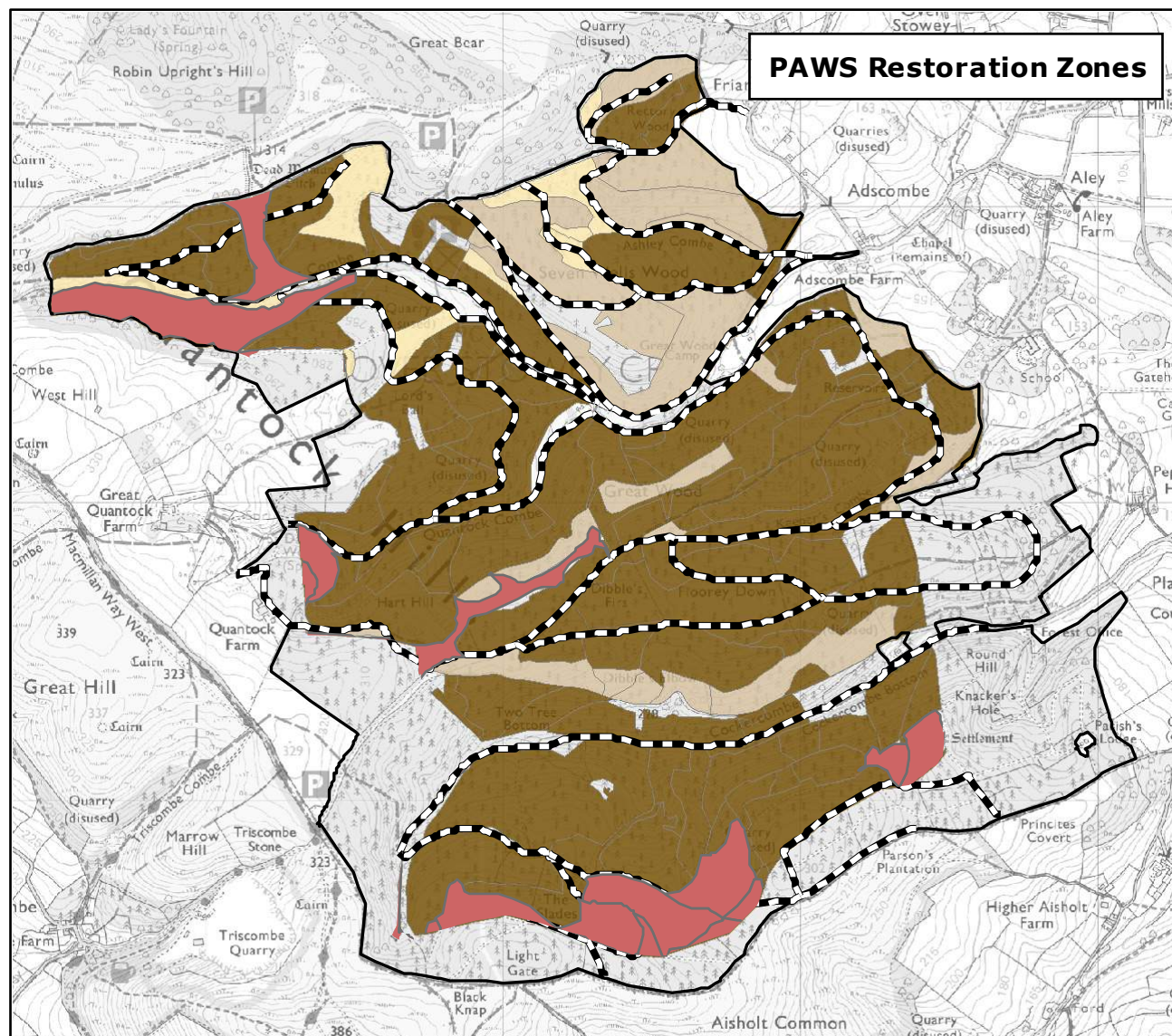
Areas of Ancient Semi-Natural Woodland (Class 1 - > 80% site native species) are mostly found towards the bottom of valleys, in wetter riparian areas where the soils are richer.

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 in Time* Policy (Forestry Commission, 2005).



AWS Naturalness, 2015





PAWS Restoration Zones

Transition through thinning/group felling Naturalness Class 2

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

Regeneration and establishment of native species is likely to be achieved through a combination of natural regeneration and group planting in order to ensure a future woodland with a diverse composition that should preferably aim for 4-5 native species.

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 of transition woodland Naturalness Class 3

Areas within this category contain less than 50% of native tree species but have a proportion greater than 20% of the crop. Enhancement of native content will continue through thinning and group felling some of the conifer content.

Group fells may be actively restocked where native species regeneration is not expected to be adequate due to a lack of seed supply. Management of the existing crop will ensure broadleaf elements benefit from any thinning work undertaken.

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.

PAWS Restoration

The restoration of the PAWS of the Quantocks Plan area will take considerable time and resource because the limited native remnants from which sites can regenerate.

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 through out.
- 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. This objective may eventually mean considering either underplanting or group felling and planting within existing mid rotation broadleaf crops.
- The restoration of beech and sweet chestnut stands will not be prioritised as these species are deemed to have naturalised.

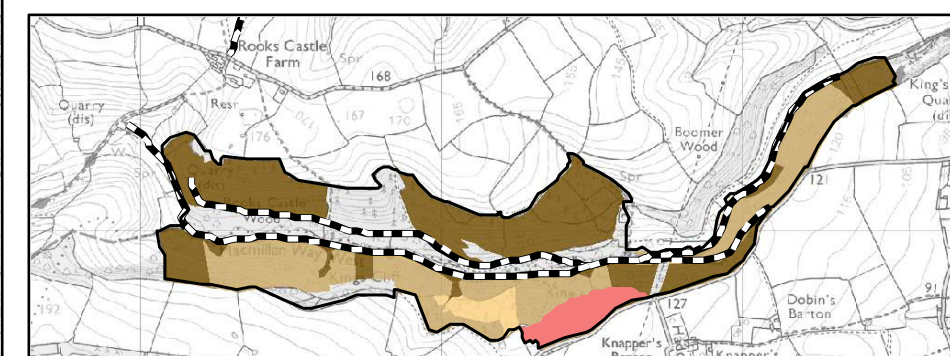
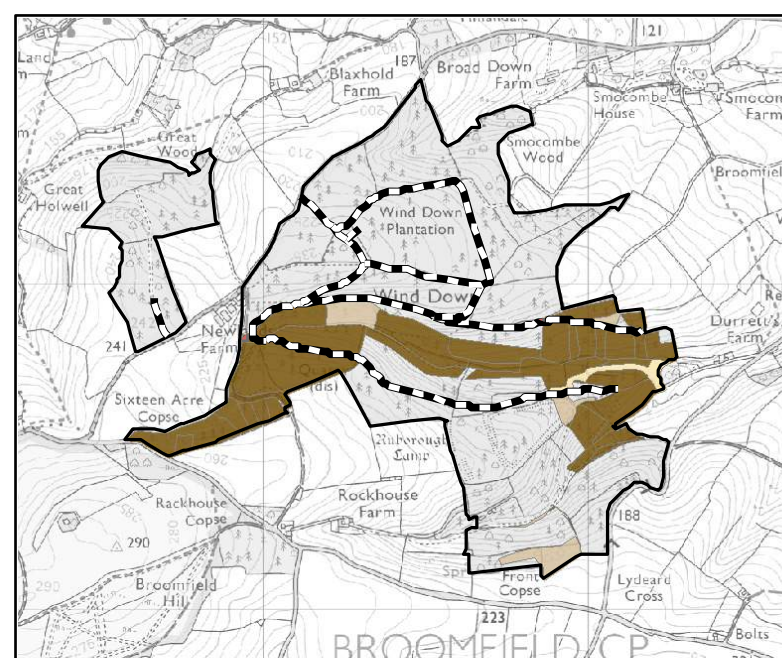
Non-native crops Naturalness Class 4

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 either depending on development of stand structure and the response of natural regeneration.

Any group fells will need to be actively restocked as native species regeneration is not expected to be adequate due to a lack of seed supply.

Clearfell

A number of clearfells will be used to convert PAWS. These will either be restocked with site suitable native species or maintained as permanent open space for additional ecological or cultural benefit.



0 0.1 0.2 0.4 0.6 0.8 Miles

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Ordnance Survey [100021242]

Silvicultural Systems

Shelterwood Systems

These coupes will be managed through thinning so as to develop an understorey before the overstorey is felled. Seed sources and subsequent abundant regeneration of the species and density desired and therefore regeneration thinnings may be required to react to seasonal conditions. Structure will be stipulated by stand conditions and will therefore be irregular.

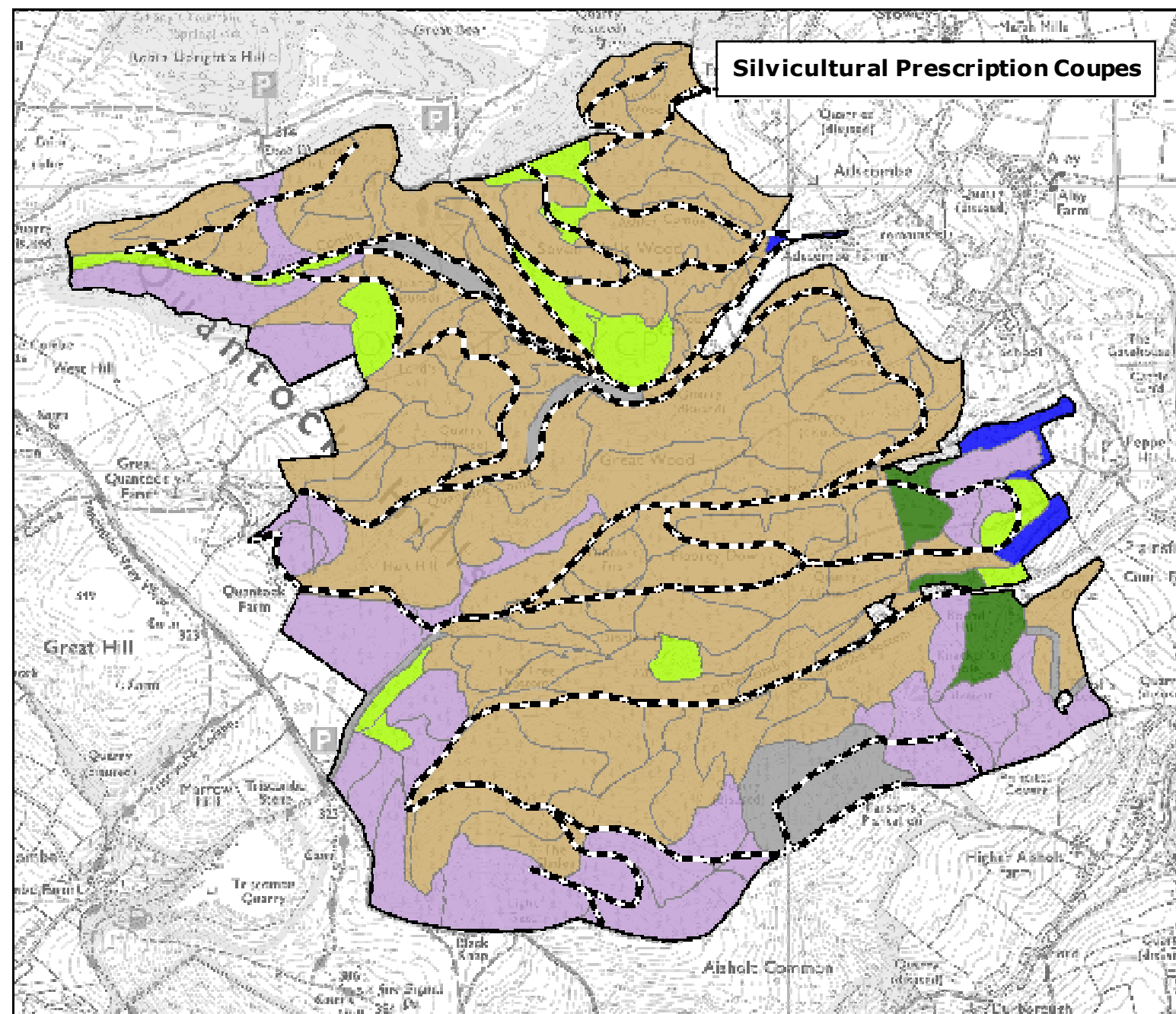
Broadleaf dominated shelterwoods will be thinned at 10 year intervals with the objective of developing sufficient native broadleaf regeneration of a wide species range so that when the overstorey is removed and the forest canopy remains continuously and diversely covered.

Conifer dominated shelterwoods will be thinned at 5 year intervals with the objective of developing sufficient conifer regeneration of a wide species range so that when the overstorey is removed the forest canopy remains continuously and diversely covered.

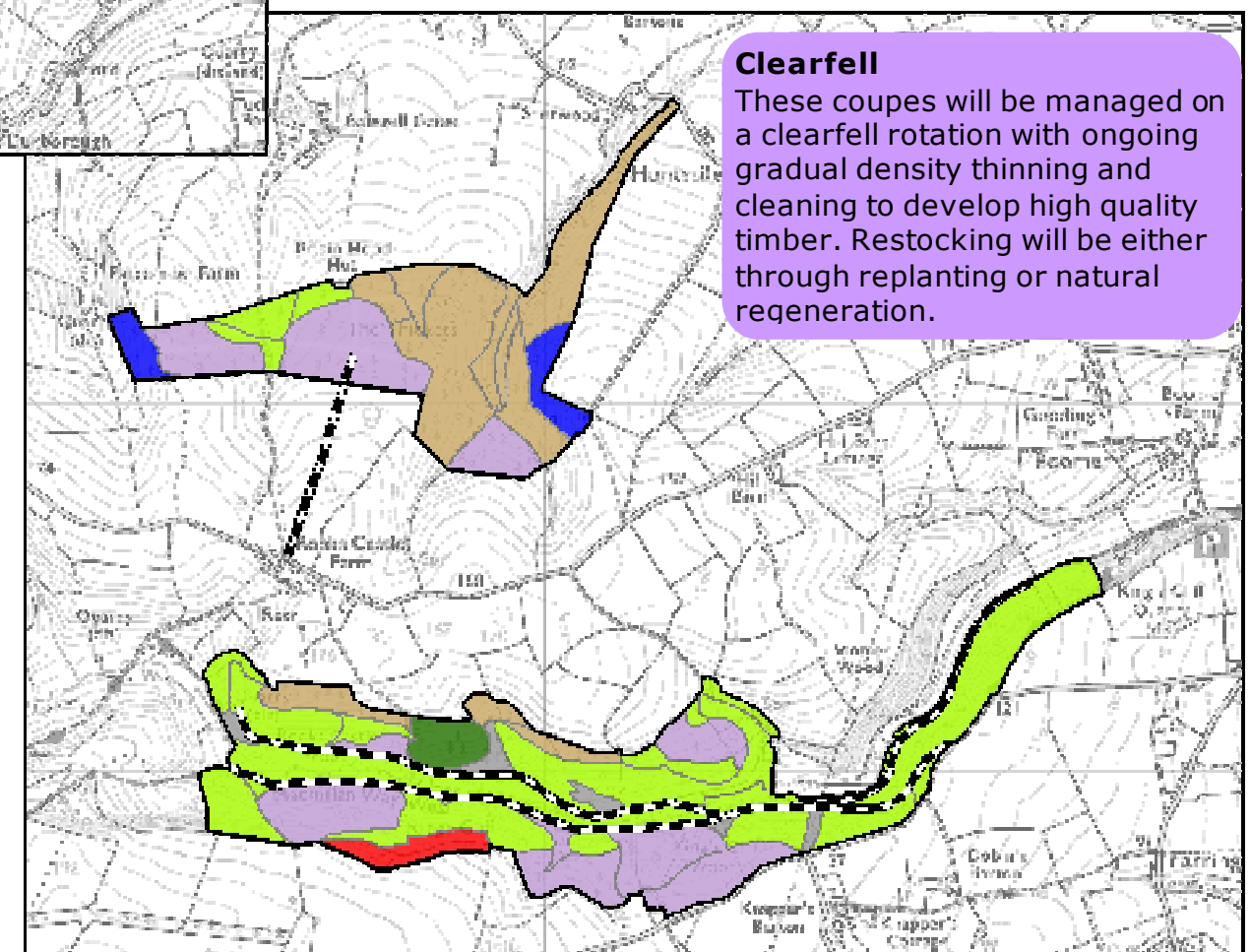
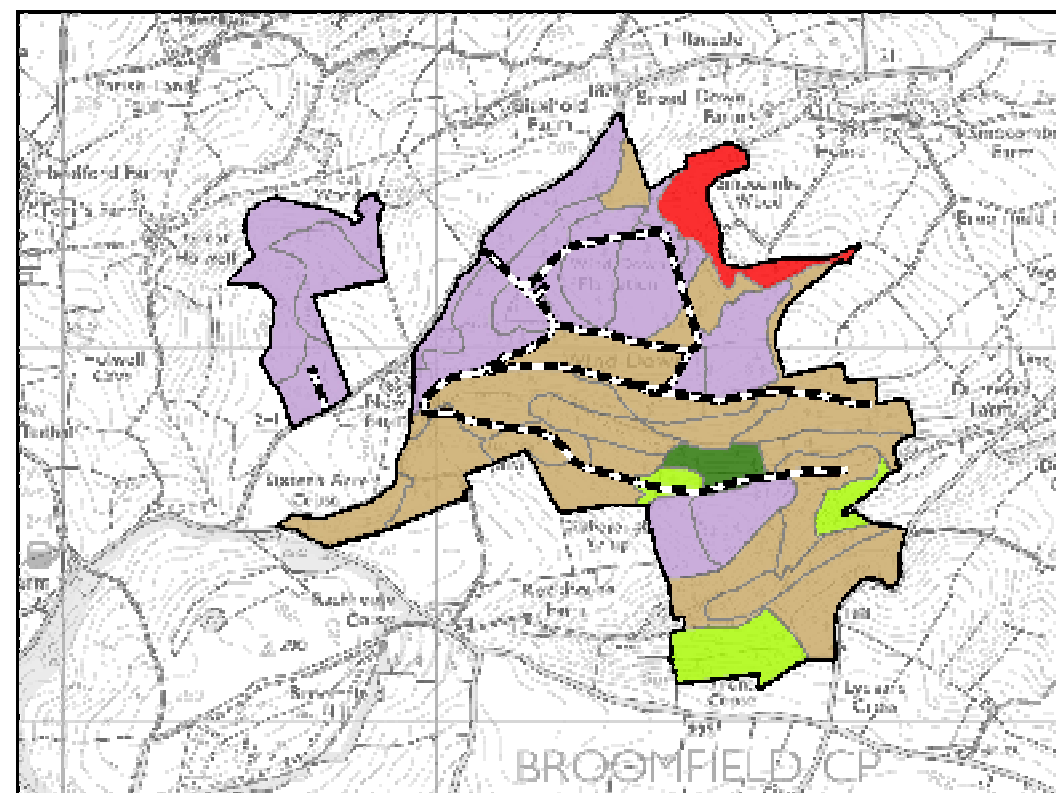
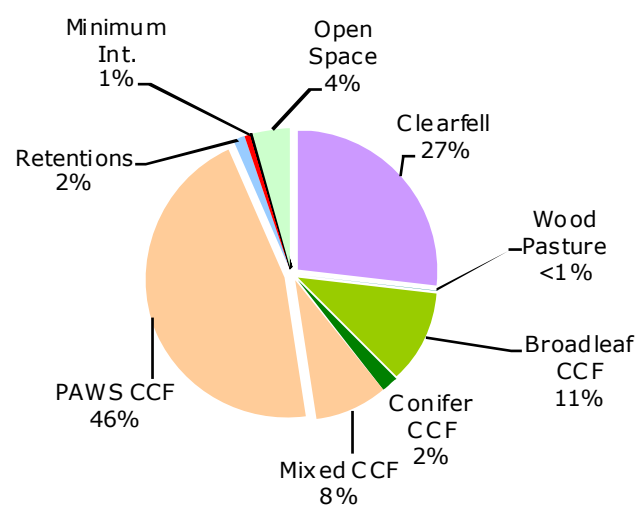
Mixed species and PAWS shelterwoods will be thinned at 5 year intervals to favour native broadleaf regeneration so that the overall proportion of native species increases over time whilst maintaining high forest cover.

Legend

- Clearfell
- Broadleaf CCF
- Conifer CCF
- Mixed & PAWS CCF
- Minimum Intervention
- Long Term Retention
- Open



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Clearfell

These coupes will be managed on a clearfell rotation with ongoing gradual density thinning and cleaning to develop high quality timber. Restocking will be either through replanting or natural regeneration.

Felling 2016 – 2026

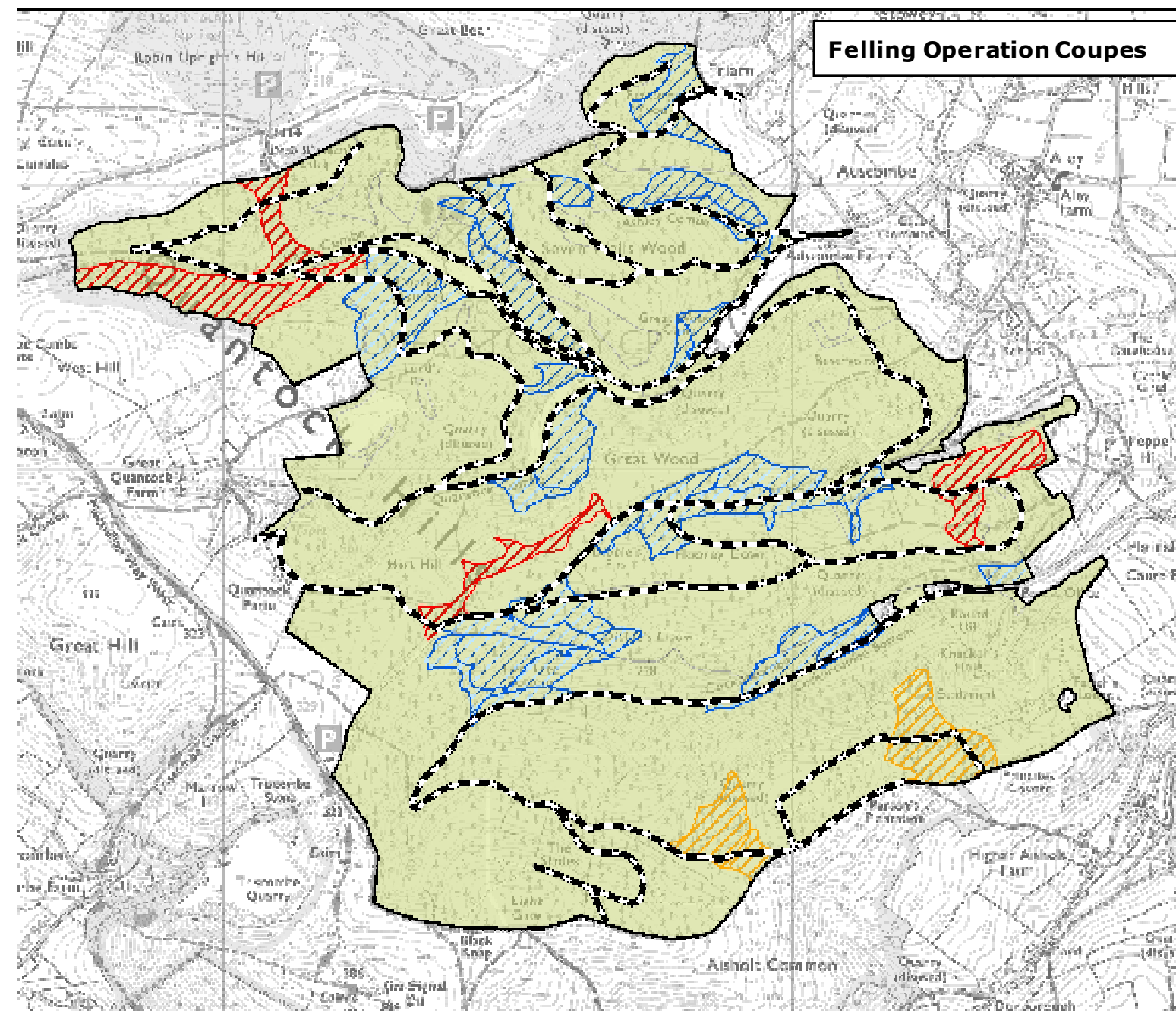
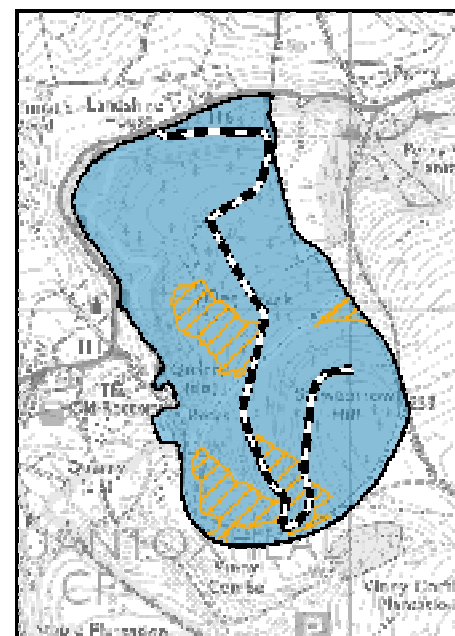
Within the life of the Plan up to 76.4 ha will be felled, not including thinning. 64.4ha of this will be clearfell and 12ha will be group selection felling. Thinning will remain ongoing, with broadleaves thinned every 10 years and conifers every 5 years.

Block	Clearfell (ha)	Group Sel. (ha)	Total (ha)
St Audries	8.7	0.0	8.7
Great Wood	36.2	7.0	43.2
Wind Down	15.2	16.2	13.6
Goathurst	3.3	0.0	3.3
Kings Cliff	3.6	4.0	7.6
TOTAL			80.2

Group Selection/Group fell

119.5ha of the Plan area will be managed under group selection. No group fell will be more than 0.5ha in size and operations will be spread throughout the coupes over the 10 year period.

Block	Area managed under Group Sel. (ha)	Number of fellings (up to 0.5ha)
Great Wood	77.2	14
Wind Down	4.0	2
Kings Cliff	38.3	8



Legend

- Group Selection
- Fell 2017 - 2021
- Fell 2022 - 2026

Intended Next Thinning Date

- 2015
- 2016
- 2017
- 2018
- 2019
- 2020

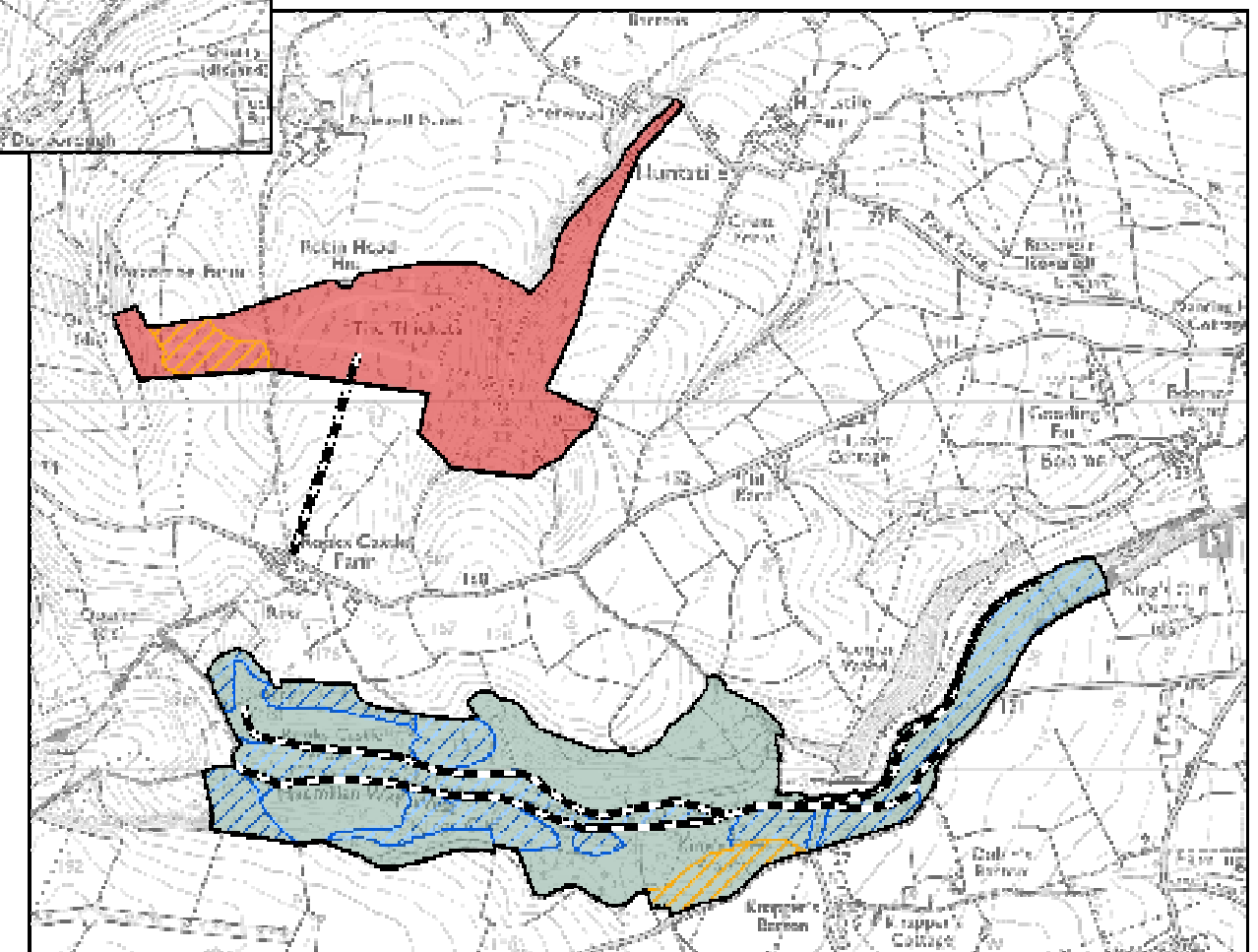
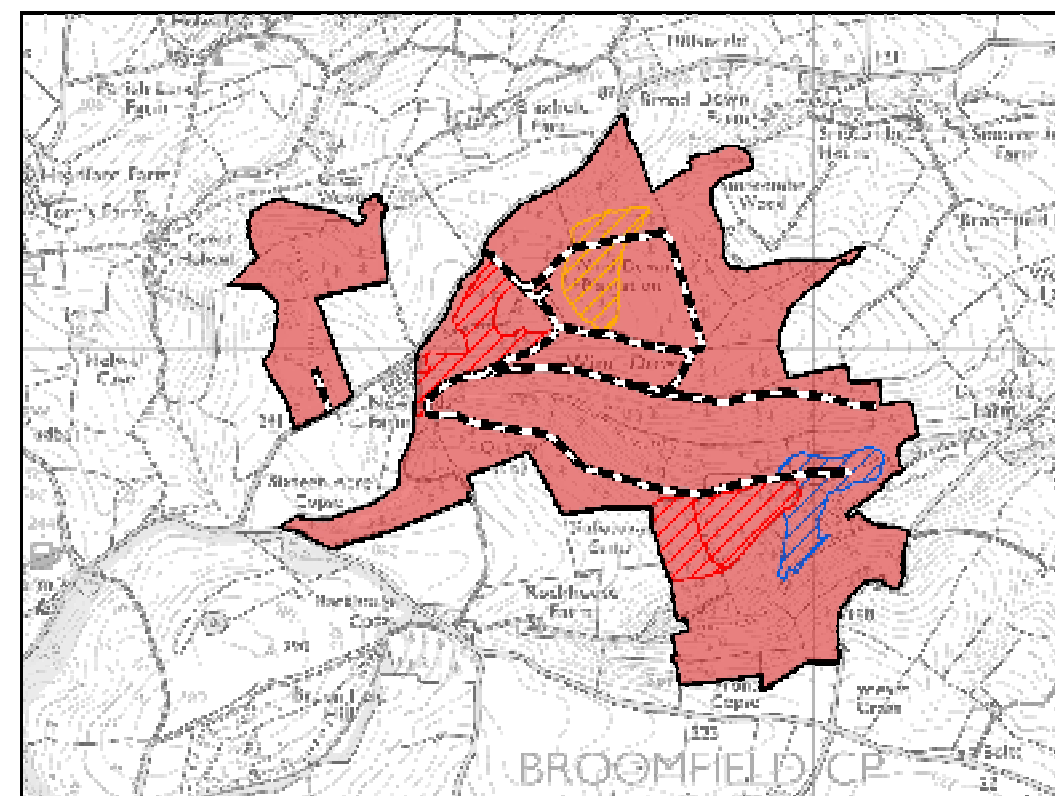
0 0.1 0.2 0.4 0.6 0.8 Miles

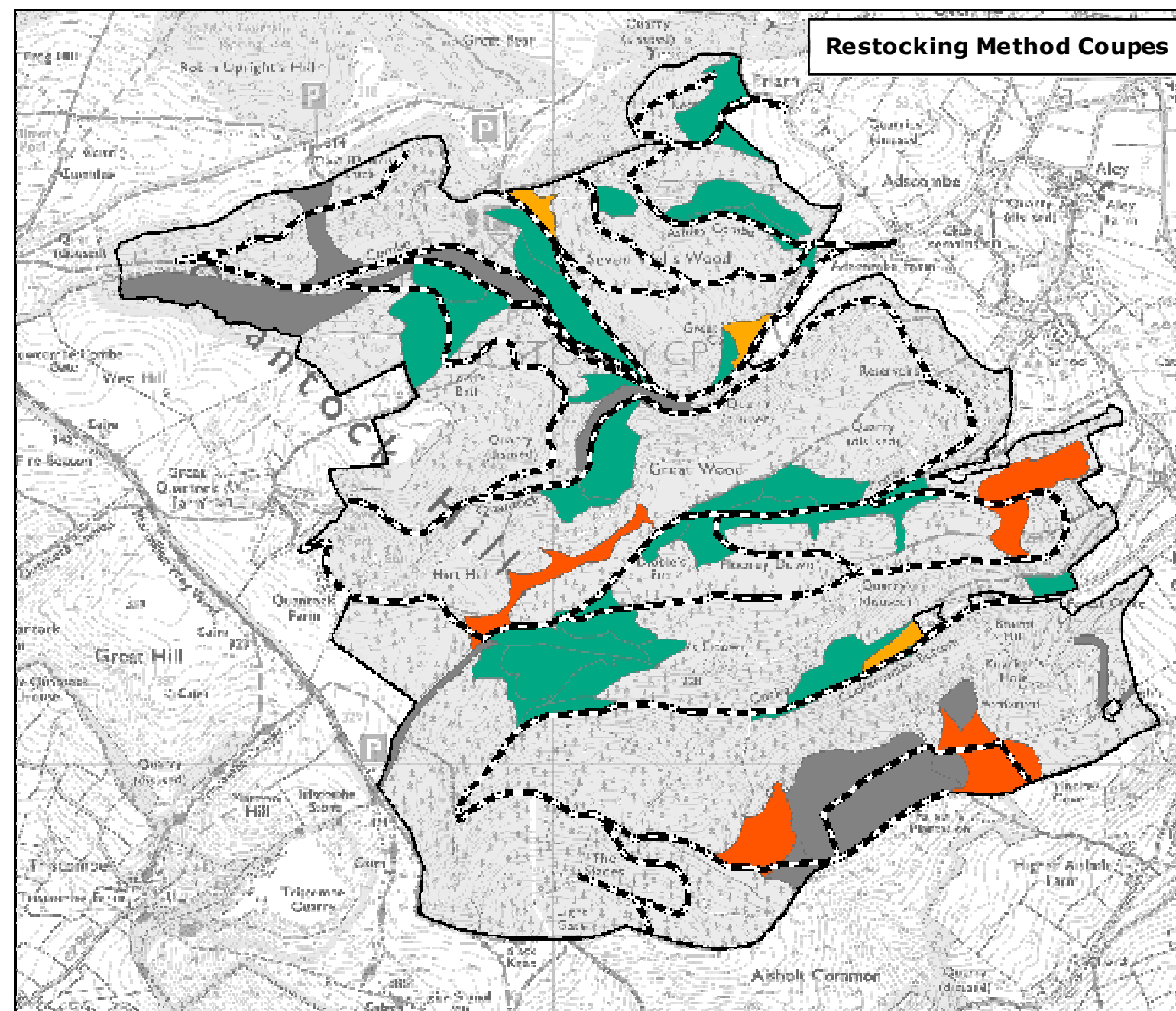
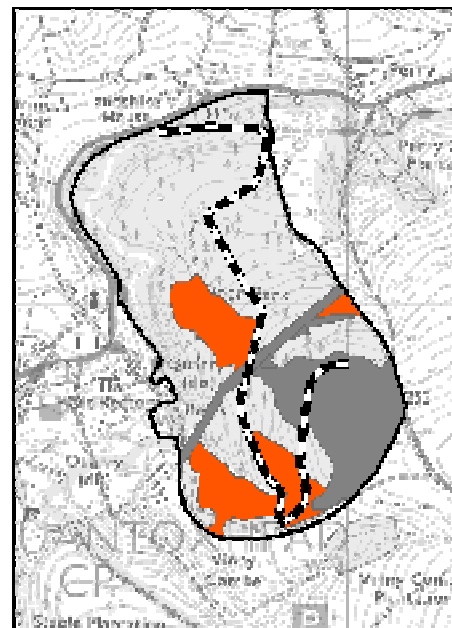
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Phytophthora ramorum

This airborne disease to which larch, rhododendron and particular alders and chestnuts host has been found in numerous locations both within and close to the Plan area.

The potential felling of infected stands under Statutory Plant Health Notice has been accounted for by ensuring adjacency of larch components with planned coupes has been kept to a minimum and planned clearfell volumes are relatively low. Some larch will be removed as part of the Plan's felling and thinning programme, and whilst host species will not be pre-emptively felled they will also not be retained or placed in minimum intervention areas.





Legend

- Groupfell & Restock
- Clearfell & Restock
- Open
- Successional

0 0.1 0.2 0.4 0.6 0.8 Miles

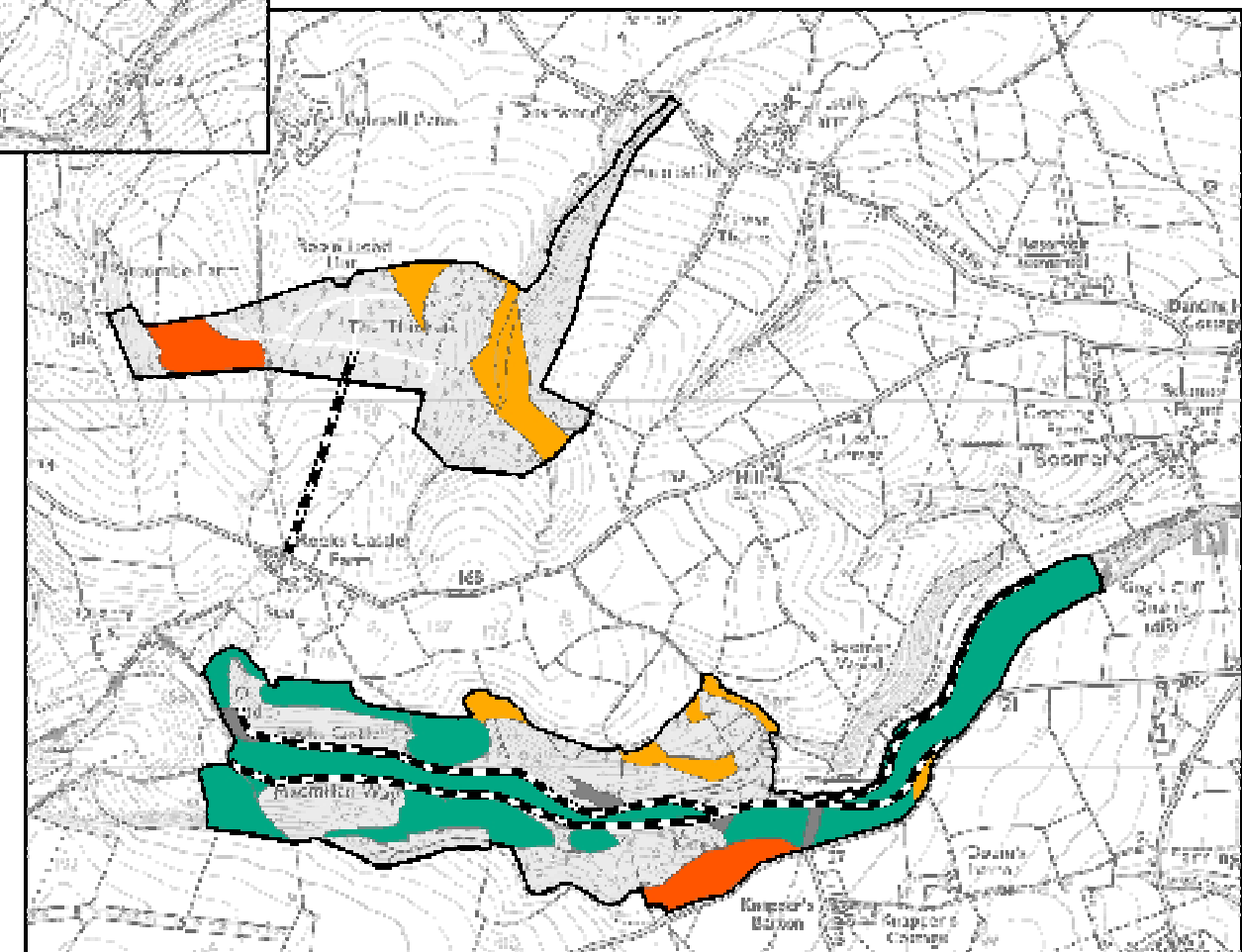
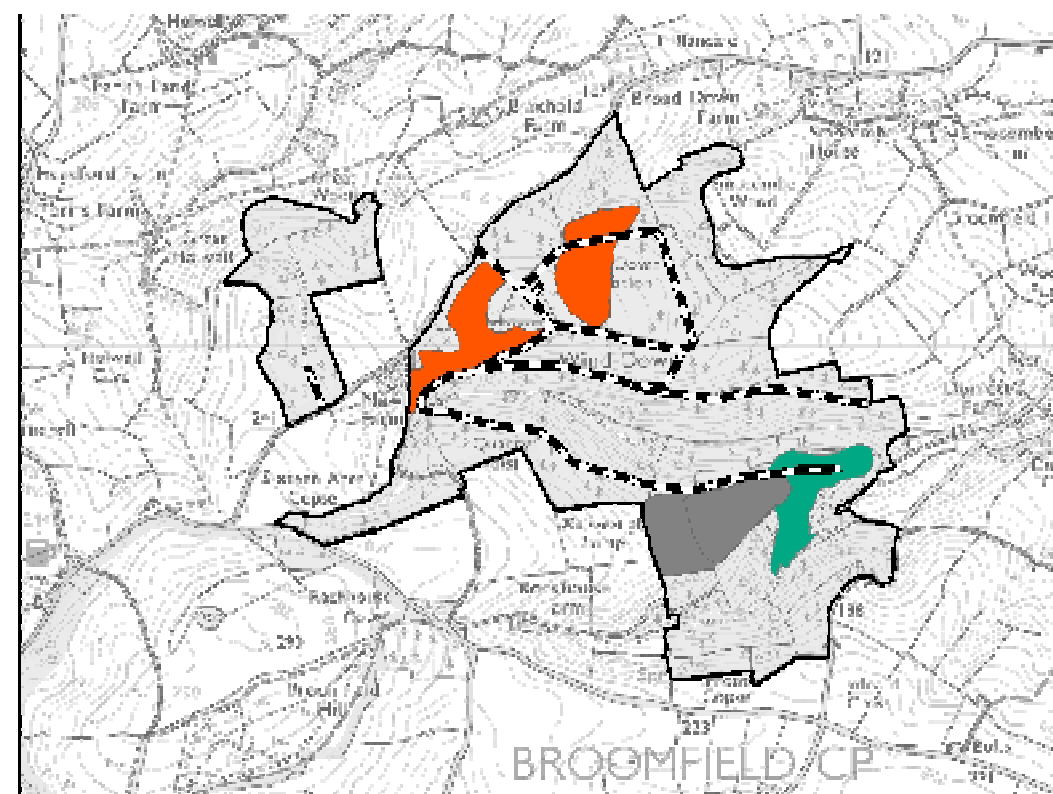
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Resilience

Beech occurs abundantly in throughout the Plan area and is a species of particular concern, as climate change scenario predictions place it as a 'marginally suitable' species by 2080.

The Quantock Plan area is particularly susceptible to *Chalara fraxinea*, and acute oak decline because of the large components of oak and ash. *Phytophthora ramorum*, and *Dothistroma Needle Blight* have both already been found in larches and pines respectively in the Plan area.

By increasing the structural diversity through thinning and the species diversity of the woodland through a wider suite of species choice in restocking the prospect of retaining a healthy and productive woodland is strengthened. The gradual but targeted removal of susceptible species will also help the longevity of the woodlands' health.



Restocking

Clearfell & Restock

Planting will be used on these sites as timber production is the key aim and/or natural regeneration of the desired species is known to be insufficient due to site conditions or seed potential. Restocking will occur at 2,700 stems/ha. Natural regeneration may be used to restock gaps and minor species.

Group fell & Restock

Planting will be used on these sites because natural regeneration of the desired species is known to be insufficient due to site conditions or seed potential. Restocking will occur at 2,700 stems/ha. Natural regeneration may be used to restock gaps and minor species.

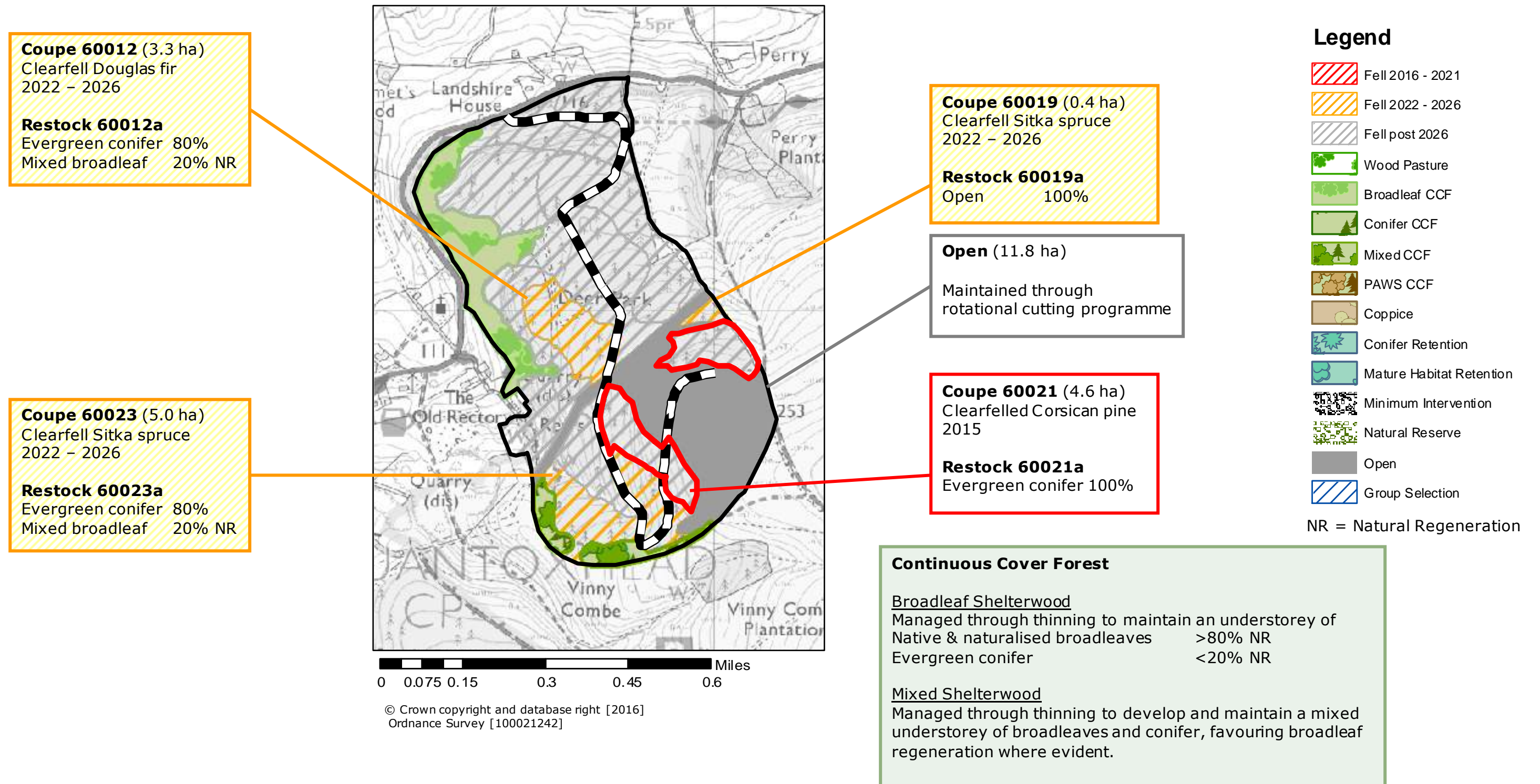
Successional Habitat

These small areas are unstocked following felling operations to allow natural regeneration to propose and determine the future forest cover. If a diverse range of species at a density of around 3000 stems/ha is not realised 10 years after felling, restocking will occur at 2,500 stems/ha with site appropriate species.

Permanent Open Space

Permanent open space will be managed so that forest cover does not exceed 20% through a rotational cutting programme with stump grinding of newly created areas where necessary to enable future maintenance.

St Audries – Management Prescriptions 2016 -2026



Declaration by FC as an Operator.

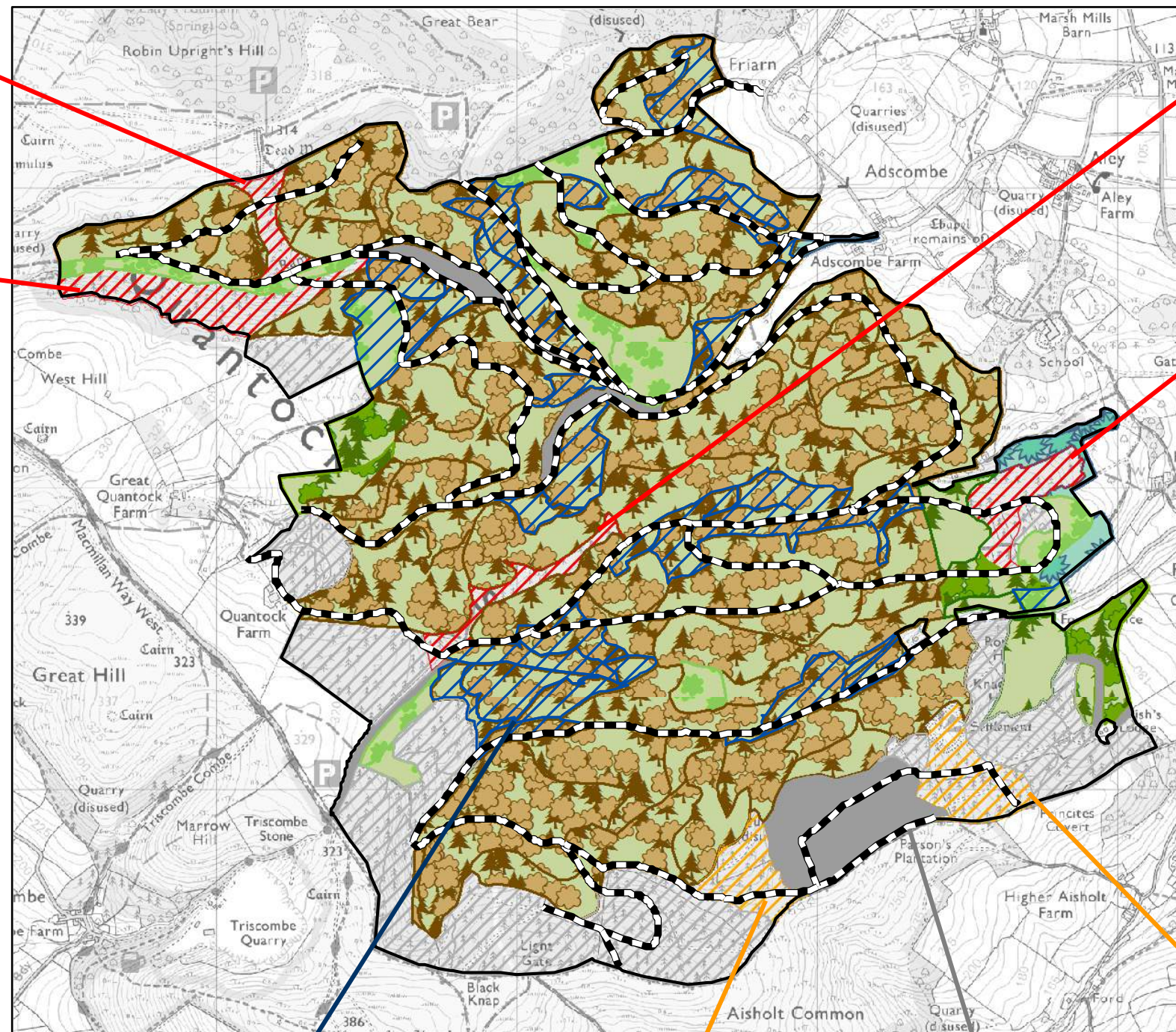
All timber arising from the Forest Enterprise estate represents a negligible risk under EUTR (No

Declaration by FC as an Operator.

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

Great Wood – Management Prescriptions 2016 -2026

0 0.075 0.15 0.3 0.45 0.6 Miles



Coupe 60036 (3.8 ha)
Clearfell Douglas fir
2017 – 2021

Restock 60036a
Open 100%

A survey is required to establish the extent of the some sections of the SM before felling can occur.

Clearly visible sections of the monument towards the north will be felled without full survey.
To be mapped

Coupe 60032 (10.3 ha)
Clearfell Western hemlock & Douglas fir
2017 – 2021

Restock 60032a
Open 100%

Retentions (6.5 ha)
Managed on an extended rotation with minor, occasional works to ensure the longevity of the trees.

Legend

- Fell 2016 - 2021
- Fell 2022 - 2026
- Fell post 2026
- Wood Pasture
- Broadleaf CCF
- Conifer CCF
- Mixed CCF
- PAWS CCF
- Coppice
- Conifer Retention
- Mature Habitat Retention
- Minimum Intervention
- Natural Reserve
- Open
- Group Selection

NR = Natural Regeneration:

Coupe 60082 (4.2 ha)
Clearfell Scots pine
2017 – 2021

Restock 60082a
Open 100%

Coupe 60204 (6.4 ha)
Clearfell Douglas fir
2017 – 2021

Restock 60204a
Evergreen Conifer 100%

Continuous Cover Forest

Broadleaf Shelterwood

Managed through thinning to maintain an understorey of:
Native & naturalised broadleaves >80% NR
Evergreen conifer <20% NR

Conifer Shelterwood

Managed through thinning to maintain an understorey of:
Evergreen conifer >80% NR
Native & naturalised broadleaves <20% NR

PAWS Shelterwood

Managed through thinning (unless where Group Selection is applied) to develop an understorey towards:
Native & naturalised broadleaves >80% NR
Evergreen conifer <20% NR

Mixed Shelterwood

Managed through thinning to develop and maintain a mixed understorey of broadleaves and conifer, favouring broadleaf regeneration where evident.

Group Selection (77.2 ha)
Group Fell up to fourteen 0.5ha groups over 10 years

Restock
Native Broadleaf 90%
Evergreen Conifer 10% NR

Coupe 60163 (6.1 ha)
Clearfell Sitka spruce
2022 – 2026

Restock 60123a
Native Broadleaf 65%
Open 35%

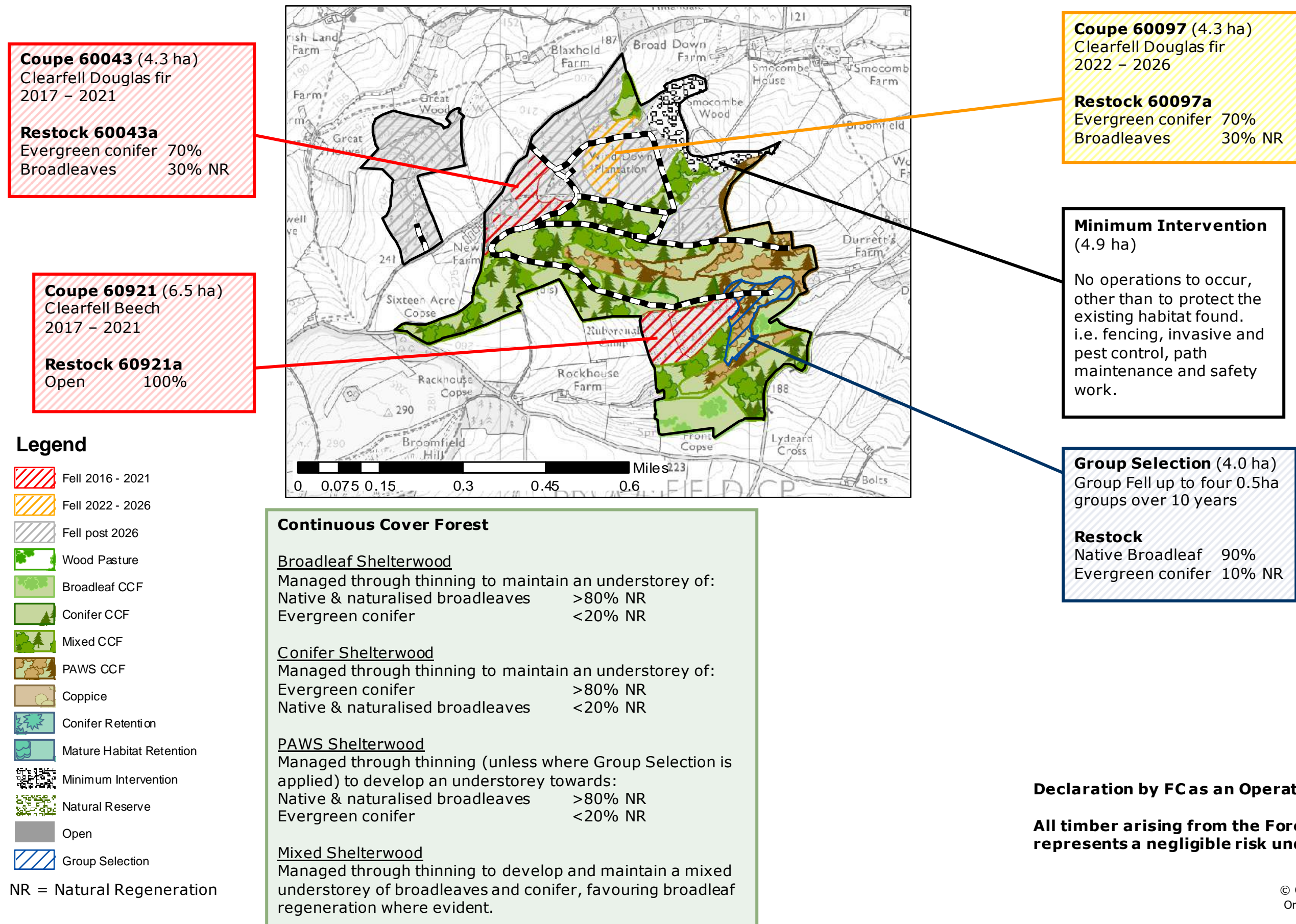
Open (26.4 ha)

Maintained through rotational cutting programme

Coupe 60184 (5.4 ha)
Clearfell Douglas fir
2022 – 2026

Restock 60184a
Evergreen Conifer 70%
Mixed Broadleaves 30% NR
Open 10%

Wind Down – Management Prescriptions 2016 -2026



Declaration by FC as an Operator.

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

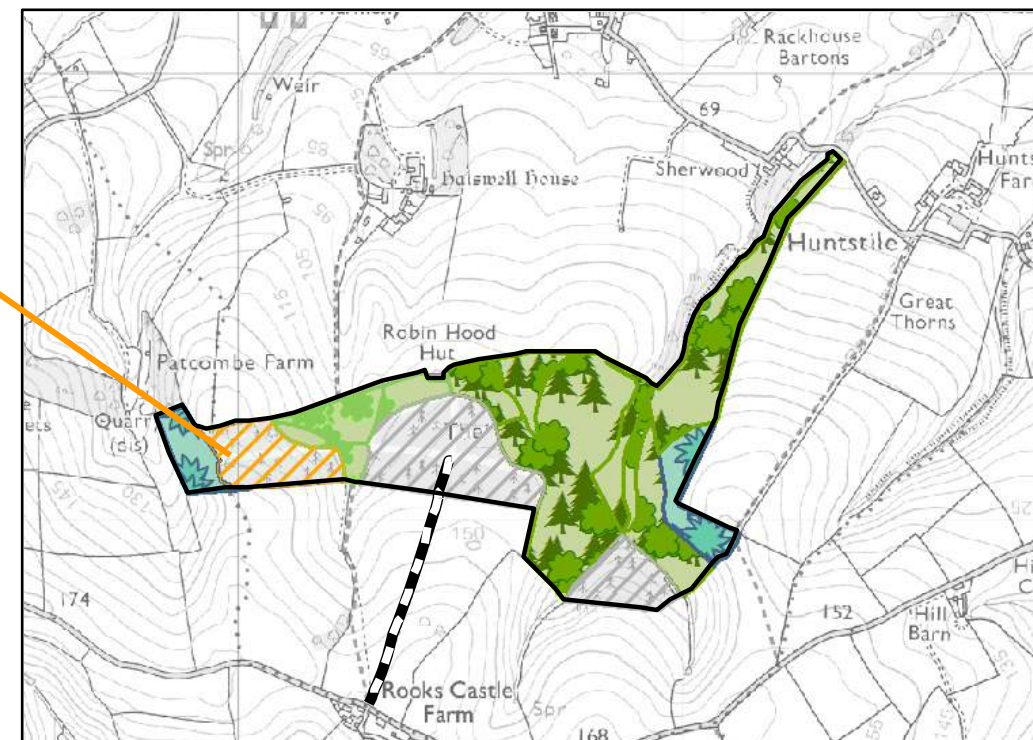
Goathurst – Management Prescriptions 2016 -2026

Coupe 60273 (3.3 ha)
 Clearfell Western hemlock
 & Japanese larch
 2022 – 2026

Restock 60273a
 Evergreen conifer 60%
 Broadleaves 40% NR

Retentions (4.0 ha)

Managed on an extended
 rotation with minor,
 occasional works to
 ensure the longevity of
 the trees.



Legend

-  Fell 2016 - 2021
-  Fell 2022 - 2026
-  Fell post 2026
-  Wood Pasture
-  Broadleaf CCF
-  Conifer CCF
-  Mixed CCF
-  PAWS CCF
-  Coppice
-  Conifer Retention
-  Mature Habitat Retention
-  Minimum Intervention
-  Natural Reserve
-  Open
-  Group Selection

NR = Natural Regeneration

Continuous Cover Forest

Broadleaf Shelterwood

Managed through thinning to maintain an understorey of:
 Native & naturalised broadleaves >80% NR
 Evergreen conifer <20% NR

Mixed Shelterwood

Managed through thinning to develop and maintain a mixed
 understorey of broadleaves and conifer, favouring broadleaf
 regeneration where evident.

Declaration by FC as an Operator.

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

Kings Cliff – Management Prescriptions 2016 -2026

Group Selection (4.9 ha)
Up to two 0.5ha groups of C. pine over 10 years

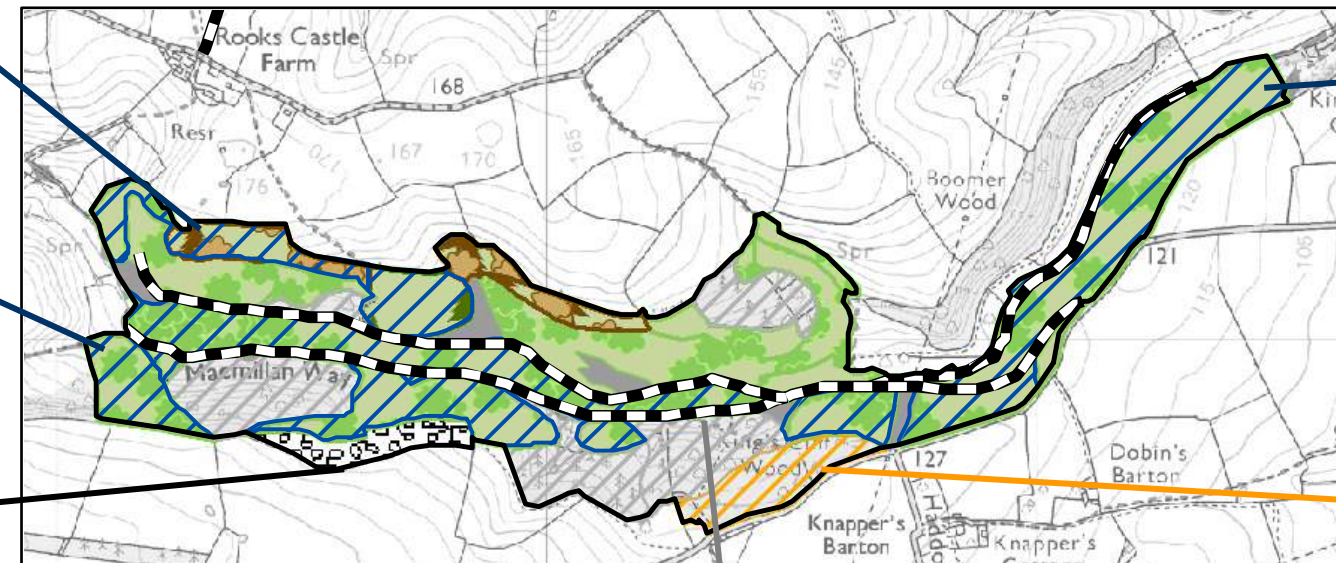
Restock
Native Broadleaf 100%

Group Selection (9.6 ha)
Group Fell up to two 0.5ha groups of poplar over 10 years

Restock
Native Broadleaf 60%
Open 40%

Minimum Intervention (2.4 ha)

No operations to occur, other than to protect the existing habitat found. i.e. fencing, invasive and pest control, path maintenance and safety work



Group Selection (23.8 ha)
Group Fell up to four 0.5ha groups over 10 years

Restock
Naturalised Broadleaf 60% NR
Native Broadleaf 40%

Coupe 60674 (3.6 ha)
Clearfell Sweet chestnut 2017 – 2021

Restock 60674a
Naturalised Broadleaf 60% NR
Native Broadleaf 40%

0 0.075 0.15 0.3 0.45 0.6 Miles

Open (26.4 ha)

Maintained through rotational cutting programme, in partnership and with grazing where feasible.

Continuous Cover Forest

Broadleaf Shelterwood

Managed through thinning to maintain an understorey of:
Native & naturalised broadleaves >80% NR
Evergreen conifer <20% NR

PAWS Shelterwood

Managed through thinning (unless where Group Selection is applied) to develop an understorey towards:
Native & naturalised broadleaves >80% NR
Evergreen conifer <20% NR

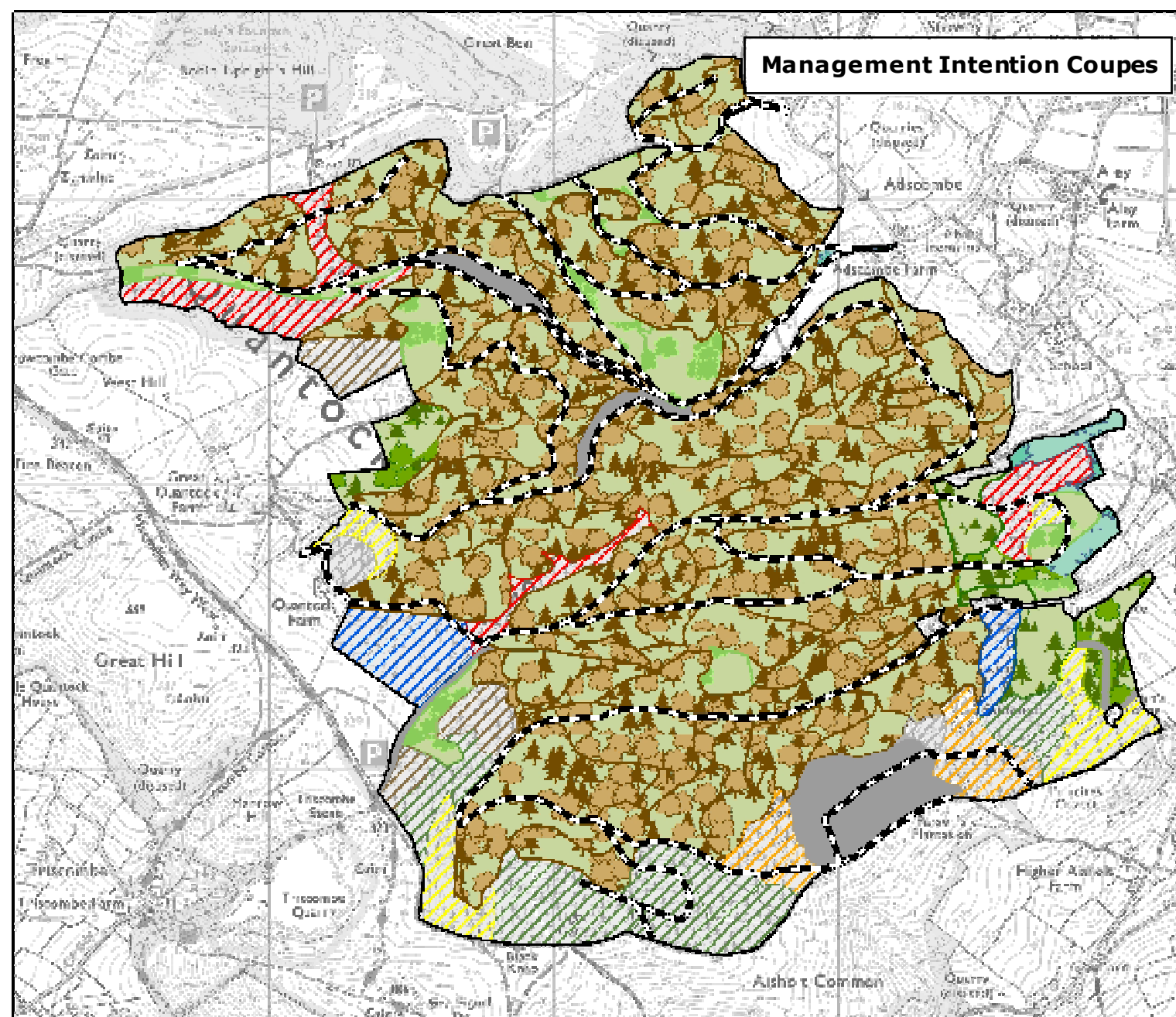
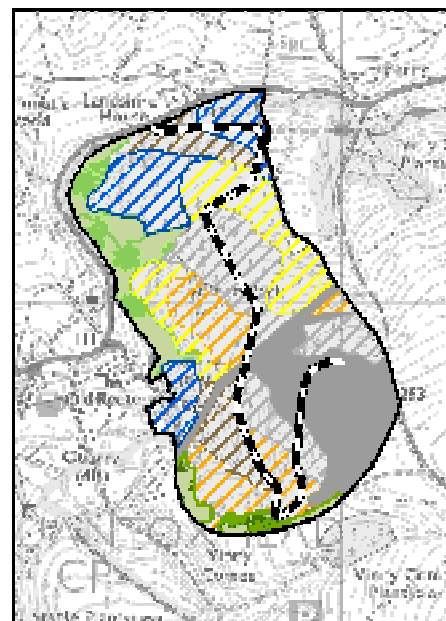
Legend

-  Fell 2016 - 2021
-  Fell 2022 - 2026
-  Fell post 2026
-  Wood Pasture
-  Broadleaf CCF
-  Conifer CCF
-  Mixed CCF
-  PAWS CCF
-  Coppice
-  Conifer Retention
-  Mature Habitat Retention
-  Minimum Intervention
-  Natural Reserve
-  Open
-  Group Selection

NR = Natural Regeneration

Declaration by FCas an Operator.

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



Management Intentions 2016 – 2051

To ensure a diverse and resilient Plan area is realised over the next 35 years, whilst in line with the Plan objectives, a variety of management prescriptions will be employed. A mixture of clearfell and restock as well as continuous cover systems will be used to ensure the woodlands continue to deliver quality economic, ecological, and cultural value.

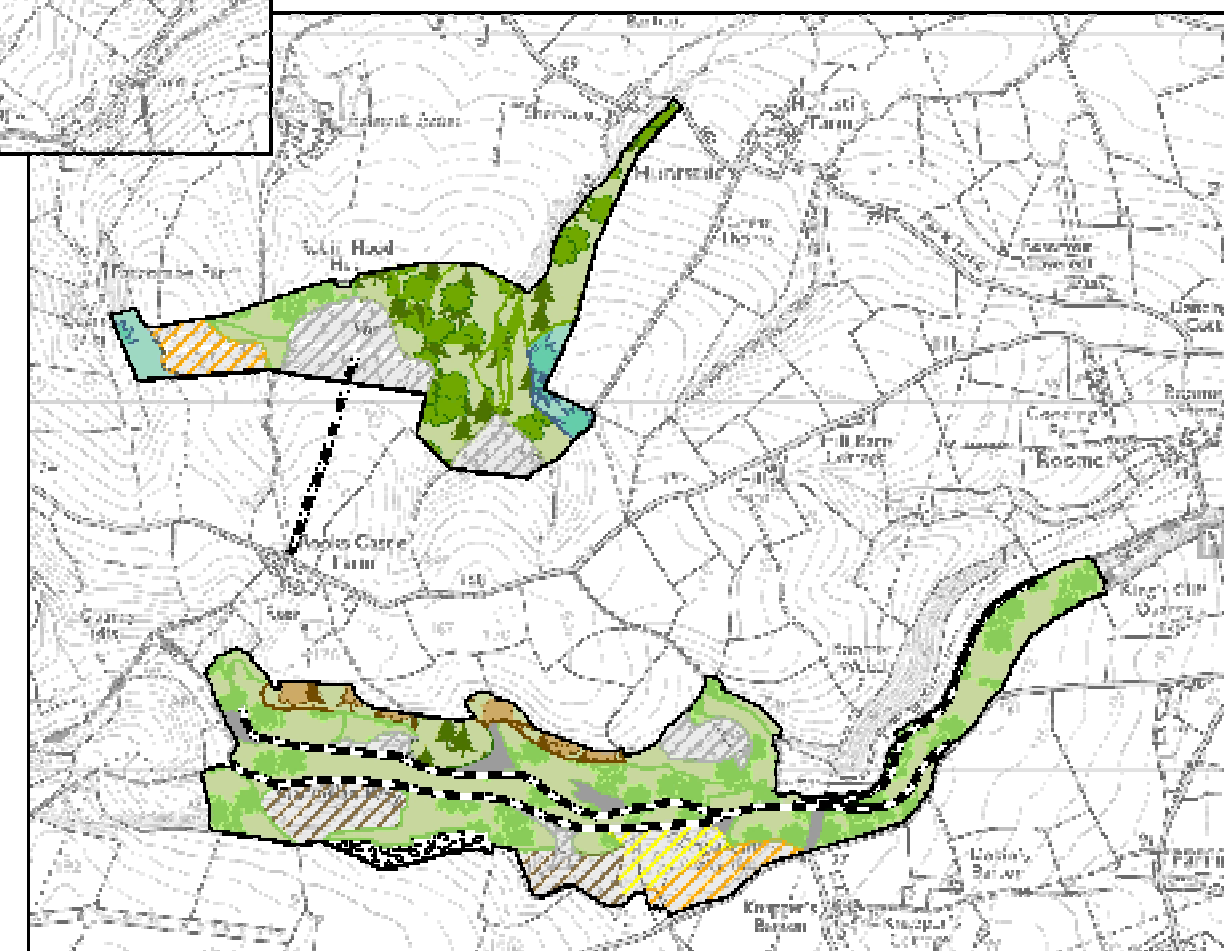
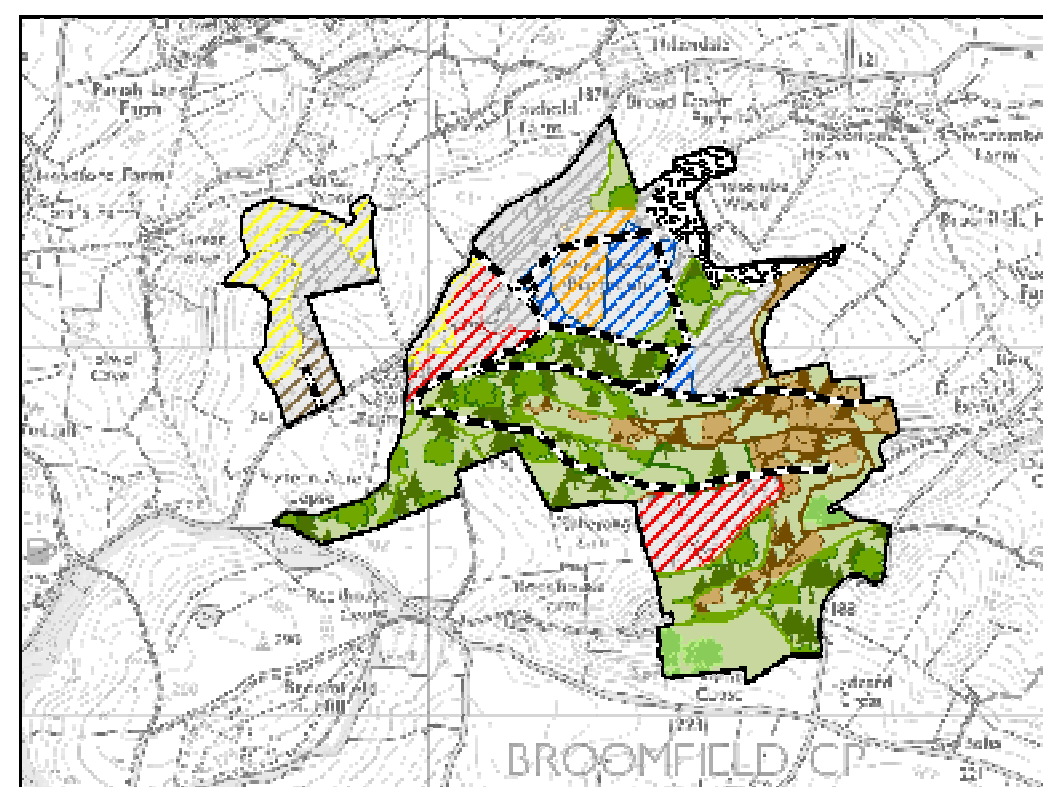
Areas of limited activity either to preserve ecological or heritage value or due to operational constraints, will deliver a set of woodlands which deliver a multitude of benefits into the future.

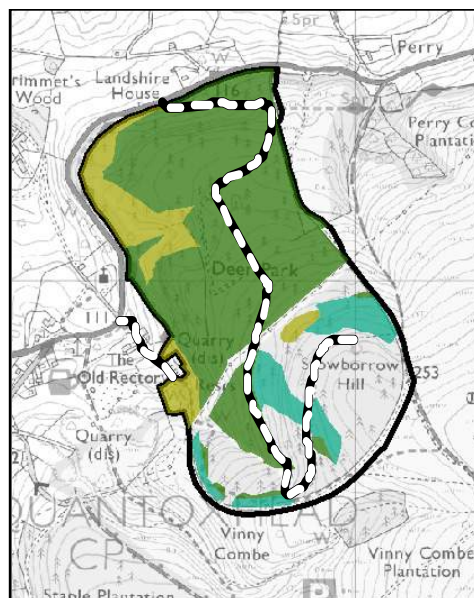
Areas of high forest and transitional forest together with temporary and permanent open will create a mosaic of dynamic managed habitats which will be resilient into the future.

Coupes managed under group selection have not been identified beyond the Plan period (2016-2026) but this method is intended to be used into the future.

Legend

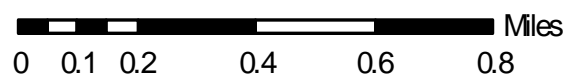
- Fell 2016 - 2021
- Fell 2022 - 2026
- Fell 2027 - 2031
- Fell 2032 - 2036
- Fell 2037 - 2041
- Fell 2042 - 2046
- Fell post 2046
- Wood Pasture
- Broadleaf CCF
- Conifer CCF
- Mixed CCF
- PAWS CCF
- Coppice
- Conifer Retention
- Mature Habitat Retention
- Minimum Intervention
- Natural Reserve
- Open





Legend

- Evergreen Conifers
- Pines
- Larches
- Native and naturalised broadleaved species
- Non-native broadleaved species

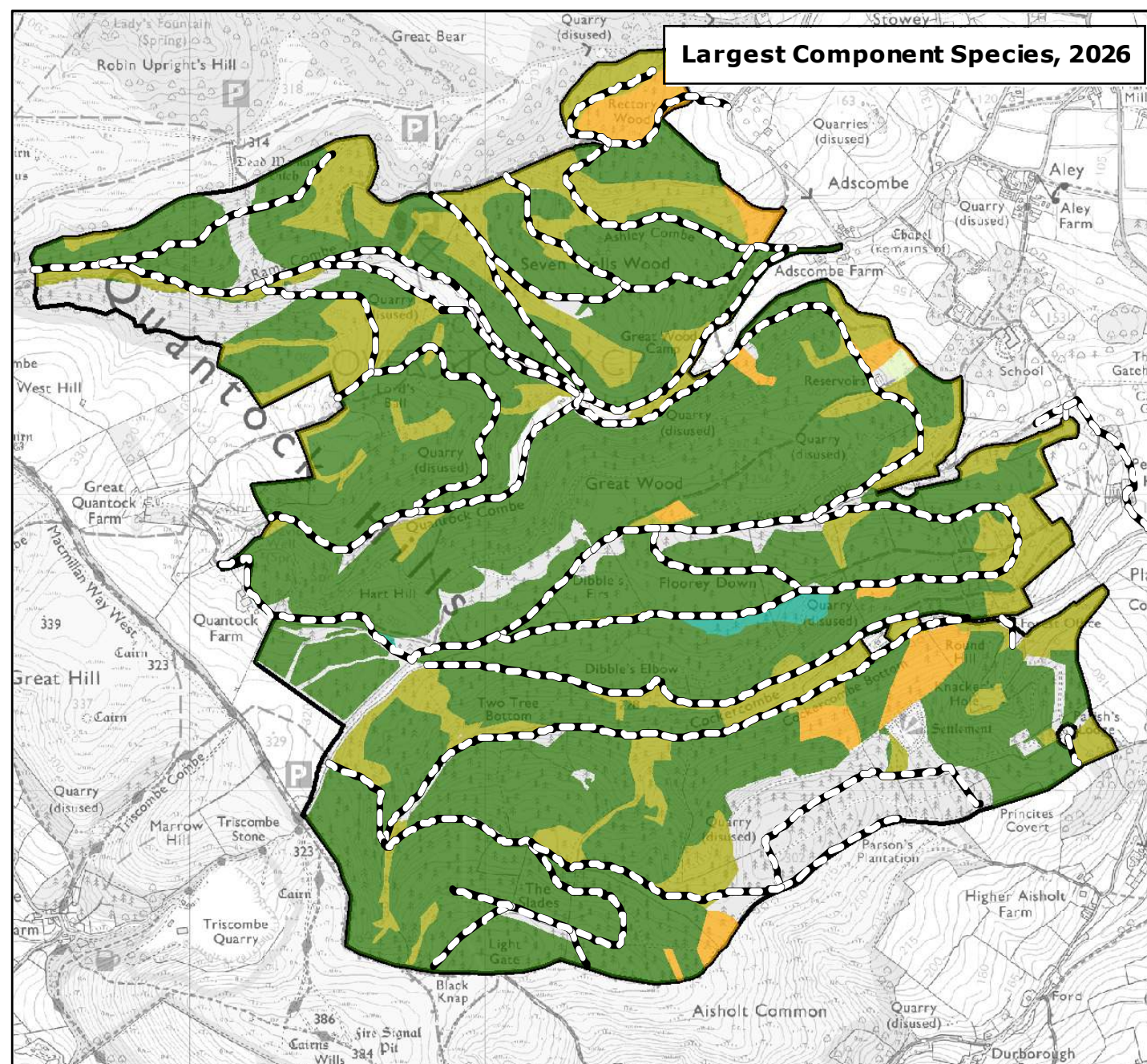


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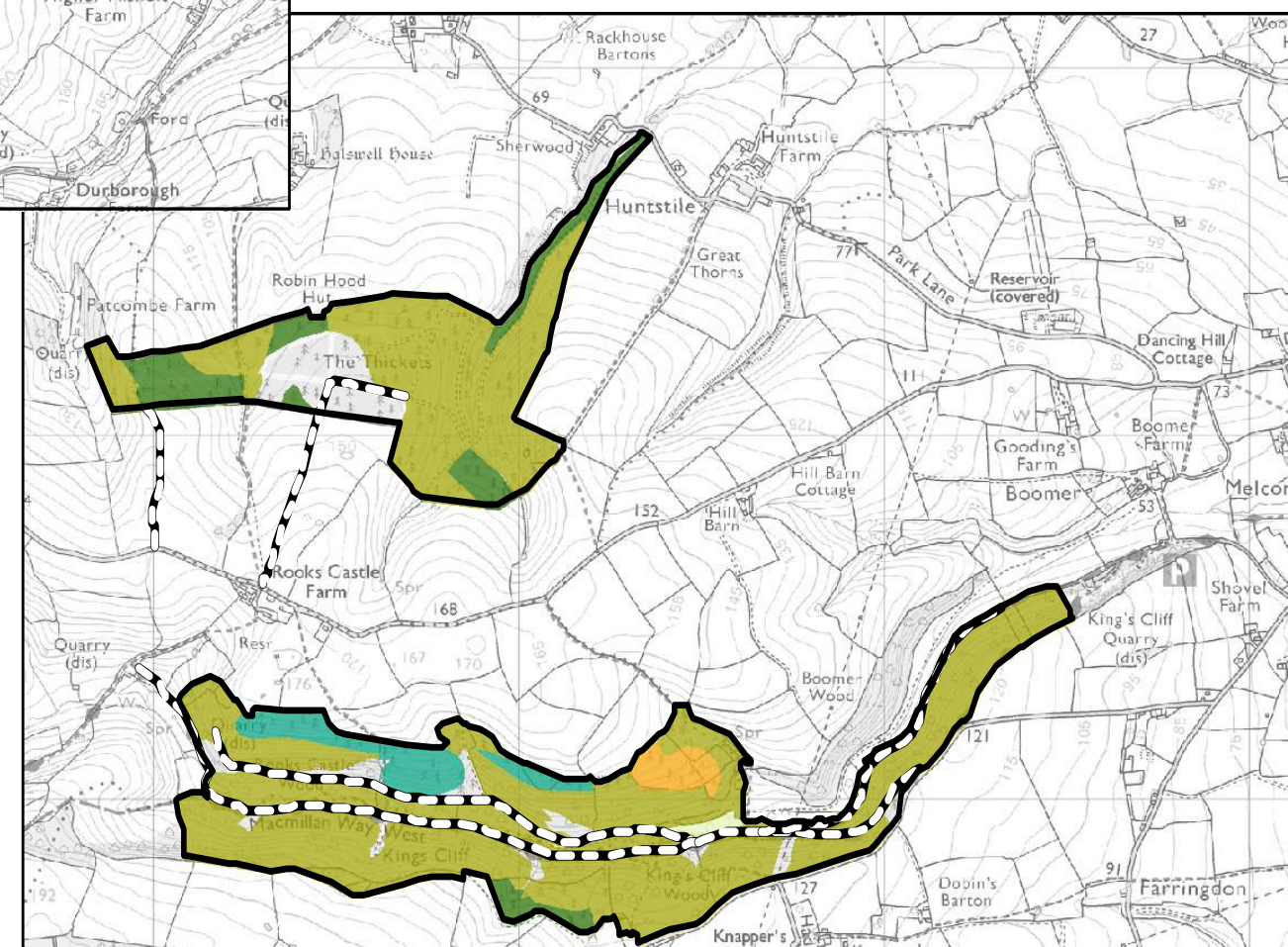
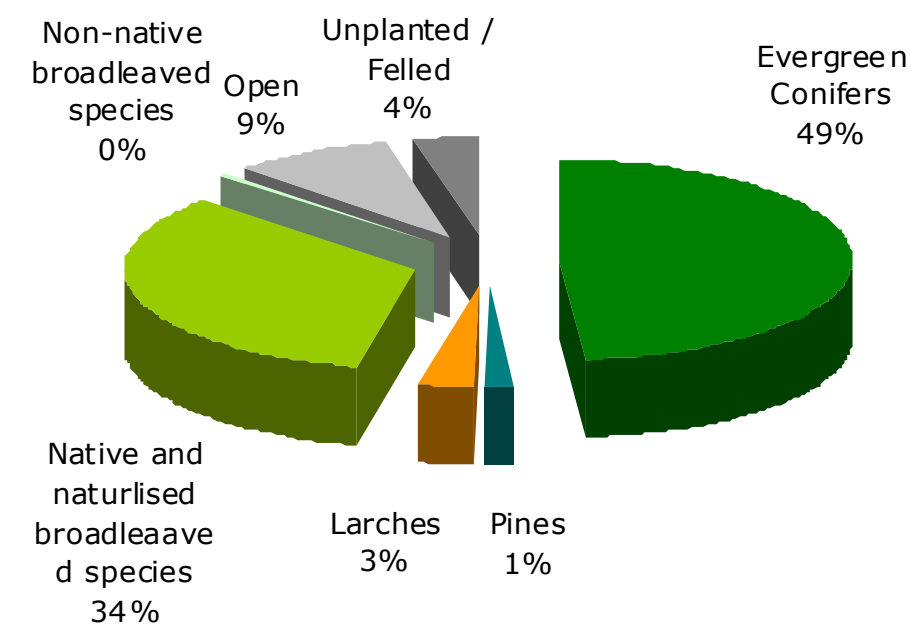
The projections made here are indicative of what is expected in 2026. They do not constitute a guarantee and merely act as a guide of how the vision for the woodland will be delivered over time.

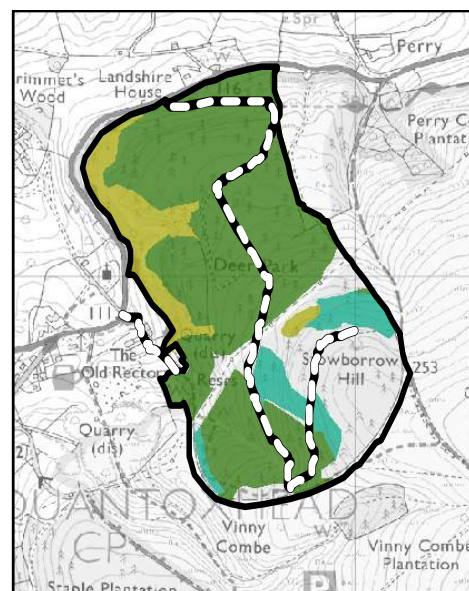
In reality, more larch removal is expected and a greater of proportion of open space will be delivered, due to *Phytophthora ramorum* and dynamic internal open space fluxes respectively

Largest Component Species, 2026



Indicative Future Species, 2026





Legend

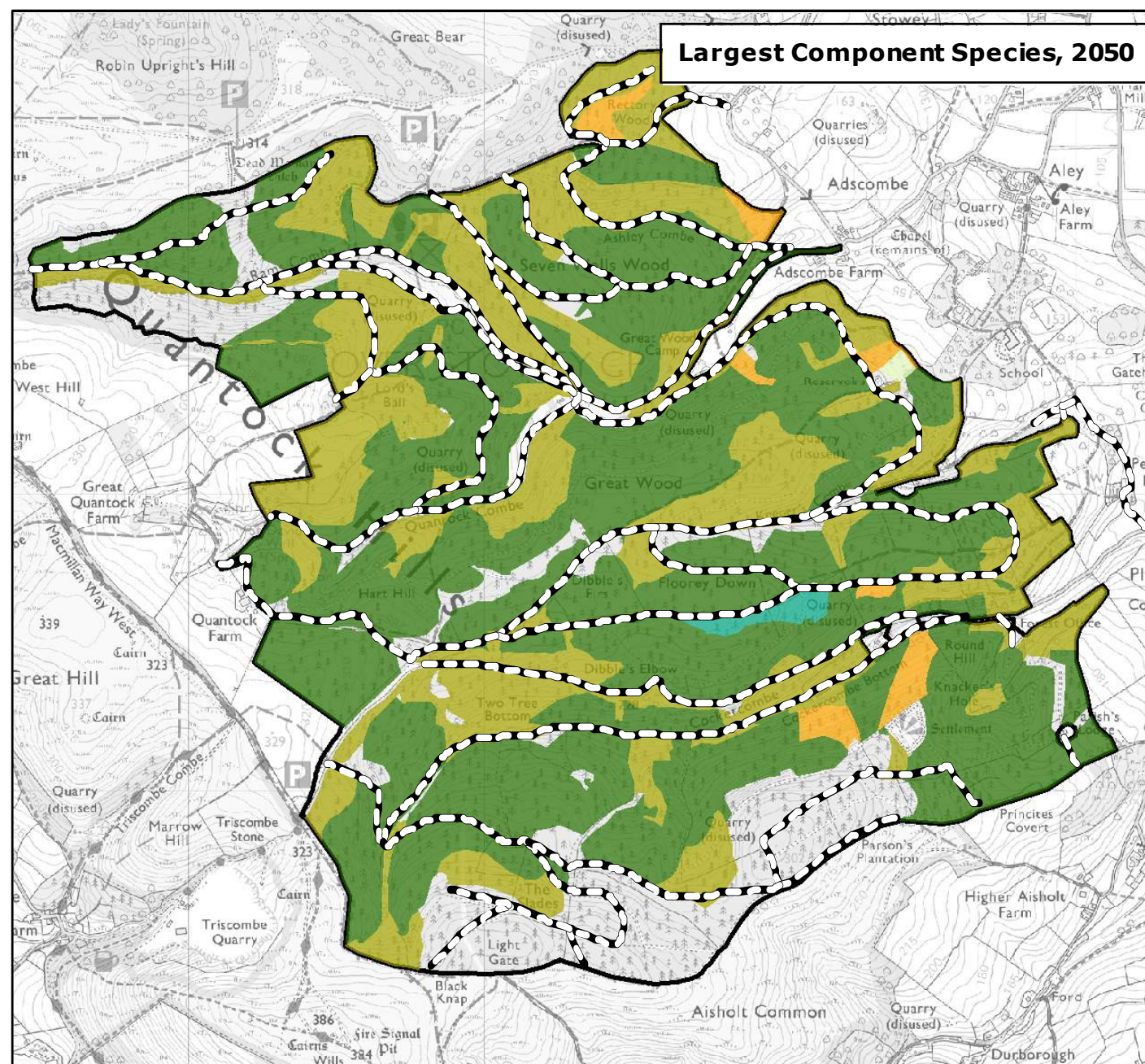
- Evergreen conifers;
- Pines
- Larches
- Native and naturalised broadleaved species
- Non-native broadleaved species

0 0.1 0.2 0.4 0.6 0.8 Miles

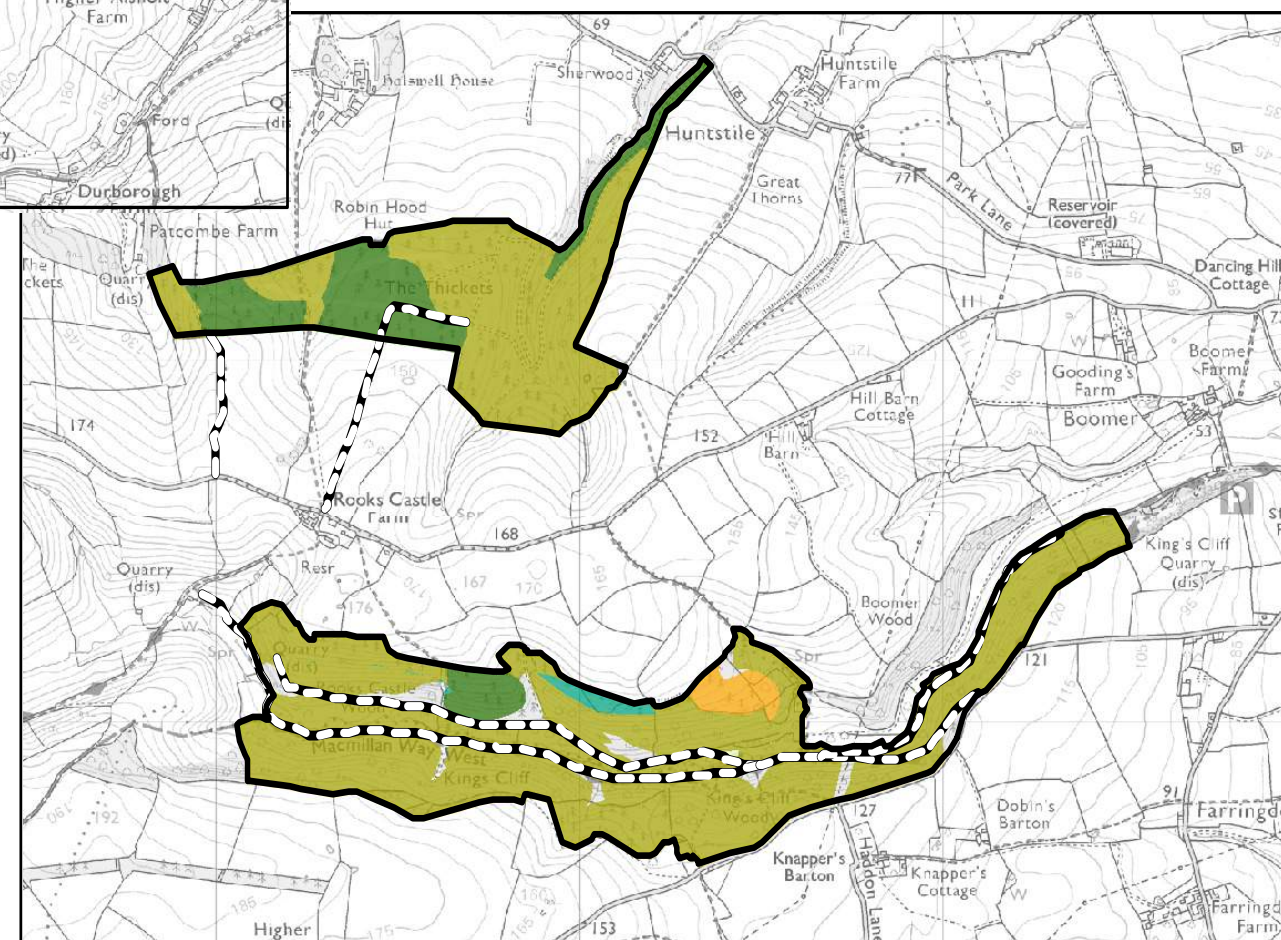
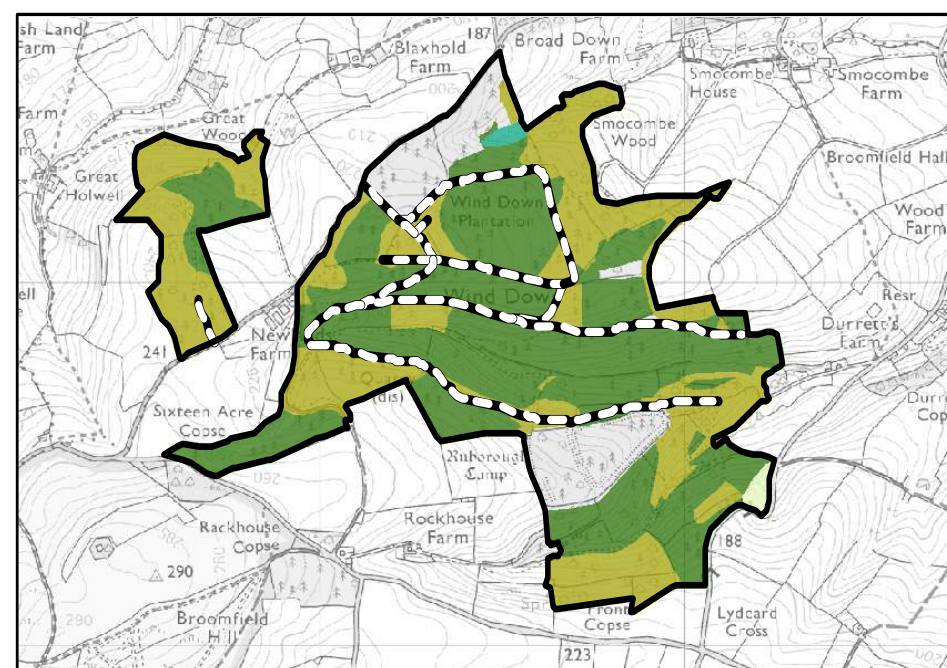
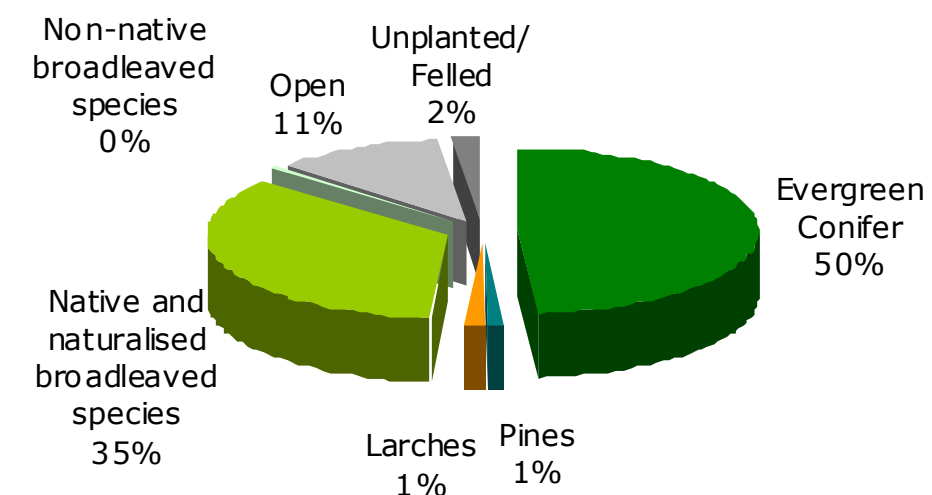
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The projections made here are indicative of what is expected in 2026. They do not constitute a guarantee and merely act as a guide of how the vision for the woodland will be delivered over time.

In reality, more larch removal is expected and a greater of proportion of open space will be delivered, due to *Phytophthora ramorum* and dynamic internal open space fluxes respectively



Indicative Future Species, 2050



Heritage Assets

The Quantock Plan area holds a significant and important cultural history and heritage. The management of the Quantock Plan area will endeavour to protect and enhance this heritage. Designated, undesignated and unrecorded sites will be managed in line with guidance and planning legislation. Where necessary both internal and external experts and organisations will be used to identify sites and issues and guide operations. This assistance will be sort at an operational level and documented in the Operational Site Plans.

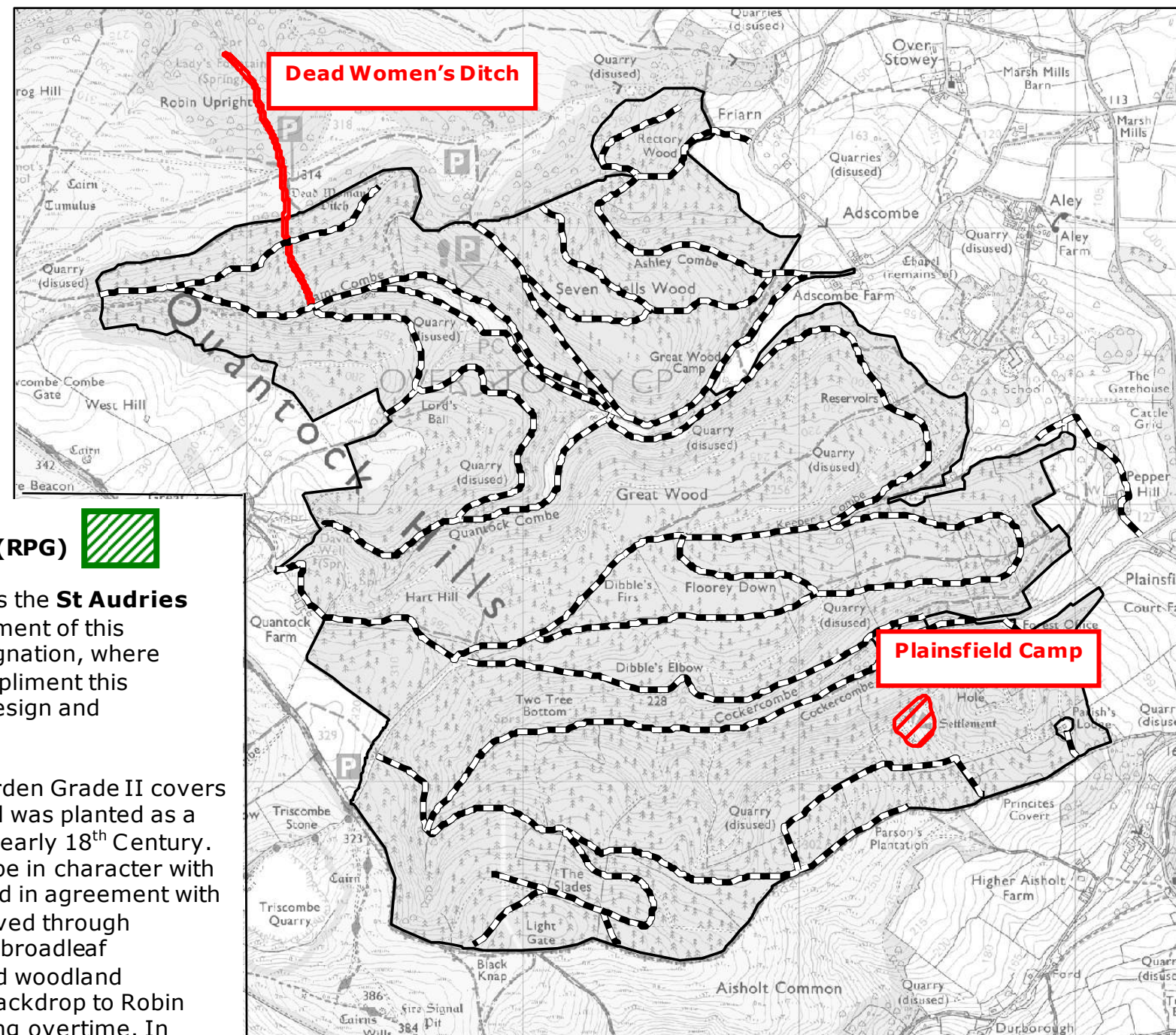
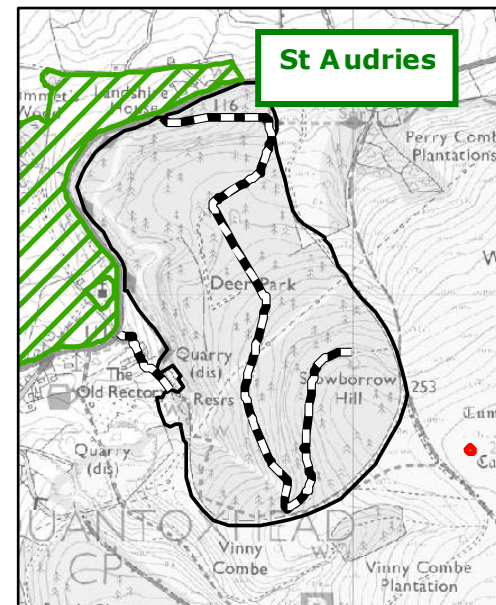
Scheduled Monuments (SM)



These designated earthwork sites will be maintained, enhanced and preserved for perpetuity.

Plainsfield Camp SM, in **Great Wood** has been actively managed since 1974 and is now restored to a stable condition. Ongoing management will be to maintain this with minor treatment of remaining tree stumps.

Dead Women's Ditch SM in **Great Wood** and Ruborough Camp SM in **Wind Down** are both on the Historic England 'At Risk' Register due to threat forestry, i.e. existing woodland cover. Particular and significant steps will be taken to stabilise, and where possible enhance, these sites as outlined in their respective specific plans.



Registered Parks and Gardens (RPG)

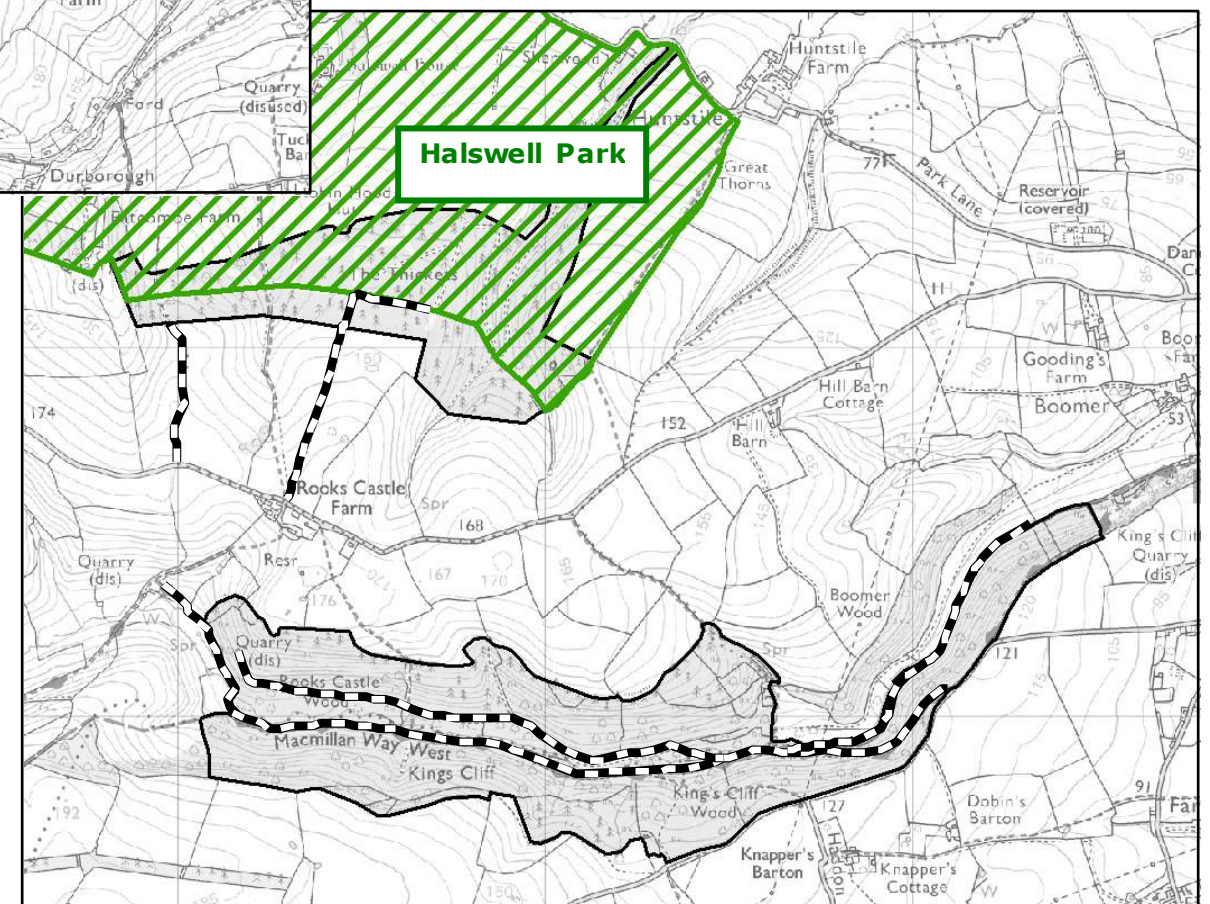
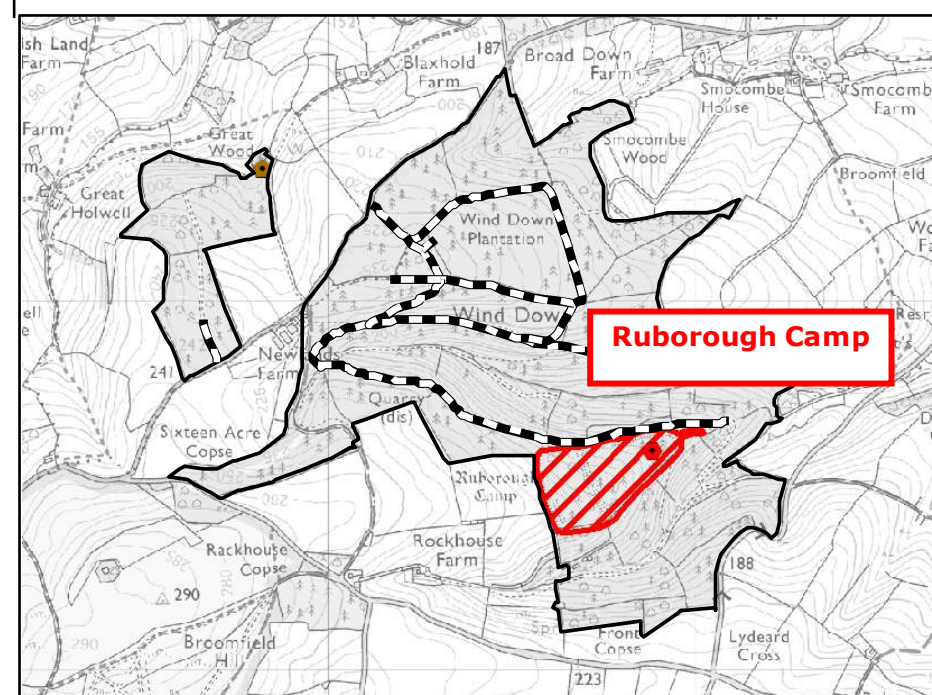


St Audries (House) RPG neighbours the **St Audries** forest block, so whilst the management of this woodland will work under this designation, where appropriate, management will compliment this landscape through quality coupe design and alternatives to clearfell.

The Halswell Register Park and Garden Grade II covers much of **Goathurst**. The woodland was planted as a back drop to Halswell House in the early 18th Century. Management of this woodland will be in character with the rest of the Park and Garden and in agreement with Historic England. This will be achieved through encouraging a larger proportion of broadleaf component to deliver a more mixed woodland composition, maintenance of the backdrop to Robin Wood Hut and reinstate of the Riding overtime. In doing so this Plan will better reflect the original design and function of the woodland and contribute to the Park and Garden's constancy in the future and removal from the 'At Risk' Register.



Haswell House and Park, 2014



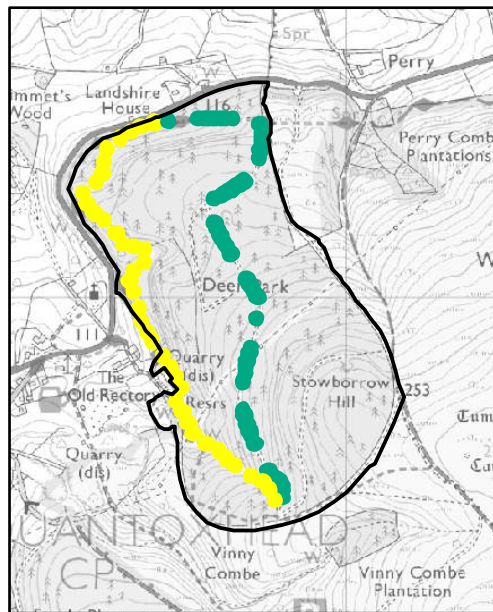
Habitat Corridors and Edges

Areas neighbouring or close to SSSIs or SACs will be managed sympathetically to ensure the condition of these does not decline and is enhanced where possible, so as to complement the ecological value of these sites.

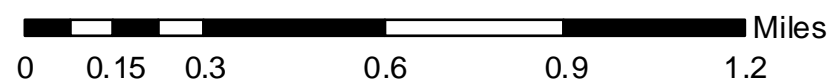
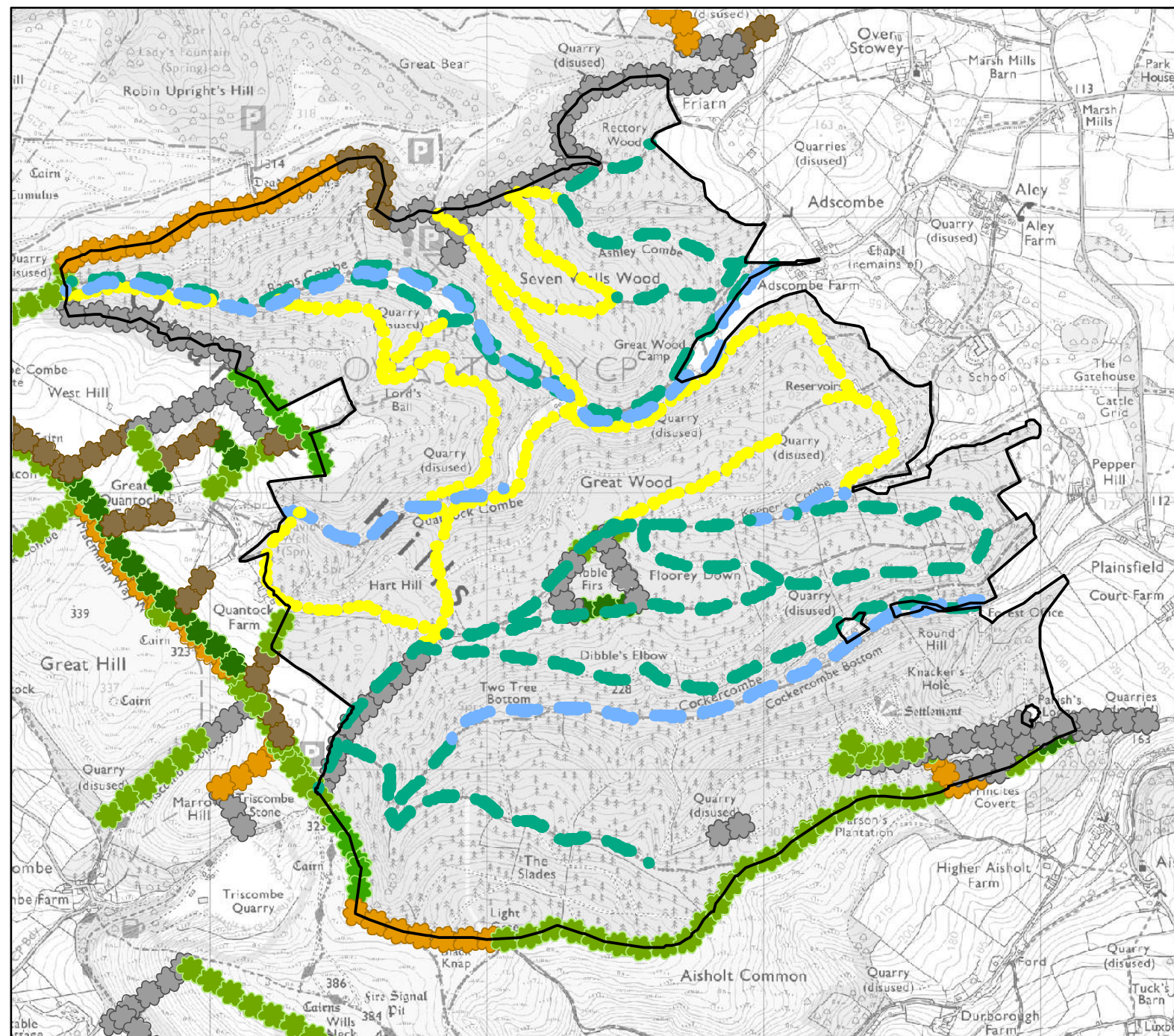
Beech hedge banks have been mapped and their condition measured as part of a larger AONB-wide survey. Where resources and logistical constraints allow, steps will be taken to restore these banks to a stable condition through cutting and replanting in line with "Restoration Plan for the Beech Hedgebanks of the Quantock Hills" (AONB 2005).

Ride and road sides, together with watercourses and hedgerow management will conform to the prescriptions outlined in the District document, *Design and Management of Environmental Corridors* (Lucas, 2006). The ride network within Great Wood will be utilised to extend and connect with the surrounding heathland, 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. This will provide a transient habitat for a multitude of species.

Dormice (European Protected Species) require pinch points across corridors to allow habitat connectivity between broadleaved woodland, particularly in stands with a high hazel components. The prescriptions outlined in the Environmental Corridors document will ensure appropriate habitat provision and management will be in line with Best Practice Guidance (FC& NE, 2007).

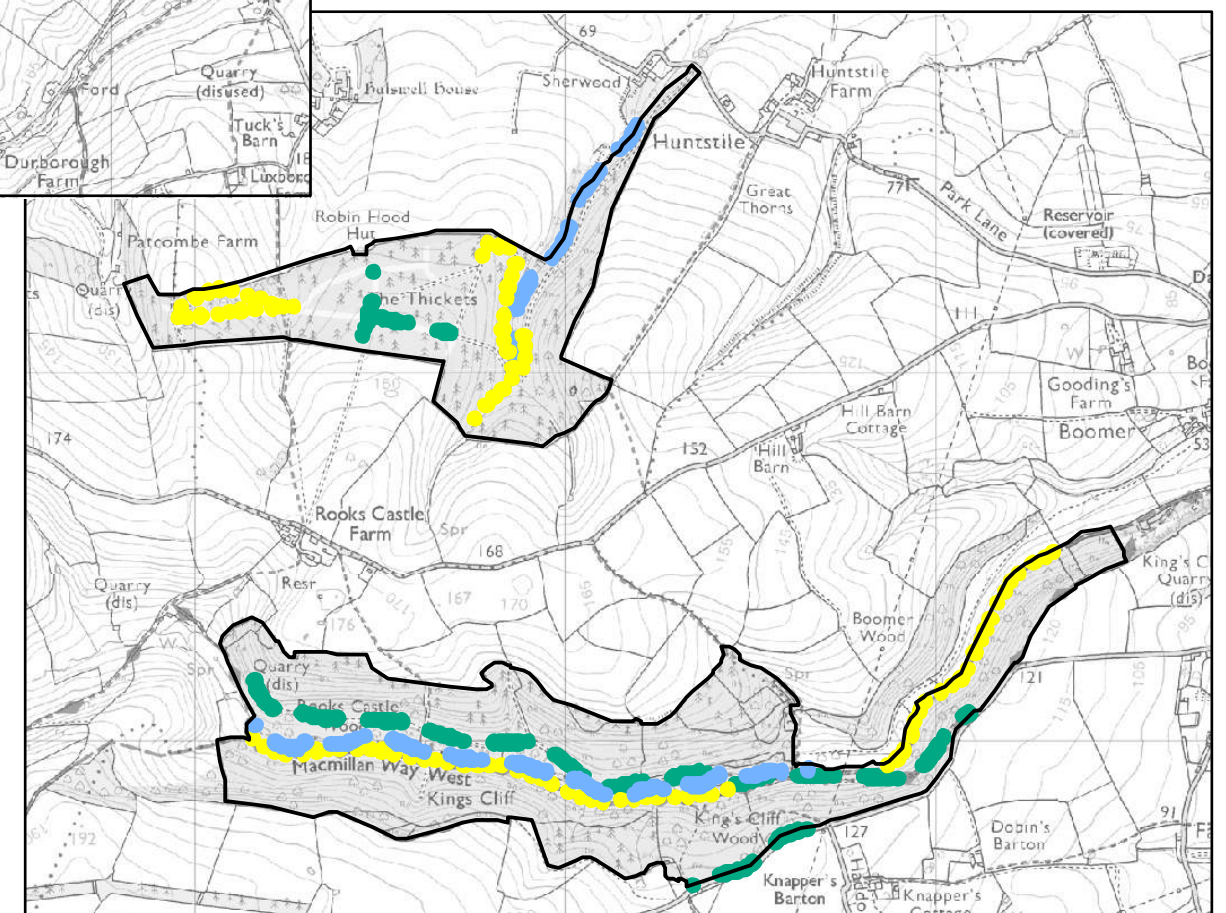
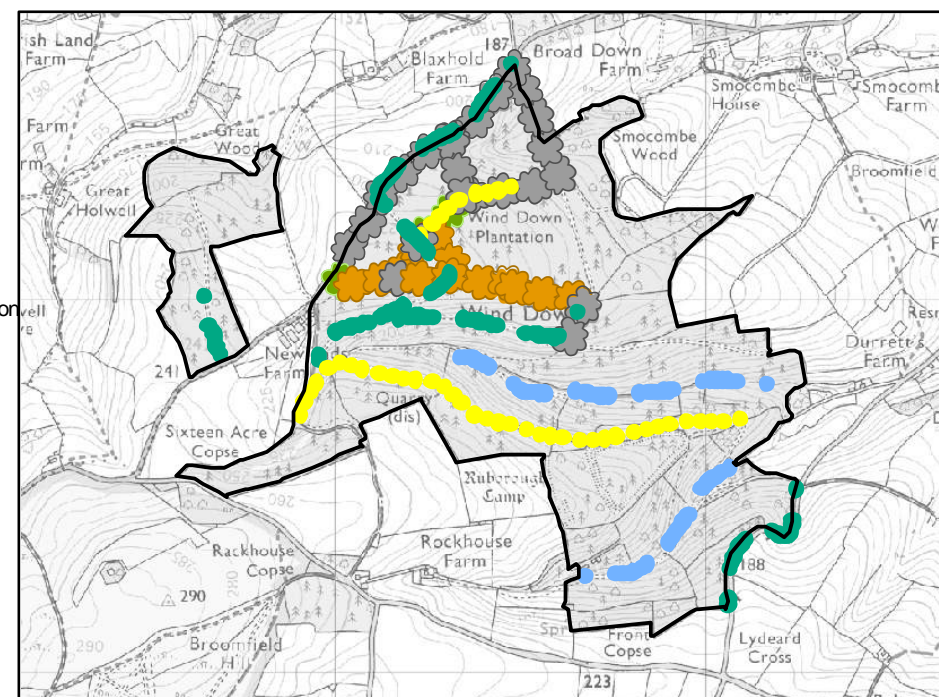


Beech hedge bank in Wind Down, 2014



Legend

Beech Hedge Banks Condition	
Stable	●
Moderate-Stable	●
Moderate	●
Declining-Moderate	●
Declining	●
No Record	●
Road Edge	—
Conservation + Recreation	—
Watercourse	—



Ecological Features

Numerous valuable flora and fauna features inhabit the Plan area. Regular consultation with internal and external ecologists will ensure that management enhances the habitats in which they are found so that the area remains a haven for wildlife.

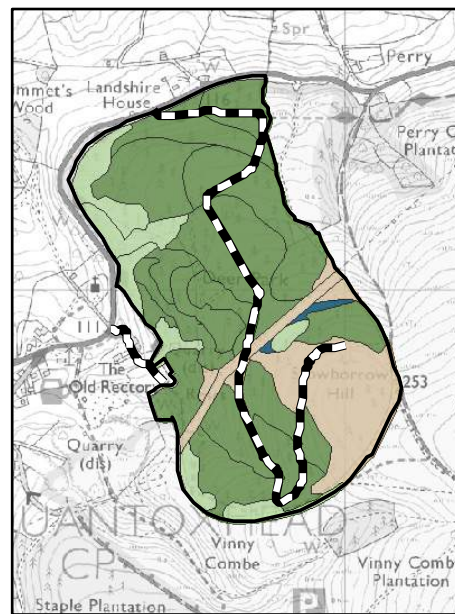
Nightjar is a nationally important bird and the local region, including St Audries and Great Wood, supports over 1% of the national population. The provision of both permanent and transient open space through periodic clearfelling and open space maintenance will continue to support this important species.

Bats are a European Protected Species and multiple species use the woodlands for roosting and feeding. Management of the woodlands will be in line with Best Practice Guidance (FC & NE, 2013) so as to ensure their conservation for the future.

Brown Hairstreak butterfly require young blackthorn growth as a habitat, any quality concentrated components will be managed on a prolonged cutting cycle to ensure suitable habitat maintained.

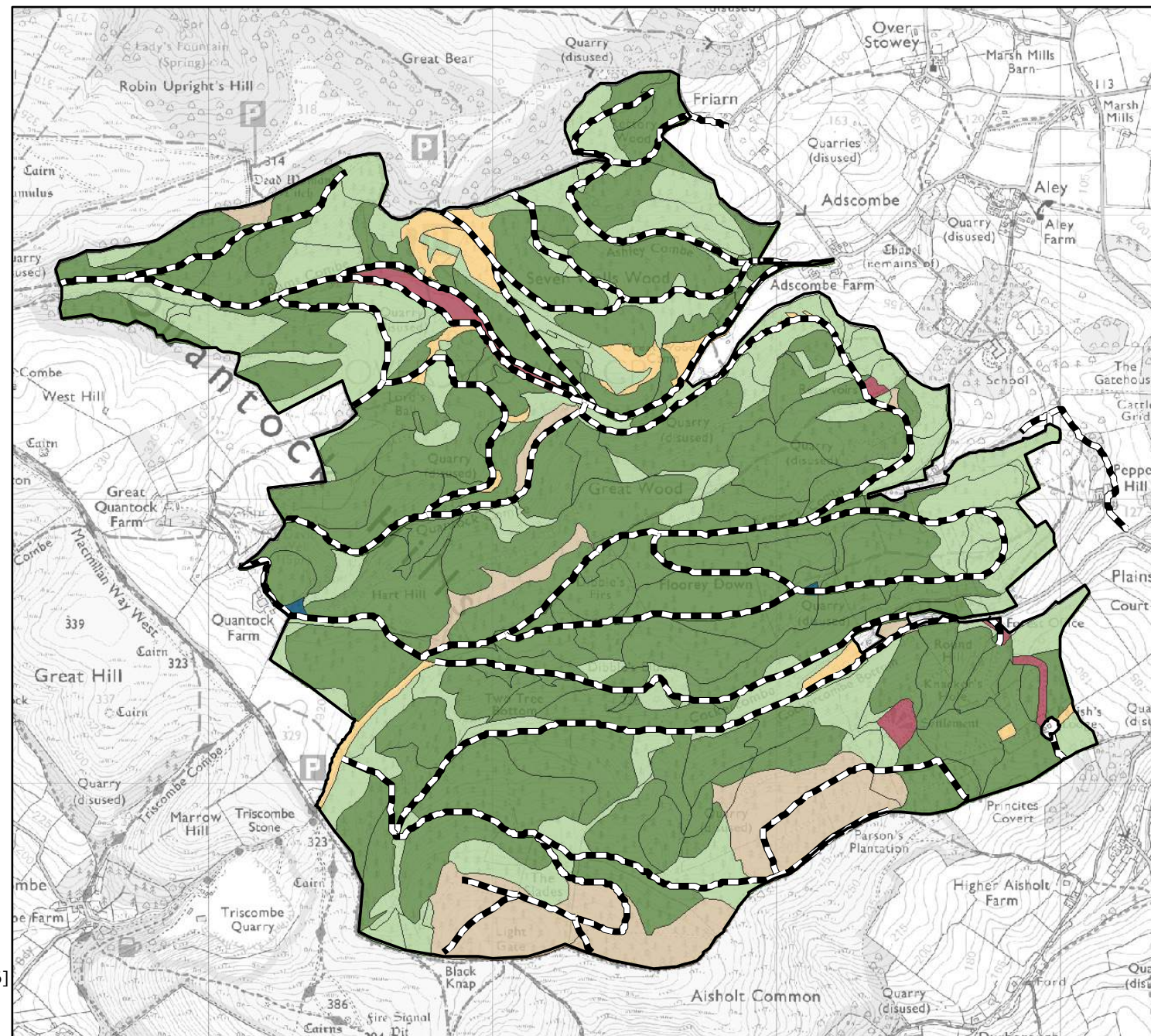
Deer numbers will continue to be monitored and managed through fencing and culling so that they do not have a detrimental impact on habitat and crop condition. This will also ensure their impact does not lead to a decline in condition on neighbouring SSSIs and SACs.

Rhododendron encroachment continues to be managed through a mixture of mechanical and chemical weeding so that, along with holly, it does not have a detrimental impact on habitat and crop condition or on the neighbouring SSSI. There is an aspiration to reach 0% rhododendron in Great Wood, but this will take significant resource and a considerable amount of time.



Legend

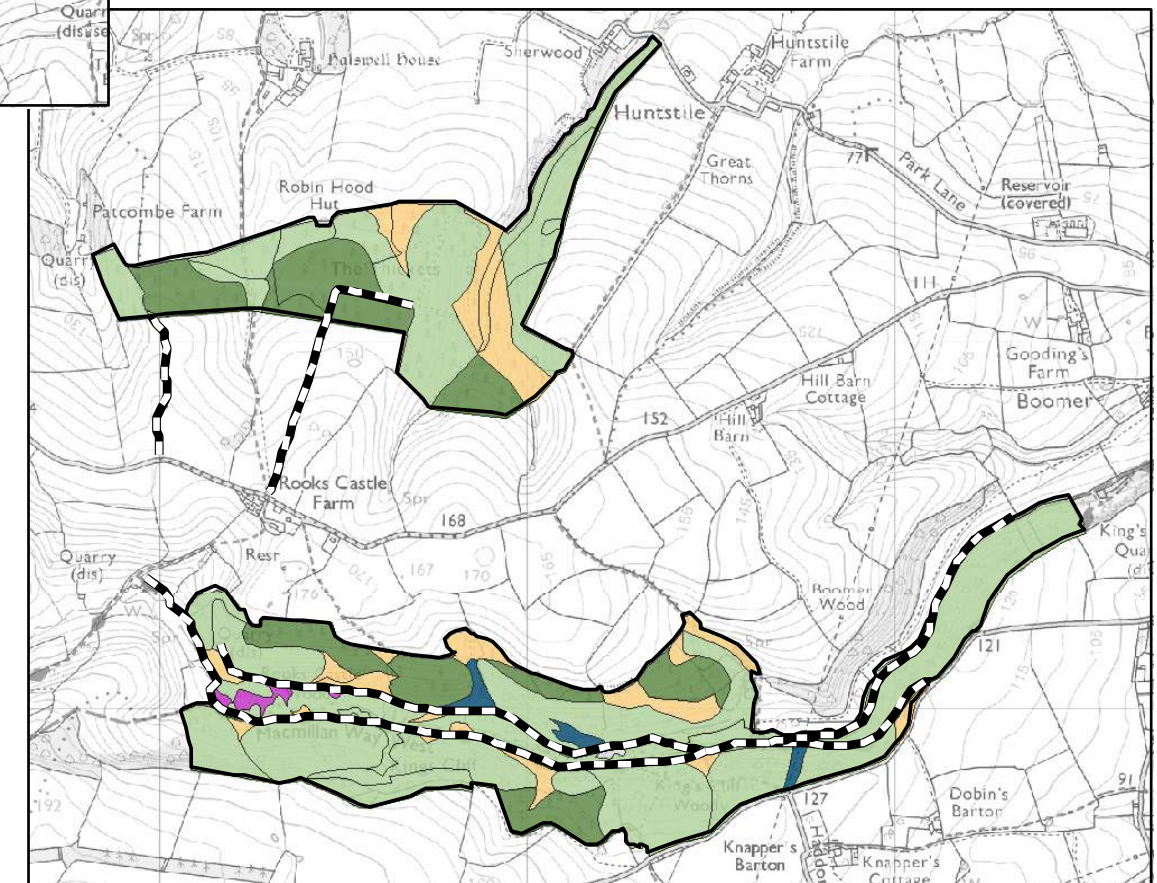
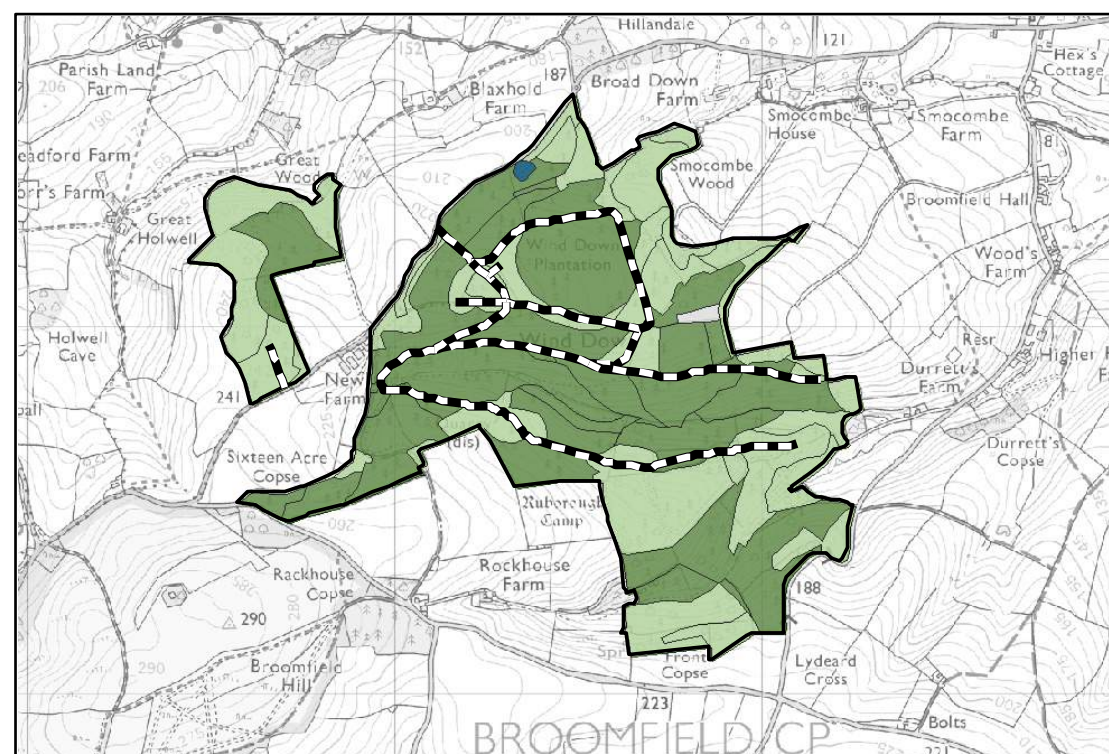
- Landholding
- Road Segments
- Successional
- Woodland - Broadleaves
- Woodland - Coniferous
- Heathland
- Bracken
- Water
- Built up areas and gardens
- Unknown



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Veteran trees will be retained for perpetuity. When crops are thinned veterans crowns will be released slowly on so to minimise the impact of sudden exposure to desiccating winds and sun scorch. Management will be in line with FC Guidance (Ops No. 31)



0 0.15 0.3 0.6 0.9 1.2 Miles

Recreation and Access

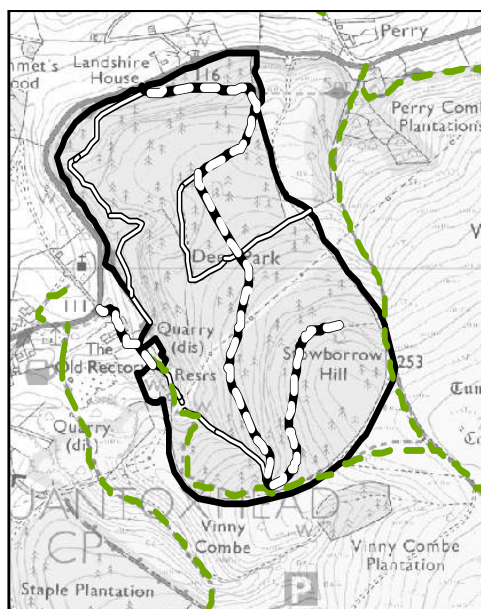
The Plan area experiences a high level yet of low-key recreational usage. The vast majority of the Plan area is Open Access, this is confirmed by the Countryside Rights of Way Act, with the except of Wind Down which is *de facto* Open Access due to the nature of the landholding.

This is predominantly made up of walkers (approx. 11,000 per year), horse riders and mountain bike riders (approx. 7,000 per year).

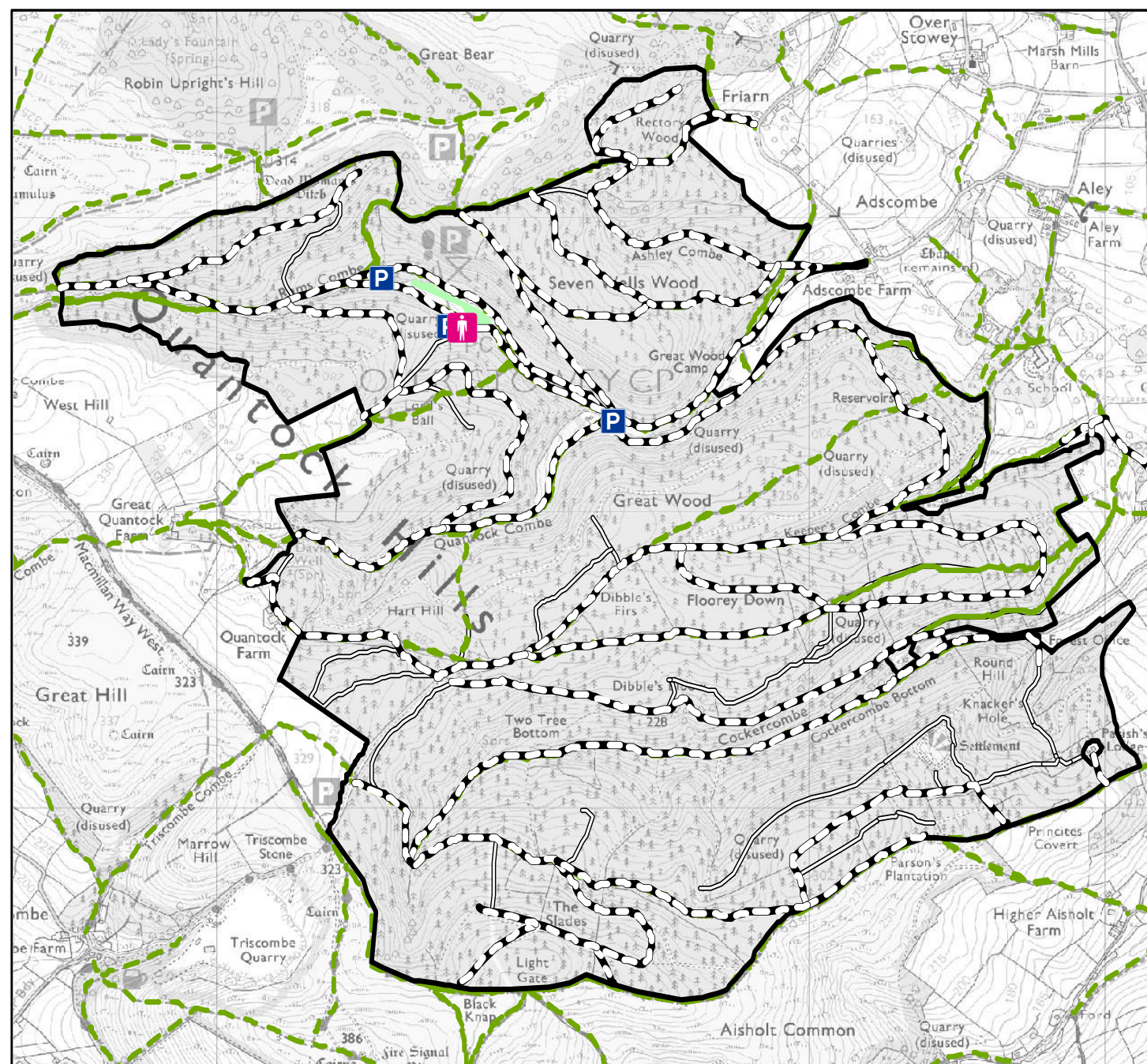
A number of Public Rights of Way in the form of footpaths and bridleways traverse the Plan area and connect with the surrounding landscape. Many of these Rights of Way are designated and/or signposted.

Numerous one-off and annual permissions are granted throughout the Plan area for recreational purposes. These include educational visits, sports and mountain biking events and cultural events.

The heavy usage of the Plan area by local individuals and groups demonstrates the value of the woodland to the local community, these features will be maintained in balance with ecological value. It also absorbs a lot of the recreational pressure which is placed on the AONB and therefore protects the fragile heath land.



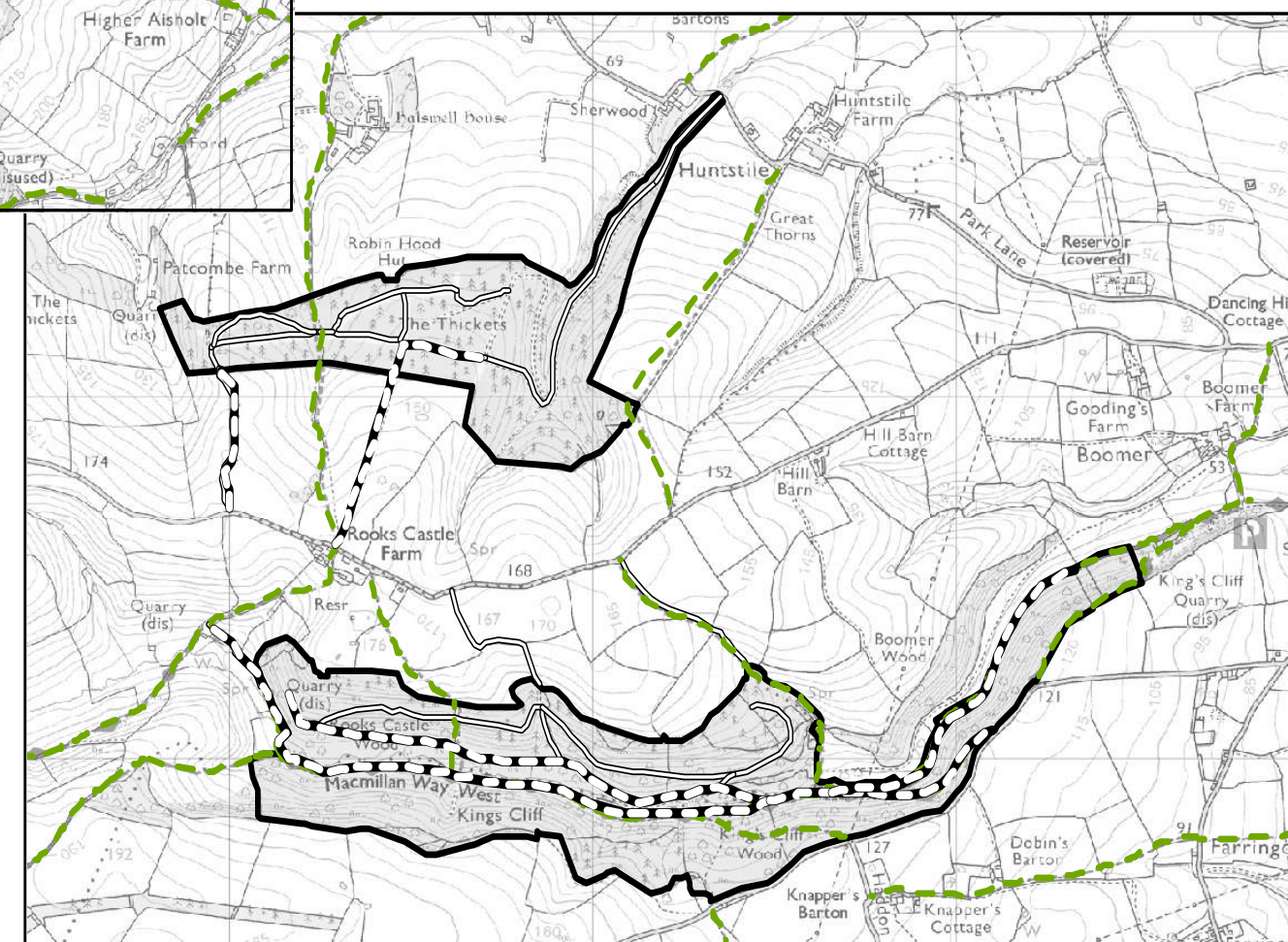
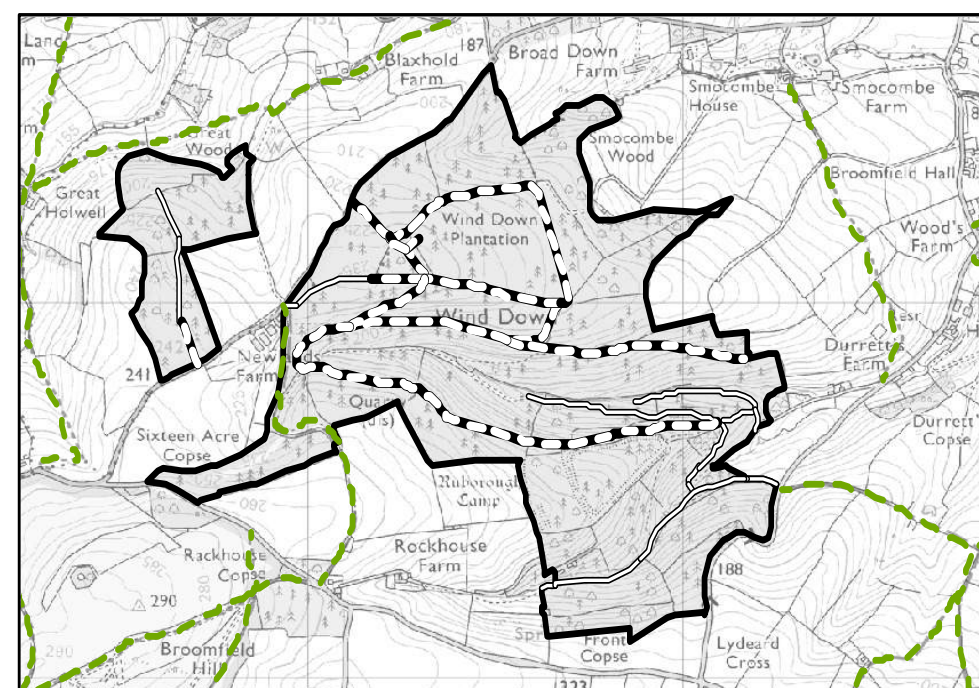
Legend

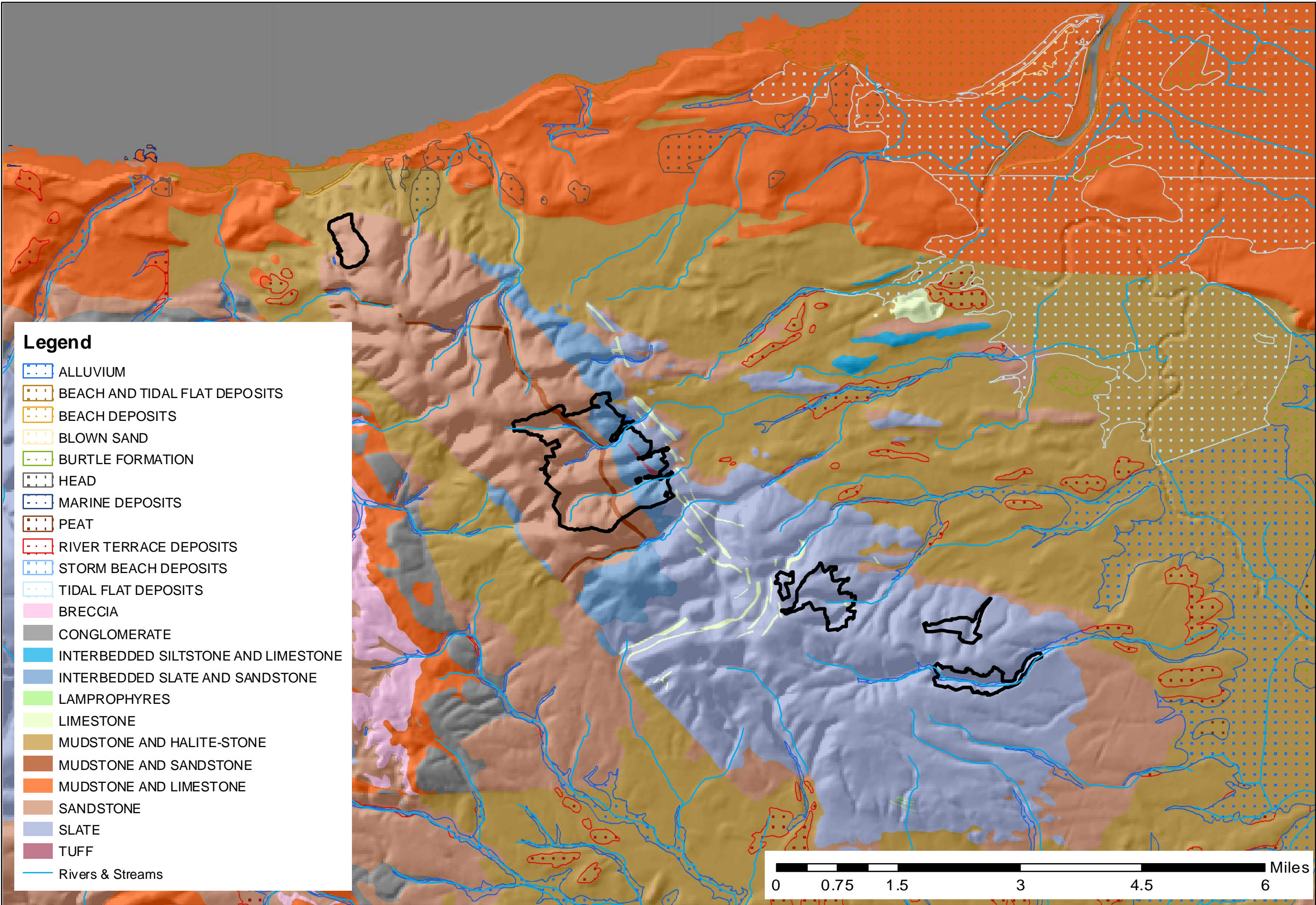


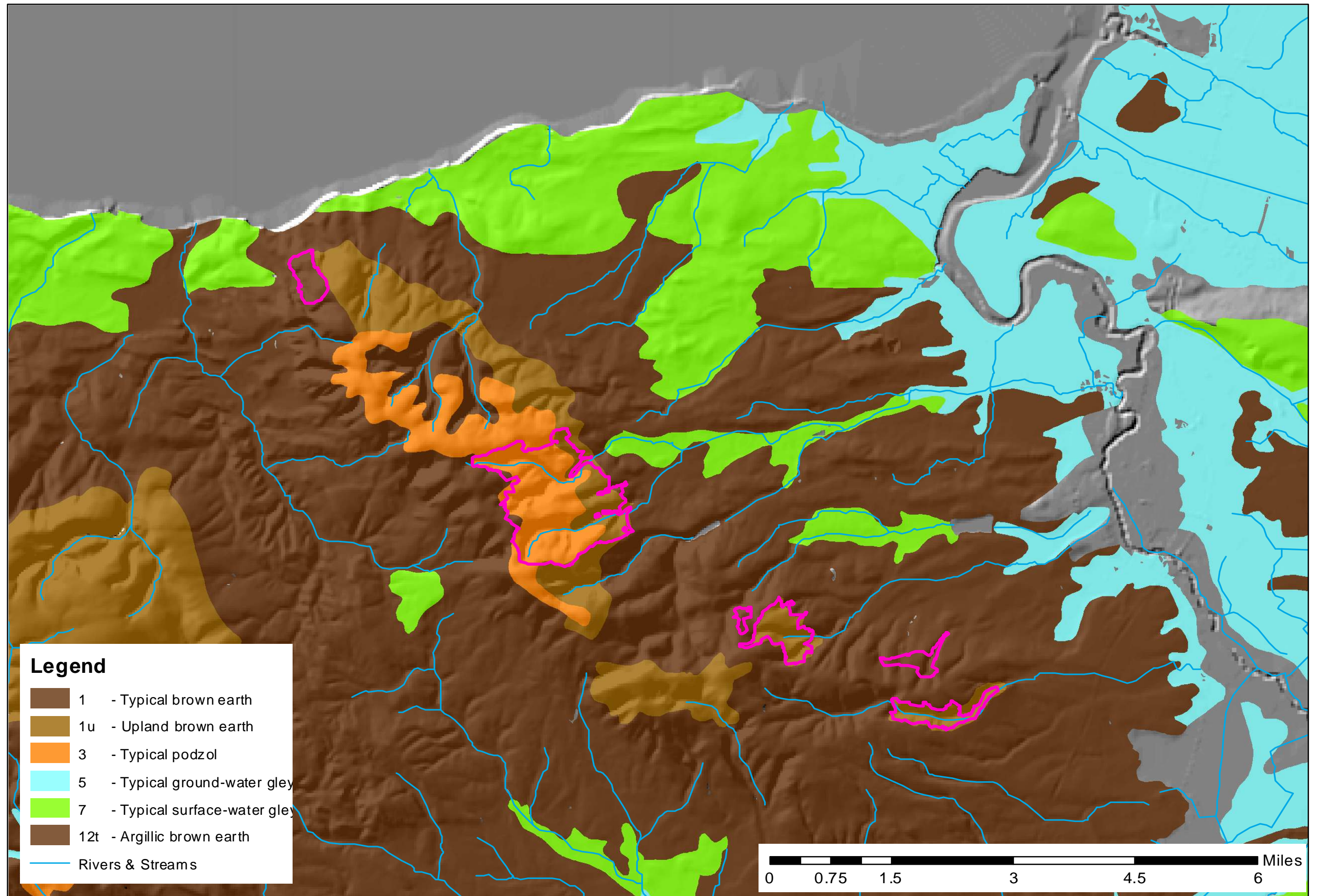
Tenure and Agreements

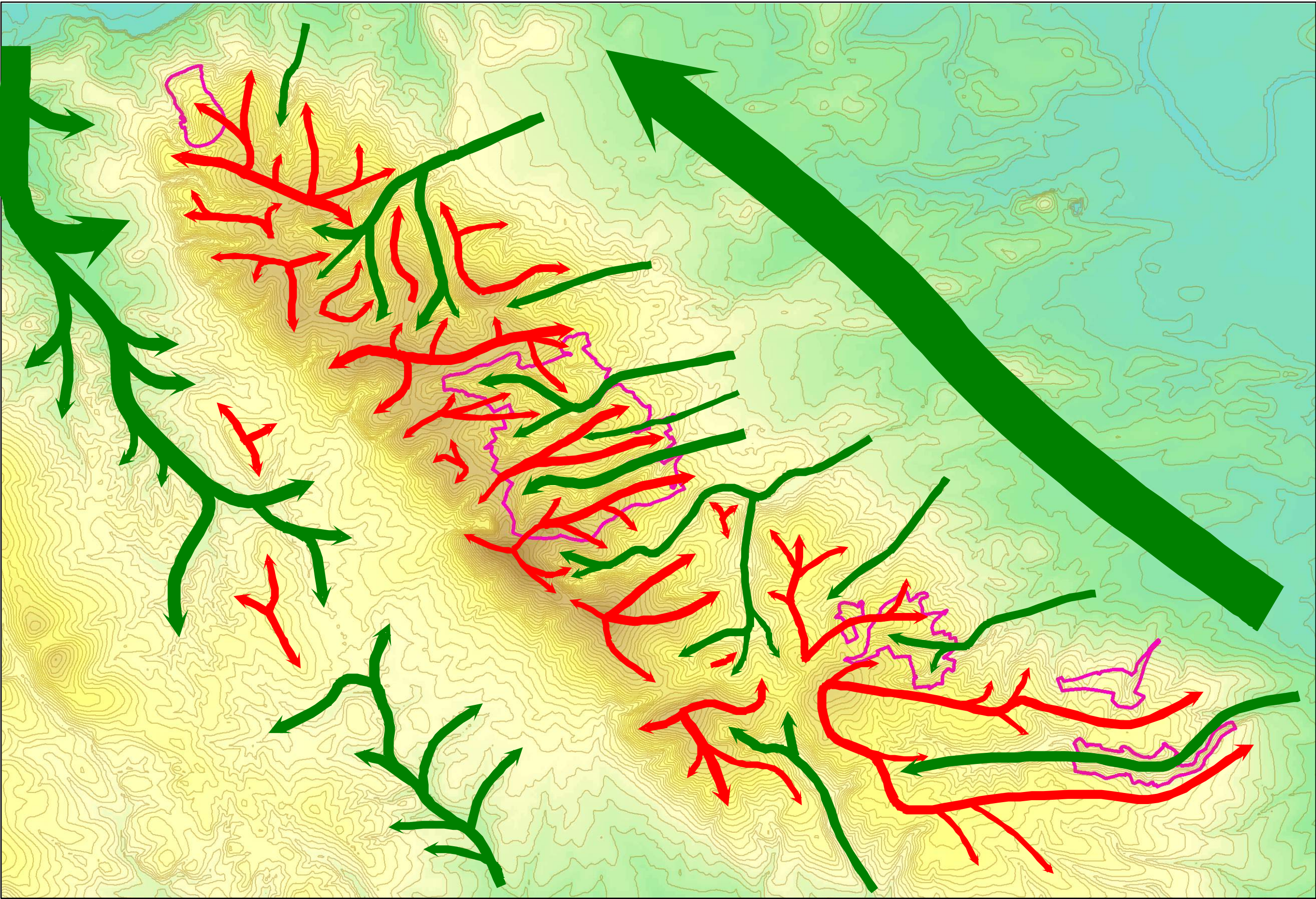
With the exception of Wind Down, the majority of the Plan area is held under freehold. The entirety of Wind Down is held under leasehold.

A rough shooting agreement is leased in Goathurst and is managed externally. Considerations have been made to ensure quality game rearing and shooting can be provided within the objectives of this Plan.



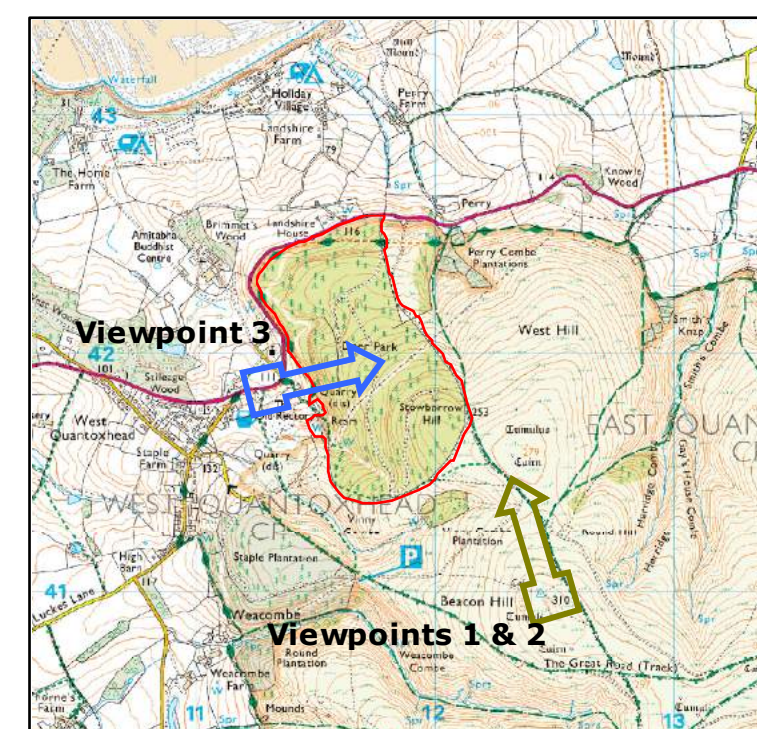
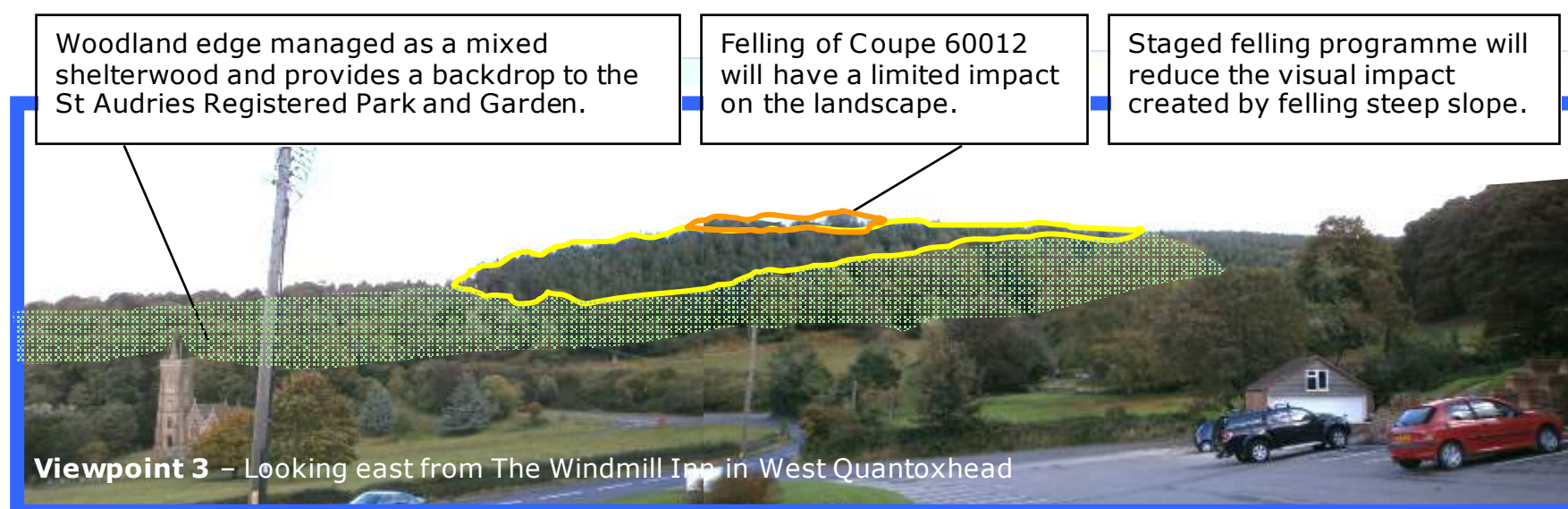
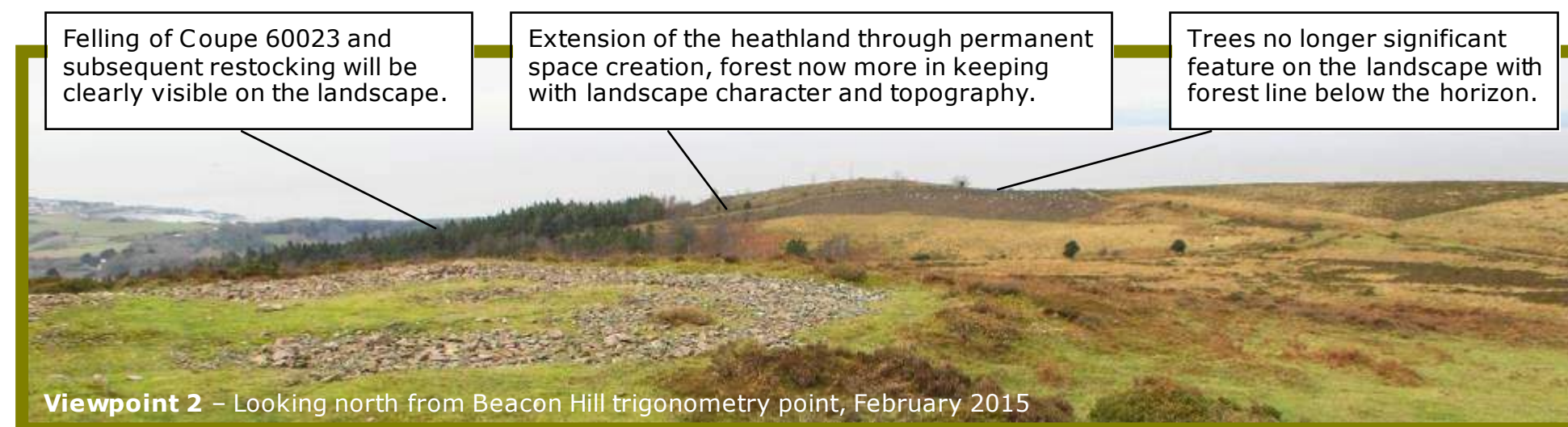
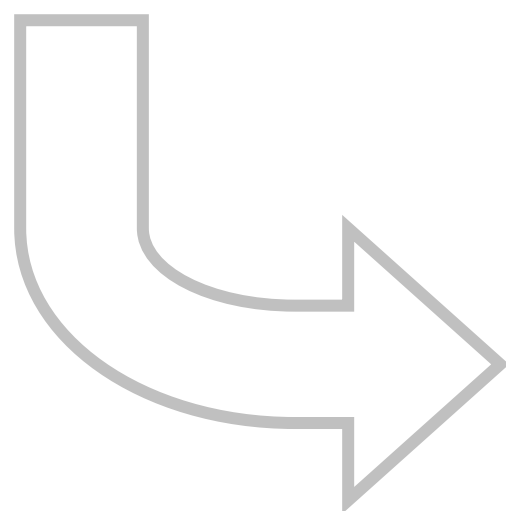
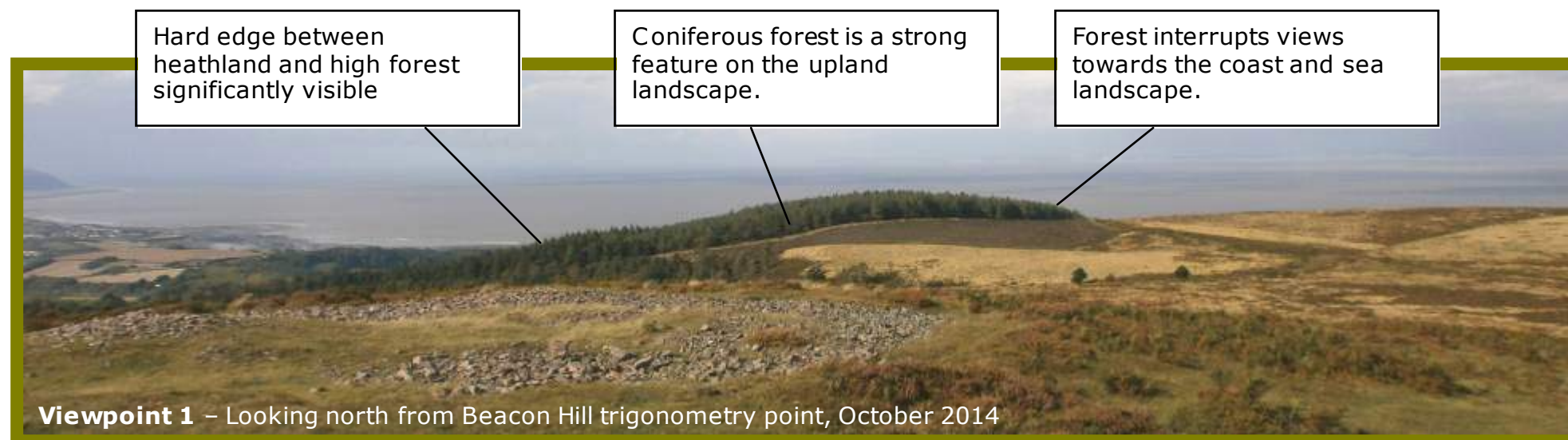




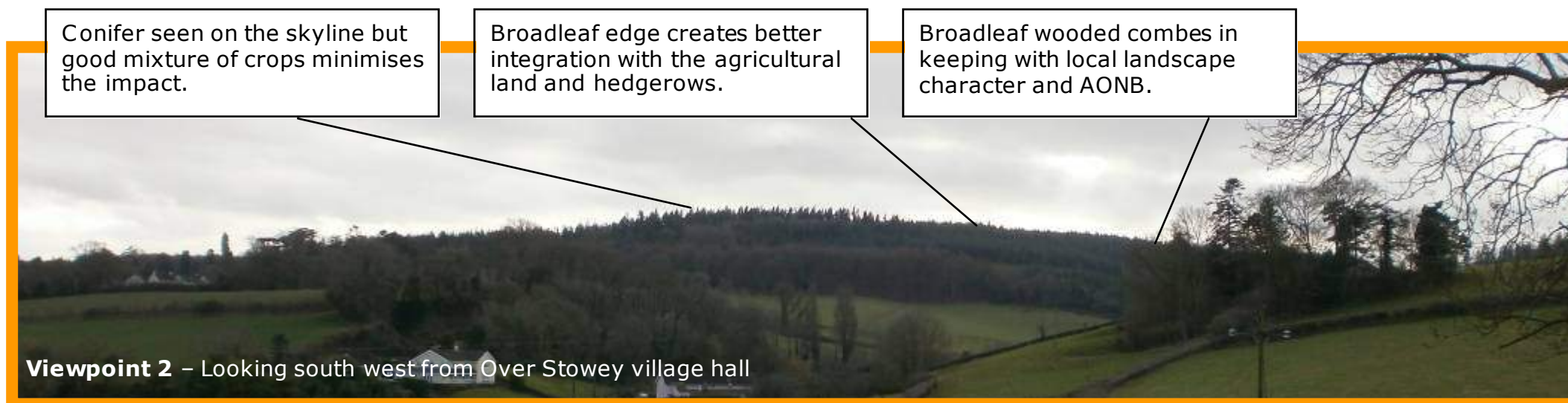
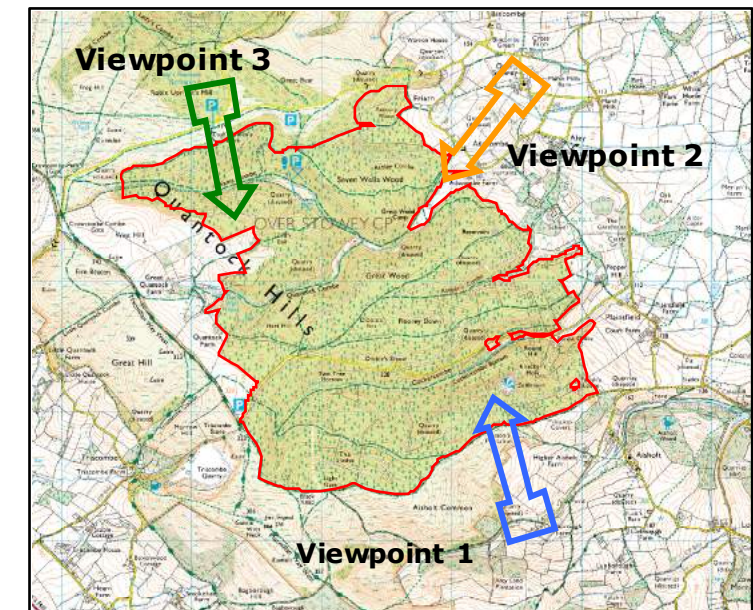


Landscape Analysis

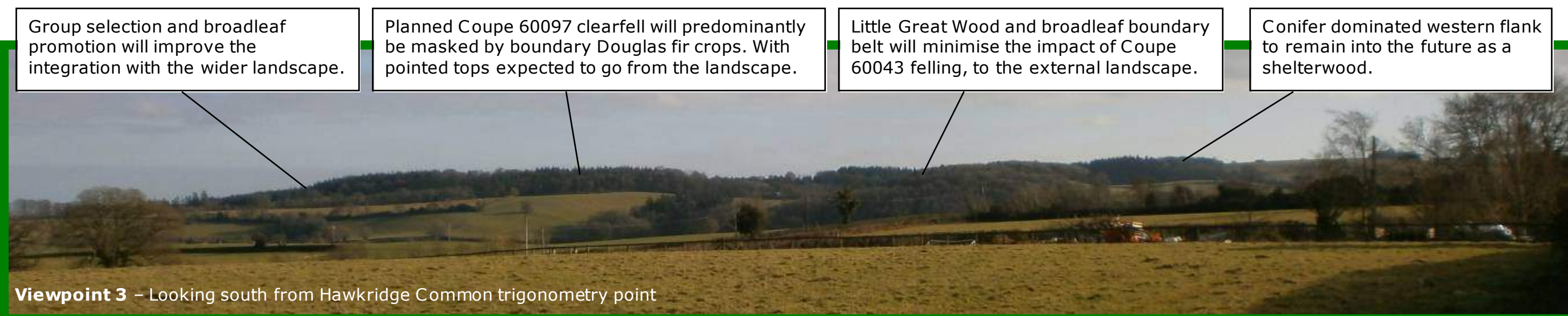
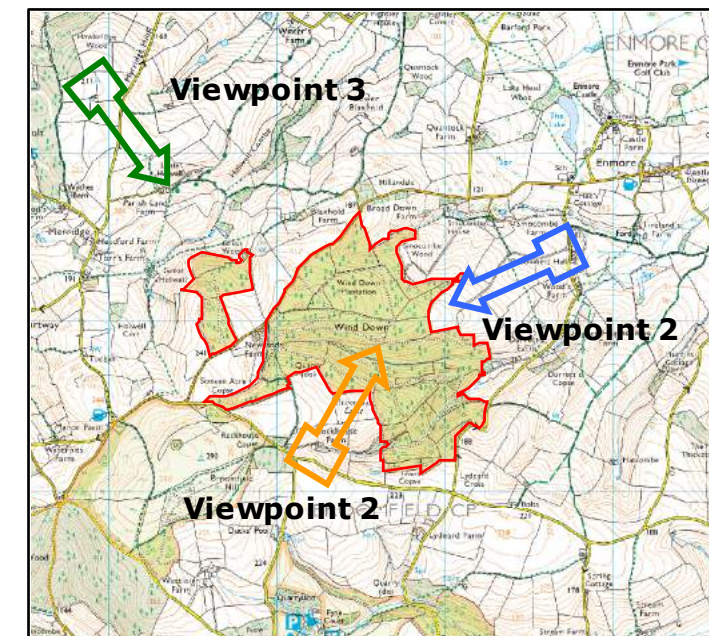
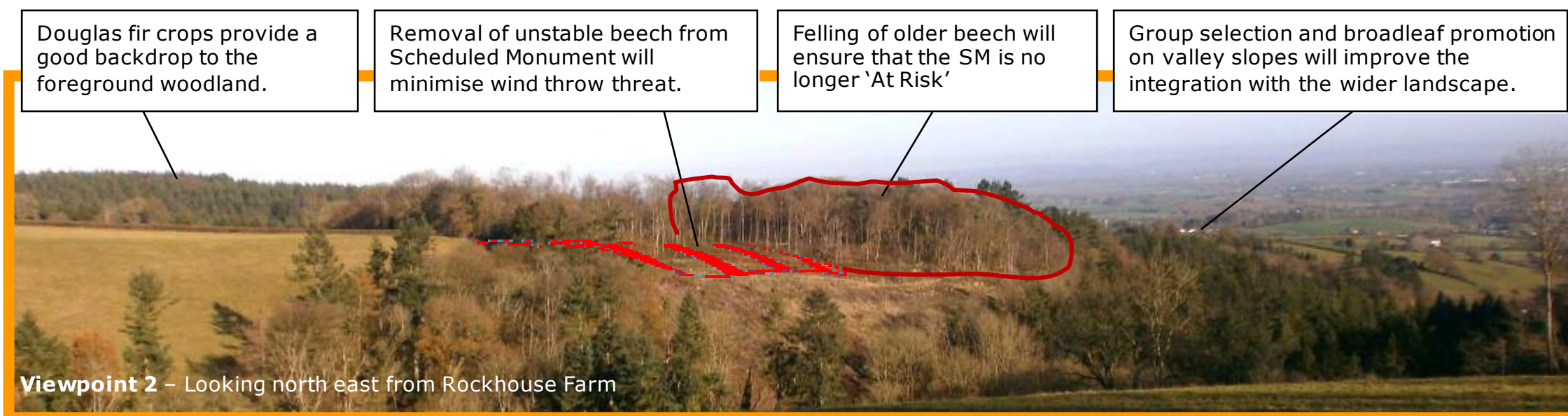
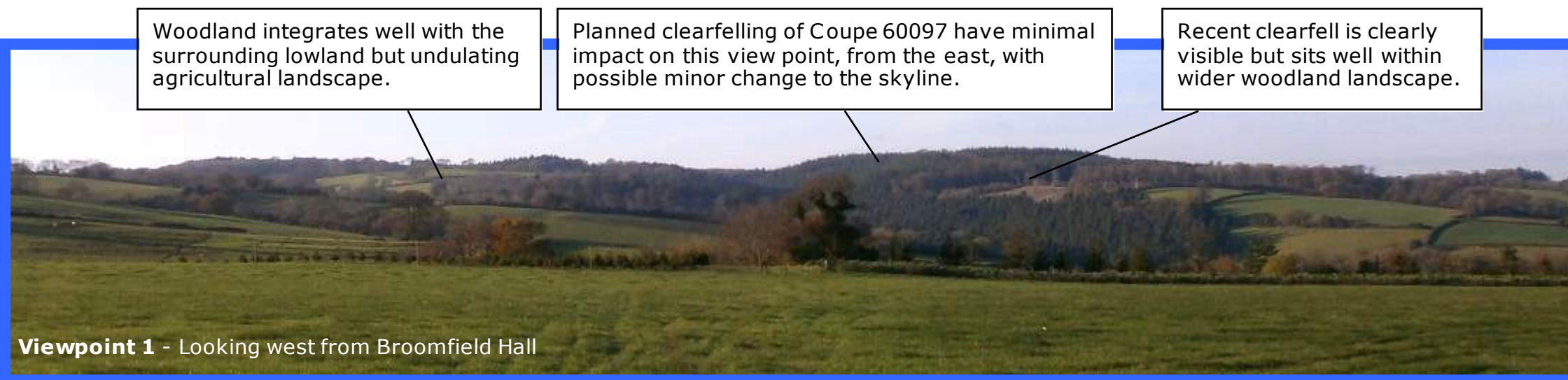
St Audries

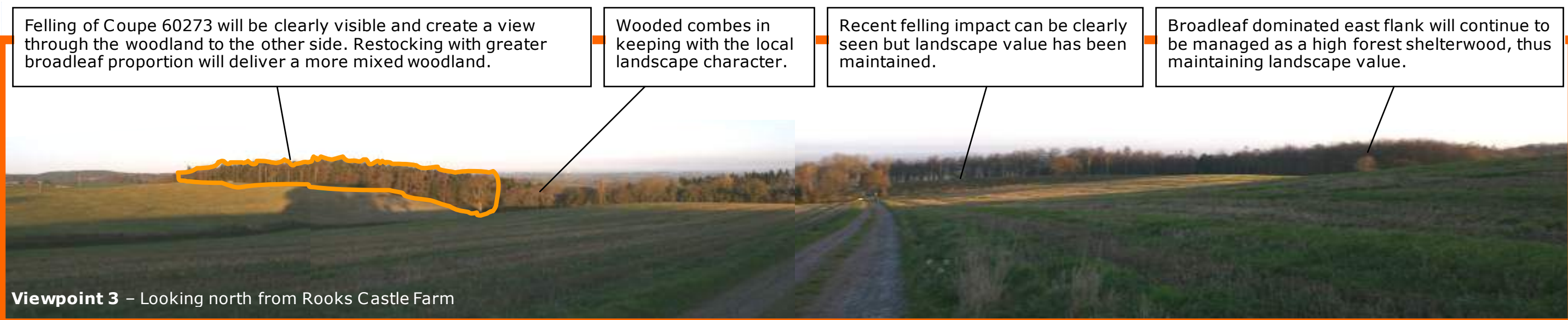
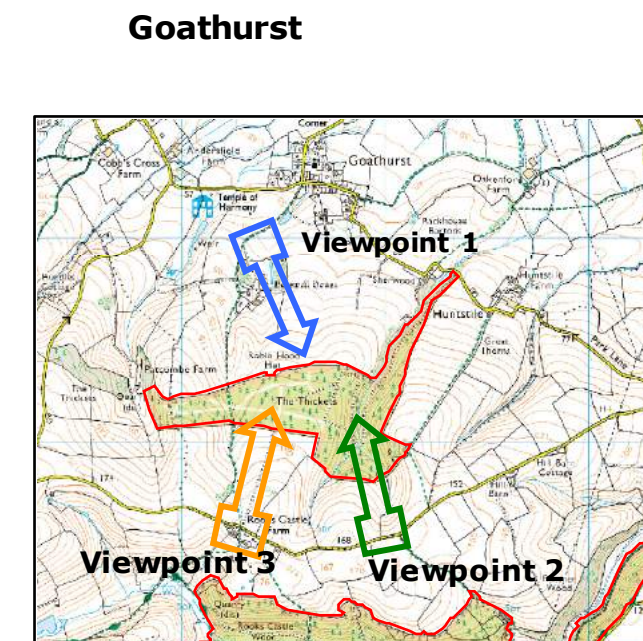


Great Wood



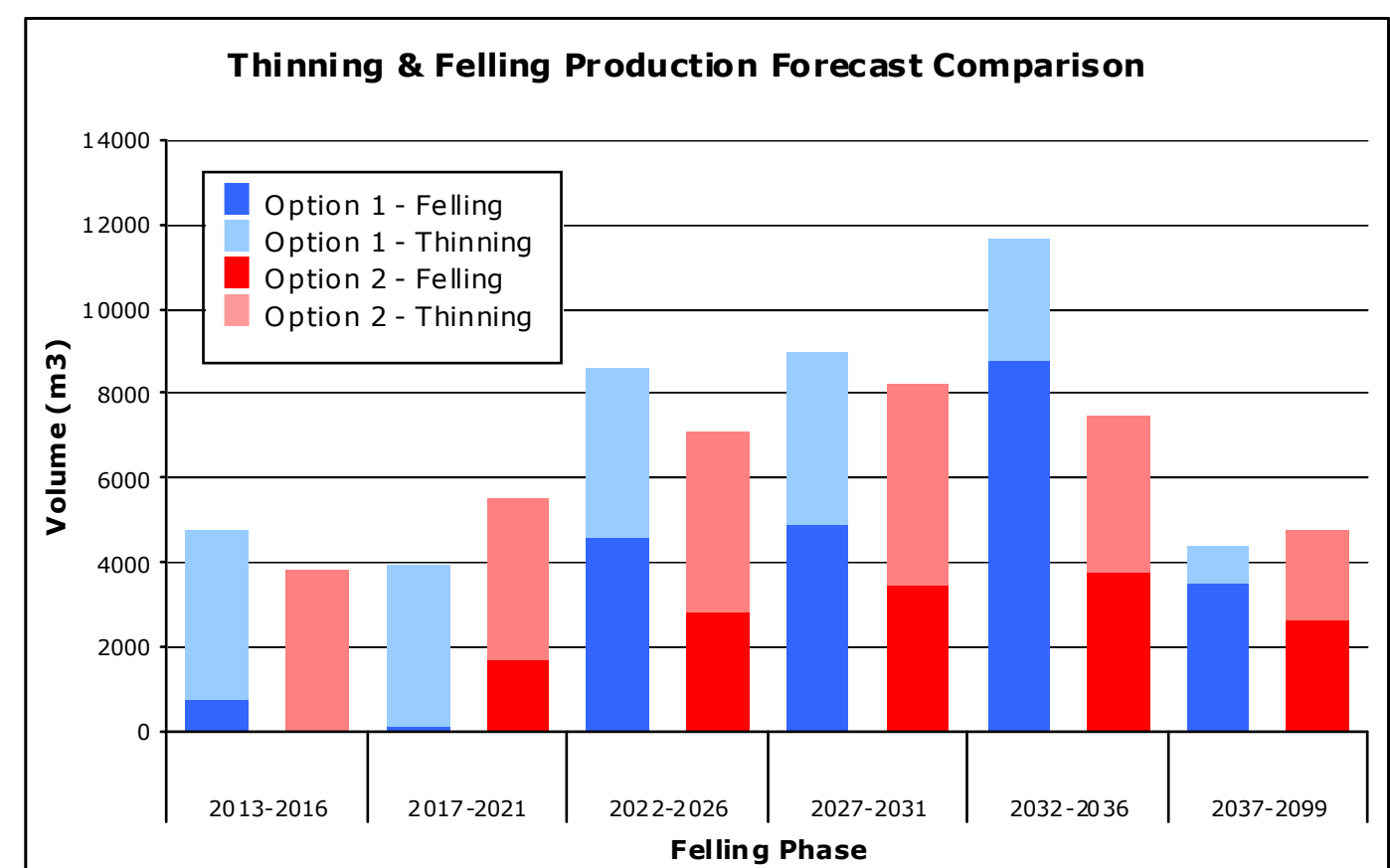
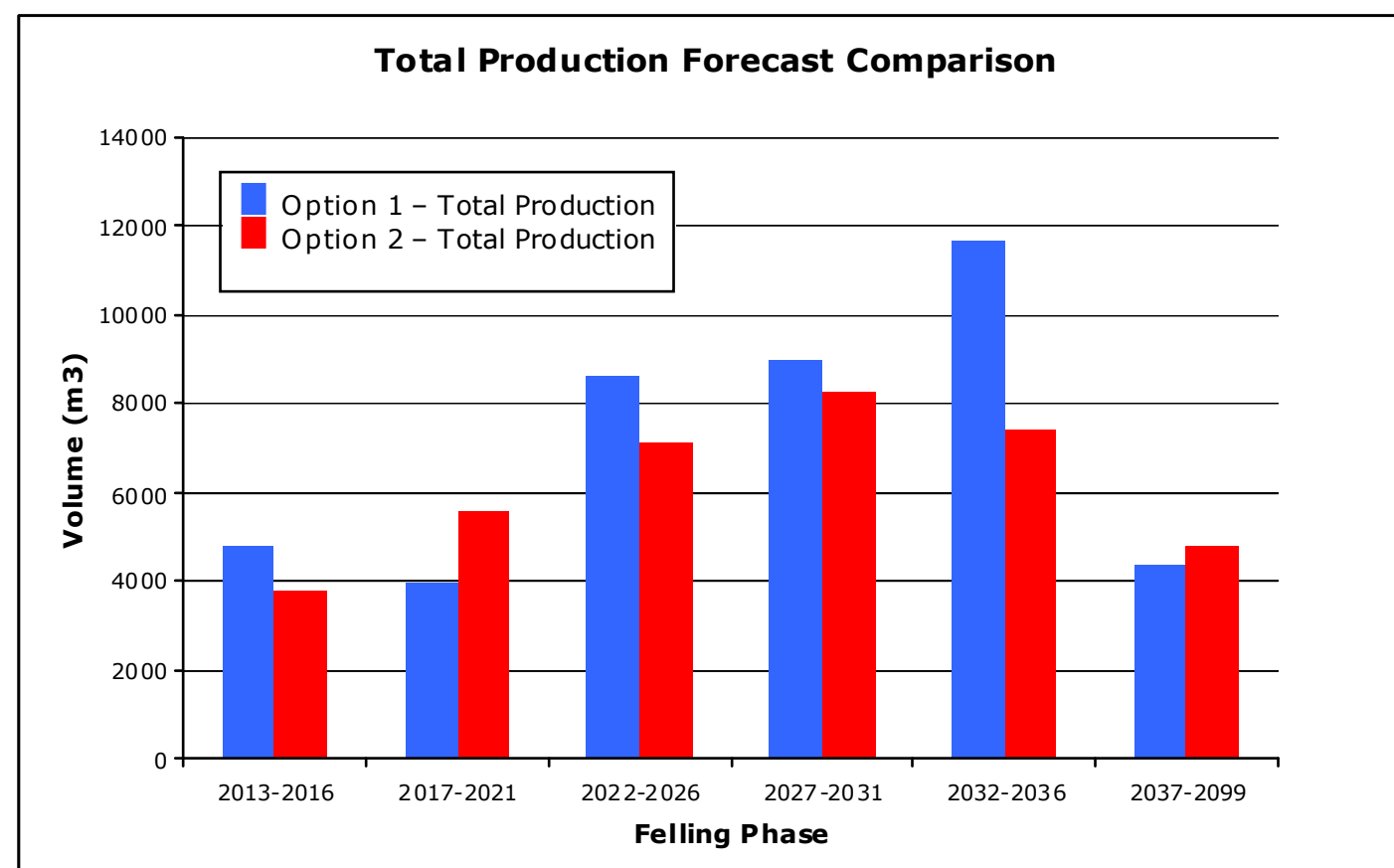
Wind Down



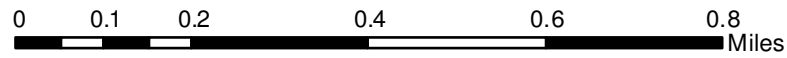


Option Testing

Option 1 – Current Forest Plan (Master)		Option 2 – Proposed Forest Plan (Scenario)	
The continued production of sustainable and marketable woodland products.			
The production of timber is somewhat reliant on volume resulting from clearfelling. This felling programme is, however, sporadic with some periods of considerable felling and others with minimal operation. This combines together to make a less sustainable production model for woodland products		The move towards a production through a balance of clearfelling and thinning ensures a more sustainable production model is realised. Whilst production is not constant, with clearfelling volume growing overtime, a smoother production curve is delivering a more sustainable production model for woodland products.	
To conserve, maintain and enhance cultural and heritage assets			
The Plan will retain existing forest cover on heritage assets with no active steps to enable features to be removed from the 'At Risk' register. Whilst identified, without a clear, proactive long term strategy for the heritage assets, future conservation and preservation was limited.		Proactive steps towards the restoration or preservation of heritage assets will ensure the protection of these features into the future. The removal of forest cover where appropriate together with stand stabilisation measures will ensure the conservation of heritage assets at steps towards removal from the 'At Risk' register.	
The provision and maintenance of recreation facilities.			
Management proposals see a steady flow of clear felling with coupes adjacent to recreational facilities.		Shelterwood systems will replace some clear felling in key areas to ensure a higher quality of user experience.	
To protect and restore areas of ancient woodland in line with 'Keepers of Time'.			
Minimal acknowledgement is made of the need or process to restore ancient woodland. Any significant restoration would be achieved through token clear felling and restocking.		A clear strategy for PAWS restoration through a mixture of clear felling, group felling and thinning together with native species replanting will ensure a proactive restoration of ancient woodland will occur over time.	
Protect and enhance woodland and open habitats and their associated species.			
Restructuring is mainly reliant on the use of clear felling with restocking consisting use of one or two species, thus retaining fairly monocultured single-aged stands. Open space creation is proposed but it's extent is limited and operationally challenging.		The diversification of age and species structures through targeted felling and restocking together with a proactive programme of permanent and transient open space ensures a enhanced and diverse range of habitats is realised.	
To deliver well-designed proposals that comply with landscape design principles in keeping with the AONB.			
The Plan recognises the value of the woodlands to the AONB landscape with a high quality of coupe design. Some proposals over-complicated and operationally unviable due to their size or accessibility.		The Plan recognises the value of the woodlands to the AONB landscape with a high quality of coupe design. Use of shelterwood systems as well as well designed and operationally achievable clear fells ensures this value is maintained.	



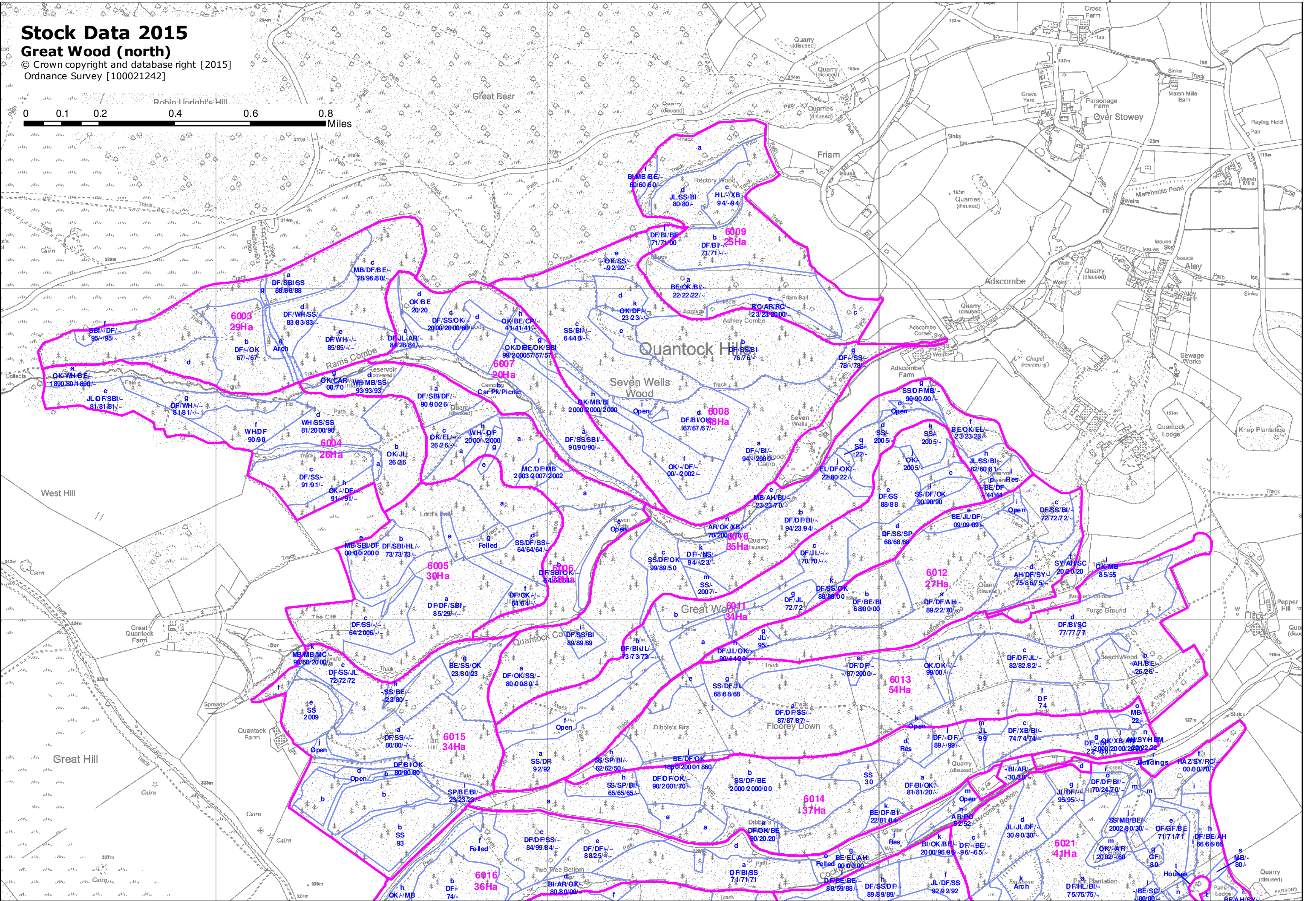
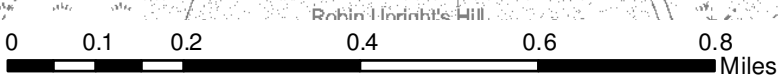
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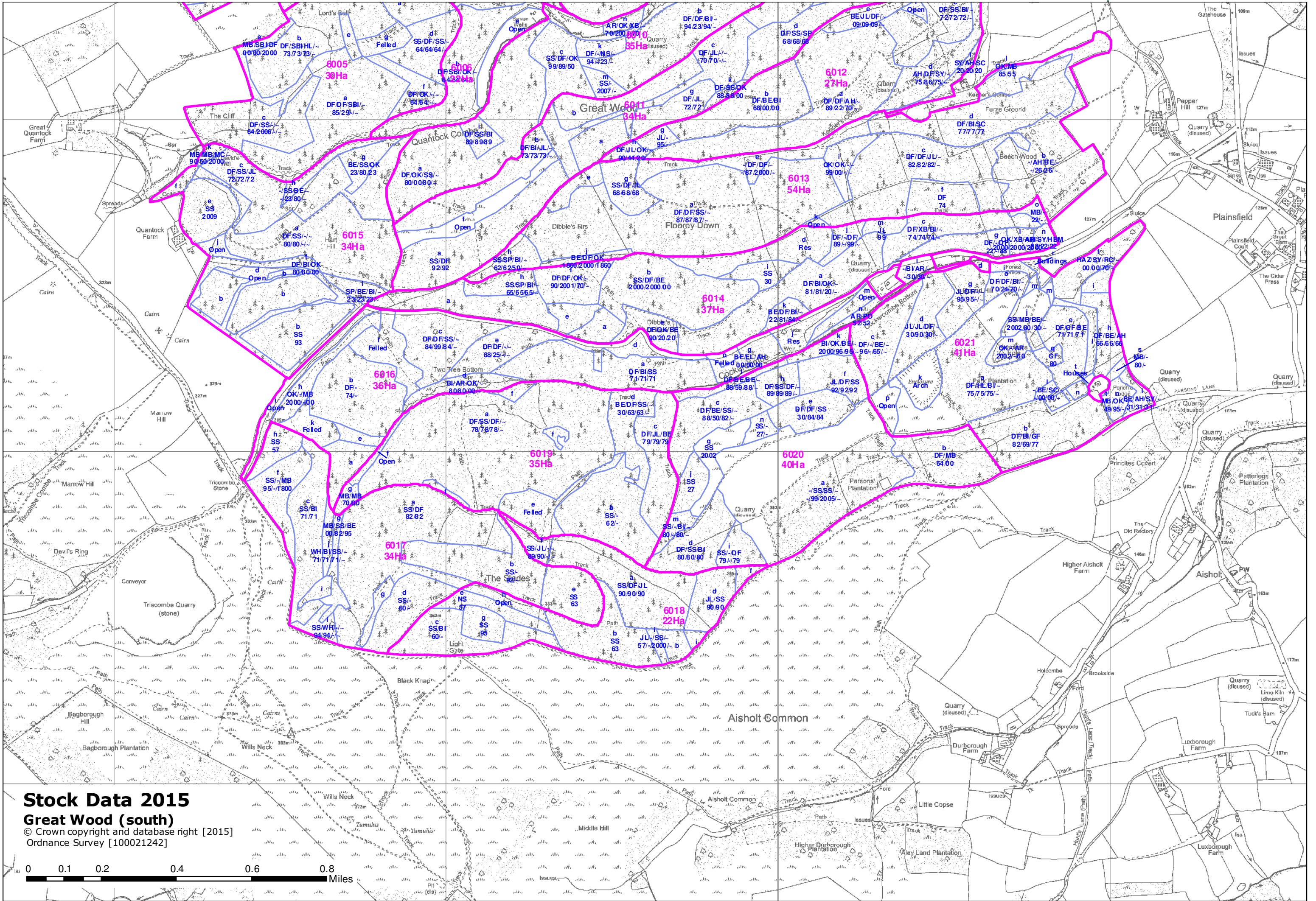


Stock Data 2015

Great Wood (north)

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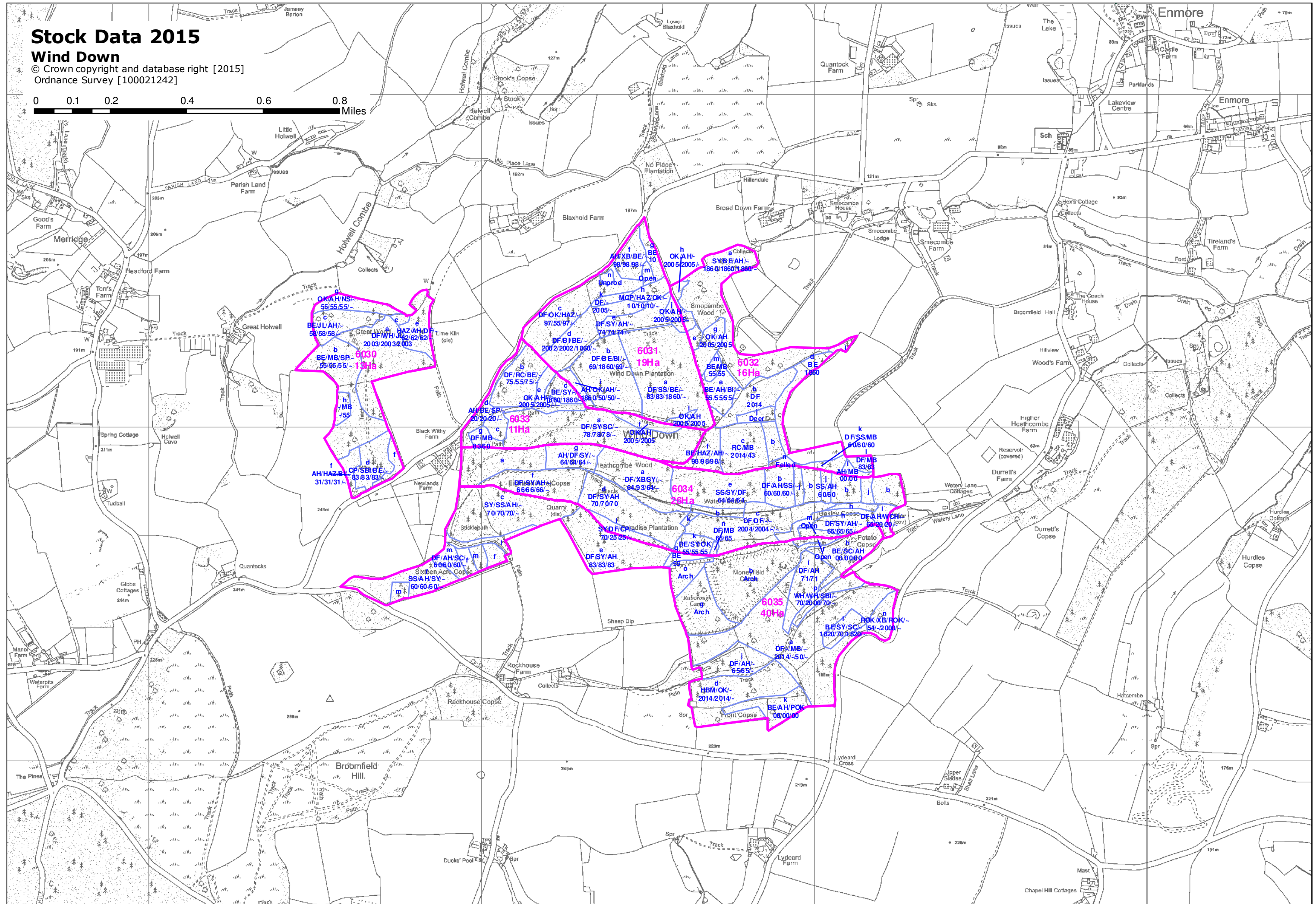
Stock Data 2015

Great Wood (south)

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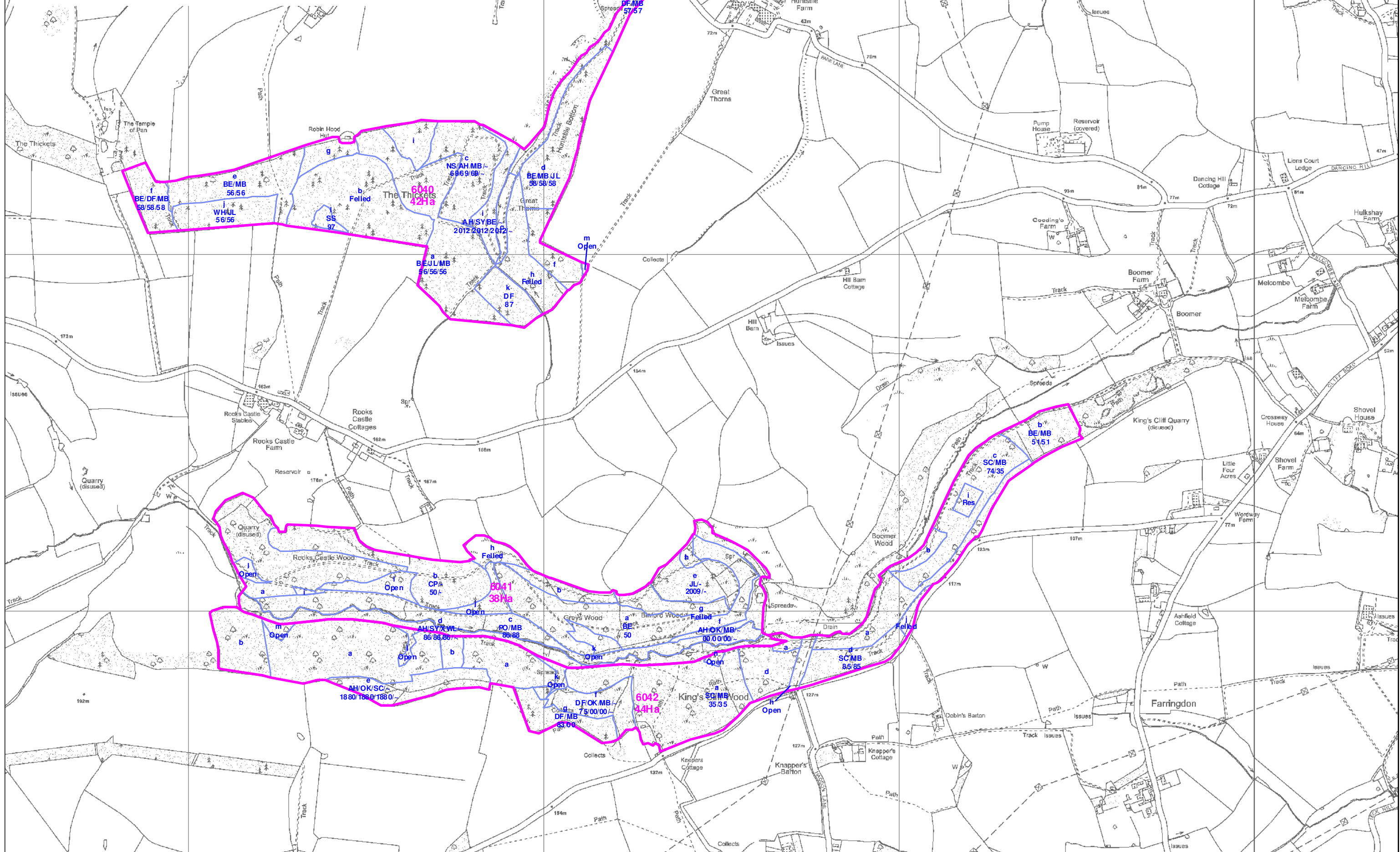
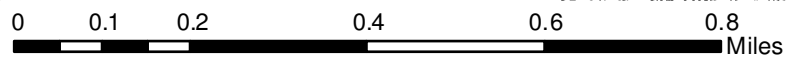
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Pests and Diseases



Name: Dothistroma Needle Blight (DNB)

First appearance: mid 1990s

Attacks: Pine species

Often referred to as Red Band Needle Blight (RBNB) and can reduce growth rates by between 70 and 90%. Effects of DNB 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: 2012

Attacks: Oaks and Larches

Found originally in Cornwall in 2009, attacking Oak, and in 2012 found to have infected Larch. It is a notifiable disease dealt with by felling the infected area under a statutory plant health notice (SPHN) issued by DEFRA. At present there is no PR on Oak in this part of the West England Forest District, however, around 12% of all larch within the Dean was felled in 2012 to eradicate the disease with regular aerial flyovers to keep track of hot spots. Luckily flyovers in 2013 have shown no reinfection. This is not to say there will not be a need for further fellings of infected larch required in the future.



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*). Successive exposure any of these agents on a yearly/seasonal basis further reduces the health of the tree and predisposes it to other living (Biotic) agents that can often spell the final death knell for the tree.



Name: Chalara fraxinea

First appearance: currently N/A

Attacks: Ash

Pretty rampant in Europe, showing up in 2012 mainly in East Anglia and along the East coast of England. Infection has been found within this part of the West England Forest District at Nether Stowey in planted ash, so the Plan area is under considerable threat of infection

Term	Abbreviation	Description
Ancient Semi-Natural Woodland	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 Woodland 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 future climate change and future threats from disease. Enrichment may be desirable in areas where success of regeneration is uneven, patchy or where a regen crop is limited by the number of species present.
Group felling / group planting		This is where small areas of woodland are felled hence the name "group felling" and then either allowed to develop through the use of nat-regen or in this case planted hence "group planting". These techniques can help to develop structure* within a wood over a given length of time and is often used in conjunction with continuous cover. *Either in terms of age or number of tree species present, since shelter and shade are provided by the remaining upper storey one can consider a larger number of tree species when deciding what to plant.
Hectare	Ha	Unit of area equating to 2.47 acres.
Native (and honorary native)		The trees making up the woodland are part of England's natural, or naturalised flora. Determined by whether the trees colonised Britain without assistance from humans since the last ice age (or in the case of 'honorary natives' were brought here by people but have naturalised in historic times); and whether they would naturally be found in this part of England.
Natural Regeneration	Regen or nat-regen	<p>Trees growing on a site as a result of natural seed fall, and can be used as a management process and can allow cleared areas of woodland to germinate, grow and develop naturally. This process can happen anywhere and woods can be managed to encourage nat-regen although there is no guarantee of success. In these instances, or if nat-regen is unlikely for a variety of reasons, one can use enrichment planting or group planting to achieve the same affect.</p> <p>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.</p> <p>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.</p> <p>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.</p>
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 clearfell the whole site. Felling can occur, but generally in small “groups” whose size shape and spatial distribution will vary depending on site conditions. The “groups” are then either: allowed to develop and establish by the use of natural regeneration, are planted or are established using a mixture of both techniques. This known as a “group shelterwood system”</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> <ol style="list-style-type: none"> 1. Improve the quality and vigour of remaining trees. 2. Remove trees interfering with mature or veteran broadleaf trees. 3. Give space for tops (or “crowns”) of broadleaf trees to develop and potentially act as a future seed source. 4. 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. 5. Create gaps for group planting or enrichment. 6. 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. 7. Improve the economic value of a wood. 8. 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.

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