

Tamar Valley Forest Plan

2016 - 2026

West England Forest District



The mark of
responsible forestry

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



Ben Robinson
FCE File Ref: OP10/83
OLD Ref: PE74 & 74/1

Declaration by FC as an Operator.

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

Application for Forest Plan Approval

Forest District:	West England FD	
Woodland or property name	Denham and Birch Wood	
Nearest town, village or locality:	Bere Alston	
OS Grid reference:	SX 474 676	Denham Access
Local Authority District/Unitary Authority:	West Devon	
Plan Area:	138 ha	
Conifer Felling:	0ha	
Broadleaved Felling:	2ha	

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

Signed 

Forest Management Director

Date 10th May 2016

Signed 

Area Director

Date of approval..... 31st October 2016

Date approval ends..... 31st October 2026



The mark of responsible forestry

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



List of Contents

PART 1 – Description, summary & objectives

Application for Forest Plan Approval	2
Contents	3
Location	4
Summary	5
Management objectives	6
Meeting Objectives	7

PART 2 – Character, analysis & concept

Landscape Character	8
Designations	9
Analysis & Concept	10

PART 3 – Composition and future management

Woodland Composition	11
Naturalness on PAWS	12
PAWs Management	13
Broadleaf Management	14

PART 4 – Thinning, felling and future composition

Silviculture	15
Alternatives to Clearfell	16
Management Prescriptions 2016-2046	17
Indicative Future Species, 2026 and 2046	18

PART 5 – Conservation, heritage and recreation

Conservation Habitats	19
Conservation features	20
Heritage features	21
Recreation, Tenure and Access	22

APPENDIX 1: Physical environment

Geology	23
Soils	23
Landform	24
Landscape Analysis	25-26

APPENDIX 2: Management considerations

Option Testing	27
Stock data – 2016	28
Pests and Diseases	29

APPENDIX 3: Supporting Information

Glossary of Terms	30-31
References	32

APPENDIX 4: Consultation

Consultation Record	33
---------------------	----



Location

The Tamar Valley Forest Plan area lies within West Devon District and is a significant feature of the Tamar Valley Area of Outstanding Natural Beauty. The Plan area is made up of the two distinct forest blocks of **Denham** and **Birch Wood** totalling 138ha. The forests are close to the settlements of Tavistock and Bere Alton.

Forest Name	Area (ha)	% of Plan Area
Denham	98.8	72
Birch Wood	39.2	28

The Plan area sits within a wooded valley landscape and provides both a visual feature and recreational attraction for the surrounding area. Both woodlands border the River Tavy which is a major tributary of the River Tamar.

The majority of the land is at 5-125 metres above sea level (asl) and is undulating to very steep in places. The climate is warm and fairly moist with an average annual rainfall of 1000–1400mm, a soil moisture deficit of around 150mm, and an accumulated temperature over 5°C of 2000°C.

The soils are primarily upland brown earths (1u) underlain with shallow rock within the River Tamar valley.



Summary

About

The Tamar Valley Forest Plan area is made up of two separate forest blocks totalling 138 hectares in Devon. The forests lie within the Tamar Valley Area of Outstanding Natural Beauty. As individual forest blocks set within the intimate wooded valley landscape they have very high natural and landscape diversity and value.

The forests managed as part of the public forest estate are Denham (99ha), close to Bere Alston and Buckland Abbey and Birch Wood (39ha) in which is 2 miles south of Tavistock.

The public forest here is a predominantly conifer on ancient woodland (PAWS) having been planted to address the national timber shortage of the early Twentieth Century. The area is known to produce high quality Douglas fir which makes up the majority of the trees here. Areas of remnant ancient semi-natural woodland do remain and are made up of oak, ash and sweet chestnut. Most of the areas are actively managed to provide timber for local and national businesses, and to improve the quality of the remaining tree crop.

The Plan area contains numerous archaeological features, notably mines, which originate from the rich iron and silver mining for which the area was renowned.

The Plan area is a rich for ecology and includes Priority Lowland Mixed Deciduous Woodland which is habitat in part for dormice.

No Public Rights of Way cross the Plan area but Birch Wood is Open Access, with Denham being de facto Open Access due to the nature of the landholding. The majority of recreation usage is made up of walkers with some limited amount of usage by horse riders and mountain bike riders.

Objectives

The core aim of the plan is to produce woodlands with increased conservation and landscape benefits whilst maintaining a viable timber output. The long term aims of management here are to continue the process of restoring Ancient Woodland while increasing resilience to climate, pest and disease risks, and to develop the forest for people. The social, economic and environmental objectives of management here are to:

- The continued production of sustainable and marketable woodland products.
- To conserve, maintain and enhance cultural and heritage assets.
- The provision and maintenance of recreation facilities.
- Protect and enhance woodland and open habitats and their associated species.
- To protect enhance and restore areas of ancient woodland in line with the 2005 'Keepers of Time' policy.
- The delivery of well-designed proposals in keeping with AONB and local landscape character.

What we'll do

The current plan outlines management proposals including felling and restocking over several decades, with felling licence approval for operations up until 2026.

Areas identified as PAWS will be managed as mixed woodland to maximise their productive potential, with the aim of a gradual return to native woodland. Prescribed proactive management of the broadleaf areas w

The Plan makes provision to ensure proposals are in keeping with the neighbouring intimate wooded landscape.

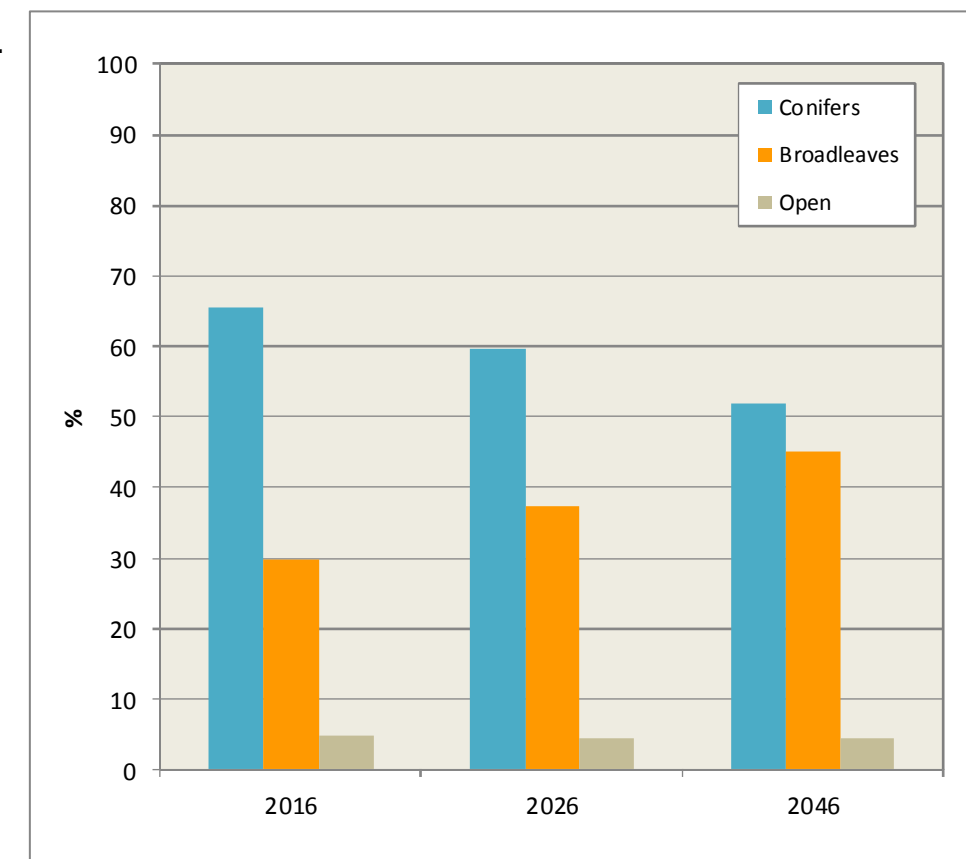
Implementation and maintenance of an environmental corridor system will continue to increase diversity of habitat and internal landscaping.

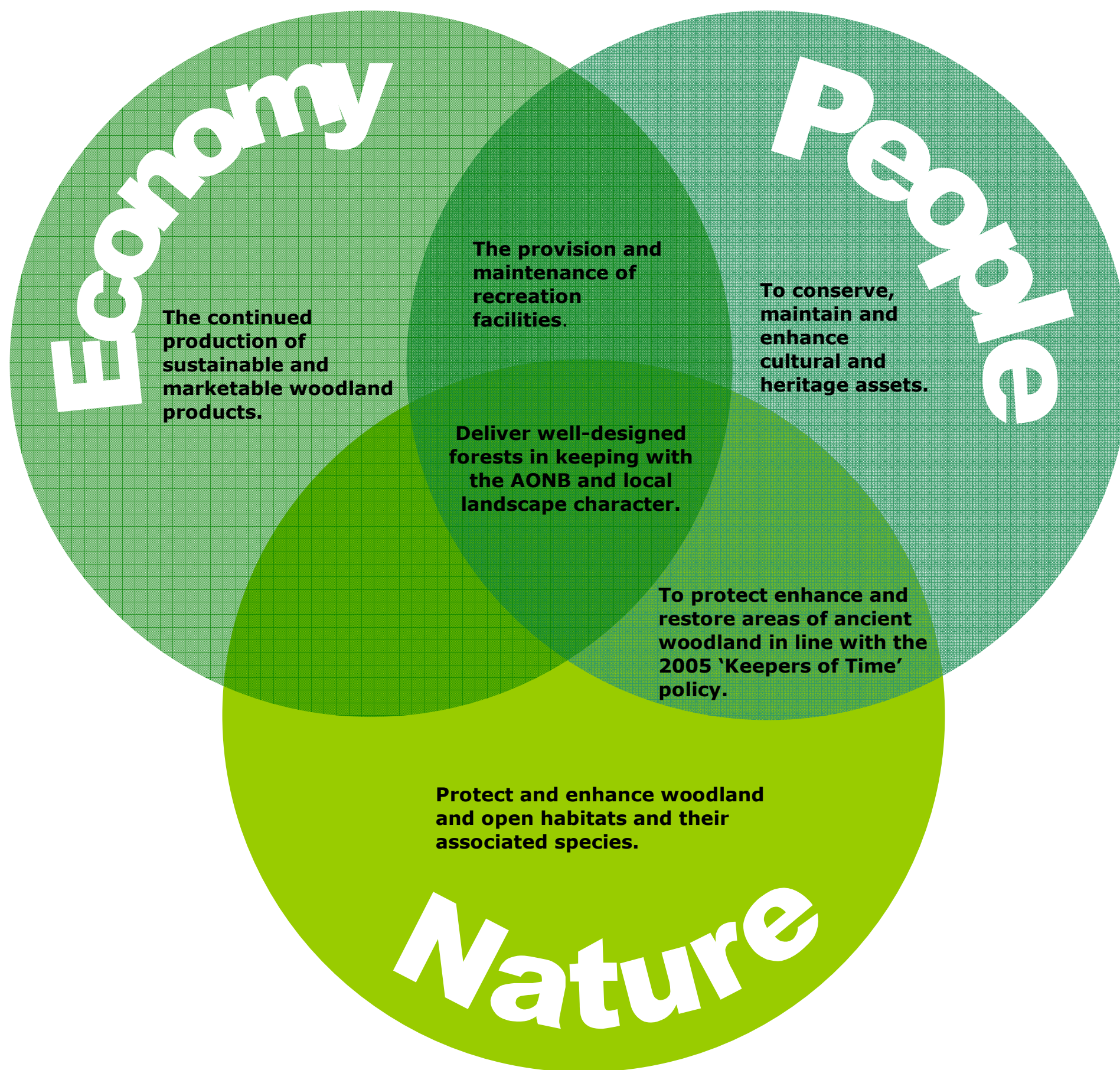
The planned areas of clearfelling, restocking and permanent open space creation during the ten years to 2026 are summarised in the chart below.

HECTARES	Conifers	Broadleaves	Open space
Clearfelling	-	1.8	-
Restocking/Regeneration	-	1.8	-

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

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





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 as stipulated in UKFS and UKWAS and therefore must deliver economic, environmental and social objectives.

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



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



Declaration by FC as an Operator.

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



Objective	Meeting Objective	Monitoring
<p>The continued production of sustainable and marketable woodland products.</p>	<p>The majority of the Plan area will remain productive through thinning yield.</p> <p>Minimal clearfell timber production will occur from the conifers.</p>	<p>Comparison of total production forecast yield (1,000m³ annual average) with actual production at the Forest Plan (FP) five and ten-year review.</p> <p>Pre-thinning survey followed by thinning control sheets.</p>
<p>To protect enhance and restore areas of ancient woodland in line with the 2005 'Keepers of Time' policy.</p>	<p>Targeted felling of conifer crops and suppression of non-native regeneration to aid natural native regeneration and native species replanting</p>	<p>Analysis and comparison of SCDB 'naturalness' scores through the Forest Plan review process.</p>
<p>To conserve, maintain and enhance cultural and heritage assets.</p>	<p>Liaise with Devon Archaeology Service prior to commencement of works in proximity to heritage assets.</p> <p>Where appropriate limit shrub encroachment on features.</p>	<p>Operational site planning of harvesting and restocking operations will help monitor the effect of management.</p> <p>Feature condition monitored through Review process and records updated.</p>
<p>Deliver well-designed forests in keeping with the AONB and local landscape character.</p>	<p>Implementation of proposals will soften and better integrate the woodland with the surrounding landscape</p>	<p>Fixed point photography analysis at Forest Plan review stage</p>
<p>Protect and enhance woodland and open habitats and their associated species.</p>	<p>Felling together with a delayed restock program will continue to diversify stand and age structure.</p> <p>Operational site planning should highlight opportunities where conservation benefits can be delivered.</p> <p>Appropriate reinstatement works will be carried out once operations have been concluded.</p> <p>Creation of >10% transitory and permanent open space</p>	<p>Monitored via Review process, through local records and updated sightings.</p> <p>Analysis and comparison of SCDB open space 10% through the Forest Plan review process.</p> <p>Operational site planning of harvesting and restocking operations will help monitor the effect of management</p>
<p>The provision and maintenance of recreation facilities.</p>	<p>Management of existing car parking and trail facilities will be maintained by the Beat team.</p> <p>Visitor numbers will be maintained.</p> <p>Road and ride corridor and car park aesthetics enhanced and maintained.</p>	<p>Beat team will monitor usage and ensure the maintenance of car park, trails and signage.</p>



Landscape Character

151 South Devon National Character Assessment Profile

Source: Natural England (2012)

At its core, South Devon is a fertile, agricultural landscape, with smooth, rounded hills separated by deep, wooded valleys; a patchwork landscape of arable and improved pasture. The Tamar Valley has some distinctive features relating to the topography, land use and underlying geology. Principally the granite ridge that runs across the Tamar Valley results in a gorge-like landscape, with thickly wooded sides and rocky outcrops.

The area contains 12,374 ha (10 per cent of NCA), including 3,446 ha of ancient woodland. There are important ancient woodland sites on valley and ria sides and substantial areas of ancient woodland are concentrated in the Dart and Erme valleys. Generally oak or ash dominate, while alder and hazel occur in damper areas. Sweet chestnut, beech and sycamore are also common.

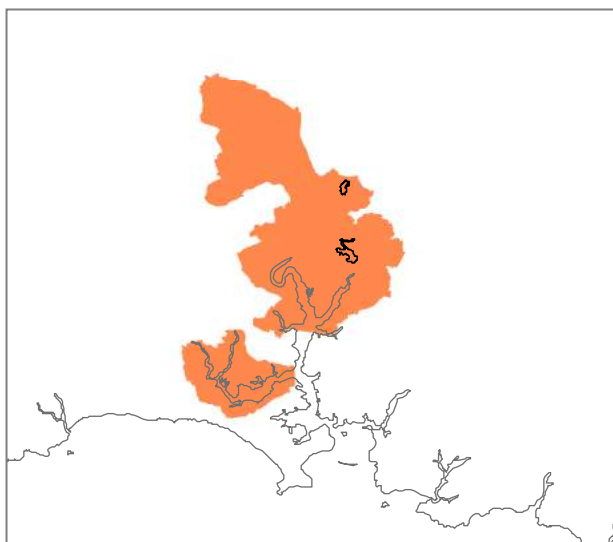


Tamar Valley AONB

Tamar Valley AONB is a rare valley and water landscape based around an unspoilt estuary, a unique wildlife resource and a landscape of distinctive heritage.

The AONB contains extensive areas of woodland, particularly on the steep valley sides. This is split between large tracts of well-managed coniferous forest and equally large areas of broadleaved woodland, much of it ancient semi-natural. Within this are nationally important species, including the heath fritillary butterfly, and regionally endangered species like the nightjar.

The vision of the AONB is to ensure that by working together the Tamar Valley AONB is managed in a way that conserves and enhances its unique cultural identity and outstanding natural beauty for the benefit of all the people who live, work and visit the area, now and in the future.



CHARACTER DESCRIPTION—River Tavy Middle Valley

Source: West Devon District Council (2008)

This is a landscape of contrasts, with ridges of higher land separated by the winding wooded valley of the River Tavy. Extensive dark mixed plantation covers its valley sides, creating a sense of isolation and secrecy. Watermeadows on the valley floors and pockets of broadleaved woodland add variations in colour and texture. Streams glide between craggy wooded banks covered in mosses and ferns, tumble over boulders and rocks, and flow under ancient bridges. Sunken lanes twist their way up the valley sides towards an open landscape of pastoral fields, with sudden long views across to Dartmoor or the River Tamar. Buckland Abbey is nestled into the valley side, surrounded by parkland. The rich and diverse landscape has a strong sense of history, with prehistoric hillforts, farms, estates, villages and industrial remains all contributing to its sense of time-depth.

This area is separated from the Tamar valley to the west by a narrow plateau which runs from Bere Alston to Lamerton. Its boundaries with adjacent landscape character areas are all fairly gradual. To the north are the Tamar Upland Fringe and Tavistock Dartmoor Fringes; to the east Central Dartmoor and Southern Dartmoor and Fringes; to the south Plymouth Farmland and the city of Plymouth and to the west the Lower Tamar and Tavy Valleys and the Middle Tamar Valley.

The area continues to provide much-needed recreational provision for tourists and the residents of Plymouth, but in a sensitive way with minimal impact on the landscape and biodiversity. The area's dramatic views and historic features are protected, understood and enhanced, with interpretation and public access where appropriate. Any development is carefully designed and sited to minimise its impact on the area's rural character. Sustainable agriculture and the maintenance of traditional landscape features are supported. Semi-natural habitats such as heathland, woodland and watermeadows are well-managed to maximise their biodiversity and resilience to climate change.



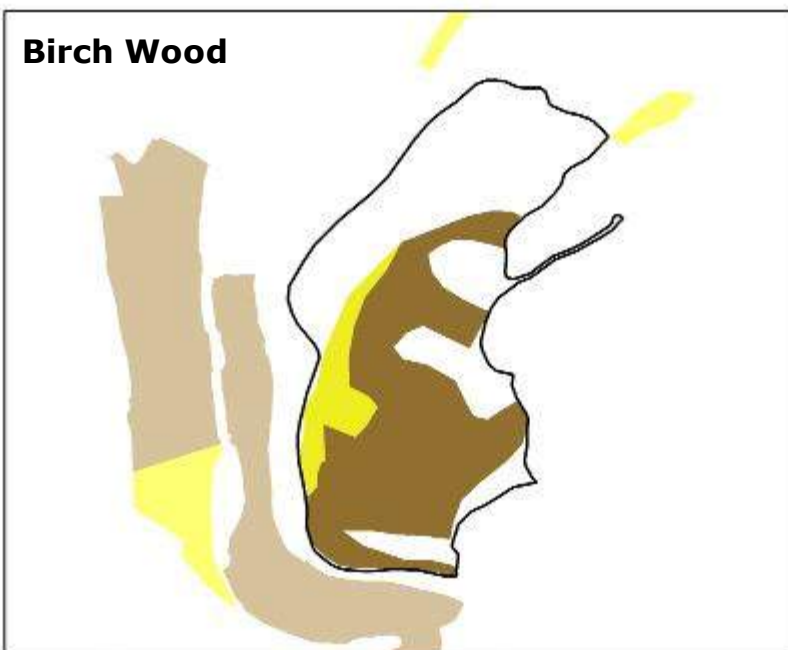
Protect	Manage	Plan
<ul style="list-style-type: none"> Protect the area's long views across Dartmoor and the Tavy and Tamar Valleys. Protect the area's scenic quality, and enhance its role as a setting for adjacent protected landscapes. Protect the area's high levels of tranquillity, resisting development which would reduce them. 	<p>Manage woodland (including through traditional techniques such as coppicing) to maximise age diversity and to develop species composition appropriate to the area; encourage the reversion of coniferous plantation to deciduous woodland on maturity, especially on ancient woodland sites</p>	<p>Plan for the long-term restructuring of large conifer plantations in the Tavy valley, through gradual restocking with a range of native broadleaved species; consider retaining and promoting less prominent conifer plantations as recreational spaces (e.g. for mountain biking).</p> <p>Plan to create, extend and link semi-natural habitats such as heathland, hedges and woodlands, including through the reinstatement of lost field boundaries.</p>



Designations

Ancient Woodland

The Plan area and local landscape is host to considerable areas of designated Ancient Woodland sites (AWS), both remnant ancient semi-natural woodland (ASNW) and plantation on ancient woodland sites (PAWS). Of the total Plan area, over 75% is designated Ancient Woodland (106ha) with almost the entirety of Denham designation. A large proportion of this Ancient Woodland (94ha), is PAWS having been planted with non-native conifer in the 1960s. The majority of ASNW areas are found in the valley sides or bottoms and are oak dominated.



Legend

Forestry Commission AWS

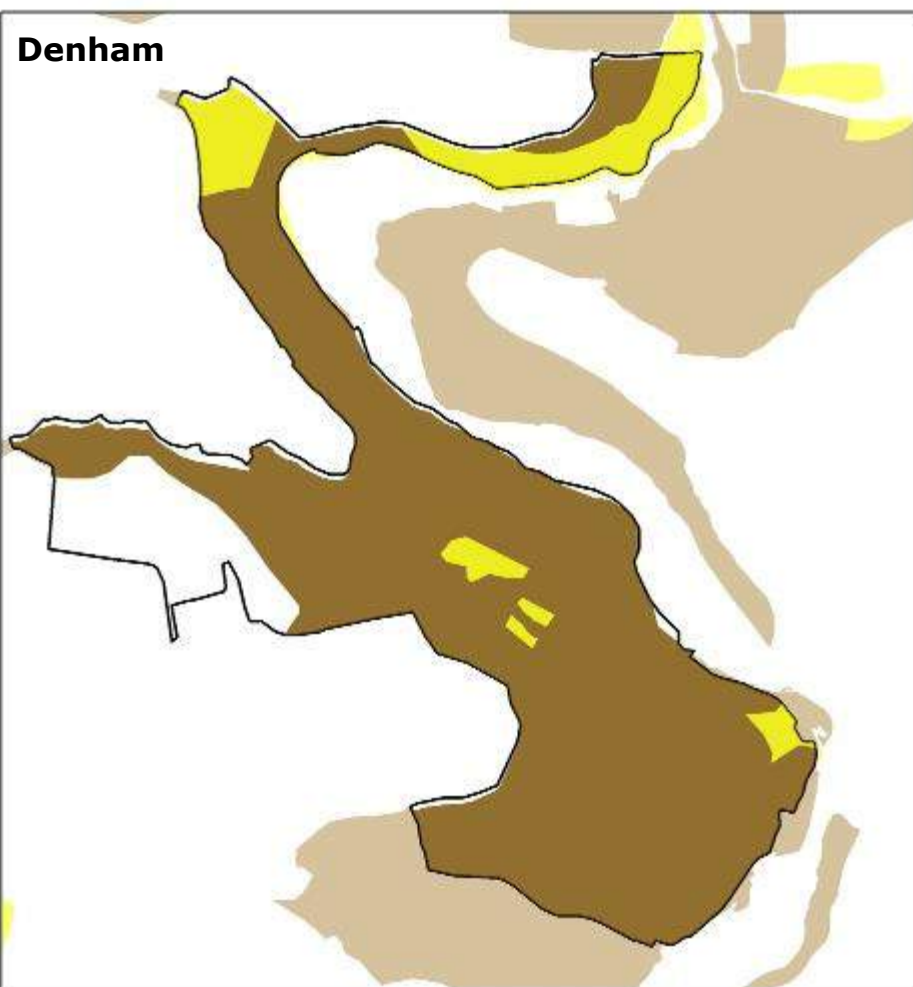
ASNW

PAWS

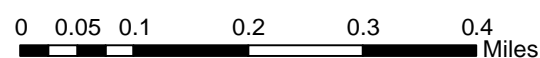
Neighbouring AWS

ASNW

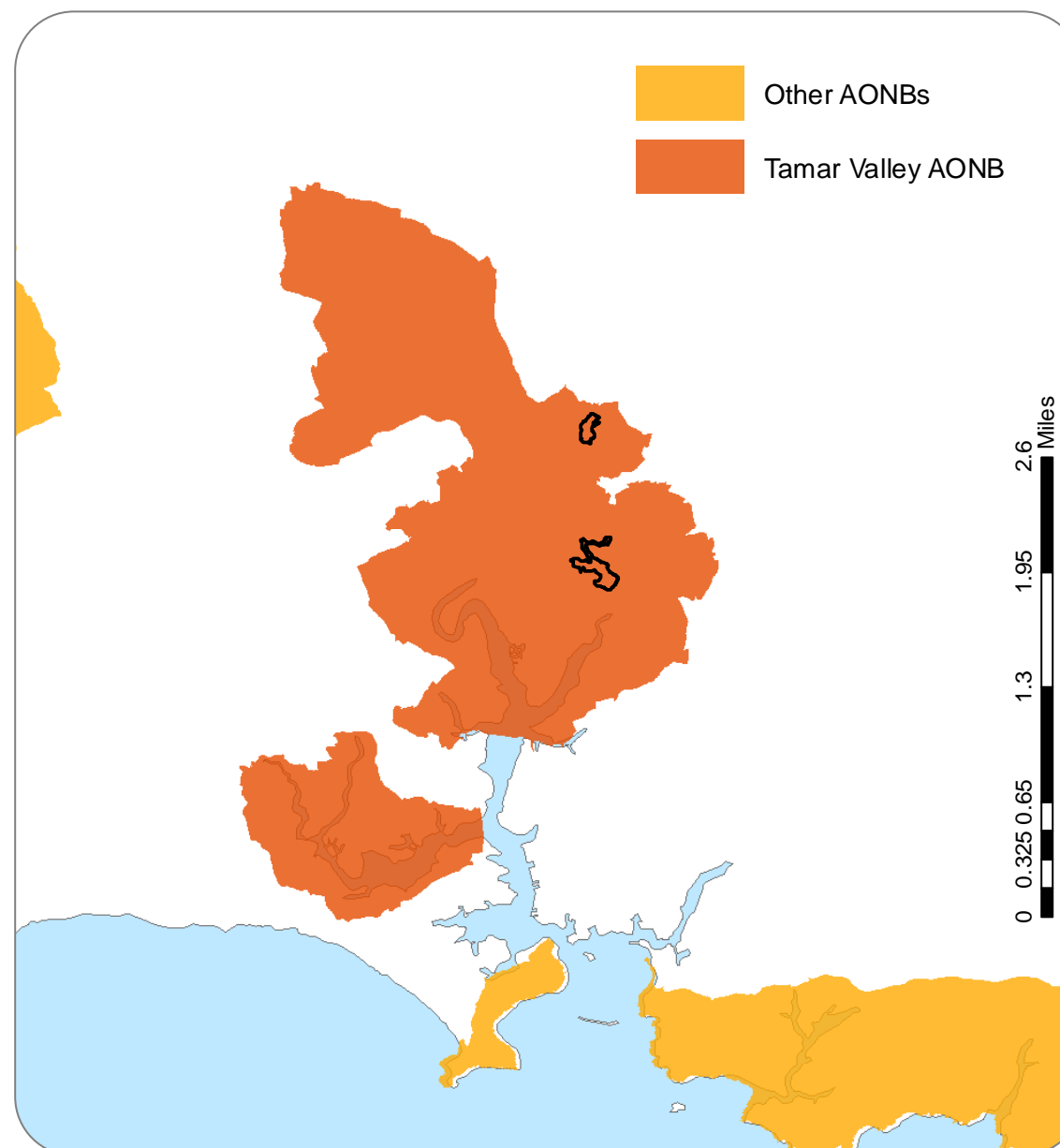
PAWS



	Area (ha)			
	ASNW	PAWS	Secondary	TOTAL
Birch Wood	2.8	16.8	19.6	39.2
Denham	9.4	77.5	11.9	98.8
TOTAL	12.2	94.3	31.5	138



© Crown copyright and database right [2016]
Ordnance Survey [100021242]



Area of Outstanding Natural Beauty

The Plan area sits within the Tamar Valley Area of Outstanding Natural Beauty (AONB). AONBs are designated under the Countryside & Rights of Way Act (2000), and along with National Parks they represent the finest examples of countryside in England and Wales. Designation seeks to conserve and enhance natural beauty; including flora and fauna, geology and landscape features, archaeology and architecture; whilst recognising the needs of the local community and economy.

The Tamar Valley AONB contains an estimated 3,668ha (20.2%) of woodland, significantly above the regional average. Woodland condition is variable but the Valley produces timber – especially Douglas Fir – of excellent quality and the potential productivity is certainly higher than at present. Conifer crops, providing they are planted sympathetically in the landscape, have a role in sustaining the economic viability of land-holdings. Sustainably managed coniferous and broadleaved forests will continue to provide fuel, timber, carbon storage, biodiversity and other ecosystem services.



Analysis & Concept

Analysis: Numerous copper, silver and lead mines are found throughout the woodlands, and are a key feature of the Tamar Valley cultural heritage.

Concept: These features are fenced but visible to the public maintaining their cultural value whilst keeping people safe. Mining areas are avoided during operations.



Analysis: Both woodlands sit within a wooded landscape. Surrounding woodlands, many of which are designated as Ancient Woodland, adjoin the Plan area.

Concept: Woodland operations will need to be carefully planned and sensitively executed to ensure the woodlands are managed in keeping with the local landscape.

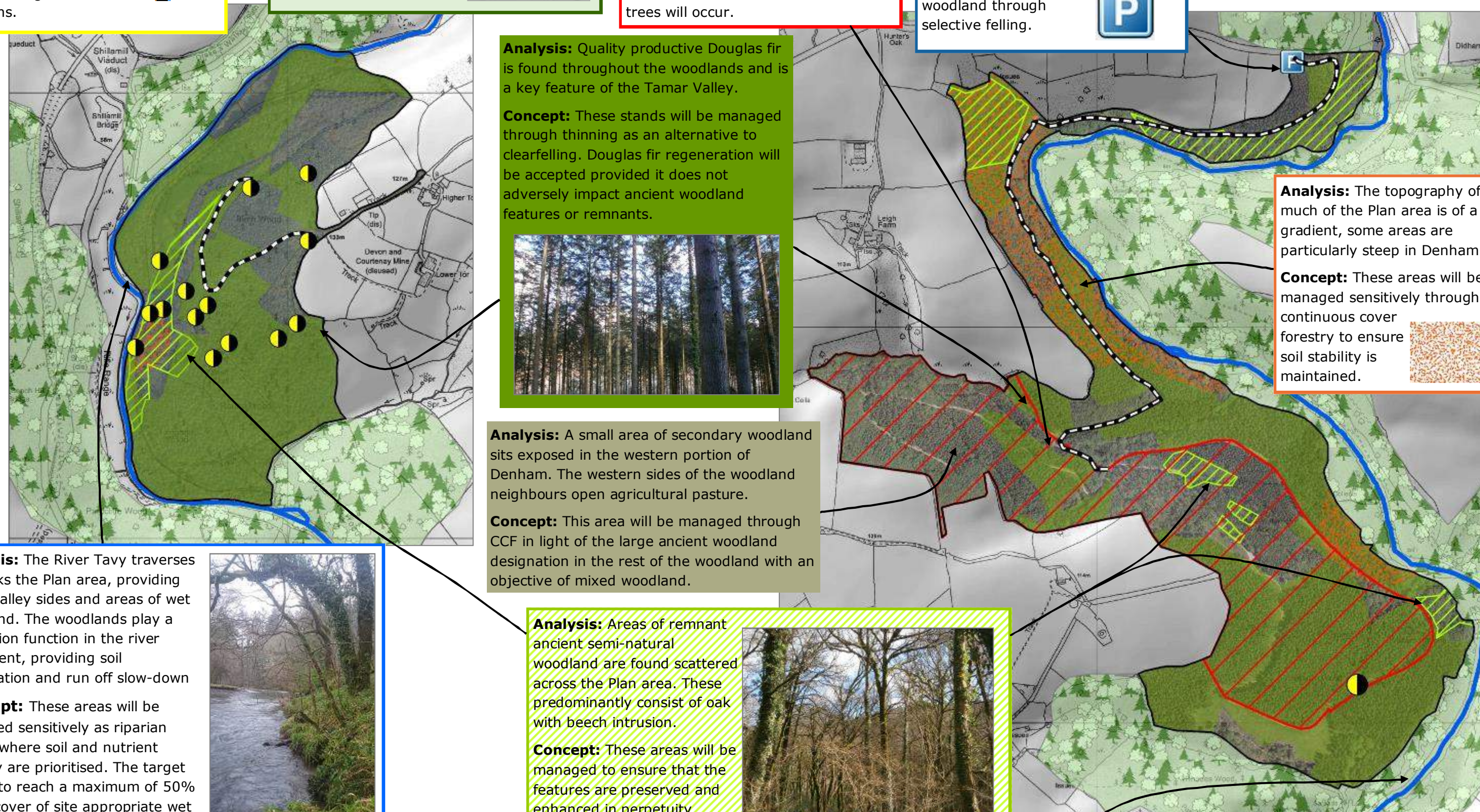


Analysis: An outbreak of *Phytophthora ramorum* was found in 2014 in European larch and Sweet chestnut—with symptomatic trees requiring removal.

Concept: The application of coppicing of Sweet chestnut and thus precipitating vigorous regrowth is not deemed appropriate in this area. Continued removal of symptomatic trees will occur.

Analysis: The focus of recreational access is at the car park at the northern end of Denham. The area is in good condition but somewhat over shadow by the surrounding crops.

Concept: Steps will be taken to improve the setting of the Car Park and entrance to the woodland through selective felling.



Analysis: Quality productive Douglas fir is found throughout the woodlands and is a key feature of the Tamar Valley.

Concept: These stands will be managed through thinning as an alternative to clearfelling. Douglas fir regeneration will be accepted provided it does not adversely impact ancient woodland features or remnants.



Analysis: The topography of much of the Plan area is of a gradient, some areas are particularly steep in Denham

Concept: These areas will be managed sensitively through continuous cover forestry to ensure soil stability is maintained.



Analysis: A small area of secondary woodland sits exposed in the western portion of Denham. The western sides of the woodland neighbours open agricultural pasture.

Concept: This area will be managed through CCF in light of the large ancient woodland designation in the rest of the woodland with an objective of mixed woodland.

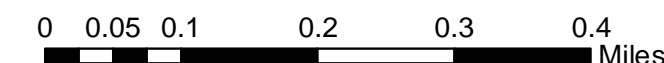
Analysis: The River Tavy traverses and links the Plan area, providing steep valley sides and areas of wet woodland. The woodlands play a protection function in the river catchment, providing soil stabilisation and run off slow-down

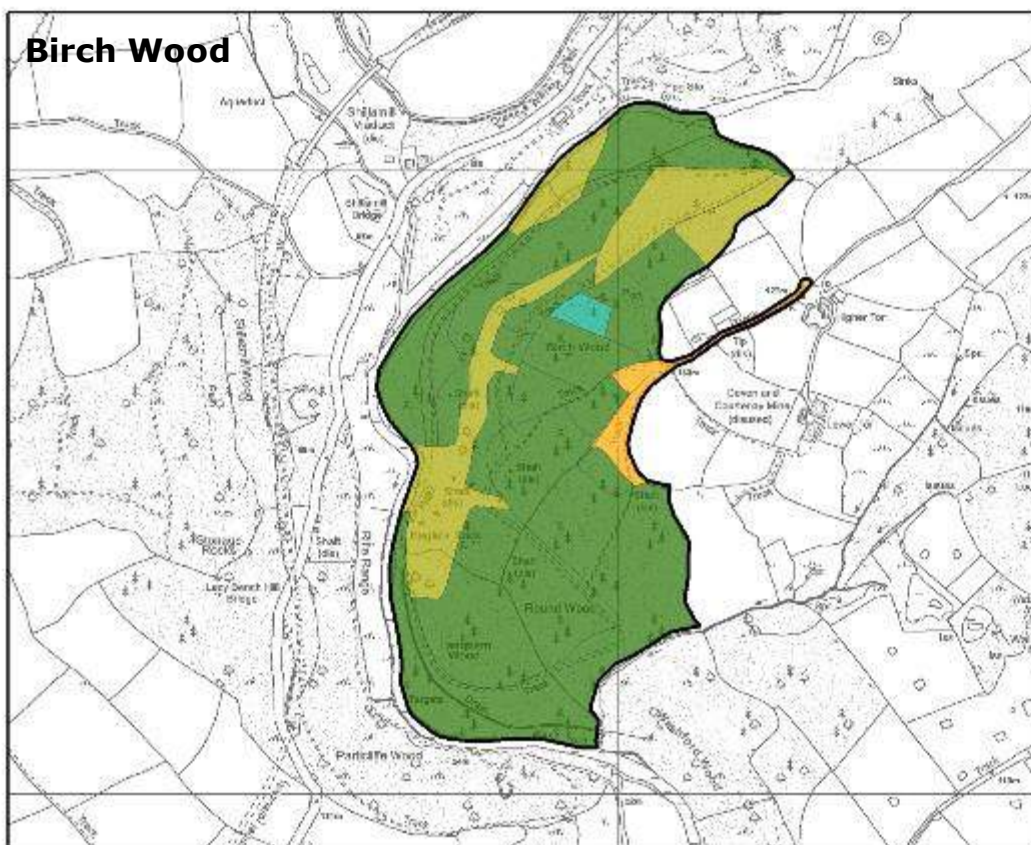
Concept: These areas will be managed sensitively as riparian zones, where soil and nutrient stability are prioritised. The target will be to reach a maximum of 50% forest cover of site appropriate wet woodland species.



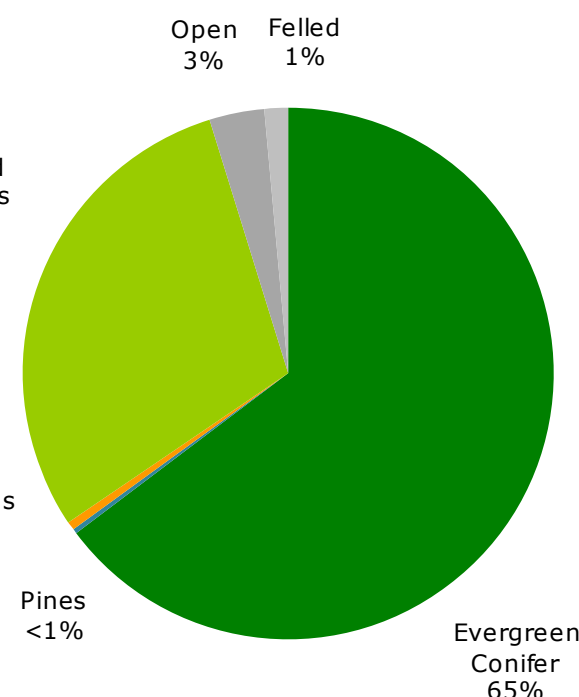
Analysis: Areas of remnant ancient semi-natural woodland are found scattered across the Plan area. These predominantly consist of oak with beech intrusion.

Concept: These areas will be managed to ensure that the features are preserved and enhanced in perpetuity.





Native & naturalised broadleaves
30%

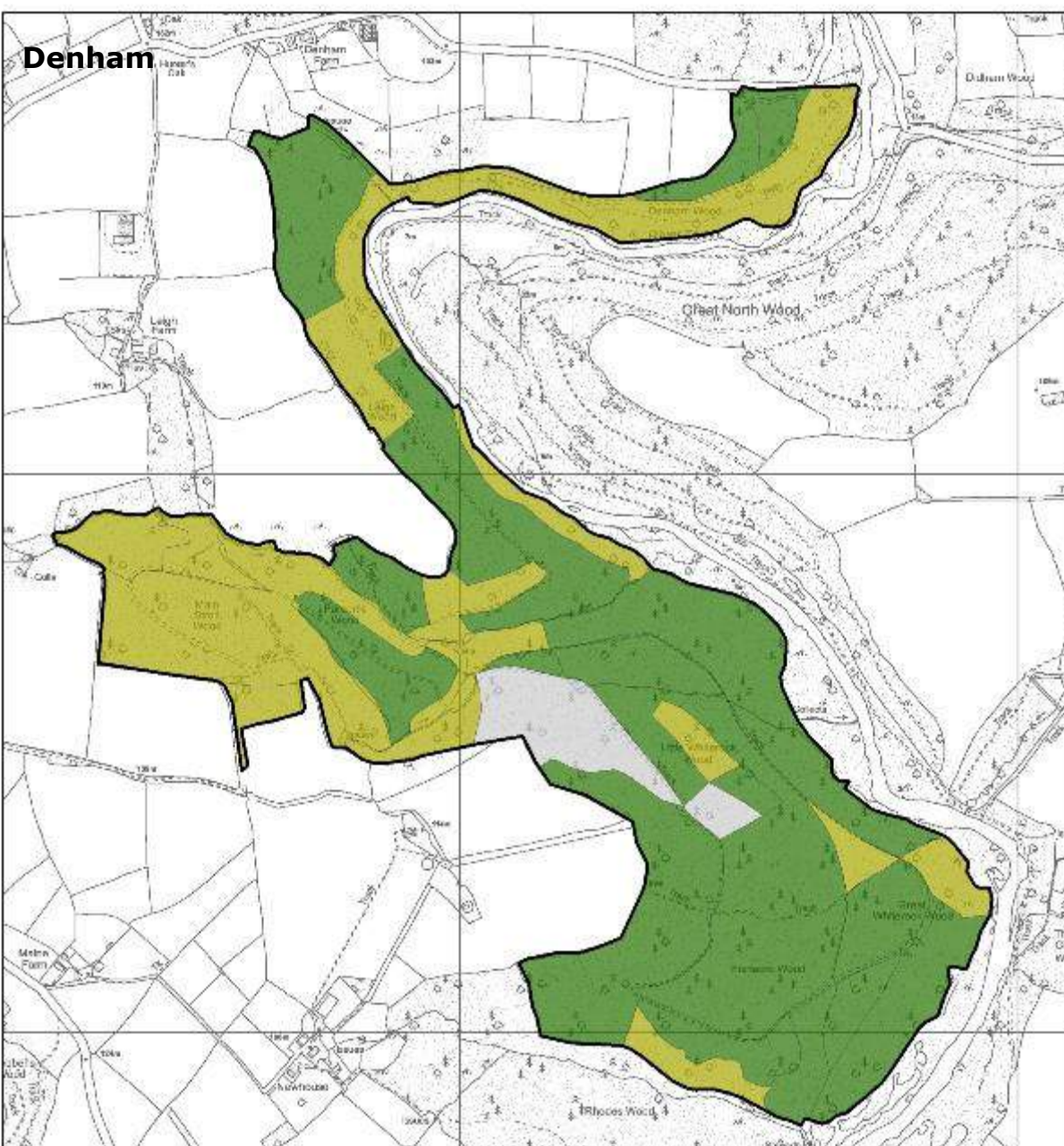


Woodland Composition

The Plan area is conifer dominated with significant remnants of ancient semi-natural and native broadleaf features. Denham had contained some larch components until recently, but these have now been removed following *Phytophthora ramorum* infection and Statutory Plant Health Notice felling. The majority of conifer components are made up of quality Douglas fir (74ha) with Norway spruce and Western hemlock the major supplementary species. The broadleaf components are predominantly made up of oak, sweet chestnut and beech. Ash, birch and sycamore are evident as pioneer species within discrete areas of the Plan area.

The vast majority of conifer crops are around 50 years old with considerable levels of planting having occurred in the 1960s. As a result the woodlands are even-aged and thus economically and ecologically resilience poor. The thinning of conifer crops has ensured that understory development is beginning to establish which in time will deliver a more structurally diverse woodland composition.

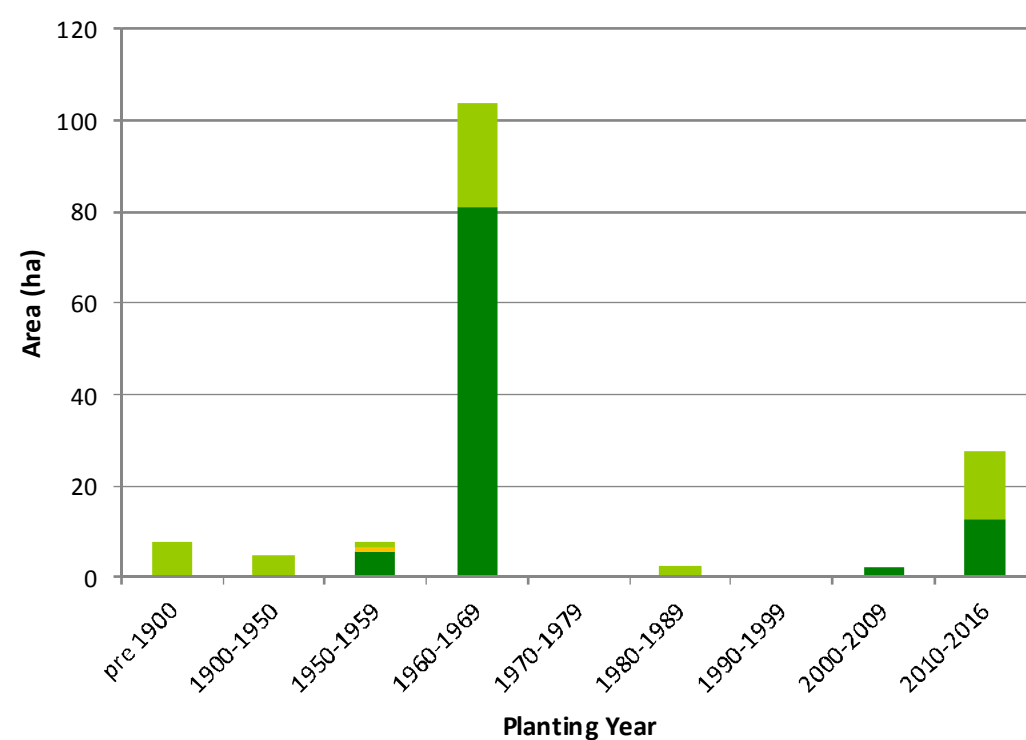
The broadleaf components of the Plan area comprise a mixture of ancient semi-natural oak, sweet chestnut and beech assemblages and younger plantings and regeneration. The majority of stands are even aged with understory development evident but not always establishing as a secondary crop. Where broadleaves feature within conifer crops these have been favoured and halo thinned to assist crown development.



Legend

- Evergreen Conifer
- Pines
- Larches
- Native & naturalised broadleaves
- Non-native broadleaves
- Open/other

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



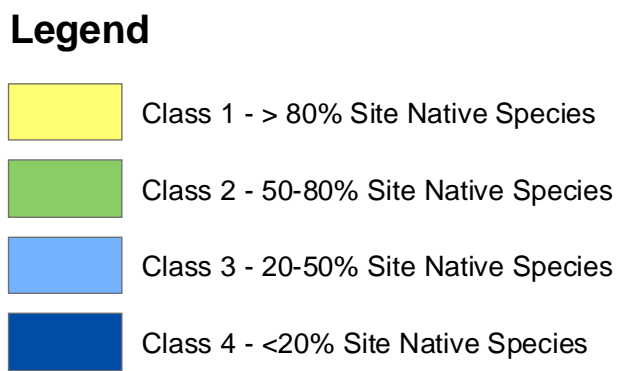
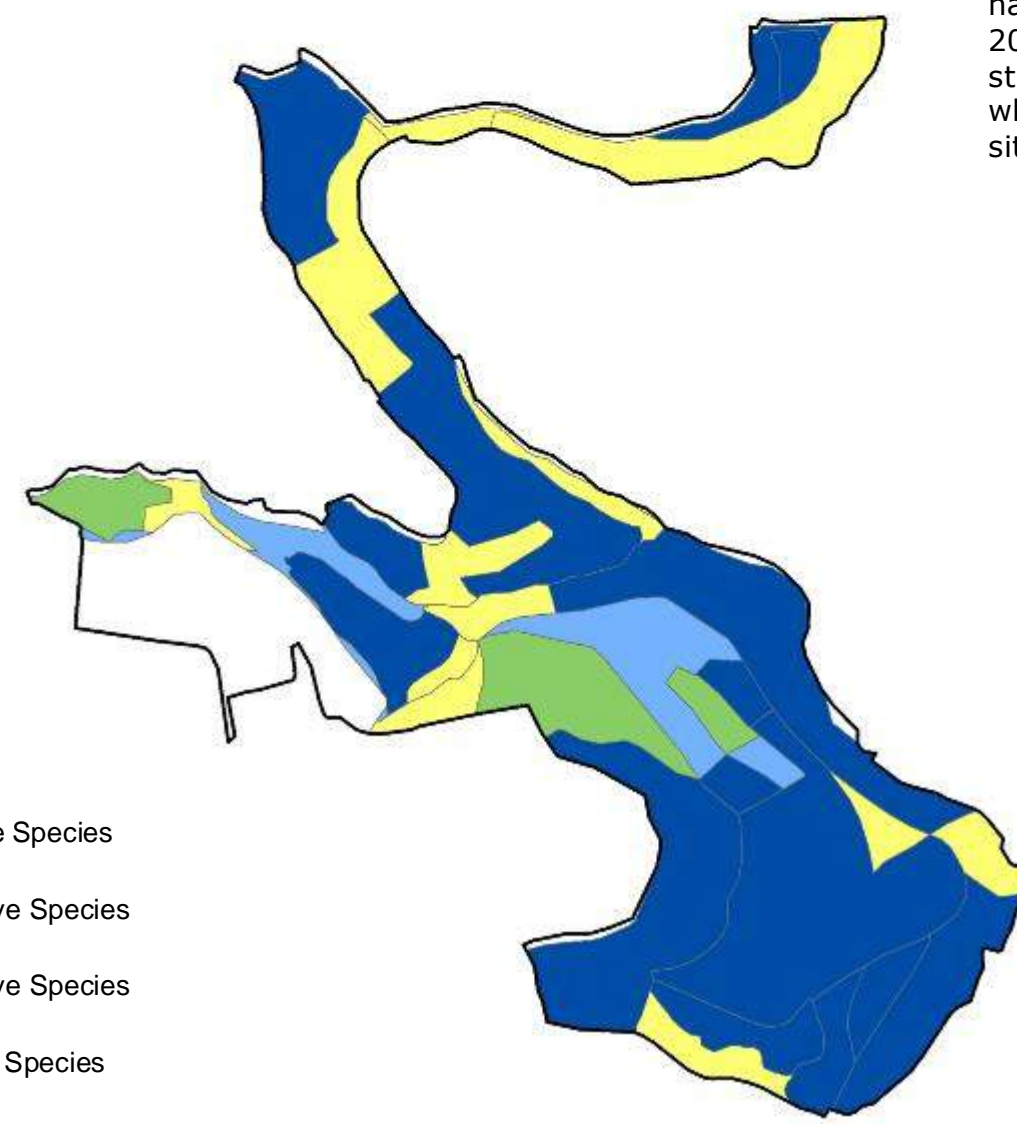
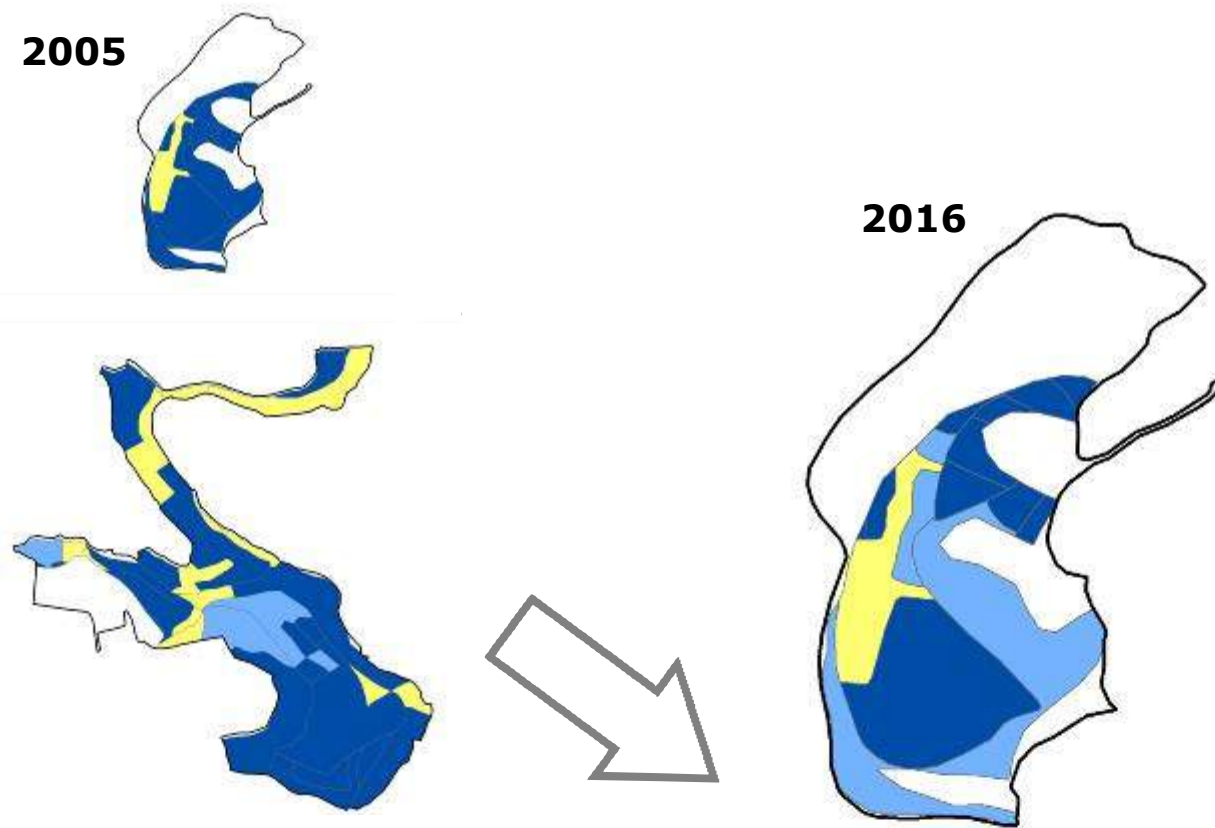


Class 1 - Semi-Natural Woodland & Restored Plantation Woodland
(> 80% site native species)

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

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

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



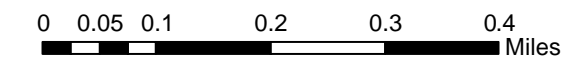
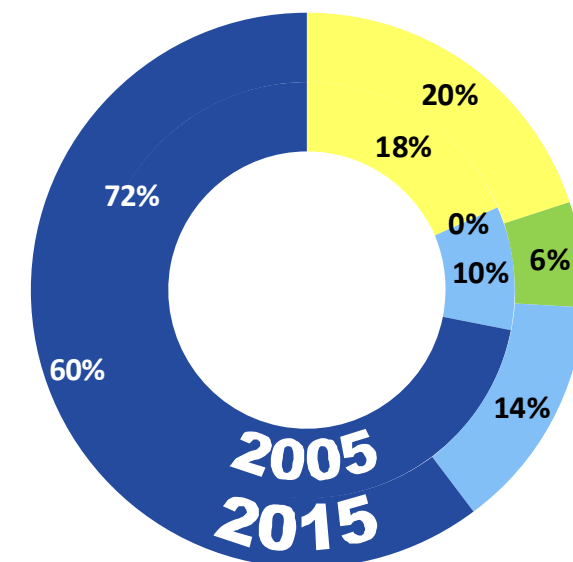
Naturalness on PAWS

Naturalness is the measure to show the percentage of site native tree species in a given area. This measure is used to record and monitor the condition and restoration of Ancient Woodland Sites previously planted with non-native species.

Classes 2, 3 and 4 are classified as Plantations on Ancient Woodland Sites (PAWS). Areas of Semi-Natural Woodland and restored PAWS (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).

There has been gradual yet significant change in the naturalness of the AWS across the Plan area since 2005. The development of native species within stands has occurred in all three naturalness classes which is enabling the gradual restoration of PAWS sites.





PAWS Management

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

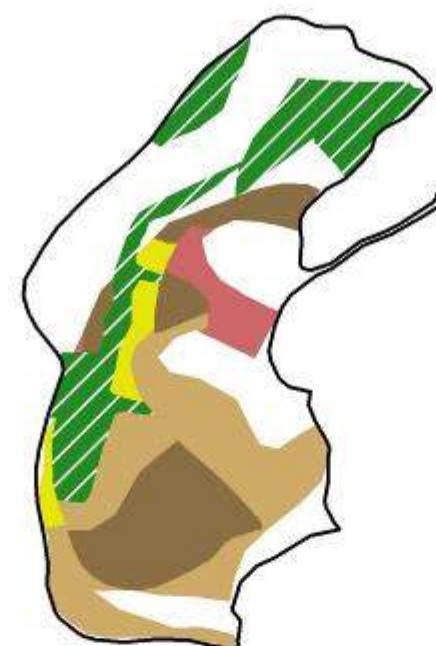
The aim of the transitional period to woodland containing 80% or more of native species should be to achieve:

- 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. In practice this may involve either underplanting or group felling and planting within existing mid rotation broadleaf crops.
- restoration of beech and sweet chestnut stands will not be prioritised as these species are to be naturalised and offer greater broadleaf diversity and therefore resilience.
- If adequate regeneration is not evident in the 'Transition' and 'Preparation' zones after 10 years a reappraisal of the prescription will be needed.

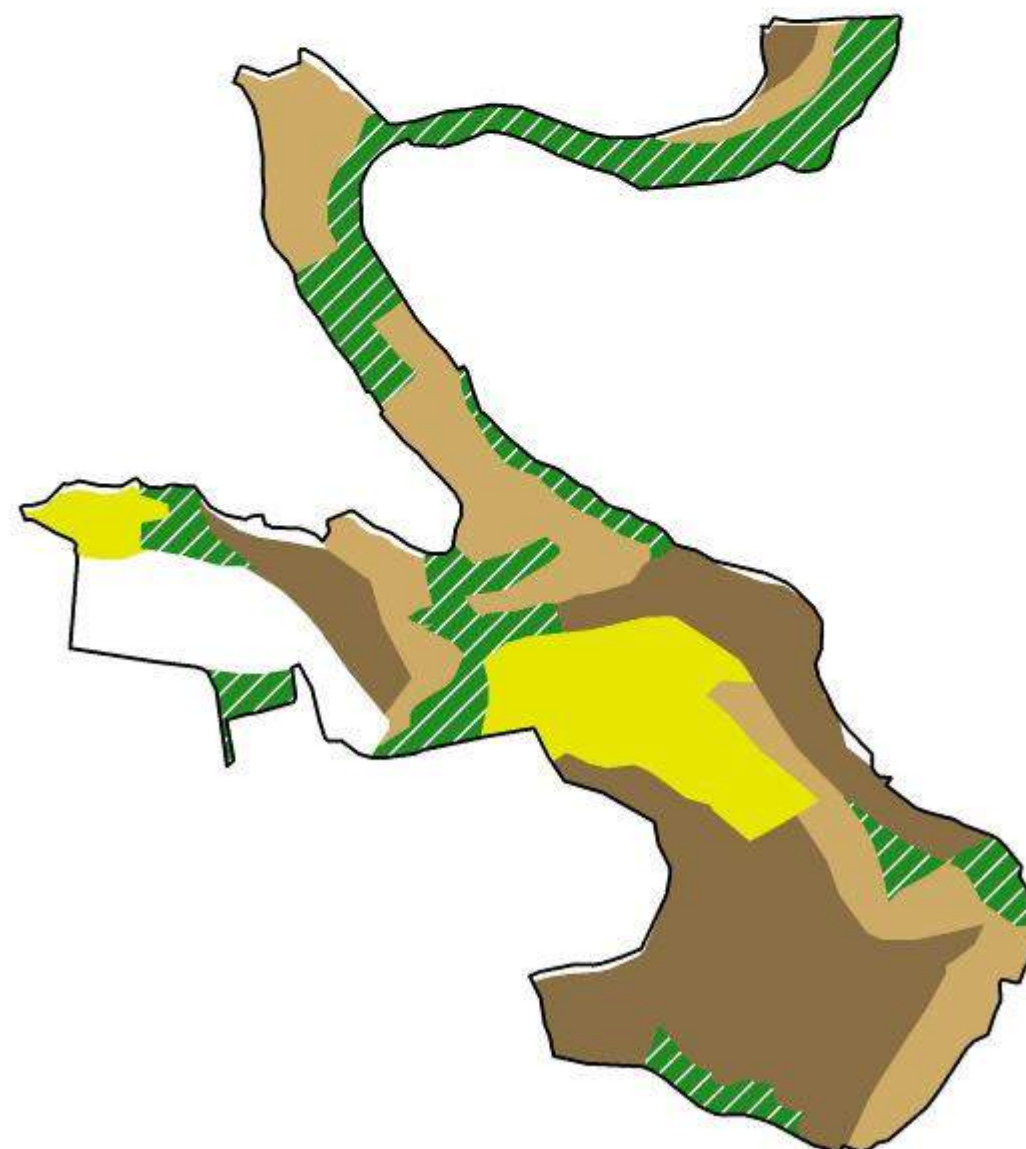
Legend

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

Birch Wood



Denham



Transition Zone

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

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

Preparation Zone

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

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

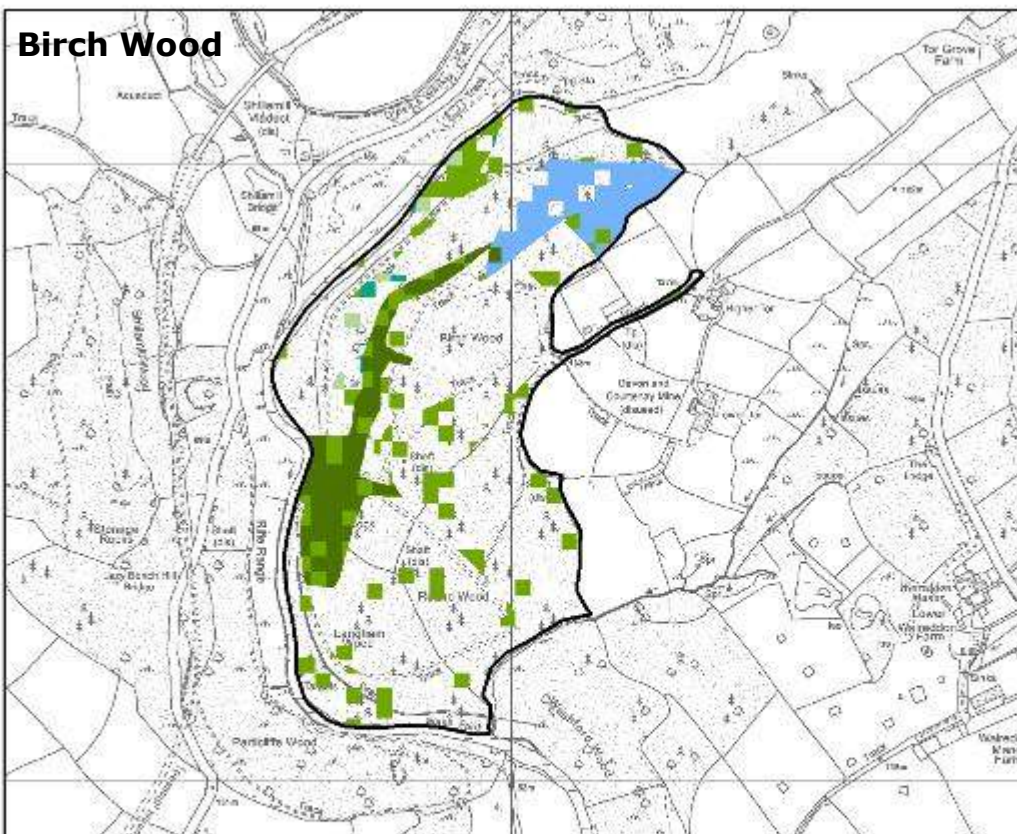
The anticipated time scale for establishment of predominantly native species is expected be around 50 – 60 years or so, but could be as long as 70 - 80 depending on success of establishing the future crop.

Non-native Zone

The proportion of native tree species within a management area is less than 20% of the crop. Thinning in both these sub-categories should encourage crown development of broadleaf components. Progress will be monitored and crops moved into either depending on development of stand structure and the response of natural regeneration.

Clearfell Zone

One clearfell will be used to convert PAWS in 15-20 years time. This is felling of Western hemlock and is required to ensure the integrity of the coupe which is predominantly secondary woodland. This will be restocked with site suitable native species



Legend

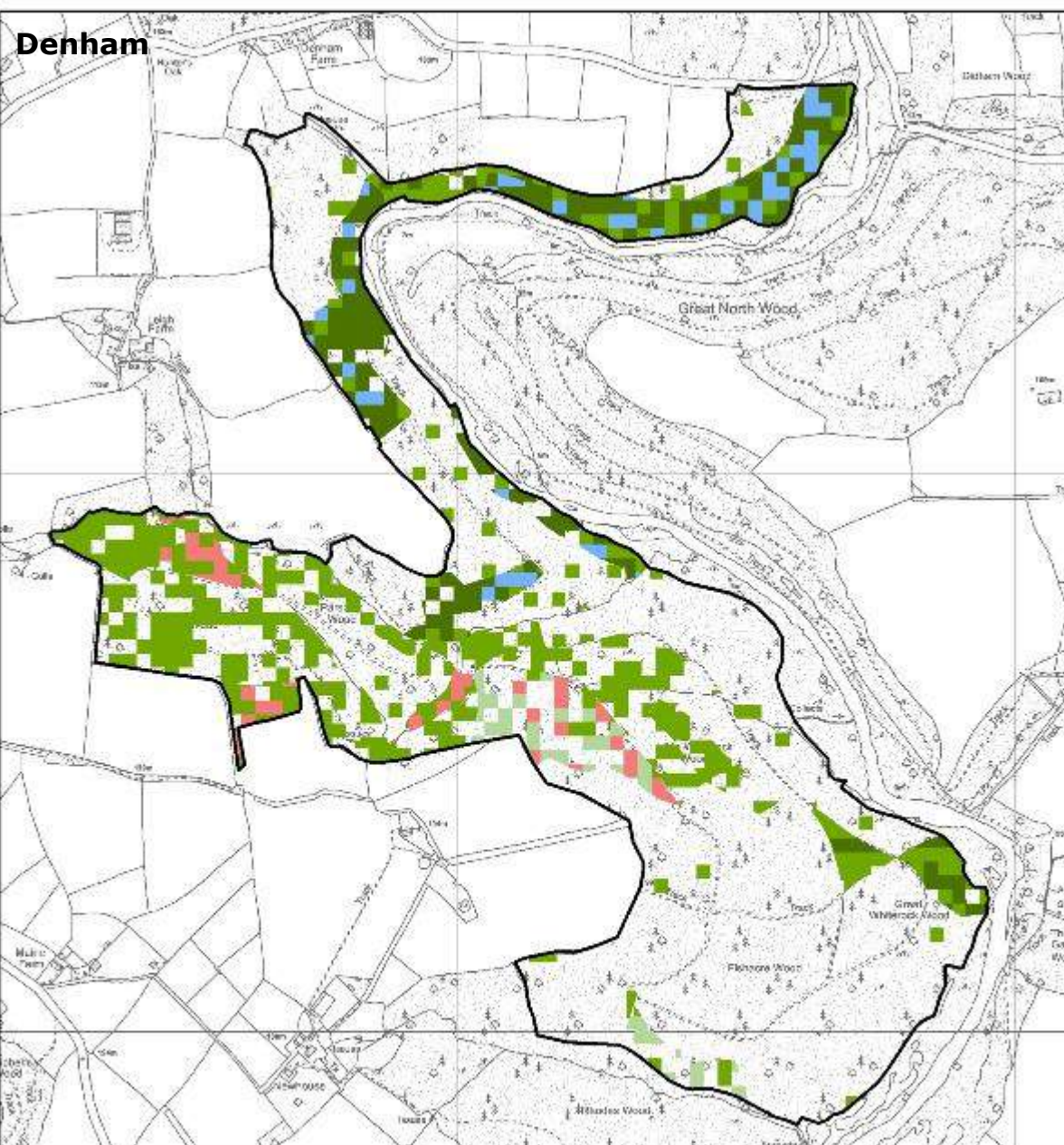
- Birches
- Other Broadleaves
- Oaks
- Sweet Chestnut
- Beech
- Sycamore

Broadleaf Management

The majority of the Plan area consists of National Vegetation Classification (NVC) types W10 and W16 oak woodlands with some W8 ash woodlands along lower slopes and valley bottoms. These classifications give a good indication of the target future species for PAWS restoration and if sites were left to natural succession.

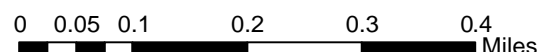
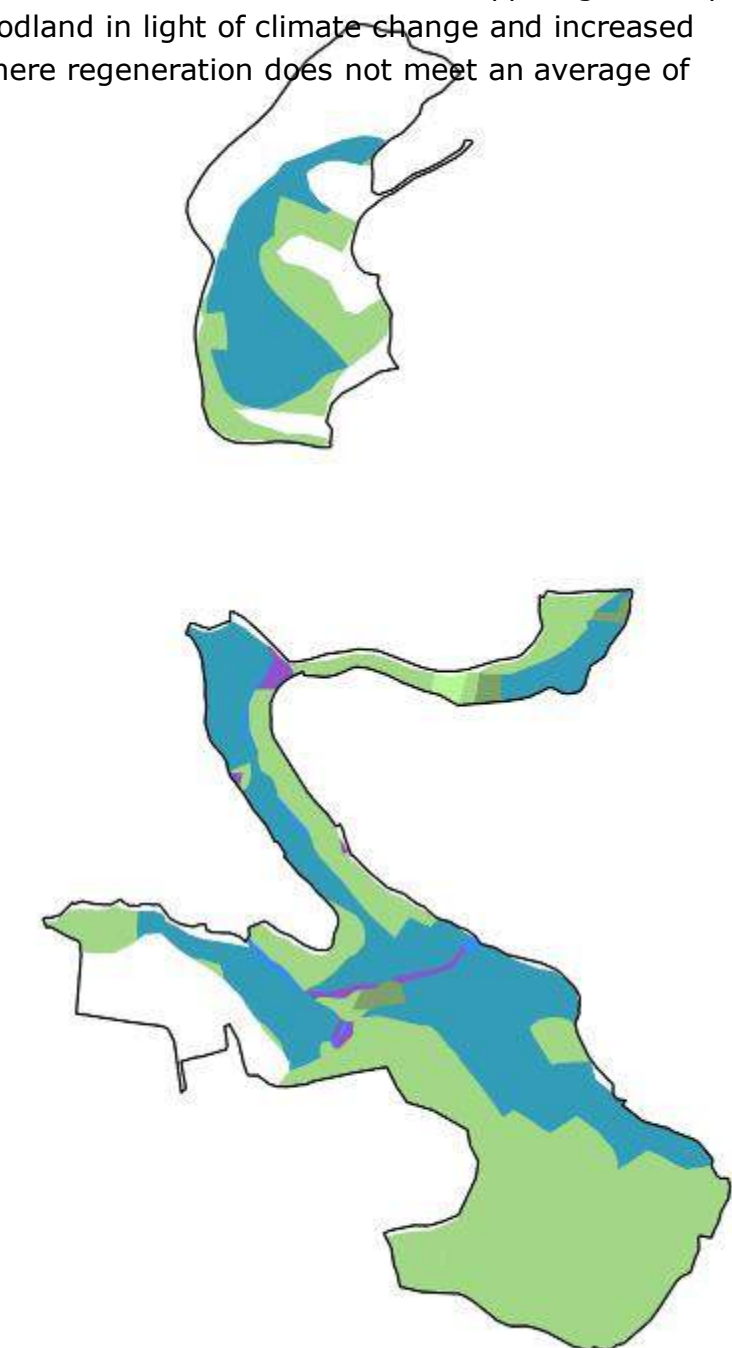
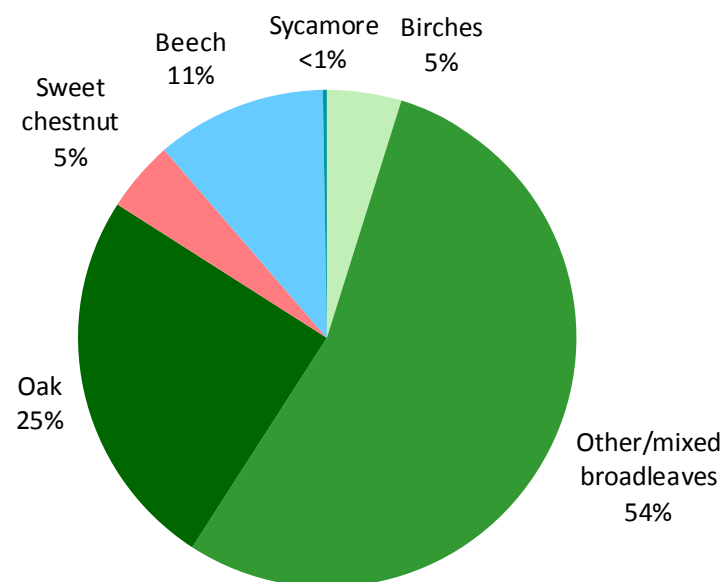
These sites will be managed on shelterwood systems whereby the new crop will be regenerated from selected seed trees, or through coppicing of oak, sweet chestnut and hazel stools where appropriate. In areas where the removal of Sweet chestnut symptomatic of *Phytophthora ramorum* is required the application of coppicing is not deemed appropriate in this area. Continued removal of symptomatic trees will occur. Light levels will be managed to minimise weed encroachment and grazing pressure from deer to limit regeneration predation following thinning operations.

Underplanting with species such as hazel, lime and hornbeam may be considered on the few ash dominated sites to ensure greater resilience to *Chalara fraxinea*. The re-introduction of coppicing will help to inject natural diversity and thus resilience into the woodland in light of climate change and increased pests and diseases. Planting will also be used on sites where regeneration does not meet an average of 3,000 stems/ha by year 10.



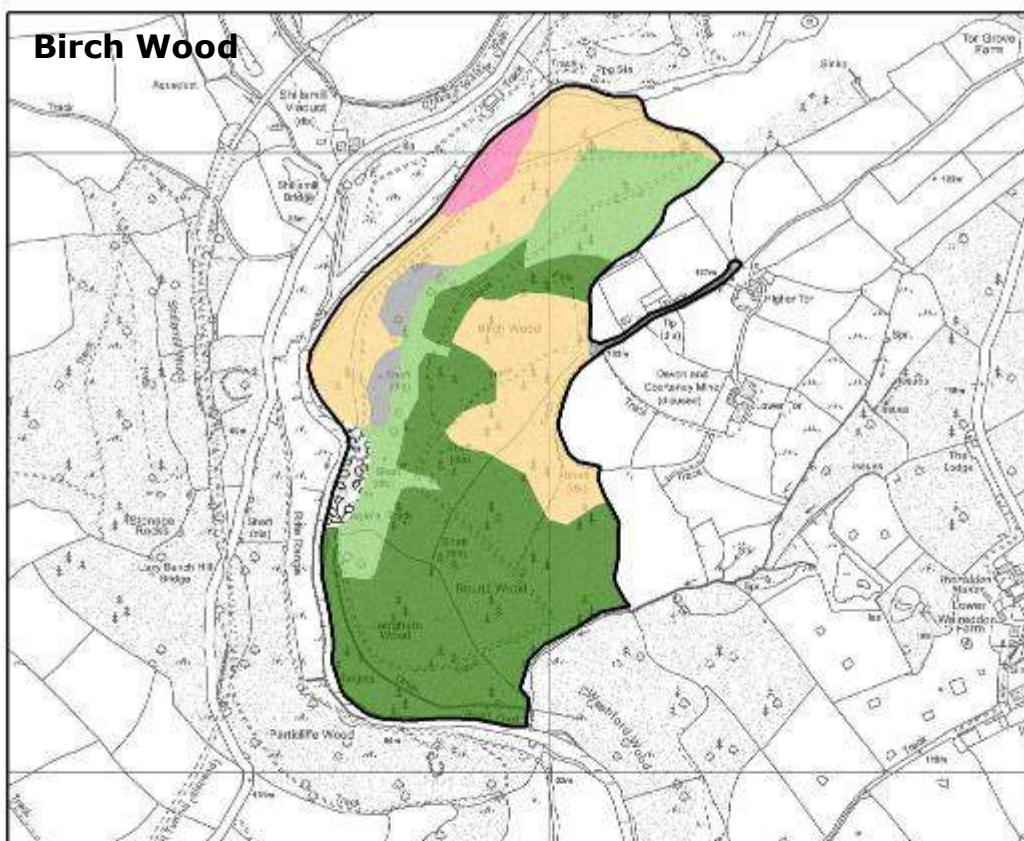
National Vegetation Classification

- W8 Ash woodland with dog's mercury
- W10 Lowland mixed broadleaved woodland with bluebells/wild hyacinth
- W14 Oak woodland with bramble
- W15 Beech - Oak woodland with wavy hair grass
- W16 Lowland Oak - Birch woodland with bilberry
- Wet Woodland



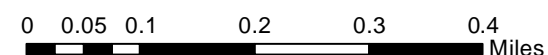


Silviculture



Legend

- Clearfell
- Uniform shelterwood (ASNW/Broadleaved dominated)
- Irregular shelterwood
- Single Tree Selection
- Minimum Intervention
- Other/Open Land



© Crown copyright and database right [2016]
Ordnance Survey [100021242]

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

Coppicing of hazel, oak and sweet chestnut stands will be used in discrete riparian areas. Coupes will be no larger than 0.5ha and will only be used where resources allow for adequate deer proof fencing. Standards will be retained where deemed as appropriate future crop trees.

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

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

Uniform shelterwoods are predominately broadleaved dominated and ASNW sites which will be managed using seeding fellings with possible under planting of site suitable species to control light levels and develop good timber quality. **Irregular shelterwoods** will look to develop a complex CCF structure through the identification and thinning towards quality final crop trees for the future.

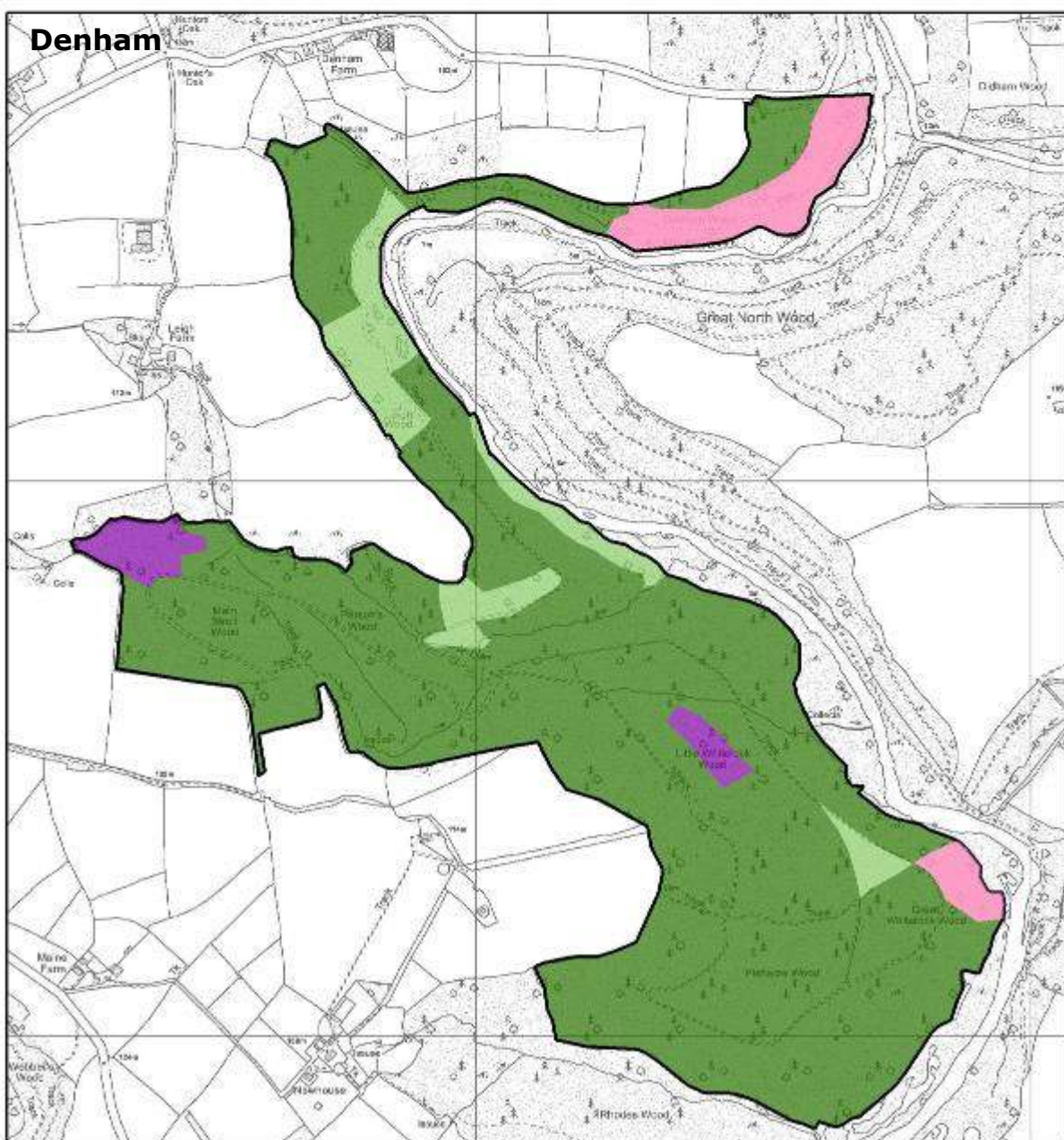
Single-tree selections are used on existing complex structured stands or sensitive sites often important for amenity value.

Broadleaf Thinning

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

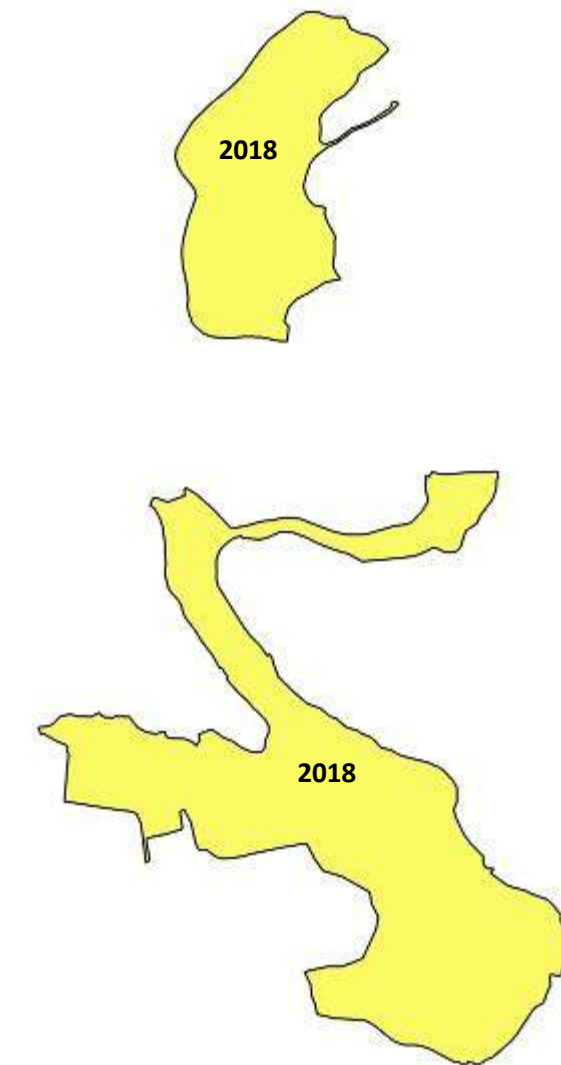
Conifer Thinning

Areas of conifer are assessed for thinning every 5 years with the targeted removal of larch species a key objective. Other factors such as the quantity, condition, age and distribution of any broadleaf content will also help decide if an area of conifer is to be thinned or not. Light levels, existing ground vegetation and any evidence of natural regeneration also influences how many trees are marked for removal.

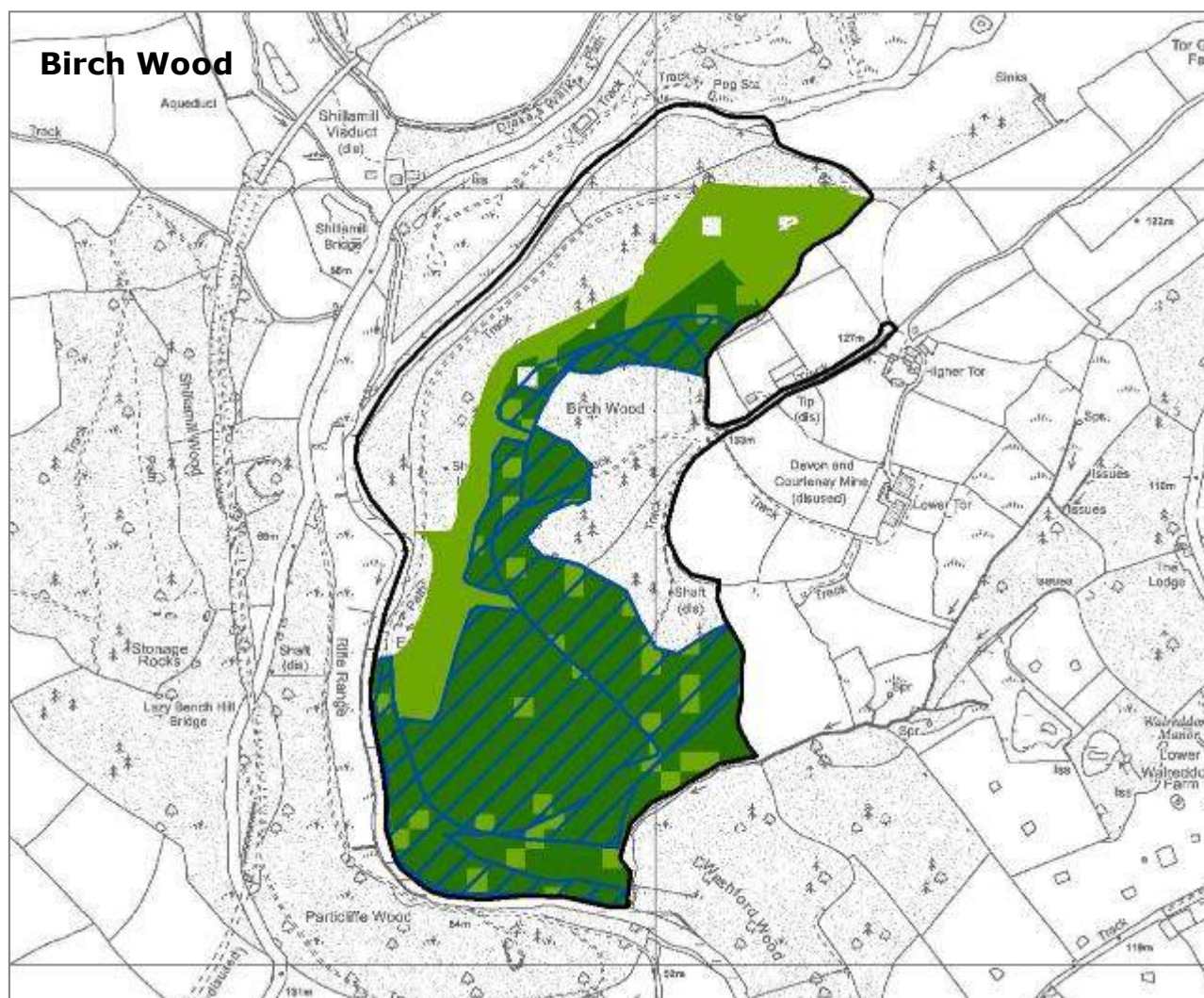


Legend

- Next thinning date
- 2016
 - 2017
 - 2018
 - 2019
 - 2020



See page 15, Continuous Cover Forestry for more information



Continuous Cover Forestry

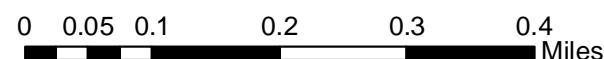


PAWS managed under continuous cover (or shelterwood and selection) systems will be thinned to favour broadleaf components. The targeted removal of larch and western hemlock species will limit the impact of disease susceptibility to *Phytophthora ramorum* and the adverse impact dense w. hemlock has on natural regeneration. As a result this will increase the resilience of the woodlands as well as the regeneration potential of native species.

Uniform shelterwoods are predominately oak dominated sites which will be managed using seeding fellings, following the identification of final crop trees. Under planting of site suitable species, such as beech or hazel may be considered, all other mixed broadleaf stands will be managed irregularly through thinning. Irregular shelterwoods on PAWS will look to favour the development of regenerating native broadleaves and target the removal of mature conifer components.

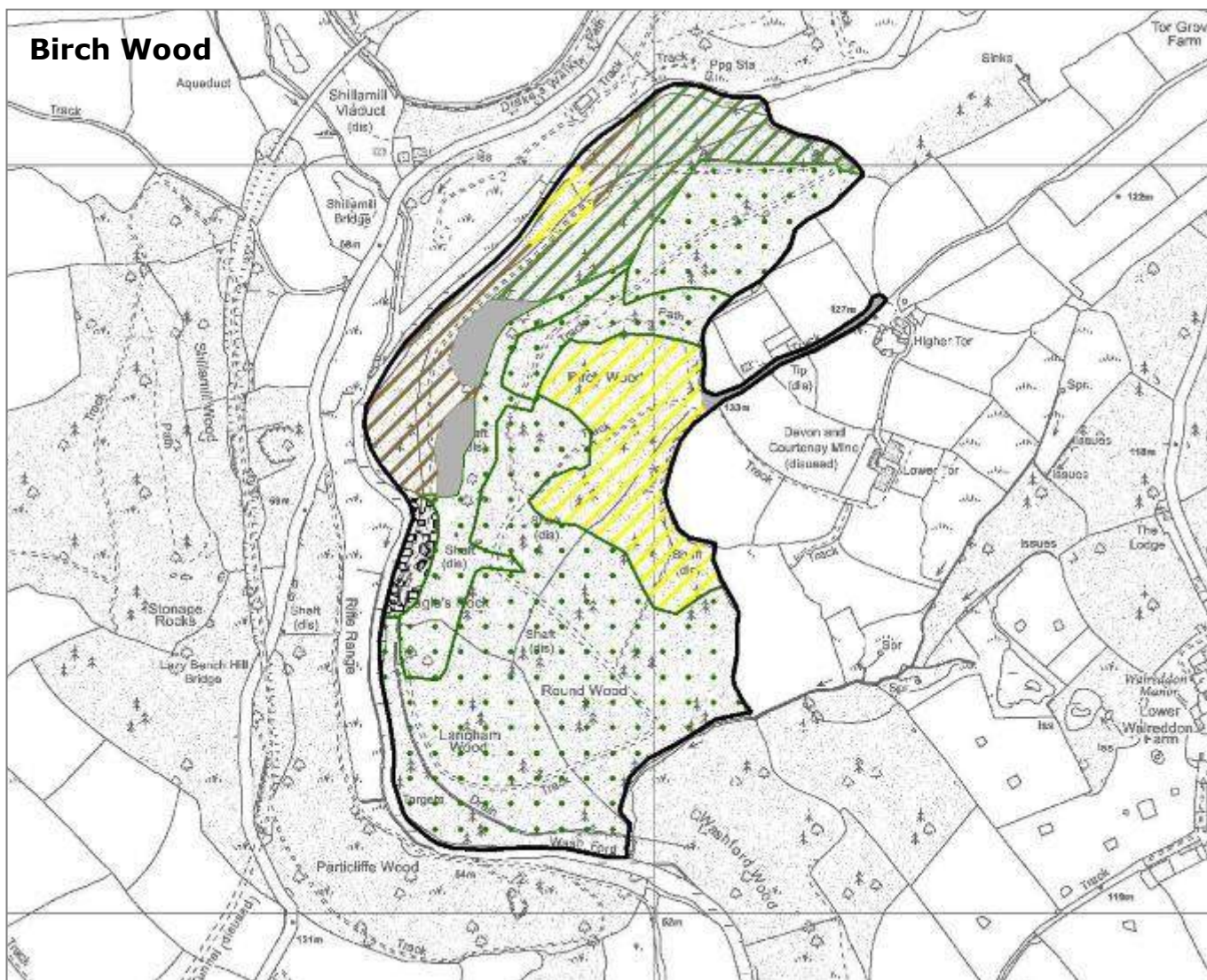
Legend

- Broadleaf CCF
- Conifer CCF
- PAWS CCF





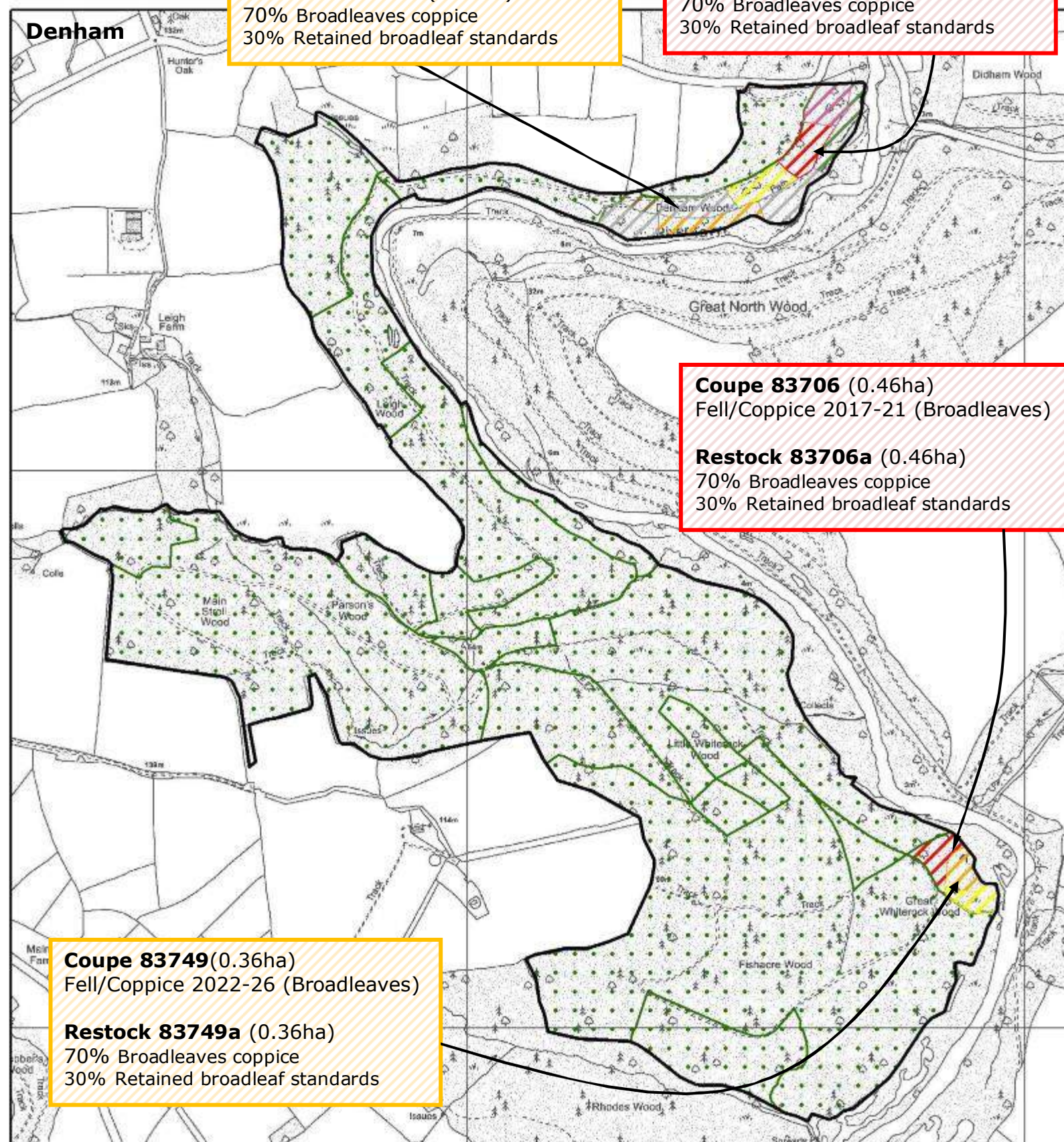
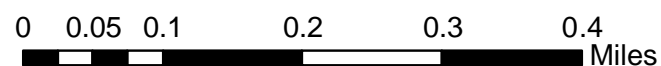
Management Prescriptions 2016 - 2046



Legend

Coupes

- Alternatives to Clearfell
- Fell 2012 - 2016
- Fell 2017 - 2021
- Fell 2022 - 2026
- Fell 2027 - 2031
- Fell 2032 - 2036
- Fell 2037 - 2041
- Fell 2042 - 2046
- Fell post 2046
- Wood Pasture
- Retentions
- Minimum Intervention
- Natural Reserve
- Open



Coupe 83954 (0.51ha)
Fell/Coppice 2022-26 (Broadleaves)

Restock 82954a (0.51ha)
70% Broadleaves coppice
30% Retained broadleaf standards

Coupe 83723 (0.50ha)
Fell/Coppice 2017-21 (Broadleaves)

Restock 82723a (0.50ha)
70% Broadleaves coppice
30% Retained broadleaf standards

Coupe 83706 (0.46ha)
Fell/Coppice 2017-21 (Broadleaves)

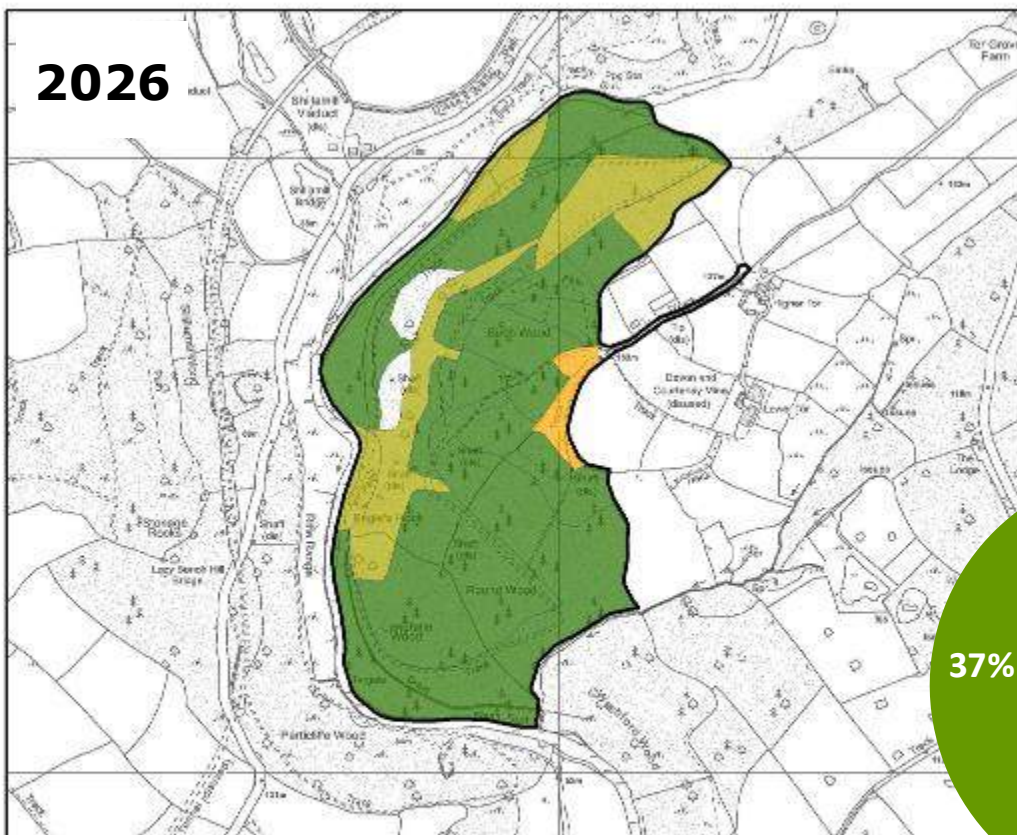
Restock 83706a (0.46ha)
70% Broadleaves coppice
30% Retained broadleaf standards

Coupe 83749 (0.36ha)
Fell/Coppice 2022-26 (Broadleaves)

Restock 83749a (0.36ha)
70% Broadleaves coppice
30% Retained broadleaf standards

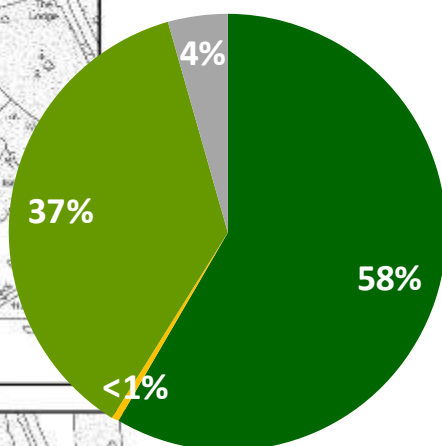


2026

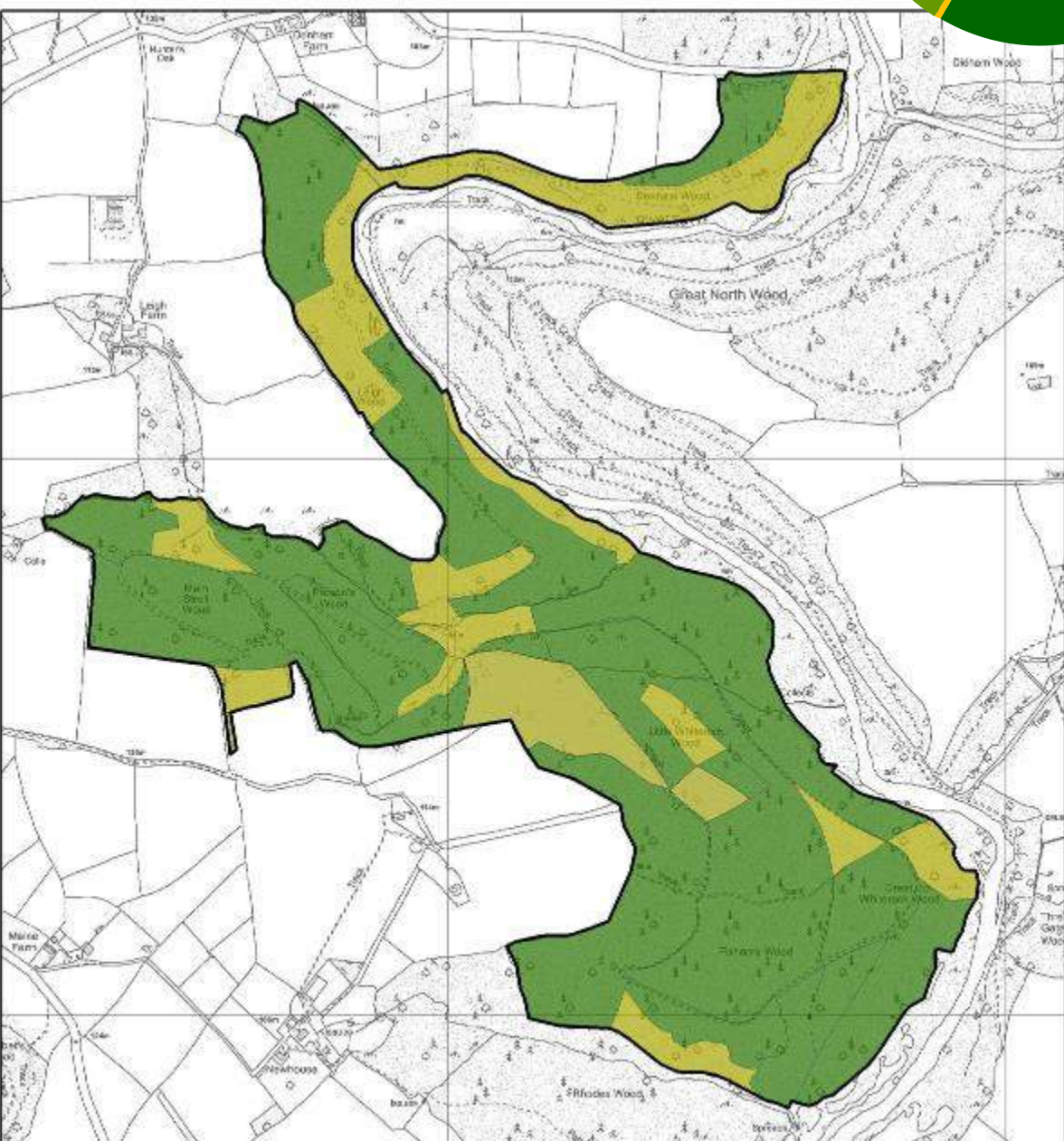
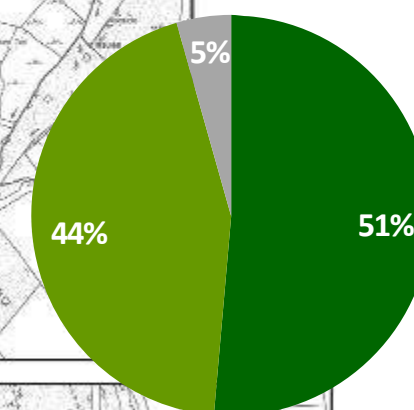
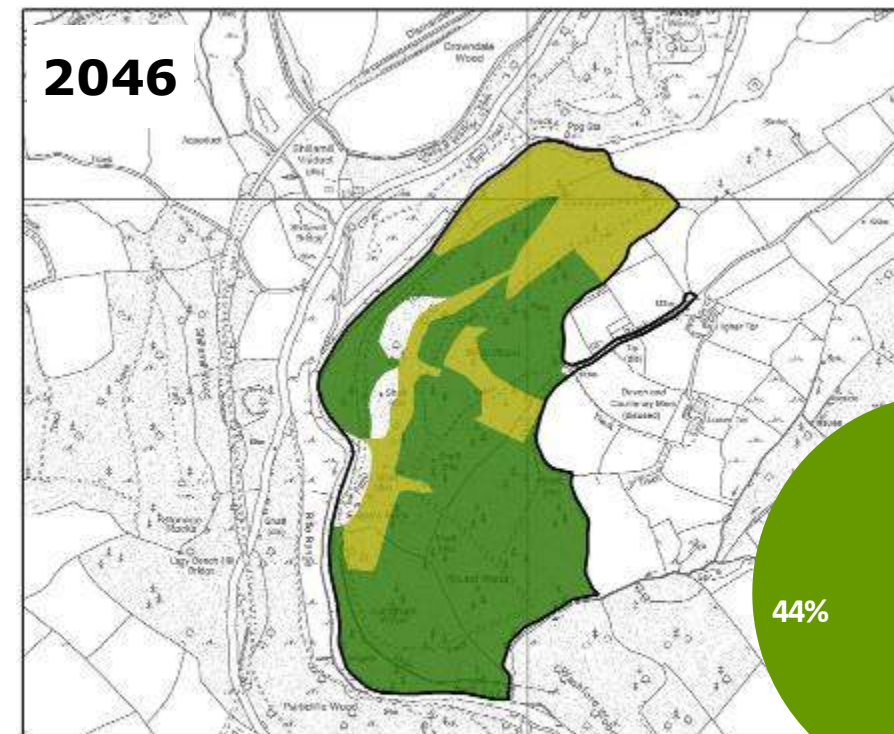


Indicative Future Species 2026 and 2046

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

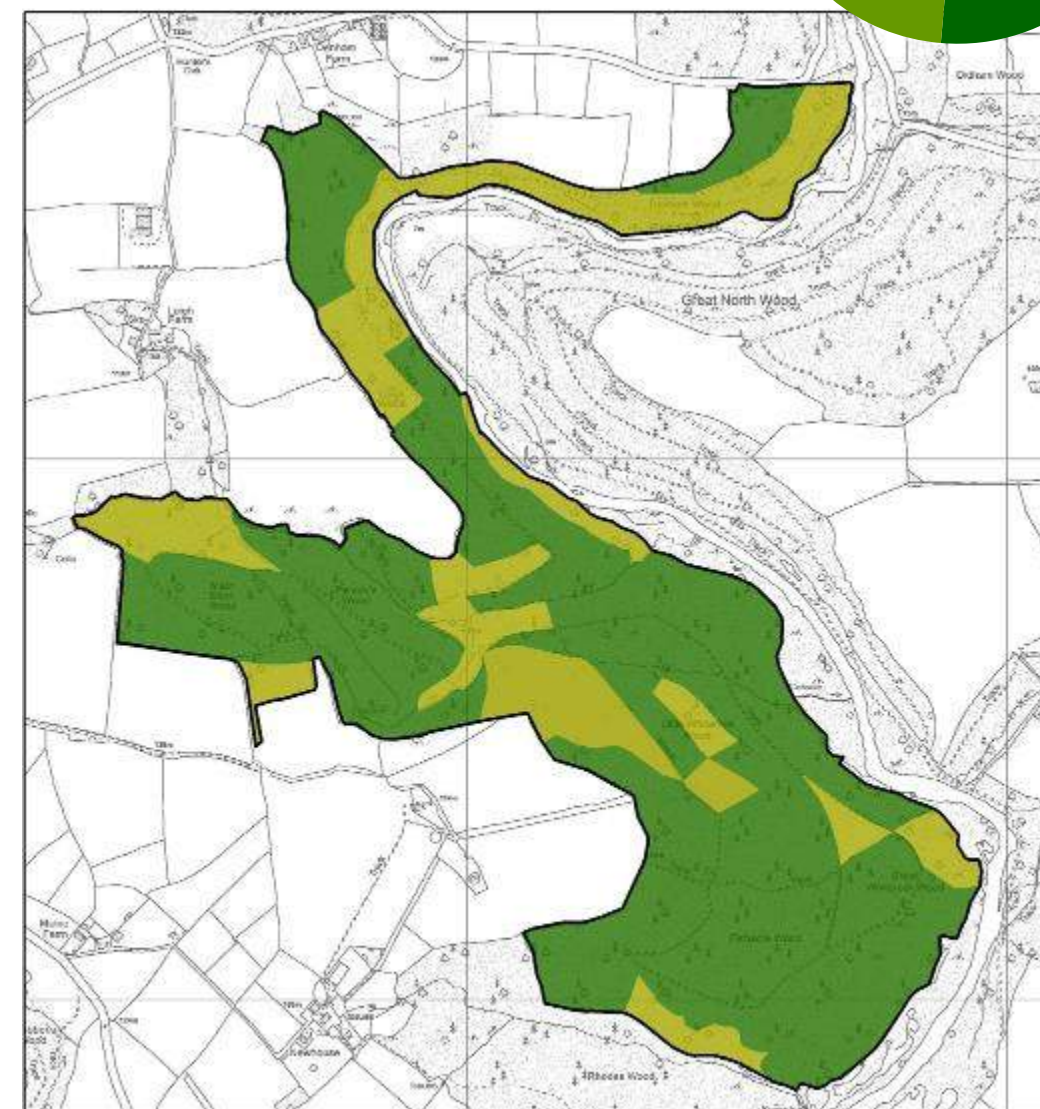
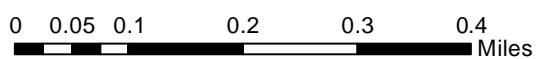


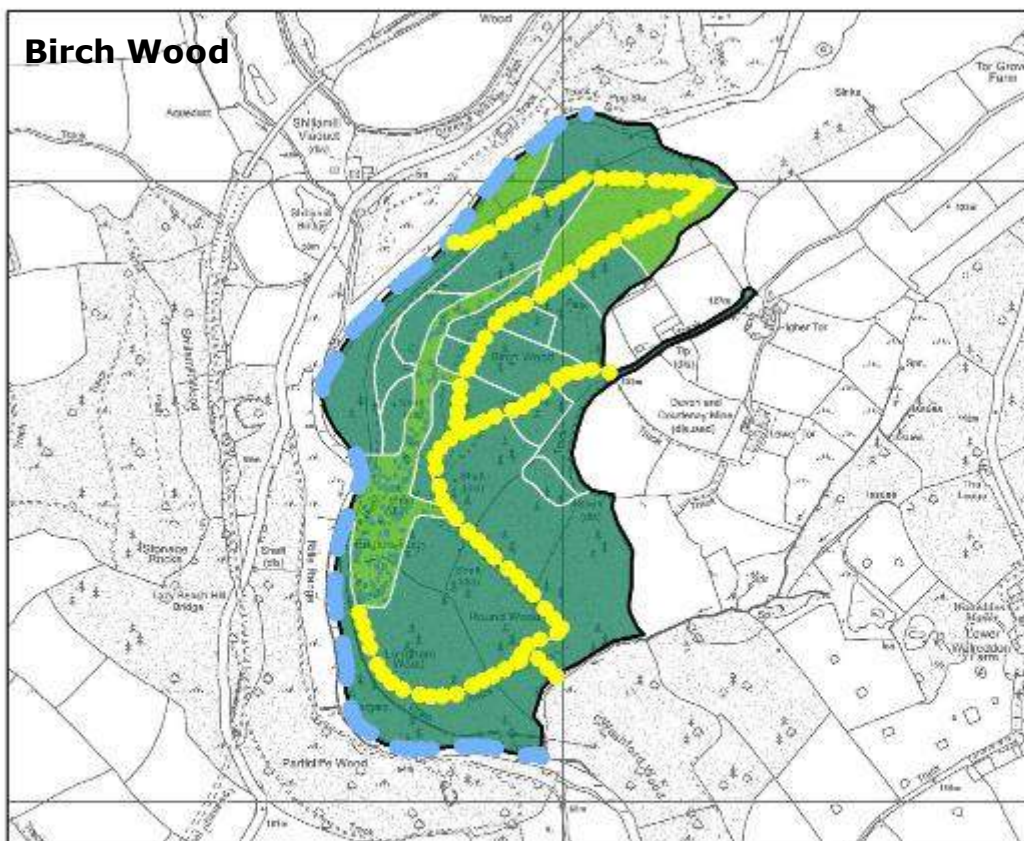
2046



Legend

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





Legend

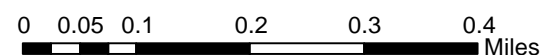
- Moor and Heath
- Hedgerow
- Forest Road Edge
- Conservation + Recreation
- Public Roadside
- Windthrow protection
- Watercourse
- Broadleaved Belt

Broad Habitat Type

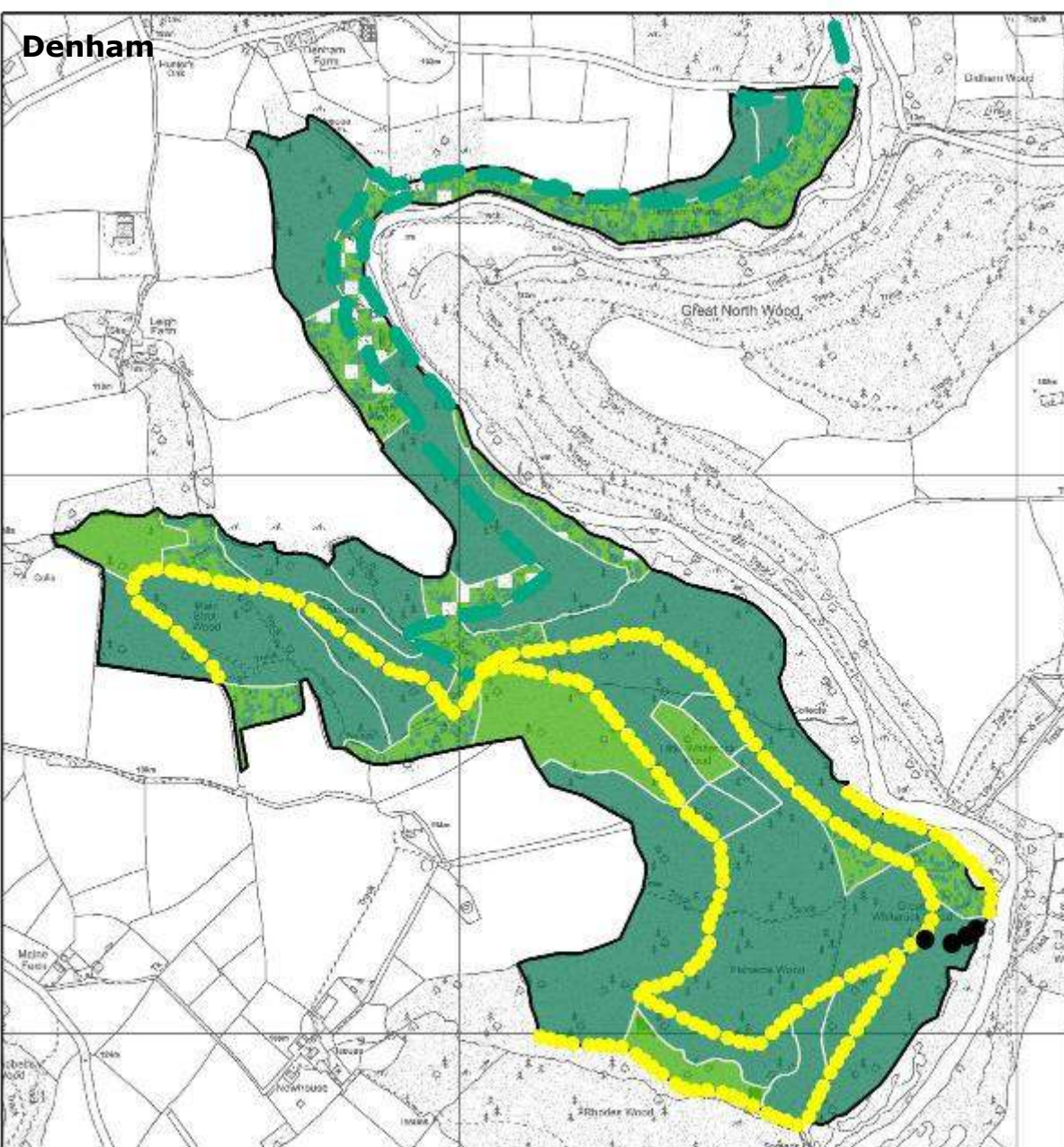
- BROADLEAVED; MIXED/YEW WOODLANDS
- CONIFEROUS WOODLANDS

Priority Habitat Type

- Lowland mixed deciduous woodland



© Crown copyright and database right [2016]
Ordnance Survey [100021242]



Conservation - Habitats

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). This document outlines the management of light levels, pinch points and forest edge dynamics.

The road and ride network within the Plan area will be utilised to extend and connect ride side habitats and transient open spaces, this will be achieved through targeted widening and unstocking of edges to some coupes following felling operations to create a mixed transient open and scrubby habitat for a multitude of species.

A variety of deadwood will be retained according to the level of ecological value and in line with Guidance (Humphrey & Bailey, 2012). Retaining decaying snags and logs as well senescent native trees throughout the woodland will create suitable deadwood habitat for numerous associated species.

The streamsides and wet woodland found at the bottom of valley remain predominantly wooded with either ASNW broadleaf woodland or planted Douglas fir. The majority of these sites will be managed through thinning and the recruitment of suitable wet woodland species such as alder, willow and birch encouraged. Where appropriate (notably Birch Wood) where secondary woodland sites are clearfelled, areas of open space and broadleaves will be included to add diversity and structure.

Lowland Mixed Deciduous Woodland

A number of areas of remnant lowland mixed deciduous woodland (as shown right) are found across the Plan area. These are predominantly made up of Penduculate oak, ash, birch beech and sweet chestnut. Some evidence of coppicing of hazel and sweet chestnut exists.

Management of these areas will be sensitive to ensure the quality is maintained in perpetuity. Thinning will be reviewed on a ten yearly cycle with the aim of enhancing and improving the condition of the habitat. Removal of invasive or un-suitable species, such as laurel, rhododendron or Western hemlock will ensure that this habitat is maintained and used as a building block for future native broadleaf restoration.





Trees of significance - are found throughout the Plan area and will be retained for perpetuity. The majority of these trees are either oak (as shown) or sweet chestnut. When crops are thinned crowns will be released slowly to minimise the impact of sudden exposure to desiccating winds and sun scorch. Management will be in line with FC Guidance (Ops No. 31).



Conservation - Features

The Forest Plan area is used by a vast array of common and rare flora and fauna. The considerable contribution the forests and their associated areas make to habitat provision in the landscape is widely recognised. Some flora and fauna species can have a detrimental impact on the forest and its features if their numbers are too high. Species such as rhododendron, wild deer and squirrel will all be managed in line with District Strategy to ensure that their pressure does not have a negative impact on the condition of habitats and crops.

Otter - are known to use the length of the River Tavy and is widespread across most rivers in Devon and Cornwall. This European Protected Species experienced a decline in previous decades but has recovered well in the south west of England. They inhabit streamside and wetland areas and the riparian woodland habitats found within the Plan area are ideal for nesting otter. The management of riparian wet woodland will be employed will ensure that a lush diversity of open space, scrub and high forest will ensure otter habitat is enhance and preserved to support this species.

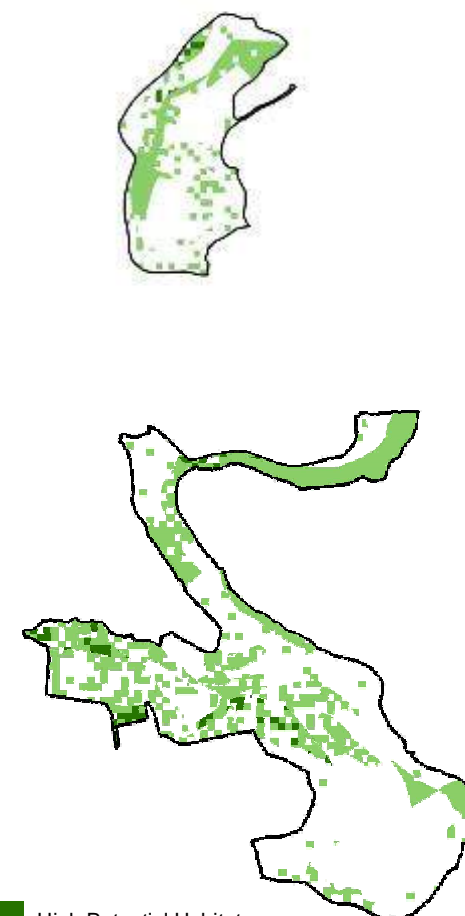


Source: Forestry Commission



Source: RSPB

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

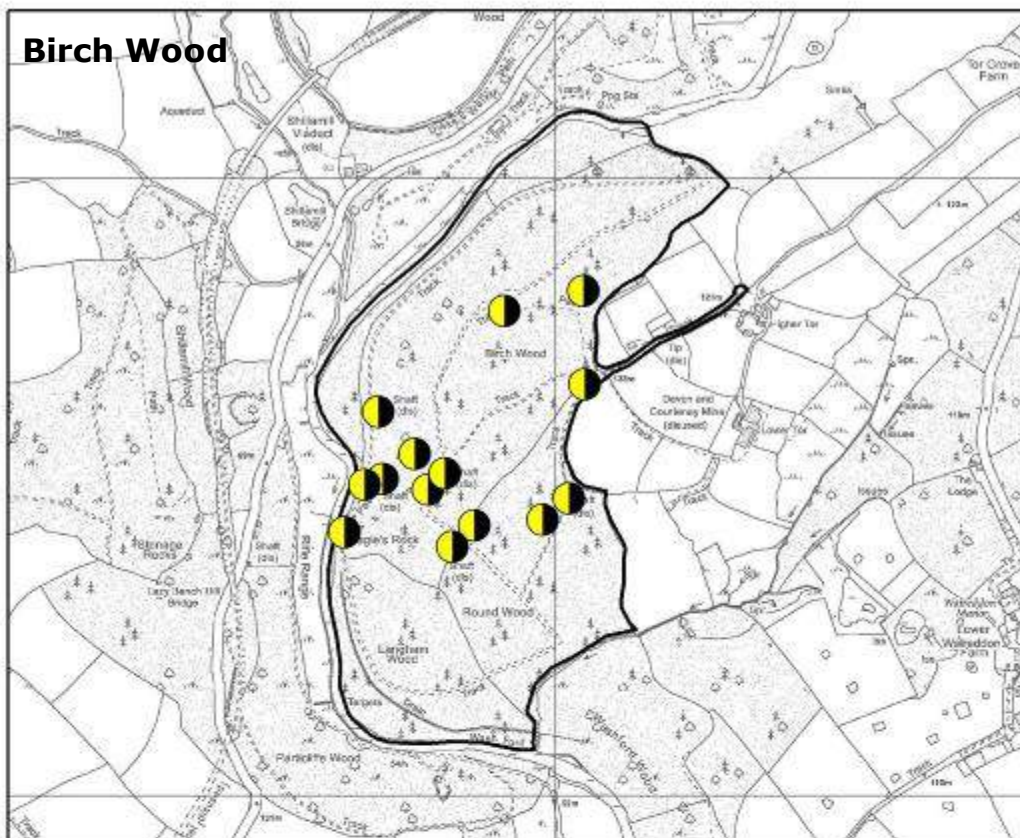


High Potential Habitat
Potential Habitat

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



Source: Forestry Commission



Heritage Features

Whilst no scheduled features are registered within the Plan area. The woodlands do play host to a significant amount of unscheduled features and cultural interest.

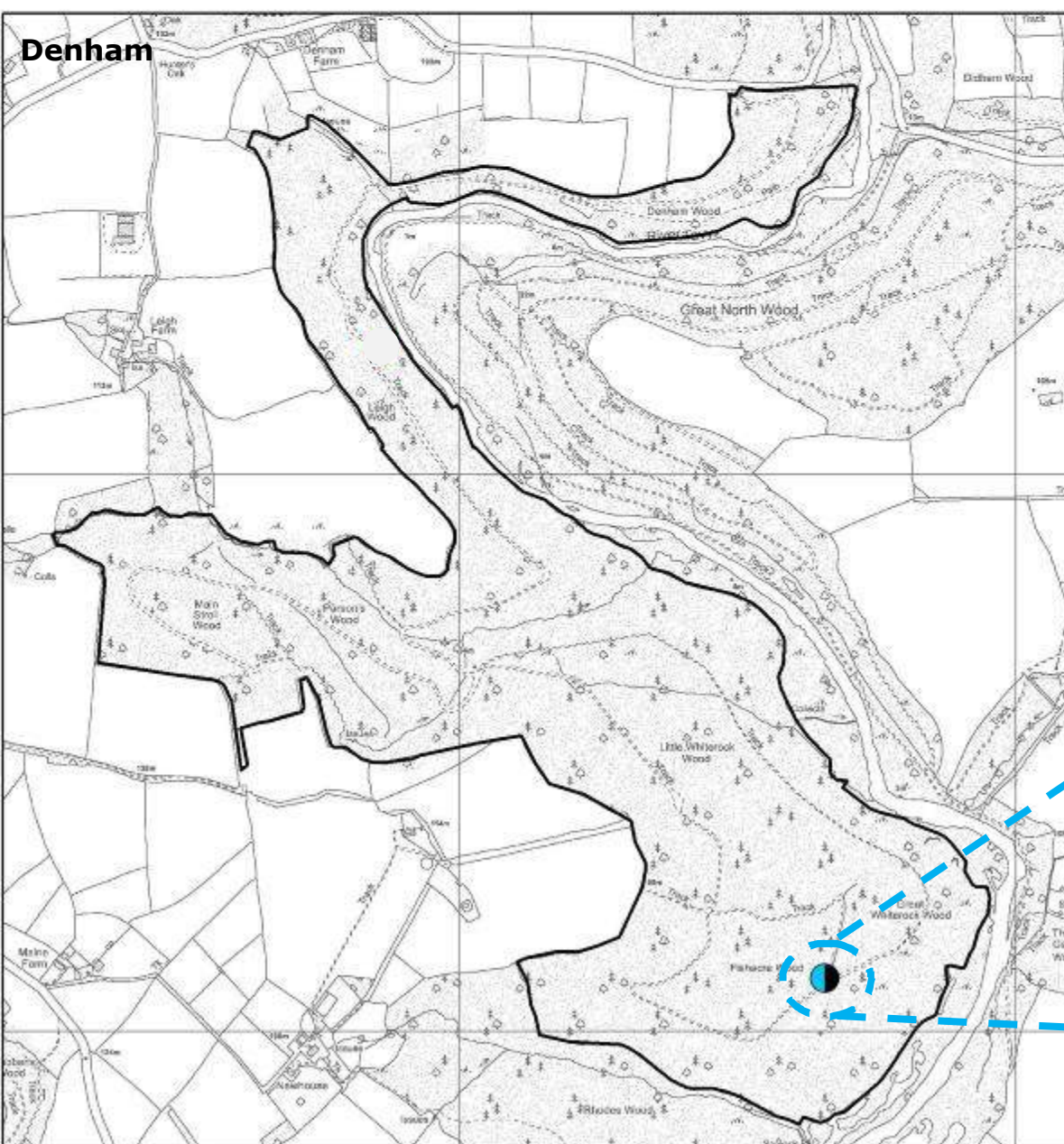


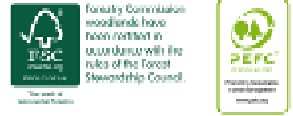
The copper mining industry made the Tamar Valley internationally famous in the 19th and early 20th century. A considerable number of copper mineshafts are found through the central spine of Birch Wood.



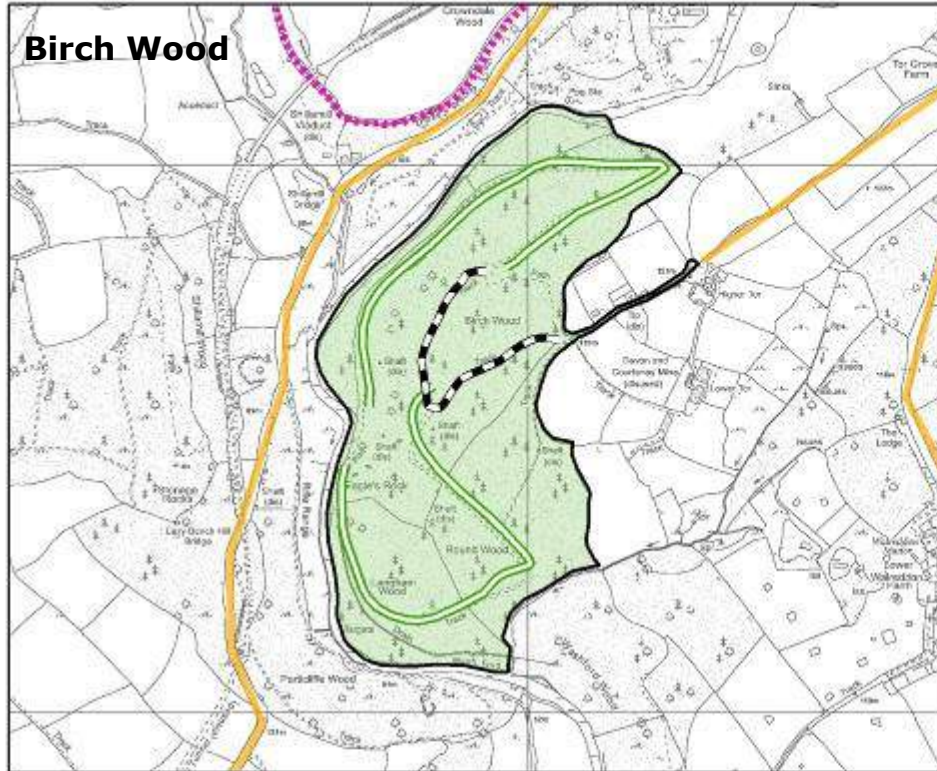
The mineshaft found in Denham was a silver and lead mine and pre-dates those of Birch Wood.

These features are fenced but visible to the public maintaining their cultural value whilst keeping people safe. Mining areas are avoided during operations.





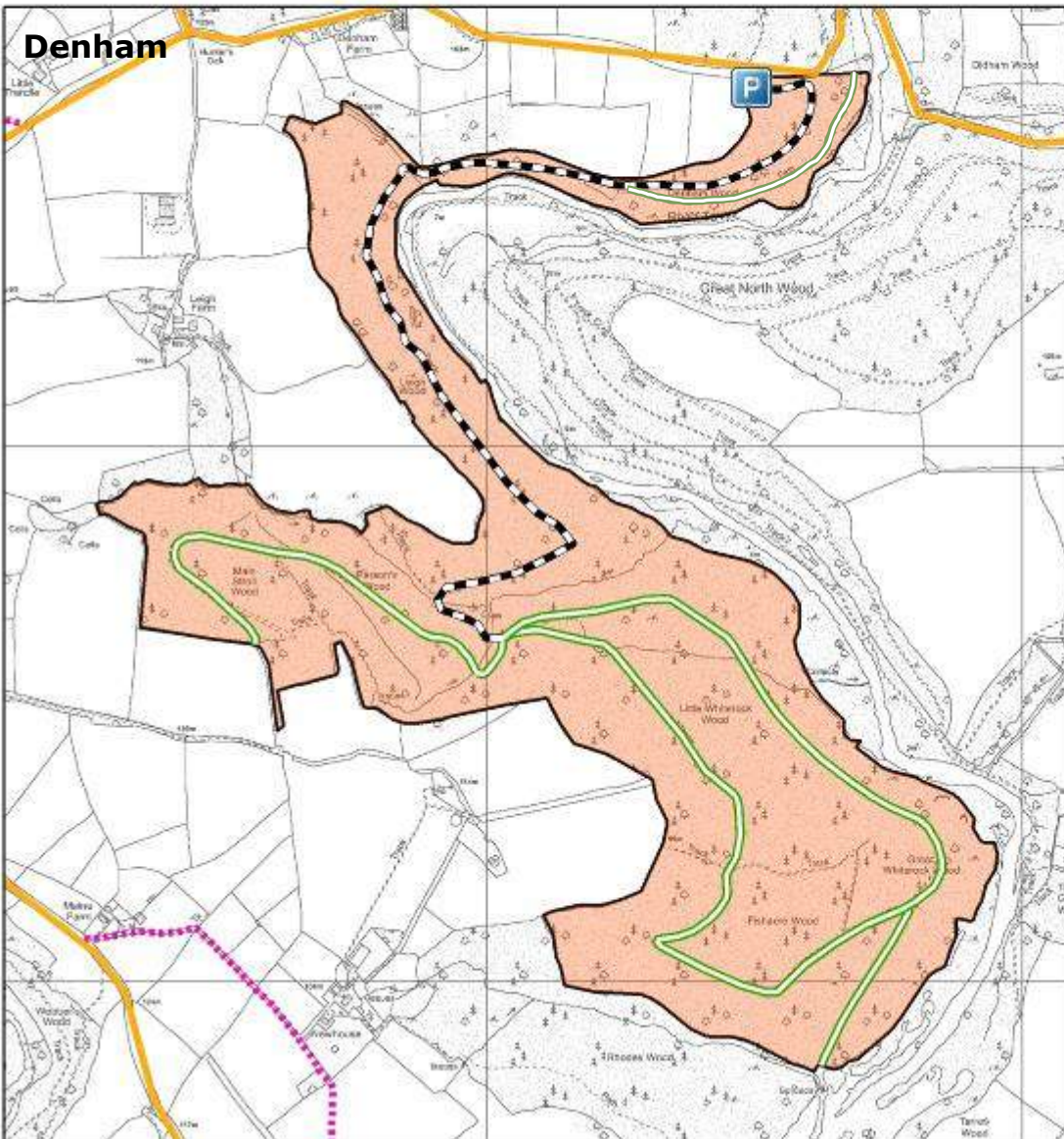
Recreation, Tenure & Access



The Plan area experiences a small amount of low-key recreational usage. No Public Rights of Way cross the Plan area but Birch Wood is Open Access, with Denham being *de facto* Open Access due to the nature of the landholding.

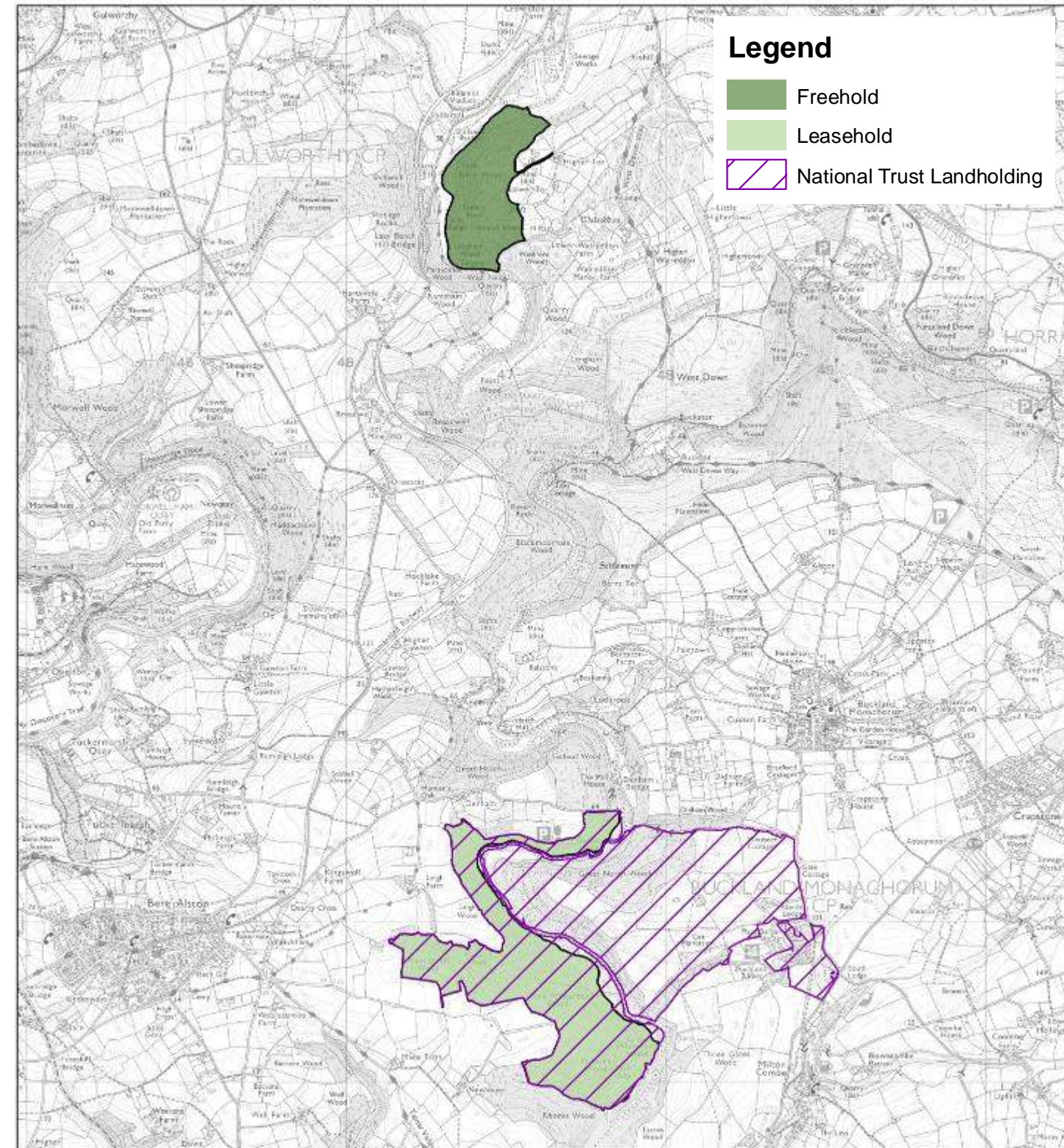
The majority of recreation usage is made up of walkers with some limited amount of usage by horse riders and mountain bike riders.

The contribution the Plan area makes to the AONB as an area of recreation is significant and with facilities and trails maintained in to the future this value will be retained.



Legend

- Denham_CarPark
- Open Access
- De Facto Access
- Footpath
- Bridleway
- Byway
- Restricted Byway
- Class A/B Roads
- Class C Roads
- Rides
- A Roads
- B Roads
- Minor Roads



Legend

- Freehold
- Leasehold
- National Trust Landholding

Birch Wood is held under freehold, having been acquired from Dartington Hall in 1957. As a result Open Access is provided in this part of the Plan area.

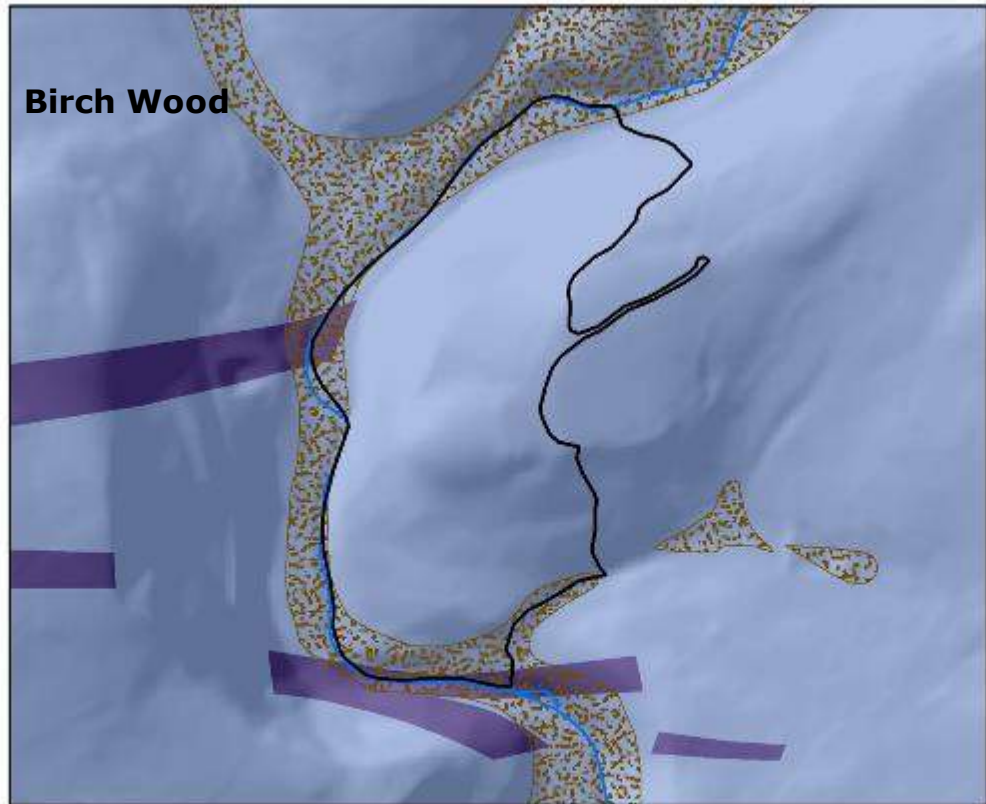
Denham is held under leasehold from Buckland Abbey Estate, also acquired in 1957, which is now owned by the National Trust. Access is limited to de facto.

The National Trust has retained the management of the Buckland Abbey Estate, notably the woodland to the east to Denham, Great North Wood. Management objectives and prescriptions will be in consultation and keeping with neighbouring woodland management.

APPENDIX 1



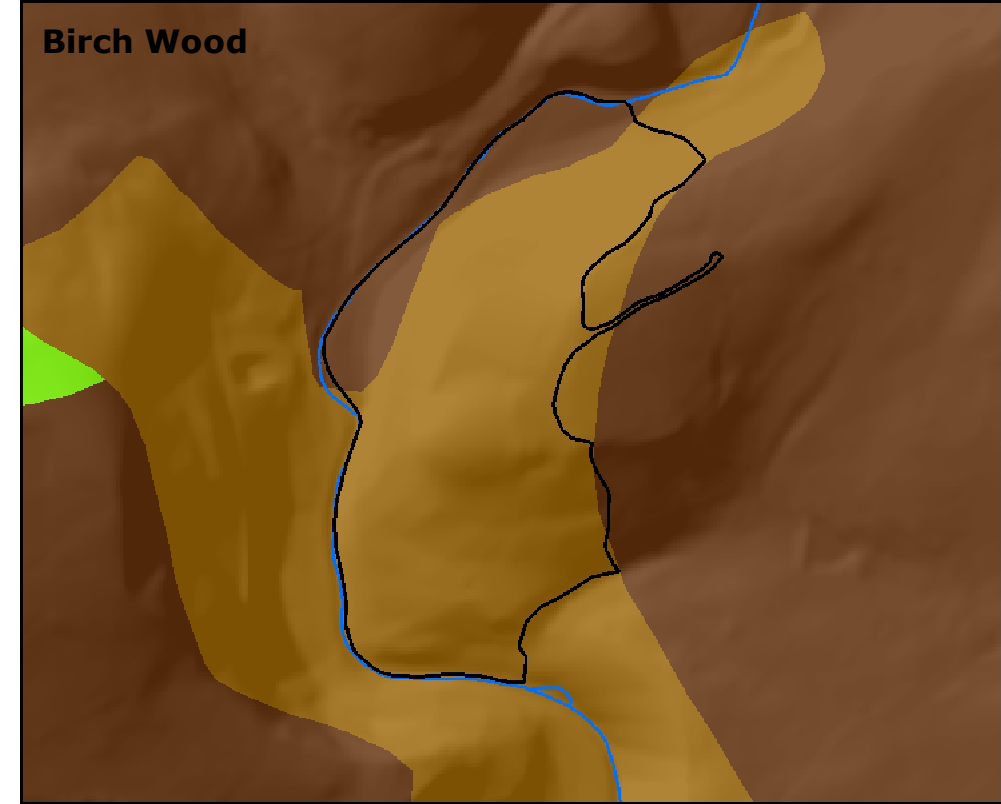
Soils



Geology

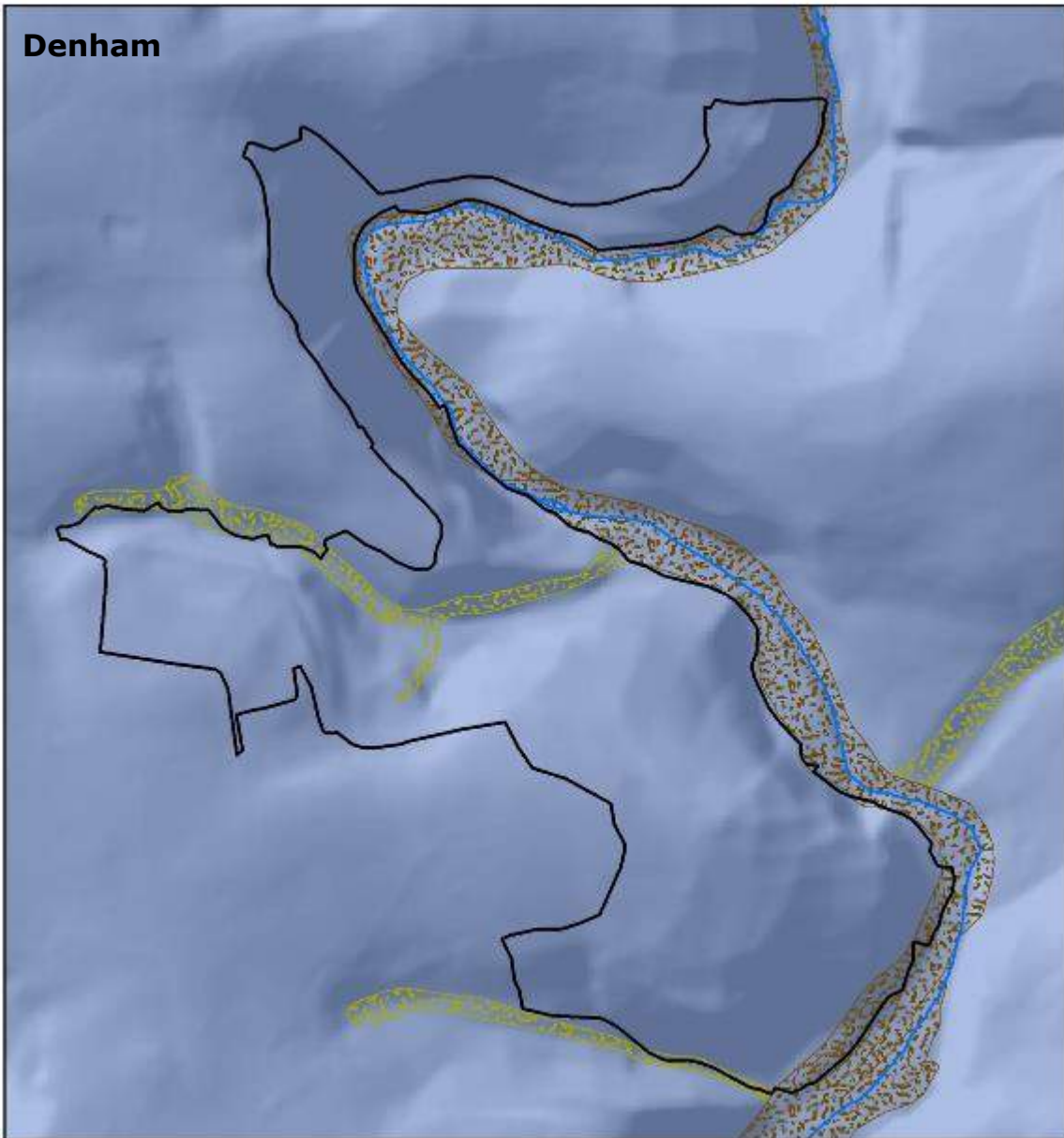
Legend

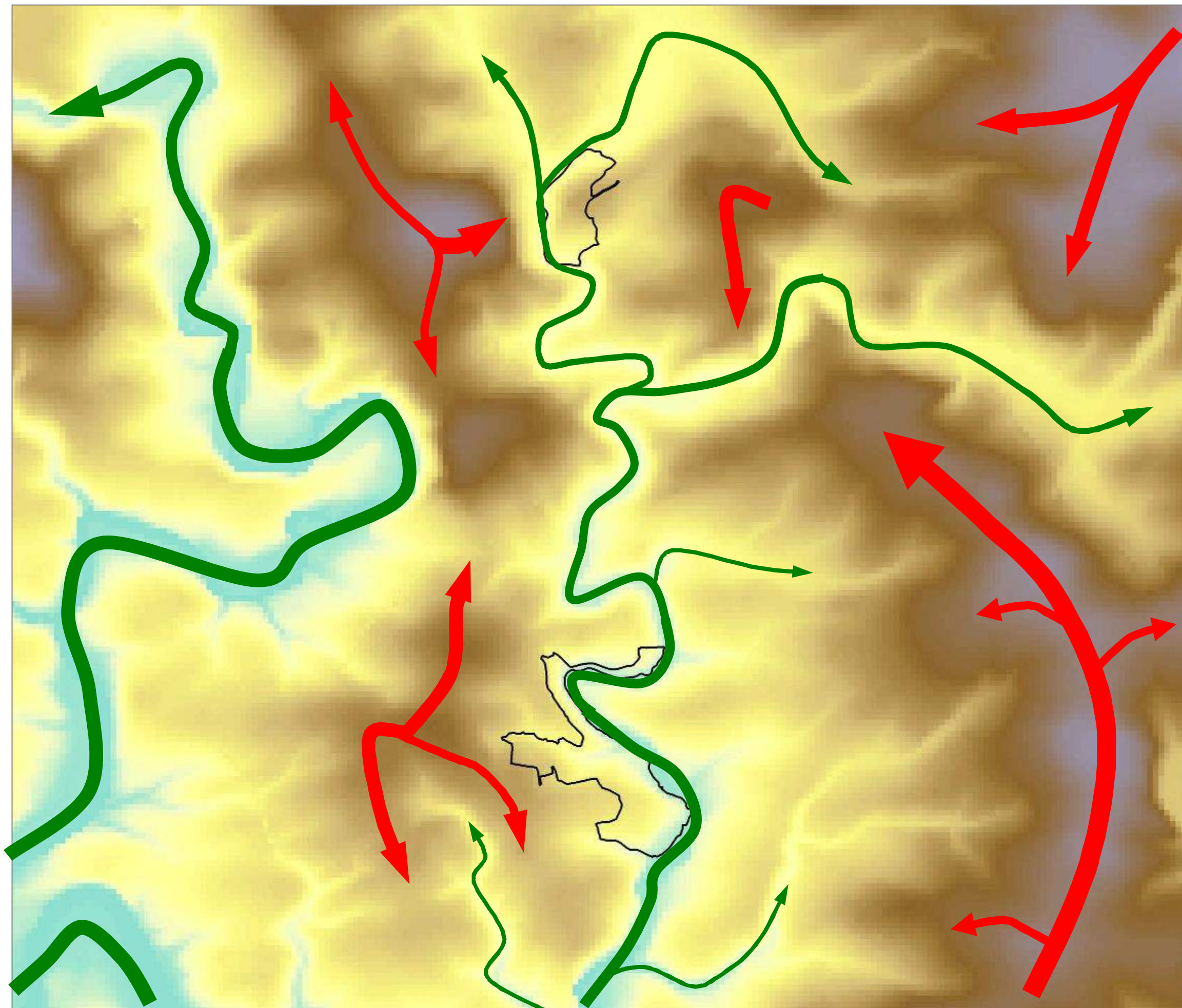
- River Tavy
- HEAD
- ALLUVIUM
- TAVY FORMATION - SLATE
- UNNAMED DYKE, PERMIAN - FELSITE



Legend

- River Tavy
- Unknown
- 1 [Typical brown earth]
- 1u [Upland brown earth]
- 7 [Typical surface-water gley]

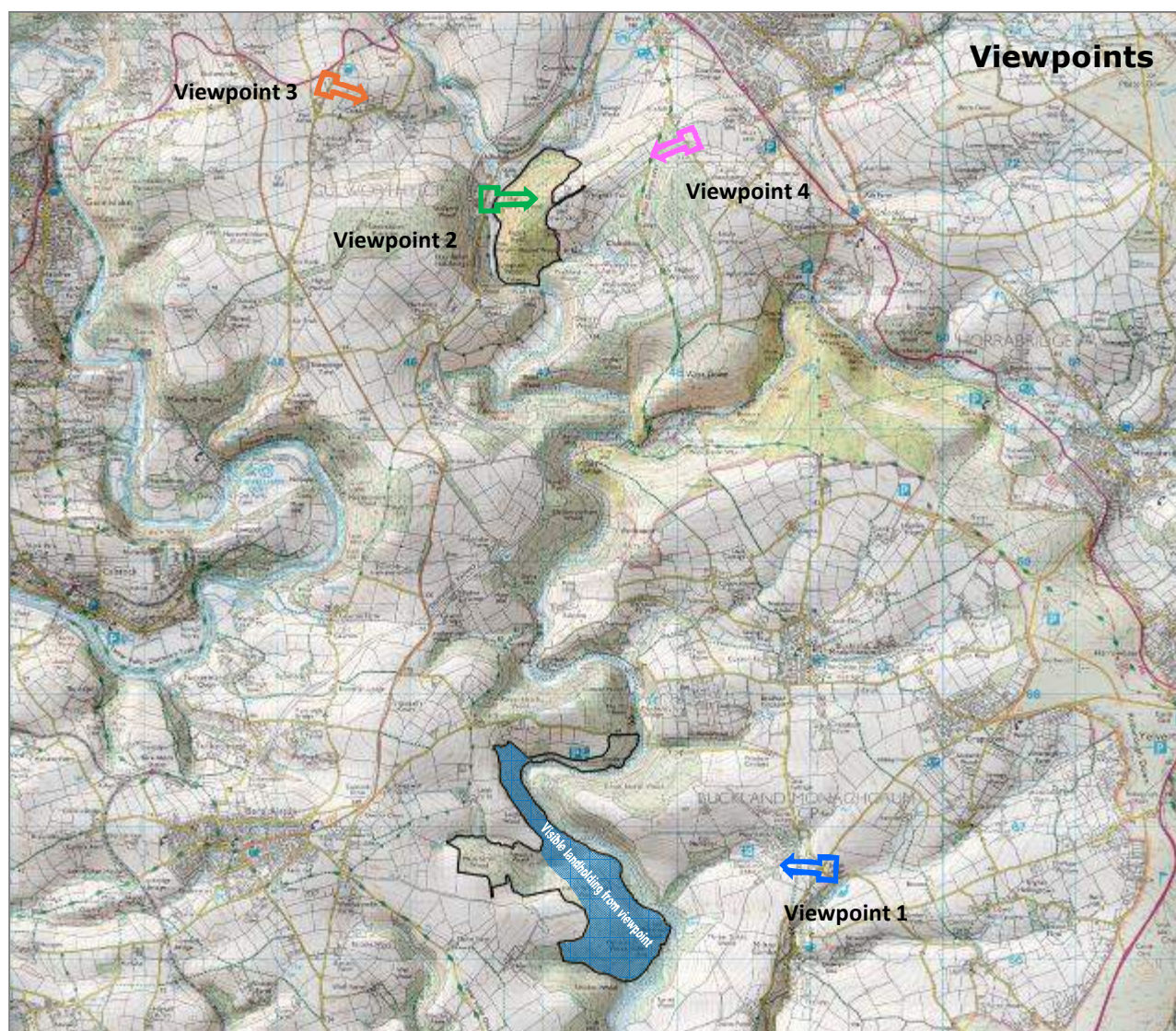




Landform Analysis

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

One's eye is naturally drawn up the valleys and down the ridges. These principles will be used to design the shape of future coupes. Ensuring that the shape and size of felling and restocking areas do not detract from the natural appearance of the forest and its contribution to the landscape character,

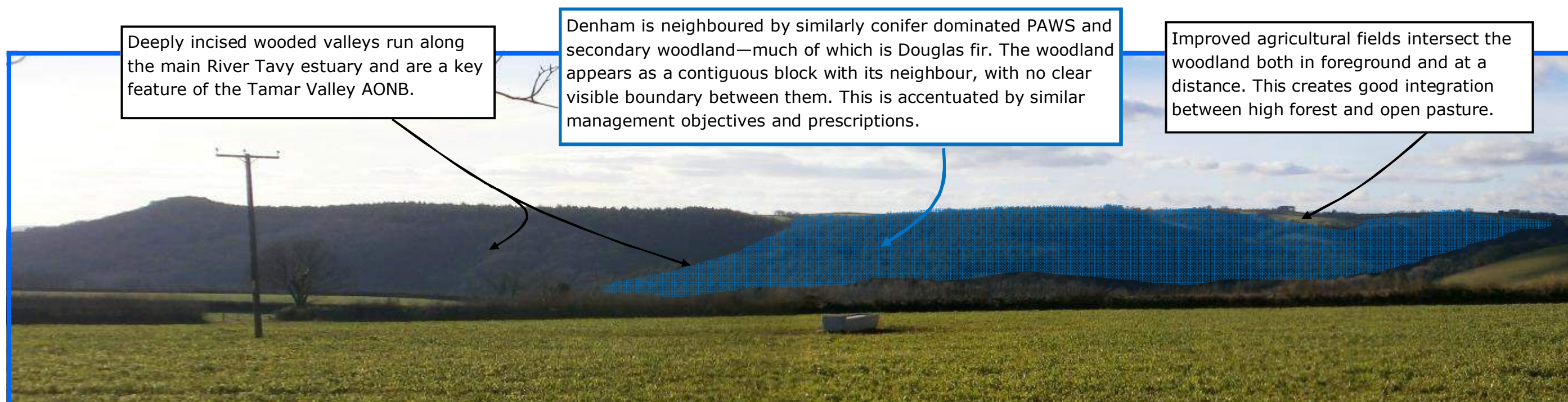


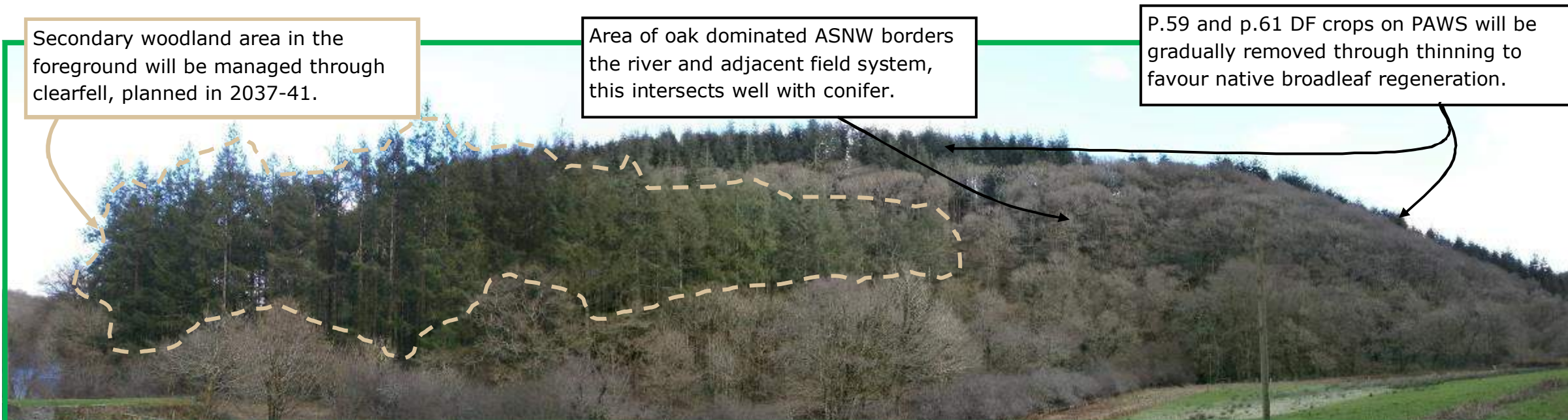
Landscape Analysis

Despite the minimal amount of planned clearfell within the Plan area an analysis of the implications of management proposals is required. This is to ensure the impact of the prescriptions does not adversely influence the local landscape. The integration of the woodlands and how they are managed with the local landscape is integral to the success of the Forest Plan and the retention of the landscape value of the Tamar Valley AONB.

The Forest Plan blocks can be seen from a number of viewpoints but is also often obscured or limited by the surrounding topography and features. Four key points of view have been identified for their exposure and impact and analysed below.

© Crown copyright and database right [2016]
Ordnance Survey [100021242]

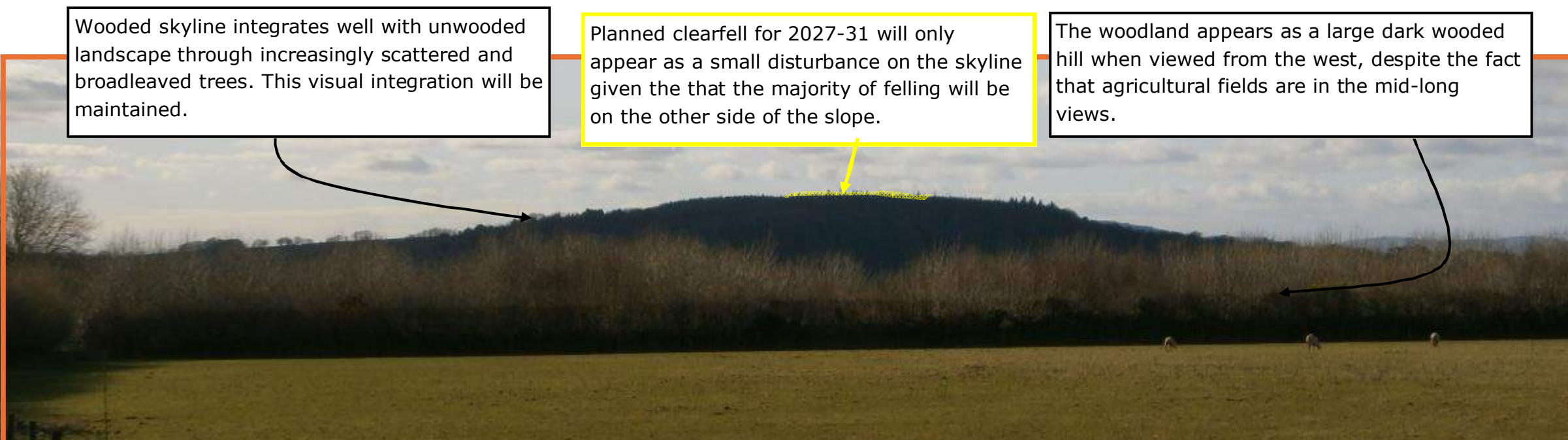




Secondary woodland area in the foreground will be managed through clearfell, planned in 2037-41.

Area of oak dominated ASNW borders the river and adjacent field system, this intersects well with conifer.

P.59 and p.61 DF crops on PAWS will be gradually removed through thinning to favour native broadleaf regeneration.



Wooded skyline integrates well with unwooded landscape through increasingly scattered and broadleaved trees. This visual integration will be maintained.

Planned clearfell for 2027-31 will only appear as a small disturbance on the skyline given the that the majority of felling will be on the other side of the slope.

The woodland appears as a large dark wooded hill when viewed from the west, despite the fact that agricultural fields are in the mid-long views.



Areas of oak dominated ASNW sit at lower elevations. The shape of these intersects well with conifer with minimal geometric shapes or lines.

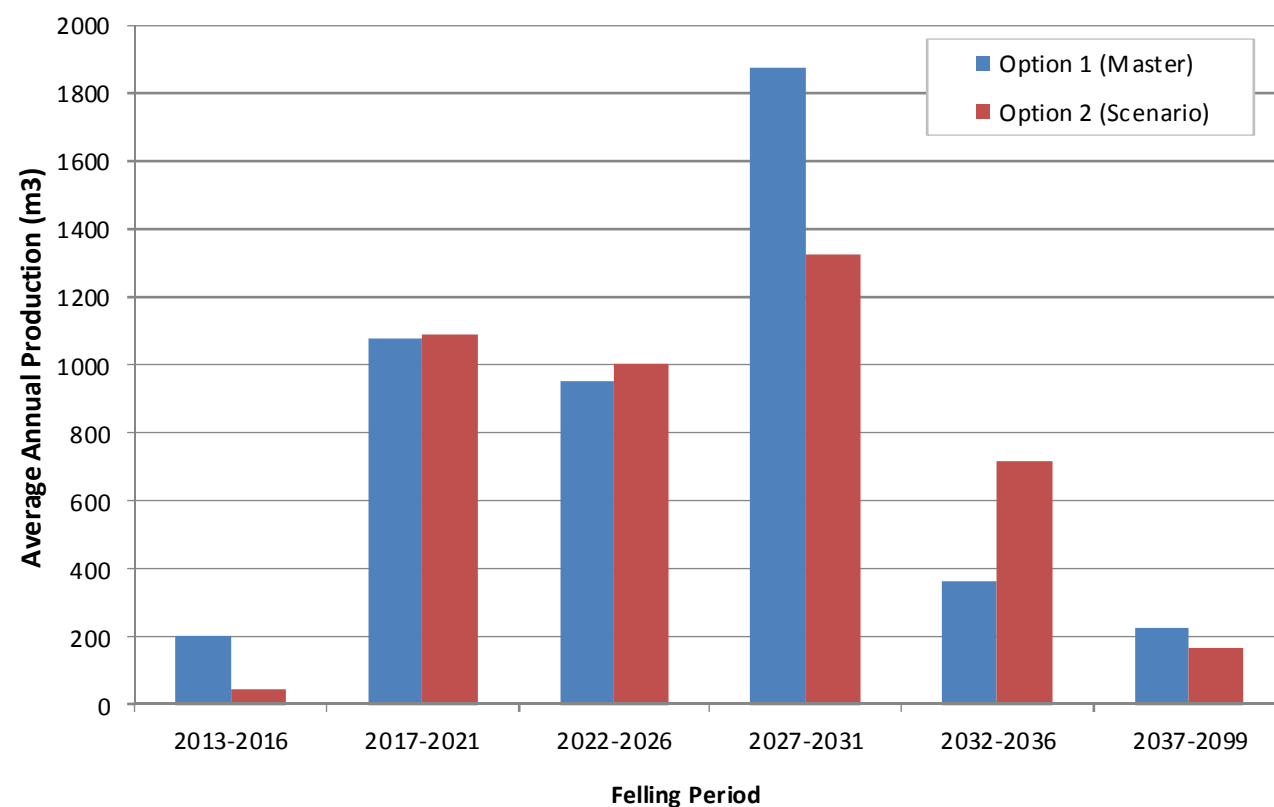
Planned clearfell for 2027-31 will have limited impact on the landscape due to the retention of surrounding crops.

Contiguous blocks of conifer are a key and prominent feature in the landscape with integration with broadleaf woodland, hedgerows and field system well established.

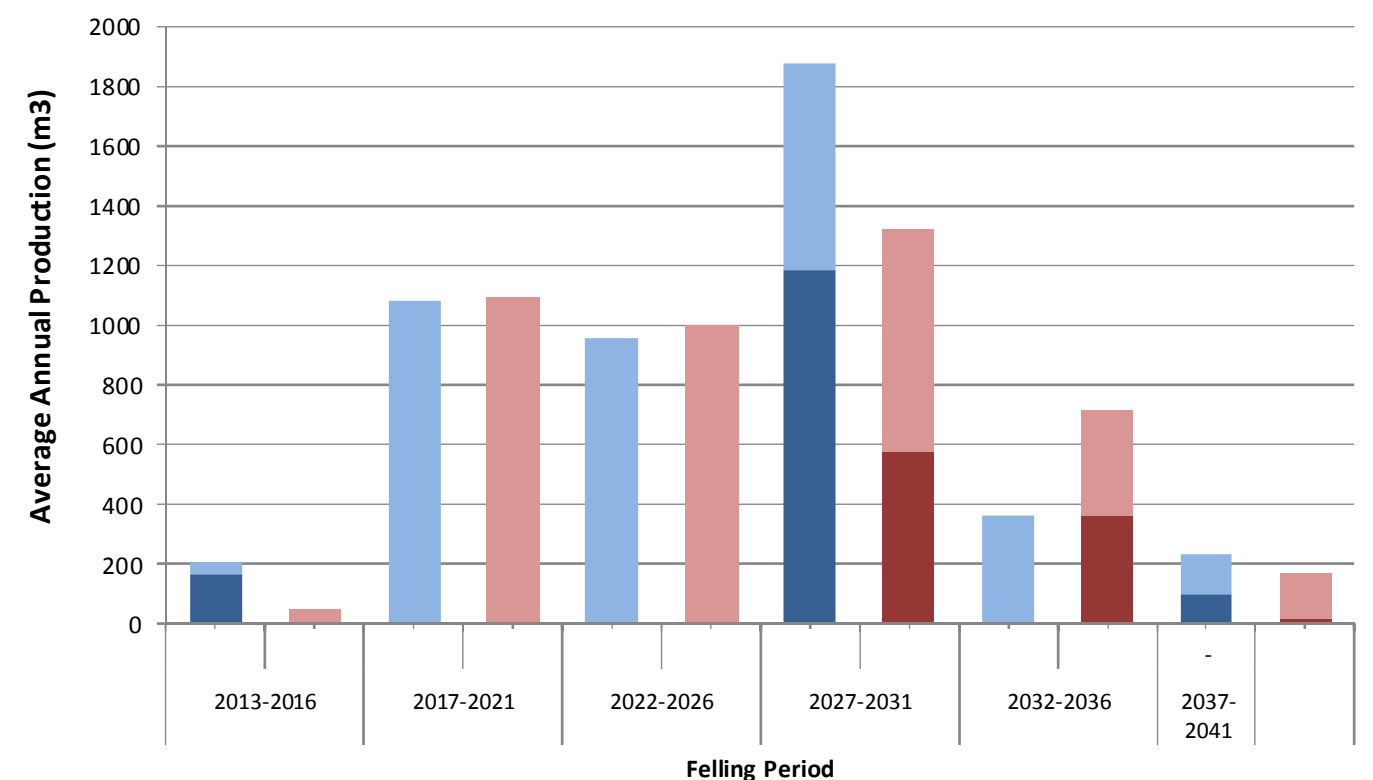


Option 1 – Current Forest Plan (Master)	Option 2 – Proposed Forest Plan (Scenario)
The continued production of sustainable and marketable woodland products.	
Significant peaks and troughs in production, mainly due to large clearfelling programme in 2027-31, potentially weaken the sustainability of the woodlands timber production. Continued production through thinning	The felling and thinning programme is balanced across the decades which stabilises the sustainability of timber production.
To protect enhance and restore areas of ancient woodland in line with the 2005 'Keepers of Time' policy.	
The Plan makes no reference to Keepers in Time, due to the time when it was written. Management is through clearfell and restock with conifer. This is wholly incompatible with the Policy.	Plan makes significant and clear provision for the restoration of PAWS through gradual thinning and enhancement of broadleaf remnants. This will achieve the Policy over time whilst retaining ecosystem functioning.
Deliver well-designed forests in keeping with the AONB and local landscape character.	
Whilst the original clearfell programme was well integrated into the landscape, odd clearfell coupe shapes following multiple amendments threaten the value of the local area. The continued use of Douglas fir restock contributes to the AONB asset but fails to meet desire and policy to restore to native broadleaf cover.	The move away from clearfell is in keeping with the local landscape value. The acknowledgement of the value of Douglas fir to the local character as well as its gradual reduction is in line with local aspiration and Policy.
Protect and enhance woodland and open habitats and their associated species.	
The Plan makes provision for open space and other valuable habitats such as ASNW but does not make them a core objective	The Plan identifies and prescribes management for current and future key habitats and corridors.
To conserve, maintain and enhance cultural and heritage assets.	
Plan makes no mention or provision for the protection and enhancement of any heritage assets, unscheduled or unknown.	The small number of heritage features, mineshafts, are identified and taken into consideration in the planning of future management.
The provision and maintenance of recreation facilities.	
Plan makes minimal reference or significance of recreational facilities.	The Plan acknowledges the value of the woodland to low key recreation provision and takes steps to ensure this is maintained.

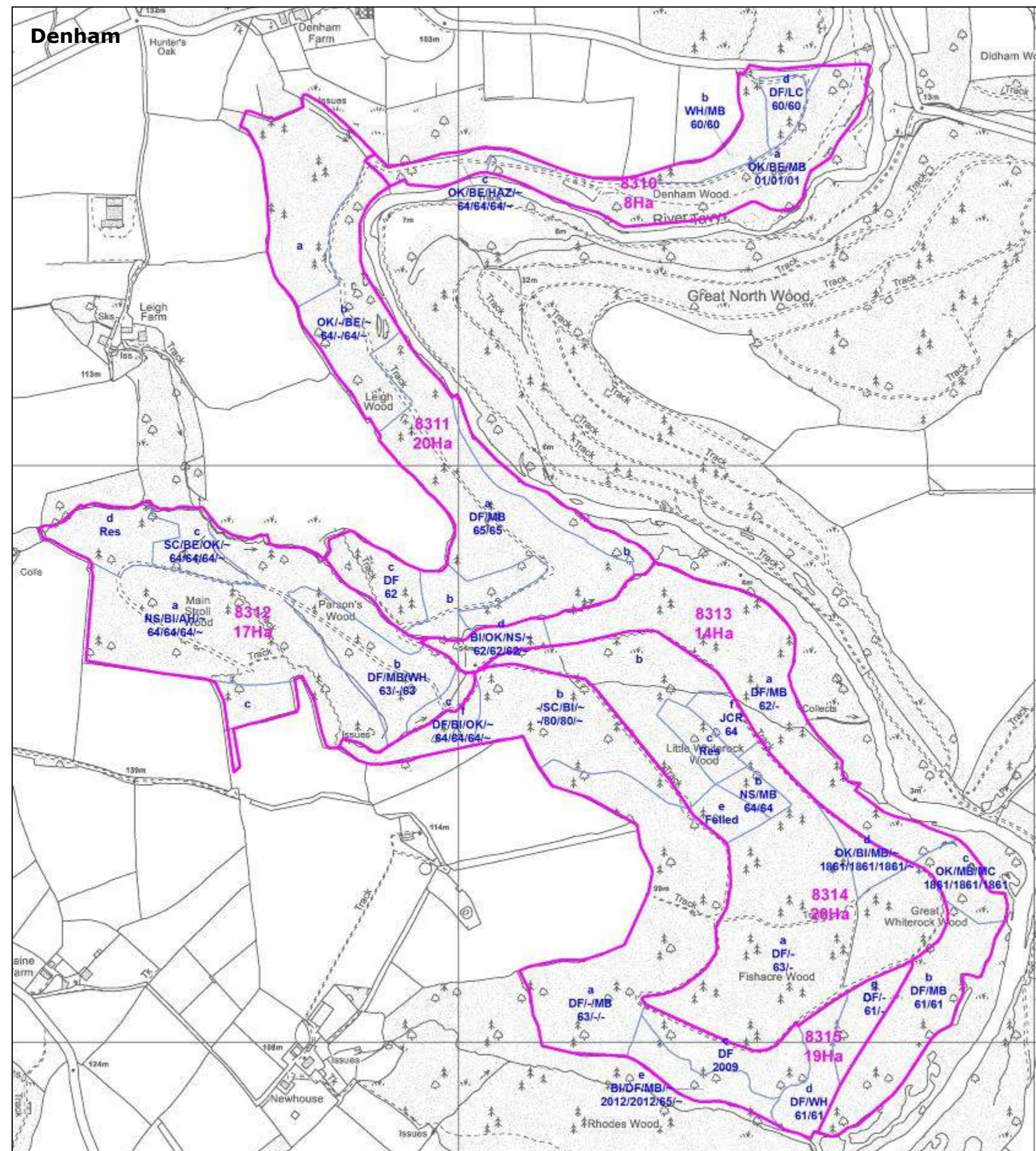
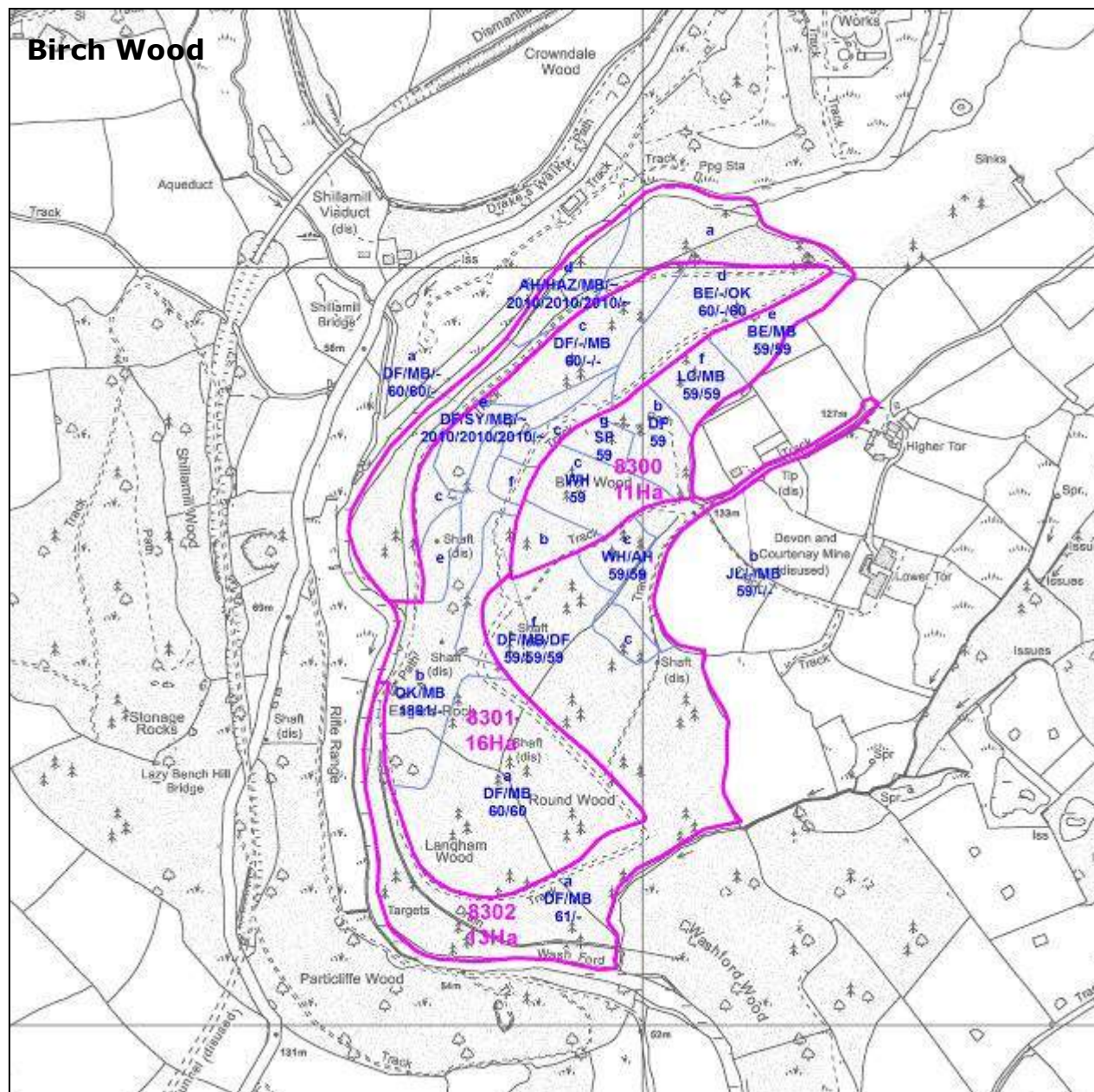
Total Production Forecast Comparison



Thinning & Felling Production Forecast Comparison



Stock Data - 2016



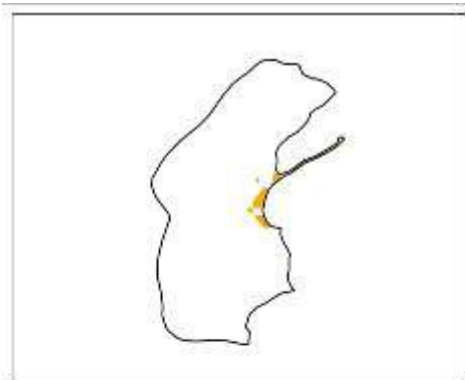


Name: *Phytophthora ramorum* (PR)

First appearance: 2009

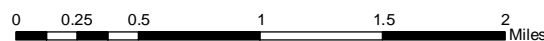
Attacks: Larches

P. ramorum was first found in the UK in 2002 and until 2009 in the woodland environment had largely been associated with rhododendron species acting as a host from which spores are produced. In August 2009 *P. ramorum* was found on a small number of dead and dying Japanese Larch in South West England, causing particular concern since some affected trees were not close to infected rhododendron and showing a significant change in the dynamics of the disease than experienced previously. Following this testing in Devon and west Somerset confirmed the presence of PR in mature Japanese larch as well as species in its under-storey, including sweet chestnut, beech, birch, oak, Douglas fir and Western hemlock. On some sites there is little or no rhododendron present. It is now known that Japanese larch can produce very high quantities of disease-carrying spores when actively growing in spring and summer, at much higher levels than those produced by rhododendron. These can be spread significant distances in moist air. PR is a notifiable disease dealt with by felling the infected area under a statutory plant health notice (SPHN) issued through FERA and the Forestry Commission.

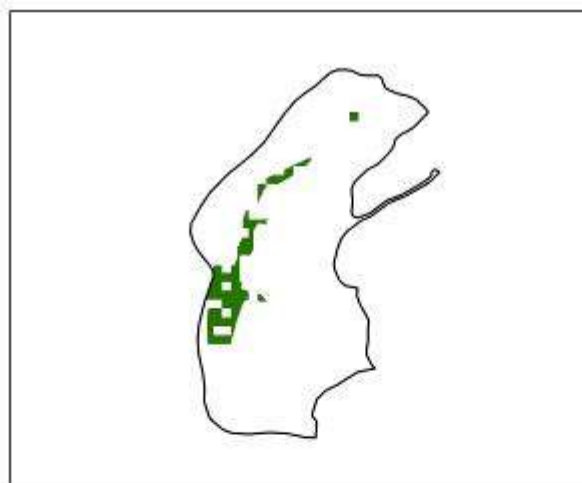


Legend

- Larches
- S. Chestnut

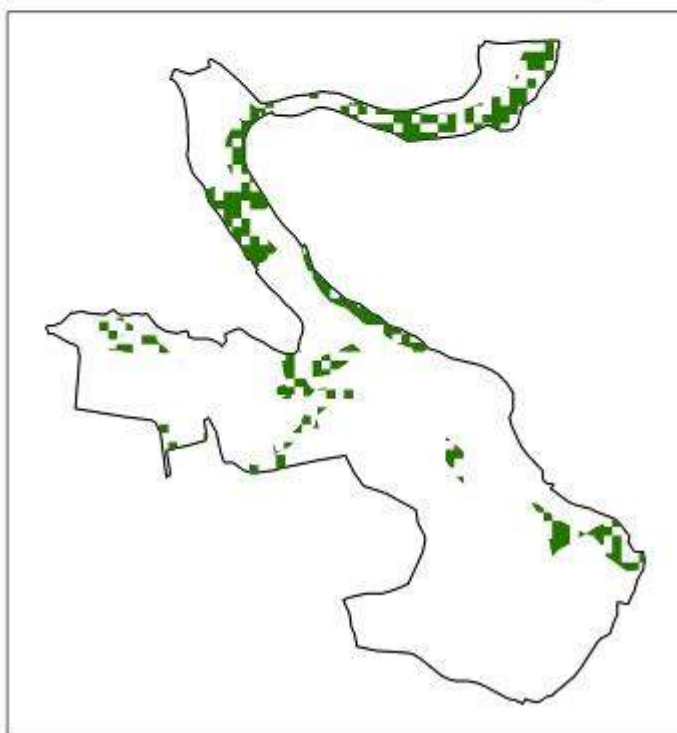


© Crown copyright and database right [2016]
Ordnance Survey [100021242]



Legend

- Oaks



Name: Oak 'dieback' or 'decline'

First appearance: unknown

Affects: Oak

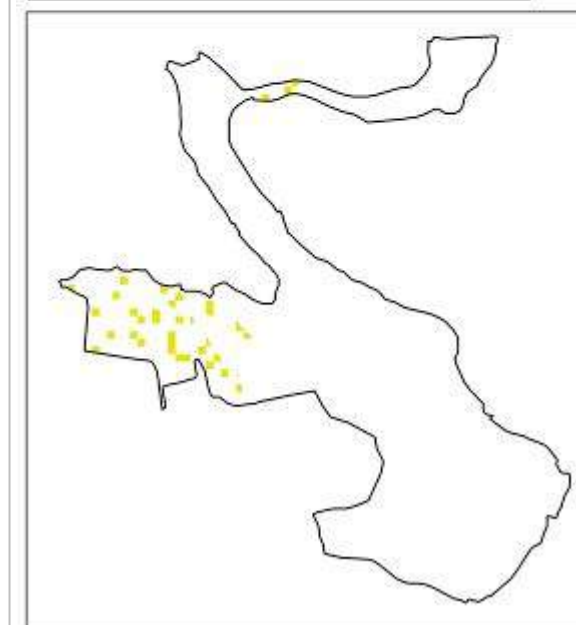
Oak 'dieback' or 'decline' is the name used to describe poor health in oak trees and can be split into Chronic decline and Acute decline. Chronic decline is protracted taking effect on the Oak over a number of decades whilst Acute decline is much swifter acting over much shorter periods usually five 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 to any of these agents on a yearly/seasonal basis further reduces the health of the tree(s) and predisposes it to other living (Biotic) agents that can often spell the eventual death knell for the tree.

Pests & Diseases

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. To date no infection has been found within this part of the West England Forest District and let us hope it stays that way!

Legend

- Ash

© Crown copyright and database right [2016]
Ordnance Survey [100021242]

Name: *Dothistroma Needle Blight* (DBN)

First appearance: mid 1990s

Attacks: Pine species

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



APPENDIX 3— Glossary

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	Trees growing on a site as a result of natural seed fall, and can be used as a management process and can allow cleared areas of woodland to germinate, grow and develop naturally. This process can happen anywhere and woods can be managed to encourage nat-regen although there is no guarantee of success. In these instances, or if nat-regen is unlikely for a variety of reasons, one can use enrichment planting or group planting to achieve the same affect. The process usually relies on an overstorey of "parent trees" being present or on parent trees being close by to provide the seed. These parent trees will usually of been thinned and managed with natural regeneration in mind. Existing areas of nat-regen are then usually developed through carefully thinning the surrounding woodland over a number of years, to give more light and space to ensure the young trees can establish themselves into larger trees eventually allowing them to be incorporated ('recruited') into the main crop for the next rotation at some point in the future. Usually done in small groups or in strips this system can allow a varied woodland structure to develop over time. Protection from competing plant species and mammal browsing might be required in the early stages by fencing or using tree shelters.



<p>Rotation</p>		<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>
<p>Shelterwood</p>		<p>A management system that is applicable to conifer or broadleaf, where tree canopy is maintained at one or more levels without the need to clear-fell the whole site. Felling can occur, but generally in small "groups" whose size shape and spatial distribution will vary depending on site conditions. The "groups" are then either: allowed to develop and establish by the use of natural regeneration, are planted or are established using a mixture of both techniques. This known as a "group shelterwood system"</p> <p>A variation on this is "Single tree selection". This variation removes individual trees of all size classes more or less uniformly throughout the stand to maintain an uneven-aged stand and achieve other stand structural objectives. While it is easier to apply such a system to a stand that is naturally close to the uneven-aged condition, single tree selection systems can be prescribed for even-aged stands, although numerous preparatory thinning interventions must be made to create a stand structure where the system can truly be applied.</p>
<p>Silviculture</p>		<p>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.</p>
<p>Stand</p>		<p>A group or area of trees that are more or less homogeneous with regard to species composition, density, size, and sometimes habitat.</p>
<p>Thin</p>	<p>TH</p>	<p>Selective removal of trees from a wooded area, giving remaining trees more space to grow into larger trees. Thinning is done to:</p> <ul style="list-style-type: none"> Improve the quality and vigour of remaining trees. Remove trees interfering with mature or veteran broadleaf trees. Give space for tops (or "crowns") of broadleaf trees to develop and potentially act as a future seed source. Give space for natural regeneration to grow and develop with the intention of recruiting these younger naturally grown trees as a part of the future woodland structure. Create gaps for group planting or enrichment. Remove species of tree that may compromise the intended management objective of the woodland eg: non-native or invasive species such as Sycamore, Western Hemlock or birch. Improve the economic value of a wood. Help realise opportunities to enhance ecological value. <p>NOTE: This list is not in any order of priority and will vary depending on management objectives.</p>
<p>Yield Class</p>	<p>YC</p>	<p>A method of measuring the growth rate or "increment" of a crop of trees by age and height; measured in m³ per Ha per annum. E.g. A crop with a YC of 16 is one that has an annual increment of more than 16m³ but less than 17m³, although generally only even numbers are used when stating YC.</p>



References

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

Forestry Commission, 2005, *Keepers in Time: A Statement of Policy for Englands Ancient and Native Woodlands*, Forestry Commission, Cambridge

Forestry Commission & Natural England, 2007, *Guidance on managing woodlands with dormice in England*, Forestry Commission, Bristol

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

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

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

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

Natural England, 2014, *National Character Assessment, 151 South Devon* Natural England, York

Tamar Valley AONB, 2014, *AONB Management Plan*, AONB, Plymouth

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

West Devon District Council (2008) *Character Description — River Tavy Middle Valley*, West Devon District Council, Tavistock



APPENDIX 4 – Consultation Record

Consultee Name	Consultee Comment	FC Response
STATUTORY		
Devon County Council	No Response	
Tamar Valley AONB	No Response	
West Devon DC	No Response	
Natural England	No Response	
Environment Agency	No Response	
County Archaeologist	No Response	
Bere Ferrers Parish Council	No Response	
Whitchurch Parish Council	No Response	
OTHER		
Member of Public	Photos 3 and 4 of Birch wood are transposed	Comment unclear. Photos 3 and 4 were taken by author. Sources for photos not belonging to author are indicated accordingly
Member of Public	At Denham Wood: It would be good to see more track/paths/trails added in future. A footpath link to Bere Alston would be good, meaning people don't have to drive to the wood. Perhaps also a footbridge connecting across to national trust wood on the other side of the river.	Not a Forest Plan issue. Comment has been passed to Beat team and District Recreation Lead.