

# Braydon Woods (Red Lodge, Somerford Common and Webbs Wood) Forest Plan 2018 - 2028 West England Forest District



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



Declaration by FC as an Operator.

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

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(following approval FS will adopt the FCE file ref)

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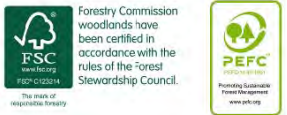
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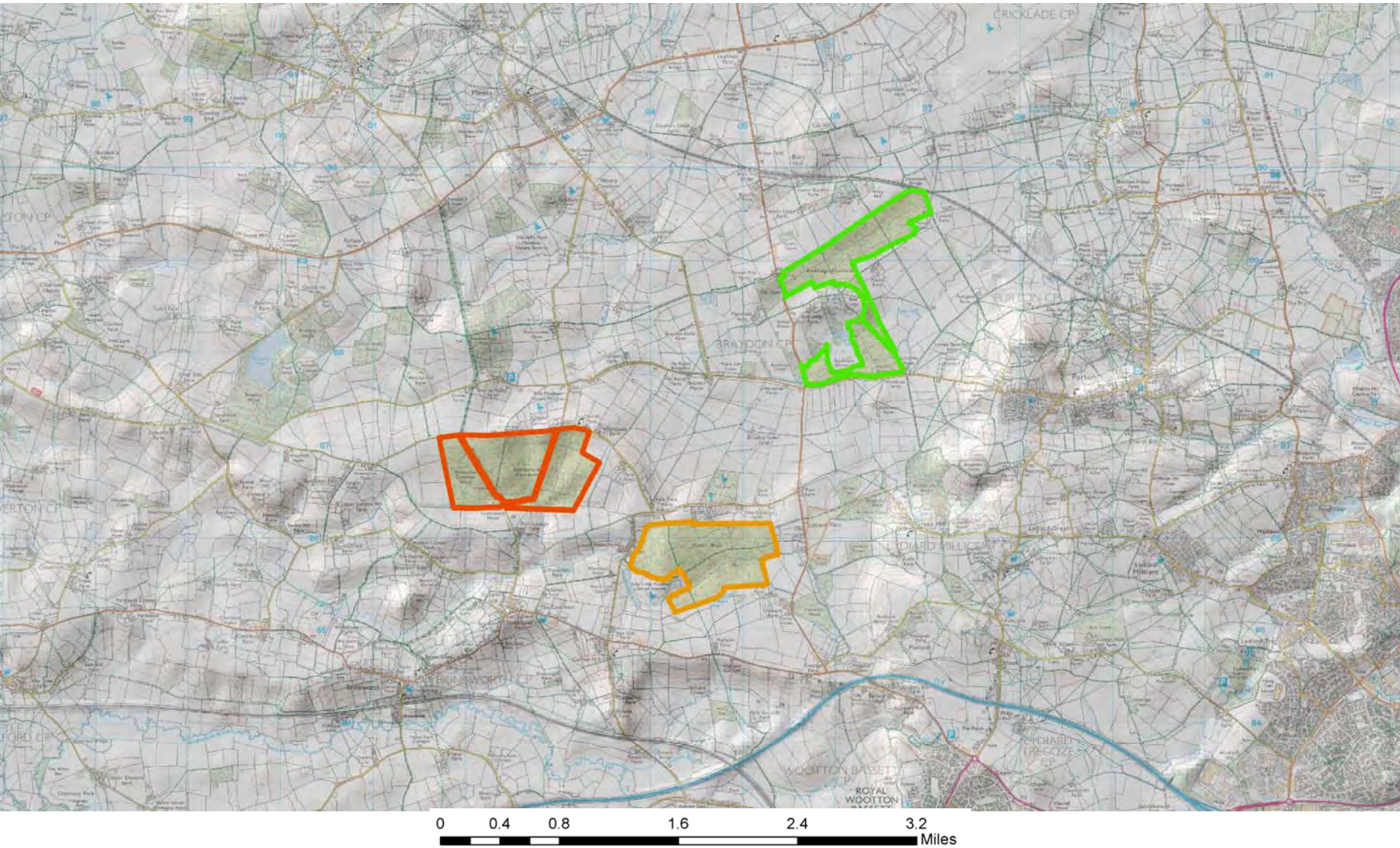
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# Location






The Braydon Woods Forest Plan area lies in north Wiltshire between Swindon and Malmesbury and just to the north of Wootton Bassett, all three woodlands within the plan sit within around ten square miles. The plan area is made up of three woodland blocks: Red Lodge, Somerford and Webbs Wood which total 323ha.

The plan area sits within a nearly flat topography with only gentle undulations which is typical within this part of Wiltshire. Watercourses flow through all three of the blocks with the River Key a tributary of the River Thames passing through Red Lodge, Somerford Common and Webbs Wood host the Woodbridge Brook, which is a tributary for the River Avon.

The majority of the land is at 100 - 120 meters above sea level and is characteristic of the flat to gently undulating local area. Average rainfall is in the region of 745mm annually. All three woodlands sit on mudstone geology and typical surface-water gley soils which is typical for this part of Wiltshire. The soil type generally limits the growth rates of the trees in the area with yield classes generally ranging from 4-6 in the broadleaved species and 10-12 in the conifers.

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Forest Name	Area	Plan Area
 Red Lodge	102ha	32%
 Somerford Common	121ha	37%
 Webbs Wood	100ha	31%
	<b>323ha</b>	<b>100%</b>



## A 50 Year Vision

The future for the plan area is in keeping with the Forestry Commission's key strategic goals and the value which is placed locally on the woodland and plan area. The plan area forms an important remnant of the historic Royal Hunting Forest of Braydon, and as such sits in an area of increased woodland cover compared to much of the rest of the surrounding landscape. This area of woodland sits in contrast with the wider landscape which consists of enclosed pastures, mixed farming, hedges, hedge and field trees and settled, open arable land. The vision of the plan is to create woodlands which allow commerce, wildlife and recreation to flourish.

The woodlands will consist of almost entirely broadleaf elements, with some high yield class conifer retained at Somerford Common. The forest will continue to provide a valuable local recreational resource, allowing the local community to enjoy, relax and learn in an immersive woodland environment. The trees will be valued for their economic, social and ecological value, water regulation and carbon sequestration will all be carefully considered in light of climate change. A mosaic of habitats will provide a diverse age structure with younger crops being encouraged through natural regeneration and the cycling of coppice coupes.

Red Lodge will have a plethora of high quality oak with an abundant understorey, among these old oaks will be a younger crop being actively managed to replace the older generation. Straighter trees with better timber quality will be felled and sold for their economic gain, whilst the best habitat trees will be retained in perpetuity to provide habitat for bats. Standing and fallen dead wood will be available throughout the woodlands providing further habitats and nutrient cycling. Flora and fauna will be an important part of the woodland, the ecological value of the woodland for butterflies, bats and rare flora will be carefully considered to add to the contribution these woodland blocks make to the wider landscape.

The ride network will be enhanced to support scrub loving species of butterflies. Lapsed coppice areas will come back into management further increasing these wildlife corridors. These areas will be of value not only to wildlife but will increase the recreational value, these rides will become airy and open providing an expansive and alluring ride network for visitors to enjoy and explore.



## About

The Braydon Woods Forest Plan area consists of three individual forest blocks; Red Lodge, Somerford Common and Webbs Wood. Once part of a much larger Royal Hunting Forest, comprising enclosed woodland, open pasture and settlements, the Braydon Woods Forest Plan area now forms an important woodland resource in a matrix of largely open habitats including improved grassland, small fields and old species rich meadows. This area has woodland cover of only 3%, well below the national average, and as such the Braydon Woodlands are a important feature in the natural landscape.

The Public Forest Estate here is predominantly broadleaf species, Red Lodge has a particularly fine crop of oak planted in the 1820's. Somerford and Webbs both offer a mix of both broadleaf and conifer components albeit with different species compositions. Webbs is predominantly broadleaves with only a small conifer component whilst Somerford Common retains fewer broadleaves and has a more substantial conifer element. Most of the woodlands were planted between 1950 and 1970 (70%) with the p.1820 oak at Red Lodge accounting for a further 15% of the age class structure.

None of the plan area falls within SSSI's however Webbs Wood has a combination of plantation on ancient woodland sites (PAWS) and ancient semi-natural woodlands (ASNW). Webbs Wood has a coniferous non-native component at 13% therefore it can be considered restored, conifer removal will however continue through thinning operations. Red Lodge lies on the western edge of the Great Western Community Forest boundary.

Webbs Wood and Somerford Common are freehold woods and as such are designated under the Countryside Rights of Way (CROW) Act, Red Lodge is leasehold and is not CROW dedicated however it has an extensive system of Public Rights of Way (PROW) within it and informal access throughout. Recreational activity is generally low throughout the blocks, usage is generally local walkers, dog walkers and horse riders.

## Objectives

The vision of the plan is to continue to produce woodlands which are economically productive, enhance and conserve biodiversity and the environment and providing woodlands for informal recreation. The long term aim of the Forest Plan area is to produce high quality oak logs from the p.1820 oak at Red Lodge, the plan will aim to promote future high quality oak crops at Somerford Common which is showing considerable potential within some of the current stands. The plan will look to increase diversity and resilience from pests, diseases and climate change.

## Summary

The social, economic and environmental objectives of management here are:

- The continued production of sustainable and marketable woodland products.
- The diversification of woodland species and structure for greater ecological and economic resilience.
- To protect and enhance areas of Ancient Semi-Natural Woodland and restore areas of PAWS in line with "Keepers of Time".
- To conserve maintain and enhance cultural and heritage assets.
- Protect and enhance woodland and open habitats and their associated species.
- The provision and maintenance of recreation facilities.
- Deliver well-designed forests that both protect and enhance the internal and external landscape in keeping with the local landscape character.

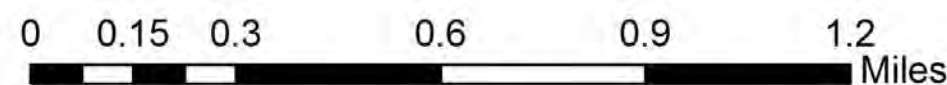
## What we'll do

The current plan sets out to outline management proposals including felling and restocking over several decades, with felling license approval for operations up until 2028.

Woodlands will continue to be thinned with broadleaves being thinned to form whilst promoting continuous cover forestry. Conifers will be removed within thinning areas specifically within Somerford Common. Although Webbs Wood is now considered restored as it's broadleaved component is below 20% the opportunity to remove conifers through thinning operations will be sought wherever possible.

# Legend

- Freehold
- Leasehold

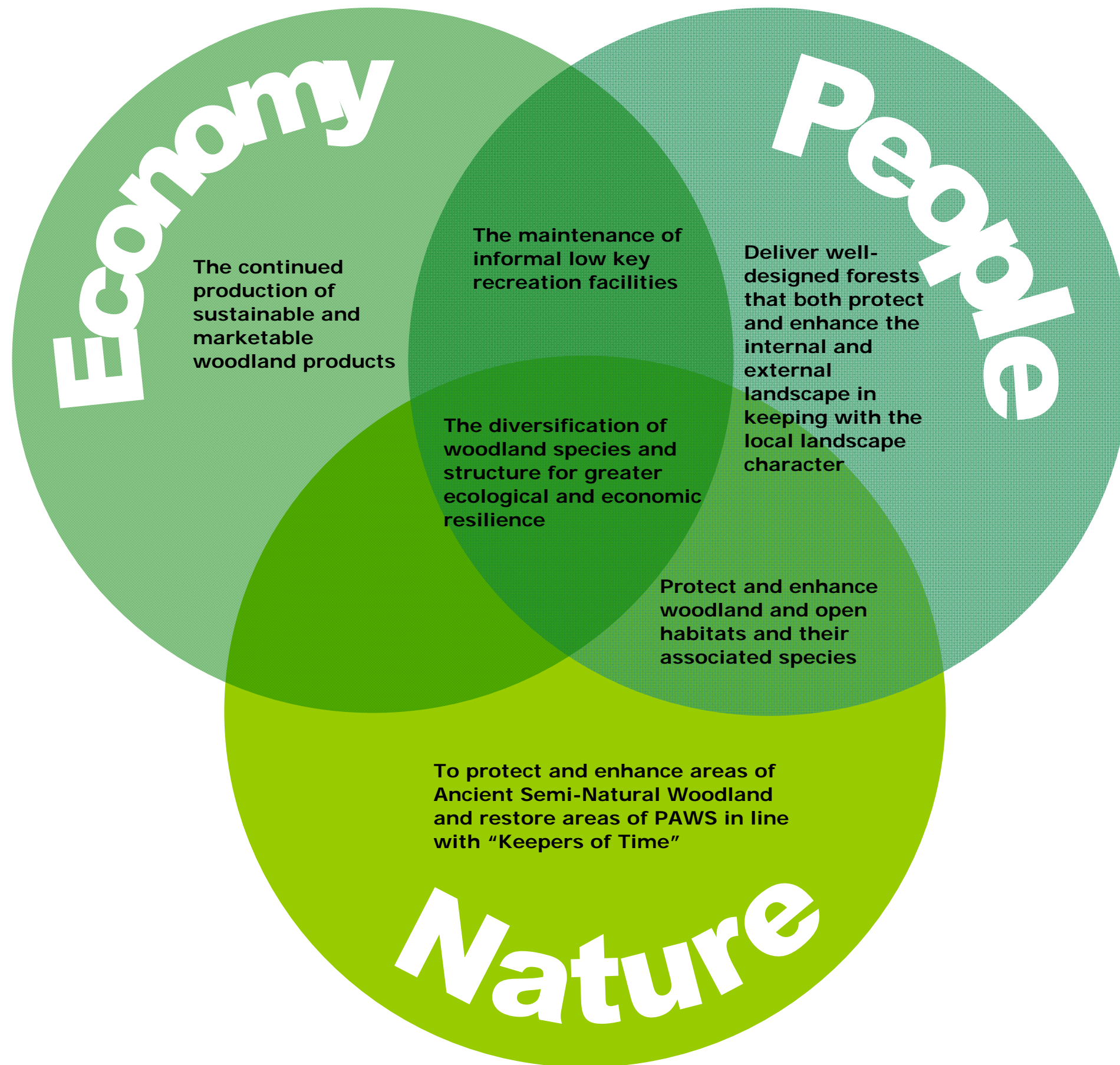


## Tenure & Management Agreements

Both Webb's Wood and Somerford Common are freehold which account for the majority of the plan area. Red Lodge is a leasehold woodland and account for 102ha (32%).

The lease for Red Lodge was acquired in 1946 and is held on a 999 year lease. The freehold at Somerford Common was acquired by the Forestry Commission in 1945, Webb's Wood was originally acquired as leasehold woodland in 1952 and the freehold subsequently acquired in 1979.

There are minimal management agreements which affect the plan area, all of the woodlands within the plan area are covered by a deer control license. This license allows for deer control across all three of the woodlands.



## 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.



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Declaration by FC as an Operator.

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

## Meeting Objectives

### District Strategy

### Forest Plan Objective

### Meeting Objective

### Monitoring

#### Economy

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

Improve the economic resilience of our woods and forests.

Encourage and support business activity on the Estate

The continued production of sustainable and marketable woodland products.

The plan will retain productive areas albeit through a variety of silvicultural approaches. The plan will retain productivity through clearfell areas, coppice and thinnings.

Comparison of total production indicated in forest plan will be actual production at the forest plan review stages of five and ten years. Pre and post thinning control and site supervision and planning will assist with the monitoring of the productivity of the woodlands.

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

Diversification will occur through delayed fellings and the creation of a mosaic of habitats through coppicing and diversity within natural regeneration and planting schemes.

Operational site planning of harvesting and restocking operations will assist with the monitoring of the diversity of the woodlands.

#### People

Maintain existing established consultation panels in the West England District and engage with other consultative bodies such as National Park Authorities and AONBs.

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

The provision and maintenance of recreation facilities.

Informal recreation facilities will be maintained. There is no plans to enhance recreational facilities however car parks and forest roads will be maintained through the local beat team.

The local beat team will monitor recreational usage and maintain the facilities as necessary.

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

Implementation of the plan will soften both the internal and external aspects of the woodlands.

Landscape monitored through aerial photography and sub-compartment database periodically at Forest Plan review stage.

#### Nature

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

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

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

To protect and enhance areas of Ancient Semi-natural Woodland and restore areas of PAWs in line with 'Keepers of Time'.

The Ancient Semi-Natural Woodland will have further coniferous crops removed from it although the conifer component is already below 20% and is considered restored.

The woodland composition and naturalness score will be assessed at the Forest Plan review stages.

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

Operational site planning will highlight opportunities for enhancing habitats and increasing biodiversity. Reinstatement works will ensure habitats are both protected and restored following works.

Open habitats will be monitored through aerial photographs and the sub-compartment database at the time of Forest Plan review. Local wildlife interest groups will help to monitor biodiversity benefits.

To conserve, maintain and enhance cultural and heritage assets.

There are no heritage features currently mapped within the woodlands, if cultural or heritage features are identified shrub encroachment will be controlled and best practice followed.

Monitoring will occur during the Forest Plan review progress, through local records and updated sightings. Operational site planning will also monitor the effects of management upon biodiversity.

# Landscape Character



## National Character Assessment Profile

### 108 Upper Thames Clay Vales

Source: Natural England (2014)

The Upper Thames Clay Vales National Character Area (NCA) is a broad belt of open, gently undulating lowland farmland on predominantly Jurassic and cretaceous clays. Blenheim Palace World Heritage Site falls within the NCA, along with around 5,000 ha of the North Wessex Downs Area of Outstanding Natural Beauty (AONB) and smaller areas of the Chilterns AONB and the Cotswolds AONB. Two of its Special Areas of Conservation (SAC) are designated for their lowland meadow vegetation communities, while Little Wittenham SAC has one of the most studied great crested newt populations in the UK. There are contrasting landscapes, including enclosed pastures of the claylands with wet valleys, mixed farming, hedges, hedge trees and field trees and more settled, open, arable lands. Mature field oaks give a parkland feel in many places. The area encircles the Midvale Ridge NCA and covers an extensive area of low-lying land extending from Wiltshire and Gloucestershire to the west of Swindon through to Aylesbury in Buckinghamshire in the east. It comprises two separate sub-character areas: the Wiltshire, Oxfordshire and Buckinghamshire Vales to the north; and the Vales of White Horse and Aylesbury to the south. The area is dominated by watercourses, including the Thames and its tributaries, and there are also lakes associated with mineral extraction areas, such as the Cotswold Water Park. Watercourses and lakes provide important areas for wildlife and recreation. There are a number of major transport routes and patches of intensive industrial influence, including Didcot Power Station. There is little woodland cover (around 3 percent) but hedgerows and mature field and hedgerow trees are a feature, and many watercourses are fringed with willow or poplar.

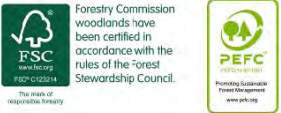
The area's internationally important lowland meadows require enhanced management alongside improved care of adjacent land, and its wetland habitats require appropriate hydrological regimes to be secured and an ecological network that is resilient to climate change. Wet grassland and wetland habitats also offer opportunities to manage floodwaters and improve water quality. Potential growth of urban areas, particularly around Oxford and Swindon, may provide opportunities for creation of significant areas of accessible natural greenspace as part of comprehensive green infrastructure planning.

## Character Description

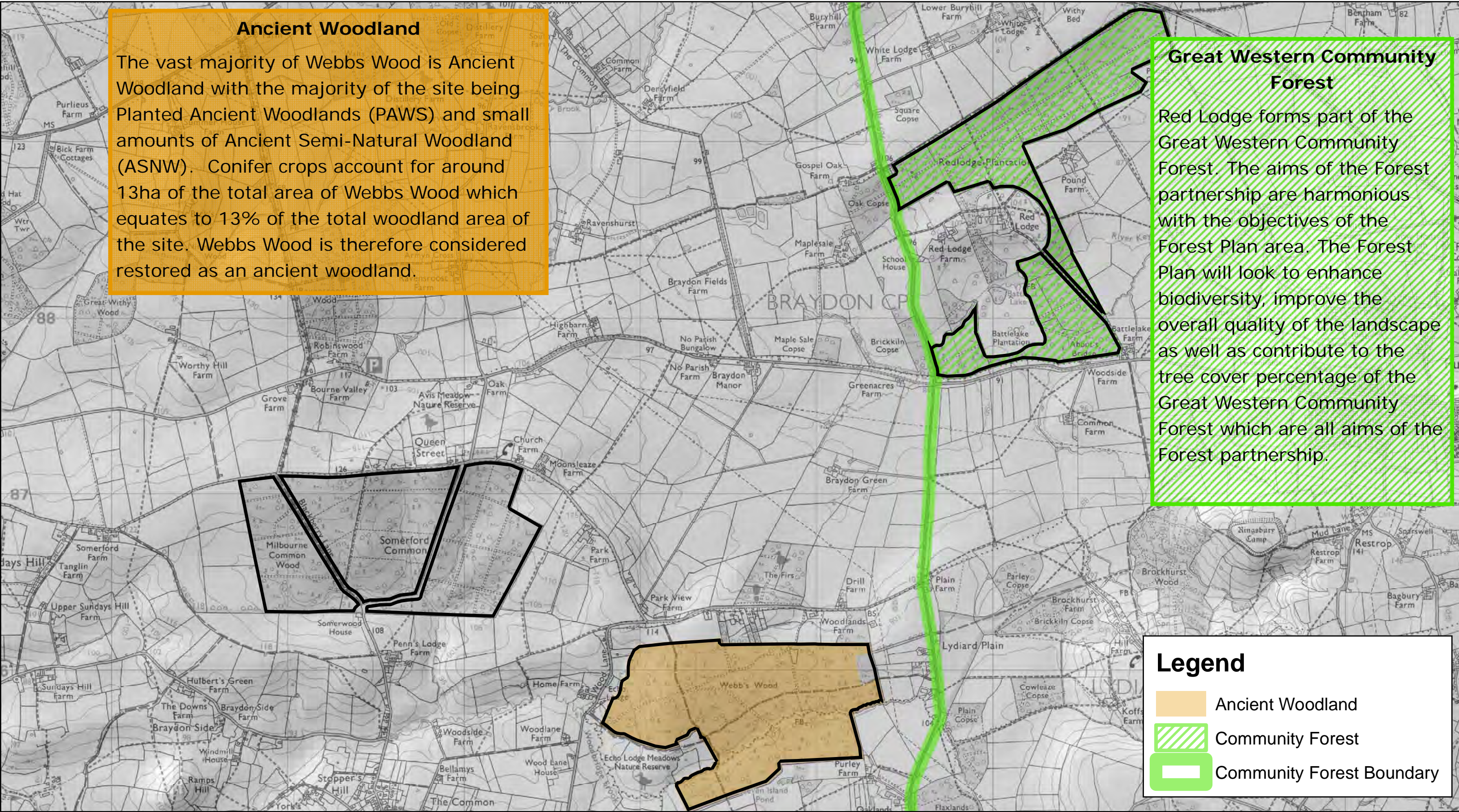
Braydon Woods (Red Lodge, Somerford Common and Webbs Wood)

Source: Wiltshire County Council (2005)

The Minety Rolling Clay Lowland lies to the north of the county largely surrounded by other low lying land including areas of Open Clay Vale to north and south. The Minety Rolling Clay Lowland is more wooded and sparsely settled than the others in the type, showing the strong influence of its historic land use as part of the Royal Hunting Forest of Braydon. Substantial blocks of woodland dominate the central part of the area, including some where traditional maintenance methods are still in place as at Ravensroost Wood SSSI and a remnant of wood pasture at Somerford Common. Fields are medium to large, mainly pastoral with a strong hedgerow network in good condition with many mature oak hedgerow trees. The central area is crossed by straight minor roads with sparse dwellings scattered along them and at crossroads. To east and west the pattern is more like the rest of the type with small nucleated villages such as Cloatley, Minety and Charlton with its historic parkland, linked by winding roads. Buildings tend to be of stone at the west of the area such as at Charlton, with brick and render more frequent to the east reflecting the change from Limestone to Clay geology.



# Designations





## Riparian Zones

**Analysis:** All the woodlands within the Forest Plan area have a number of watercourses running within them, the River Key flows through Red Lodge and the Woodbridge Brook and its tributaries run through Webbs Wood and Somerford Common.

**Concept:** Prescriptions within the plan will be sensitive to the role that the forests play in water and natural flood management. The prescription will set out to remove shade bearing conifer trees from riparian zones whilst maintaining dappled shade provided by native broadleaf species.

## Conifer Removal

**Analysis:** Conifer currently account for 29% of the woodland composition. Webbs Wood is the only ancient semi natural woodland (ASNW) and planted ancient woodland (PAWS) site within the plan area, with a conifer component of 13% however and as such can be considered restored.

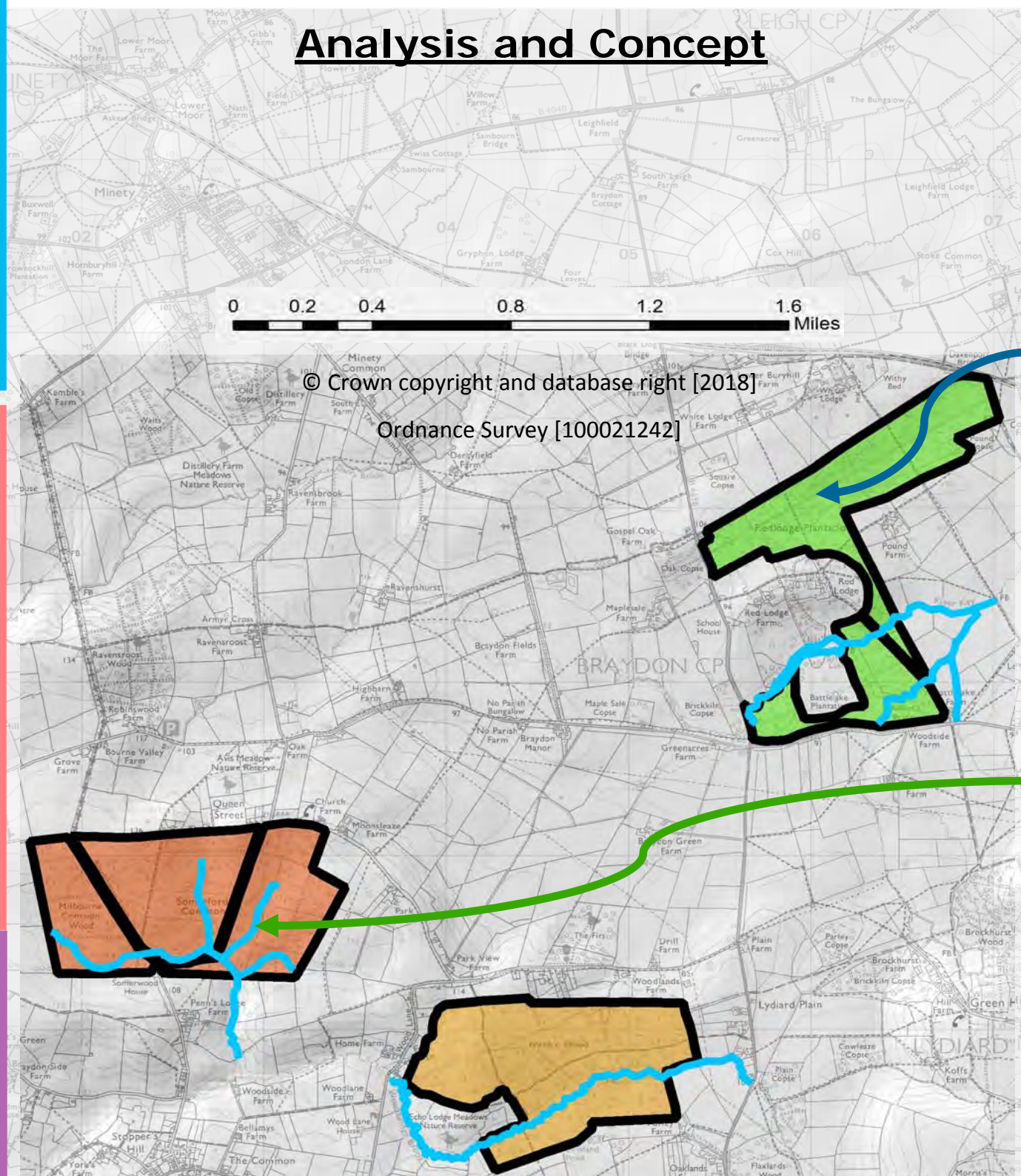
**Concept:** Prescriptions within the plan will look to gradually de-coniferise the woodlands. Particular focus of conifer removal will be in Somerford Common where everything but the Scots Pine and pockets of Douglas Fir have low yield classes. The removal of conifers will be achieved through felling and thinning operations. The removal of conifers is in keeping with the characteristics of the woodlands. Some small pockets of productive conifers will however be retained to main species diversity.

## Biodiversity

**Analysis:** Work has been undertaken recently to further increase the biodiversity of the Forest Plan area. The grazing enclosure has been cleared and ride sides flailed and mulched to provide suitable habitats for a range of butterflies and plants. The pond at Red Lodge has been managed for Great Crested Newts and Bechstein Bats have now also been recorded on site. Somerford Common provides a good habitat for Marsh Tits and Brown Hairstreak.

**Concept:** The plan will continue to deliver against biodiversity objectives, rides will be widened with particular emphasis on east-west rides along with ride junctions being opened up and coppiced. At Webbs Wood habitat corridors will be created to link in with the adjacent Wiltshire Wildlife Trust site. Red Lodge will see some felling of the old oak trees however the poorer formed oak with greater ecological benefits will remain.

## Analysis and Concept



## Topography

**Analysis:** The topography of the area is flat with slight undulations. The woodlands within the plan area are therefore not prominent within the landscape. Internally both Red Lodge and Somerford Common have a plethora of linear rides, Red Lodge also has long straight boundaries along its external edges.

**Concept:** The plan will look to de-linearize both the internal and external landscape features of the woodlands. This will be achieved through ride side cutting and the creation of coppice coupes within Somerford Common and by softening the woodland edges and therefore the long straight external site lines of Red Lodge where possible.

## Economic Assets

**Analysis:** Red Lodge has an abundance of high quality p.1820 oak trees which provide high quality logs. The oak within Somerford Common also appears to have the necessary form to provide high quality oak logs in the future.

**Concept:** The management plan will continue to enable the woodlands to produce high quality oak log at sustainable levels, it will set out prescriptions to provide the best suitable conditions for ongoing production. This will include the retention of a coppice understory to inhibit epicormic growth and single tree selection continuous cover forestry systems.

## Grazing Enclosure

**Analysis:** Following recommendations from the Wiltshire Wildlife Trust and Butterfly Conservation this area has been recently cleared to increase the amount of suitable habitat for butterflies.

**Concept:** This area will be maintained through a cyclic coppicing regime. This will increase suitable habitat availability for a range butterflies. The aspiration of the beat team is for grazing to resume within the enclosure. The plan will look to increase environmental corridors through ride side management and glade creation throughout the woodland linking key areas of open habitats.

## Resilience and Diversity

**Analysis:** The age class of the woodland is currently limited, 24ha (7%) of the woodland was planted post 1969. Species composition is also limited with beech, norway spruce and oak making up 51% of the overall species mix within the Forest Plan area and mixed broadleaves accounting for a further 26%.

**Concept:** The prescriptions within the plan will encourage both a more diverse age structure and species composition. Through a mix of silvicultural prescriptions including felling, coppicing and continuous cover systems diversity will be increased making the Forest Plan area more resilient to climate change. Establishment will predominantly rely on natural regeneration although enrichment planting with a range of native species will be considered to further bolster resilience through increasing species diversity.



# Woodland Composition

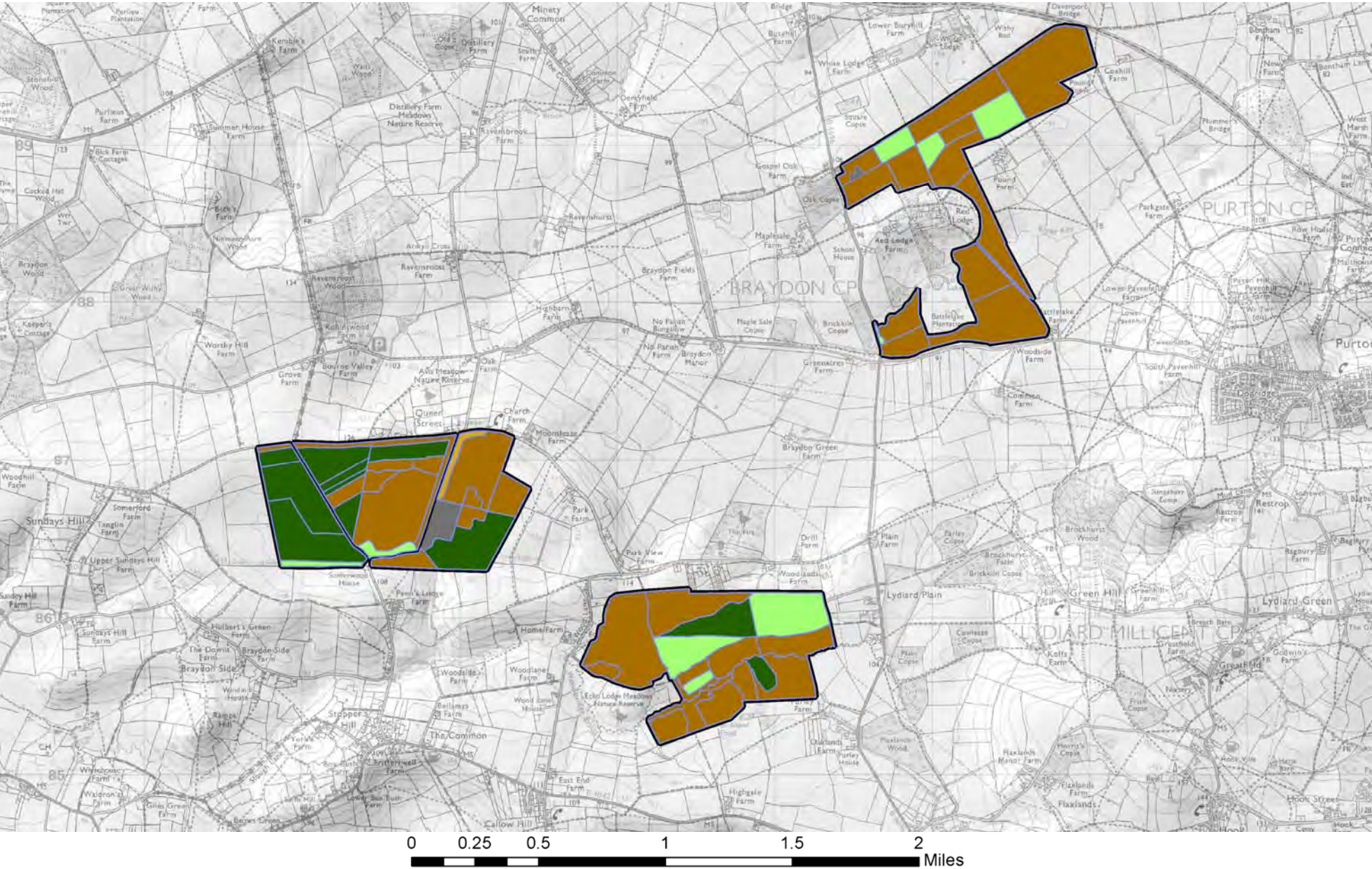
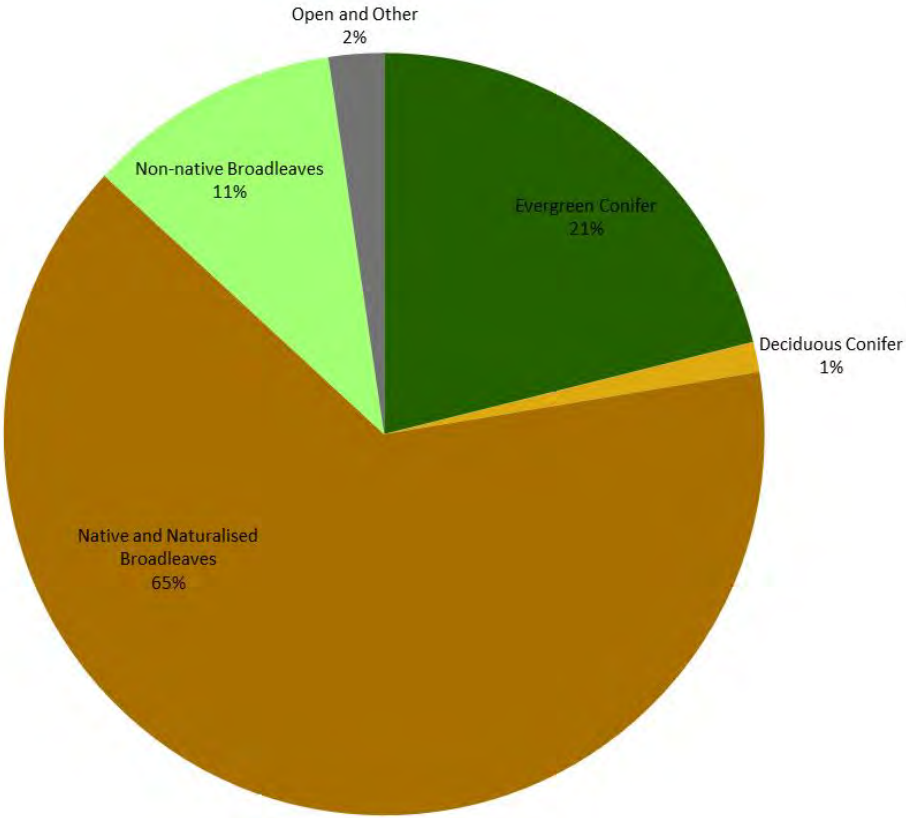
The plan area is dominated by broadleaves which make up over 75% of the total species composition over the three woodlands. Red Lodge and Webbs Wood are very much broadleaf dominated whereas Somerford Common has a greater diversity of Larches, Spruces, Pines and other conifers. The use of coniferous species other than the Scots Pine and Douglas Fir within Somerford Common has been largely unsuccessful with low yield classes and often poor form.

Much of the broadleaf area is diverse other further resilience will be encouraged through the plan. The broadleaves generally vary in age and quality depending on their location with many of them being unremarkable in either size or quality. The p.1820 oak at Red Lodge however is mature and of a high quality with stands of the 1960's oak in Somerford Common showing good form and potential to produce high quality saw log in the future.

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

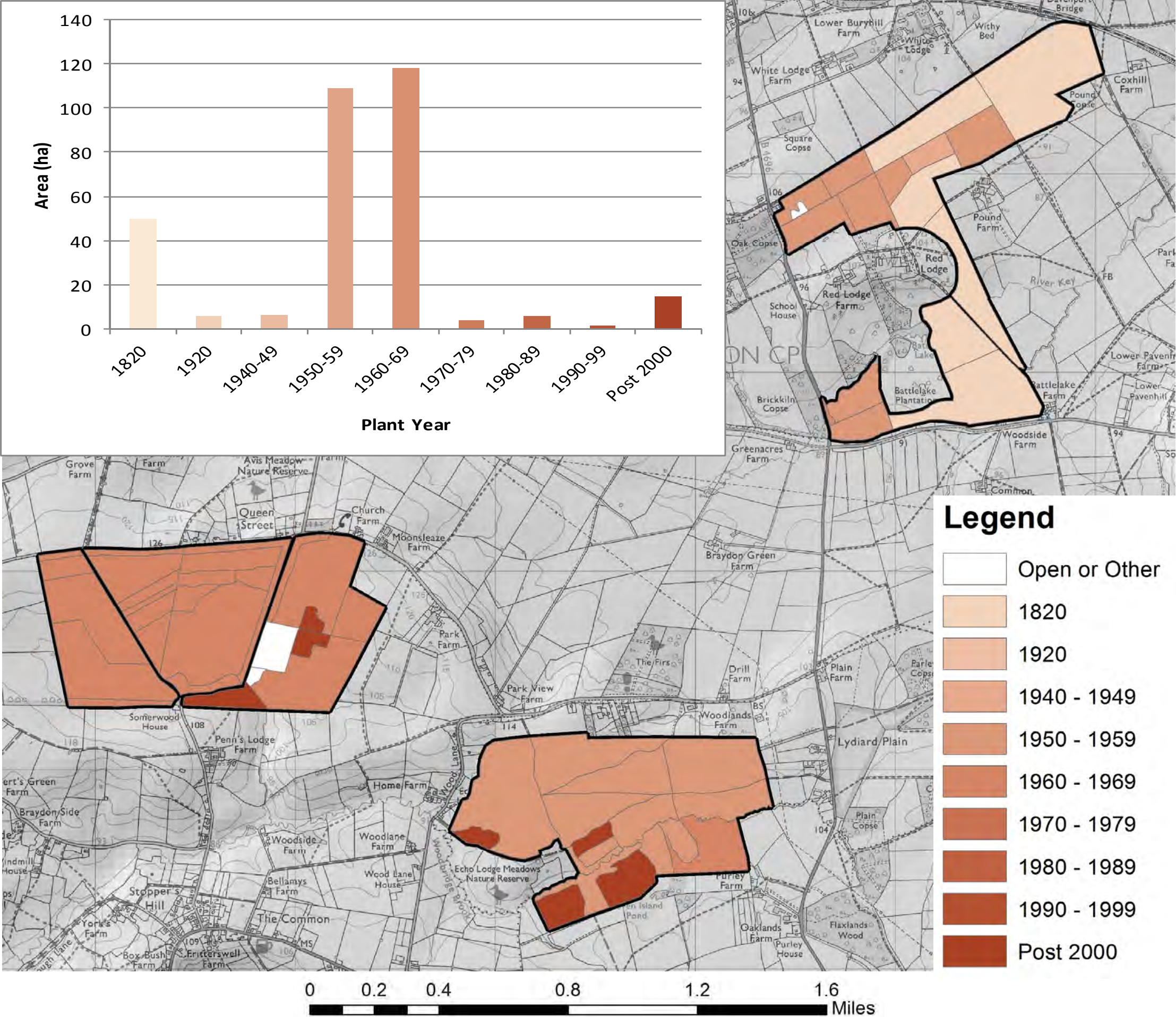
Woodland composition map and pie chart are calculated based on the largest component of each sub-compartment.

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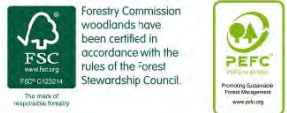


# Age Structure

The age structure throughout the plan is fairly short and uniform. This is due to a plethora of planting within the 1950's and 1960's when the woodlands were first acquired by the Forestry Commission. The uniformity of the crops is much more apparent in both Somerford Common and Webbs Wood where the majority of the planting generally coincides with the acquisition year. There is however a considerable area of 1820's oak within Red Lodge. Red Lodge however has a more varied age structure partially related to its already established fine oak trees and partially due to its leasehold status.



Note: Age structure map and pie chart are calculated based on the largest component of each sub-compartment.

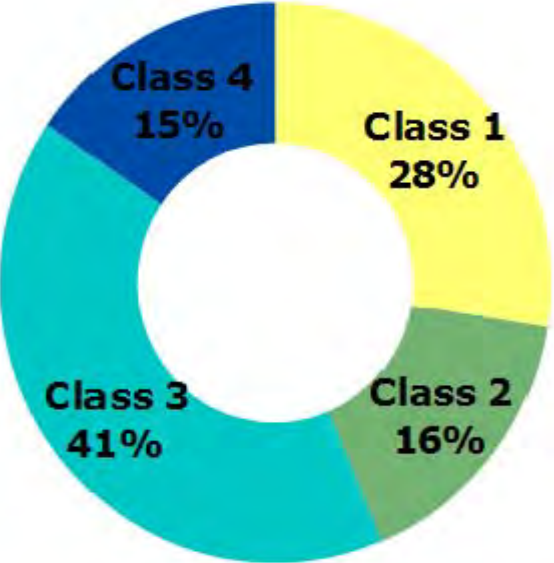
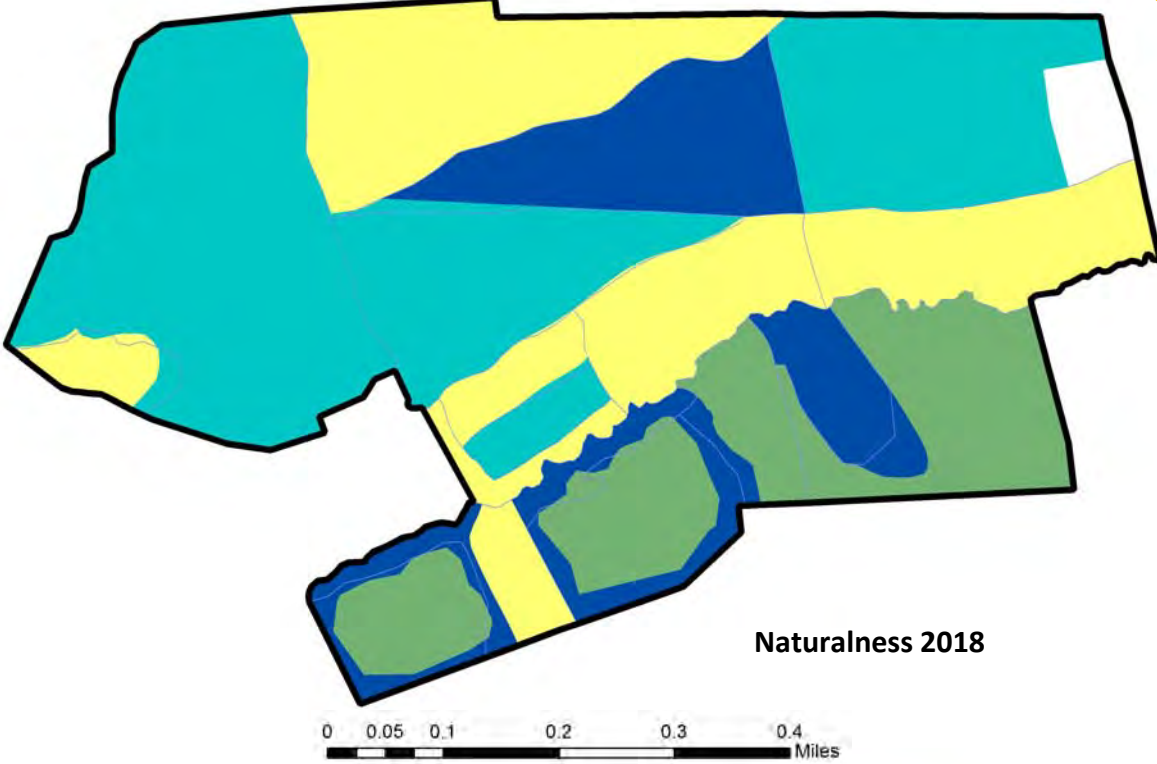
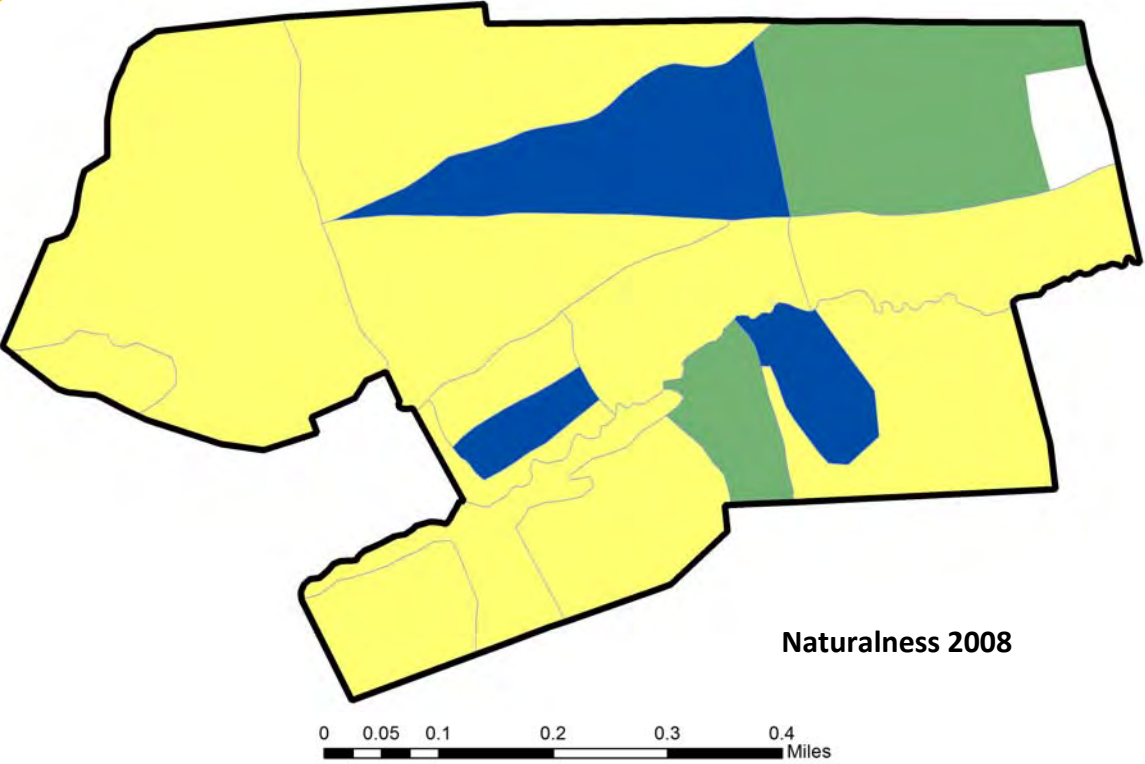


# Naturalness on PAWS

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, Webbs Woods is the only Ancient Woodland Site within the forest plan area.

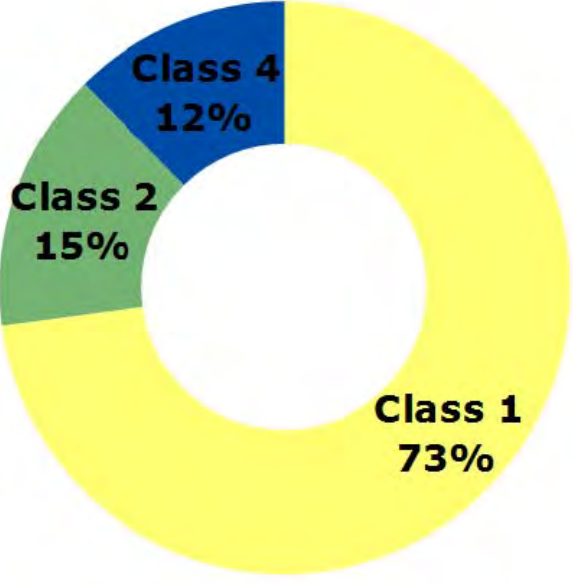
Classes 2, 3 and 4 are classified as Plantations on Ancient Woodland Sites (PAWS). Areas of Semi-Natural Woodland (Class 1 - > 80% site native species) are found across the majority of Webbs Wood with over 80% of the site falling under the Class 1 category.

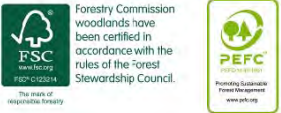
The transformation of the remaining Classes 2 and 4 Ancient Woodland Sites towards Class 1 is a key objective of this Plan and is in line with the Forestry Commission England, *Keepers of Time* Policy (Forestry Commission, 2005).



## Legend

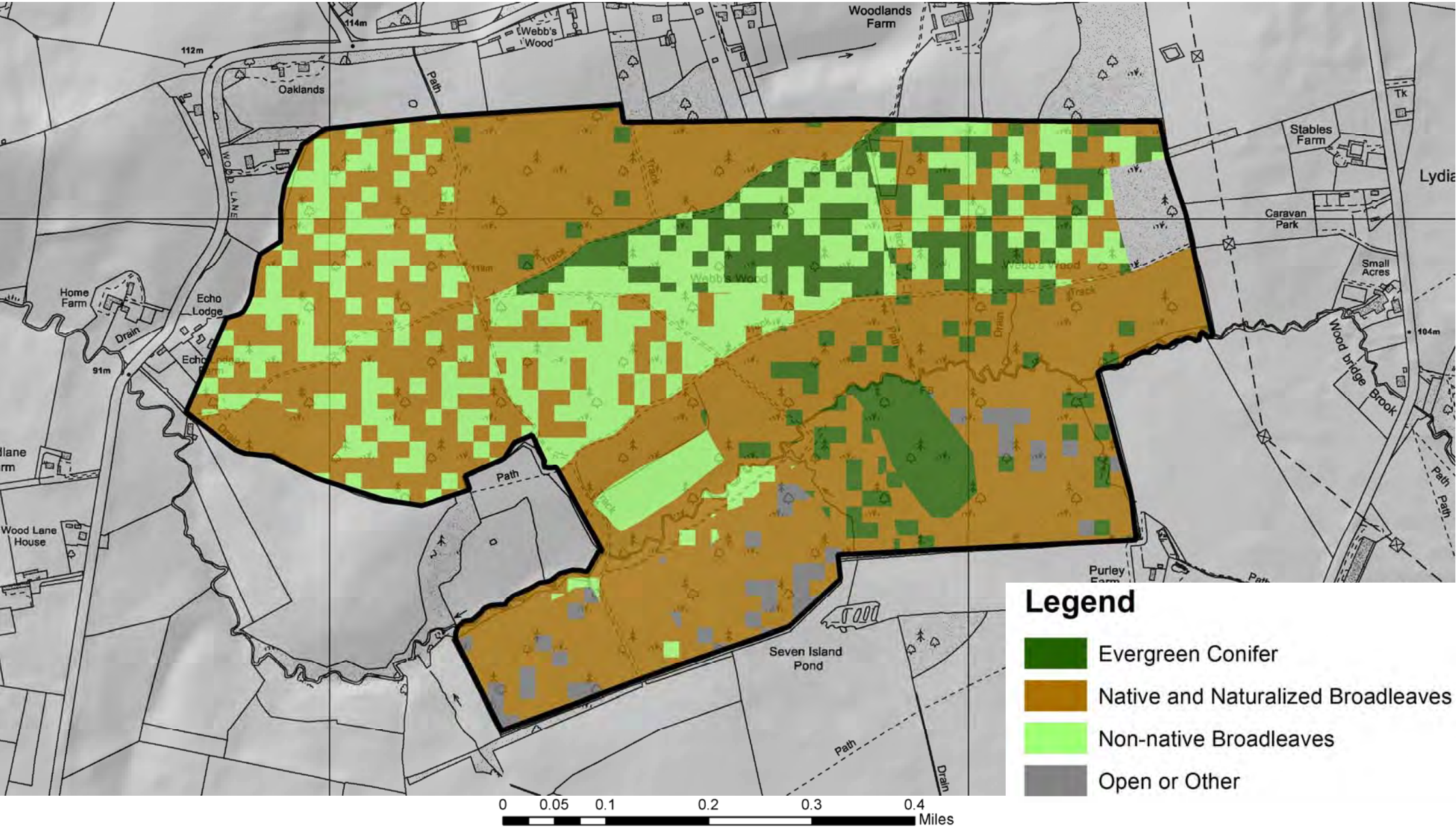
- Class 1 - 80% Site Native Species
- Class 2 - 50-80% Site Native Species
- Class 3 - 20-50% Site Native Species
- Class 4 - <20% Site Native Species



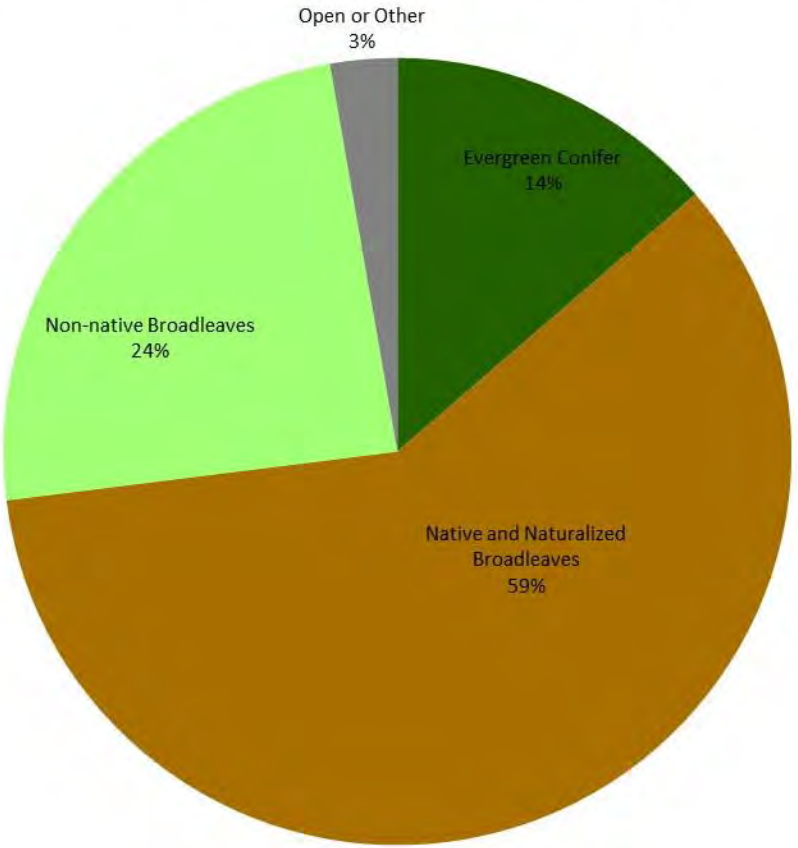


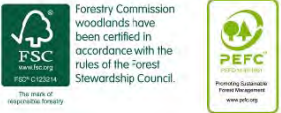
# Ancient Woodland Species Composition

Webbs Wood is predominantly native and naturalized broadleaves, composed of around a quarter of the site is non-native broadleaves. The non-native broadleaves is almost solely made up of beech, evergreen conifer is predominantly norway spruce. The map to the left is not an exact indication of tree species location, this is a pictorial representation of general area and coverage of tree categories.



Webbs Wood Area Cover by Species Type





### 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

### 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. And removal of non native components. Progress will be monitored and crops moved into the Preparation zone depending on development of stand structure and the response of natural regeneration.

### Clearfell Zone

A coupe of norway spruce will be felled and then restocked with natural regeneration to convert the coupe back to native broadleaves as per PAWS policy.

A further coupe will be felled to increase the amount of open space within the woodland and create a wildlife corridor to the adjacent Wildlife Trust site at Echo Lodge.

Two coppice coupes will all also be clearfelled and then restocked through naturally regenerating coppice from the native broadleaves.

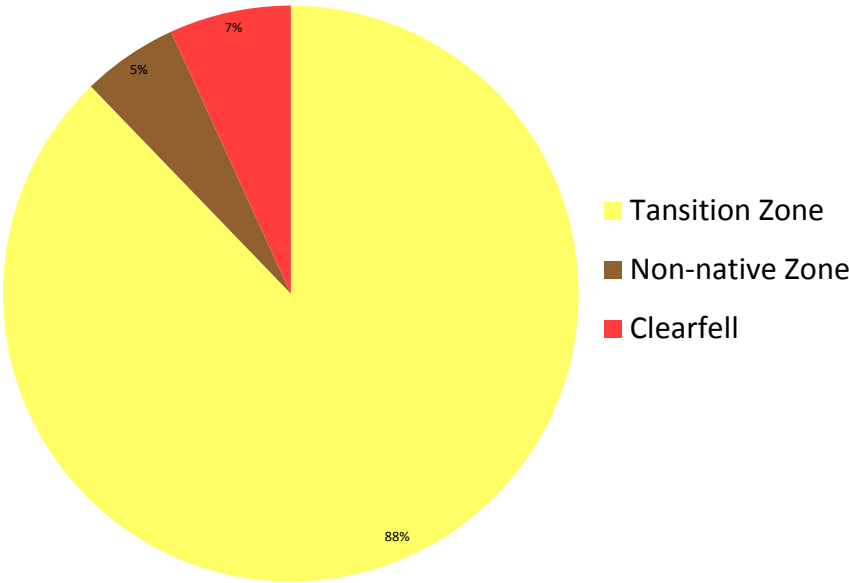
## Ancient Woodland

The plan area contains one woodland which is designated ancient woodland. Webbs Wood is the only woodland shown on the Ancient Woodland Register. Webbs Wood is the most southerly of the three woodlands within the plan area and has an area of 100ha which account for 31% of the total plan area. On the eastern edge of the wood there is an area of approximately 1.5ha which is not included on the Ancient Woodland Register and as such is shown in white on the map below, this area however will still undergo the same management prescriptions as the rest of the site and as such will be treated as though it is ancient woodland. The vast majority of Webbs Wood has a naturalness score of class 1 meaning the sub-compartment has over 80% site native species within it.

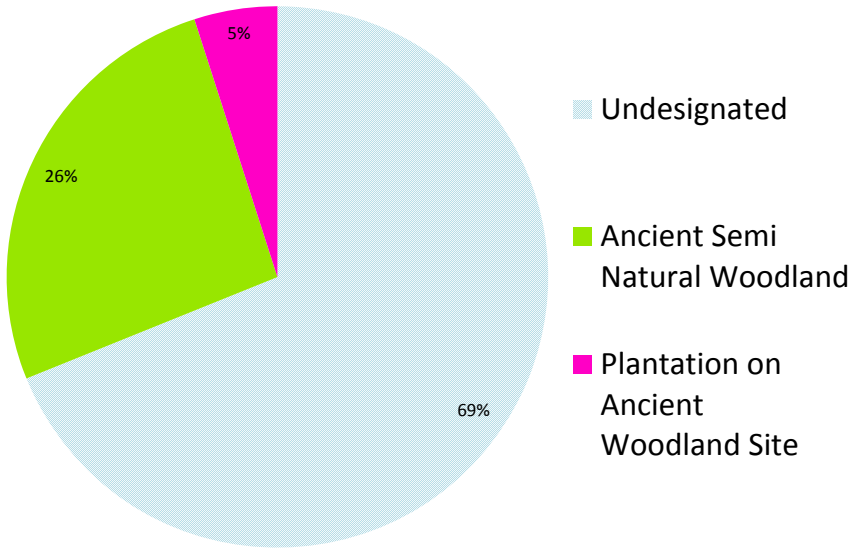
## PAWS Management

Restoration of Plantations on Ancient Woodland Sites (PAWS) has already begun and this continued restoration is going to continue within the new management plan prescriptions. The main block of norway spruce within the woodland will be clearfelled, due to both the site being ancient woodland and the stand beginning to blow along the southern edge. The beech within the woodland is not considered native as Webbs Wood is outside of its natural range. In this instance the beech will continue to be thinned as it is not yet at economic maturity. An understorey of natural regeneration will be encouraged under the beech where possible to increase the naturalness of the site.

Zonal cover by percentage



Percentage of designated Ancient Woodland over the Forest Plan area





# Broadleaf Management

The majority of the forest plan area consists of National Vegetation Classification (NVC) types W8 and W10 lowland broadleaved woodland with some W16 lowland oak-birch woodland present in Somerford Common. These classifications give a good indication of the target future species for PAWS restoration and if sites were left to natural succession.

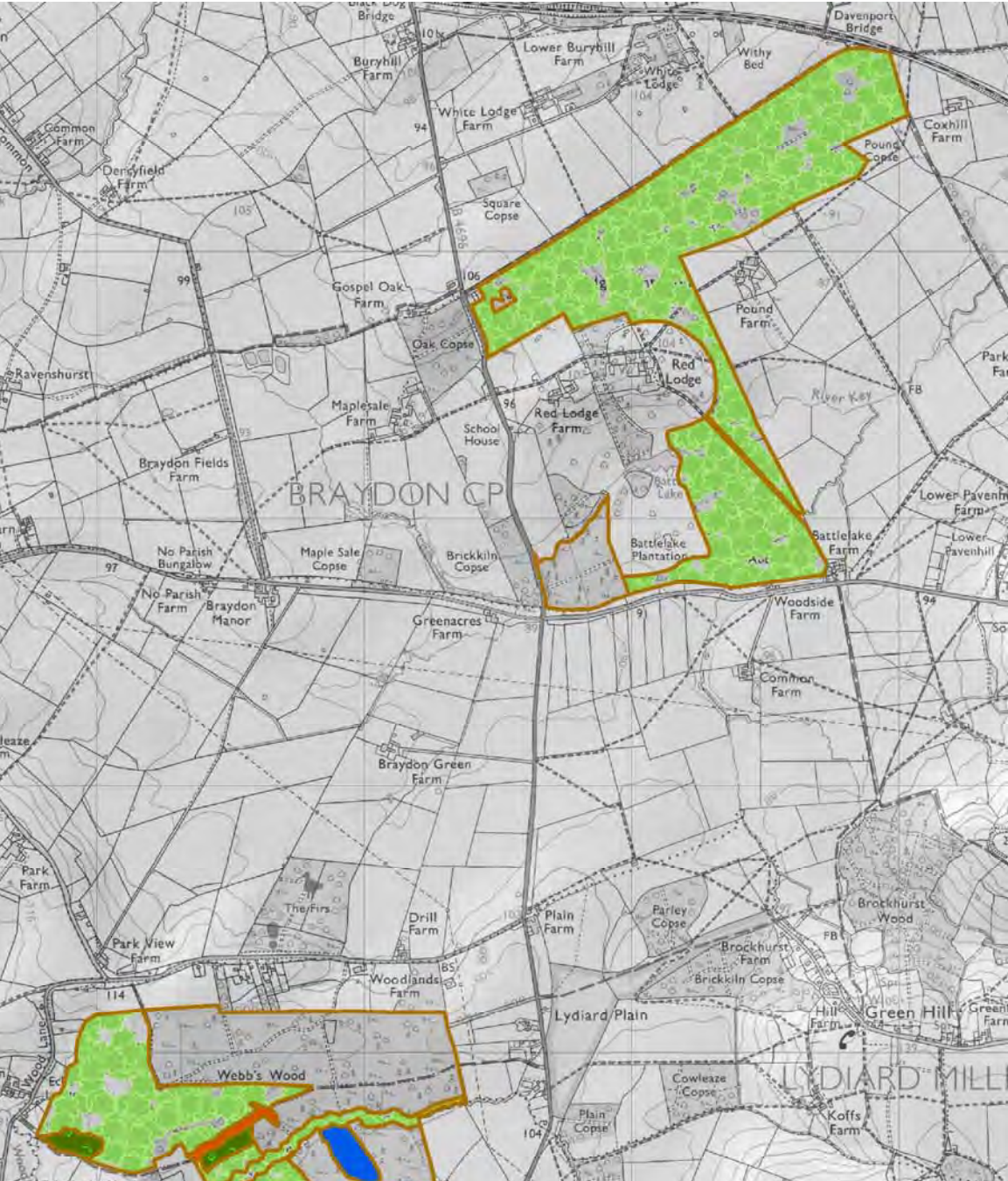
These sites will be predominantly managed on shelterwood systems whereby the new crop will be regenerated from selected seed trees following heavy thinning operations. Coppicing will also be used extensively across the forest plan area, particularly within Somerford Common. Single tree selection felling will be used within Red Lodge to allow some of the oaks with the finest form to be felled and marketed.

Light levels and grazing pressure will be managed to minimise weed encroachment and regeneration predation by deer following thinning operations. Underplanting with species such as lime and hornbeam may be considered on ash dominated areas to ensure greater resilience to *Chalara fraxinea*.

Planting will also be used on sites where regeneration does not meet an average of 3,000 stems/ha per year or sites where coppice stools do not successfully re-establish to the desired density. Generally underplanting will be utilised to increase the stocking density or increase diversity and resilience.

## Legend

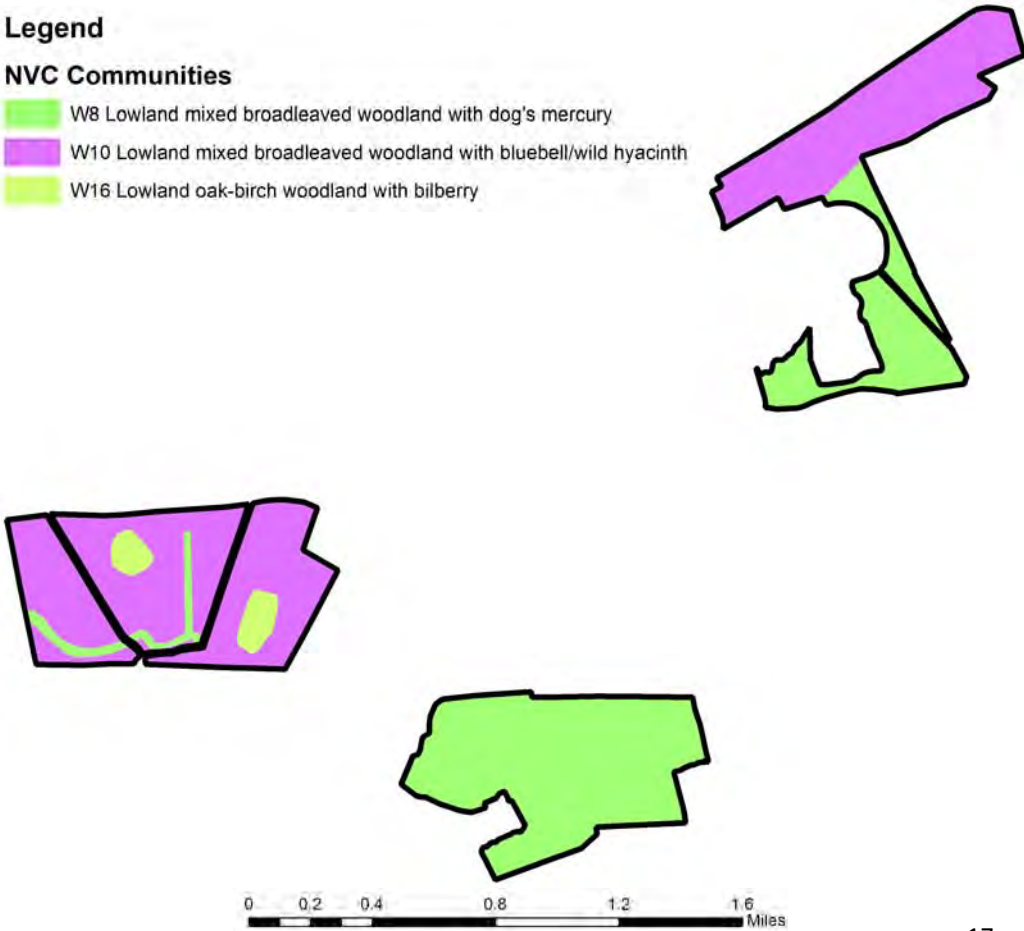
- Broadleaved shelterwood
- Coppice
- Fell and restock through natural regeneration
- Fell and retain as open

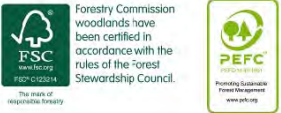


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Ordnance Survey [100021242]

## Legend

- NVC Communities**
- W8 Lowland mixed broadleaved woodland with dog's mercury
  - W10 Lowland mixed broadleaved woodland with bluebell/wild hyacinth
  - W16 Lowland oak-birch woodland with bilberry





## Silviculture

### Thinning

Areas will be assessed and approved for thinning on a site by site basis, the templates below will be adhered to where-ever conditions are suitable however. The intention to intervene every 5 or 10 years may not be appropriate and therefore will be administered in an adaptive approach by the Beat Team.

### 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 natural regeneration and enrichment planting using a mix of native species other than those occurring in the overstorey where enrichment planting is required.

### Conifer Thinning

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

### Legend

- Clearfell
- Clearfell reverting back to coppice
- Open
- Shelterwoods
- Selection
- Retention



**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. The central coupe in Webbs Wood will be clearfelled and then left open once felled.

**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 sites which will be managed using seeding fellings with 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 to thinning quality trees for the future.

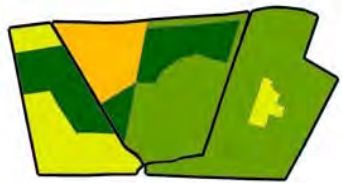
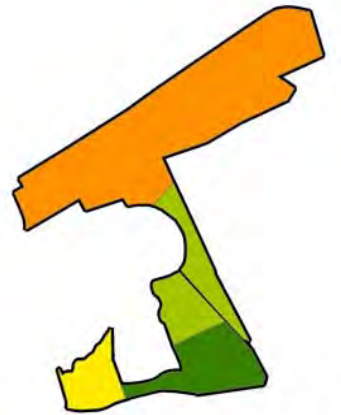
**Single-tree selections** are used on existing complex structured stands or sensitive sites often important for amenity value.

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

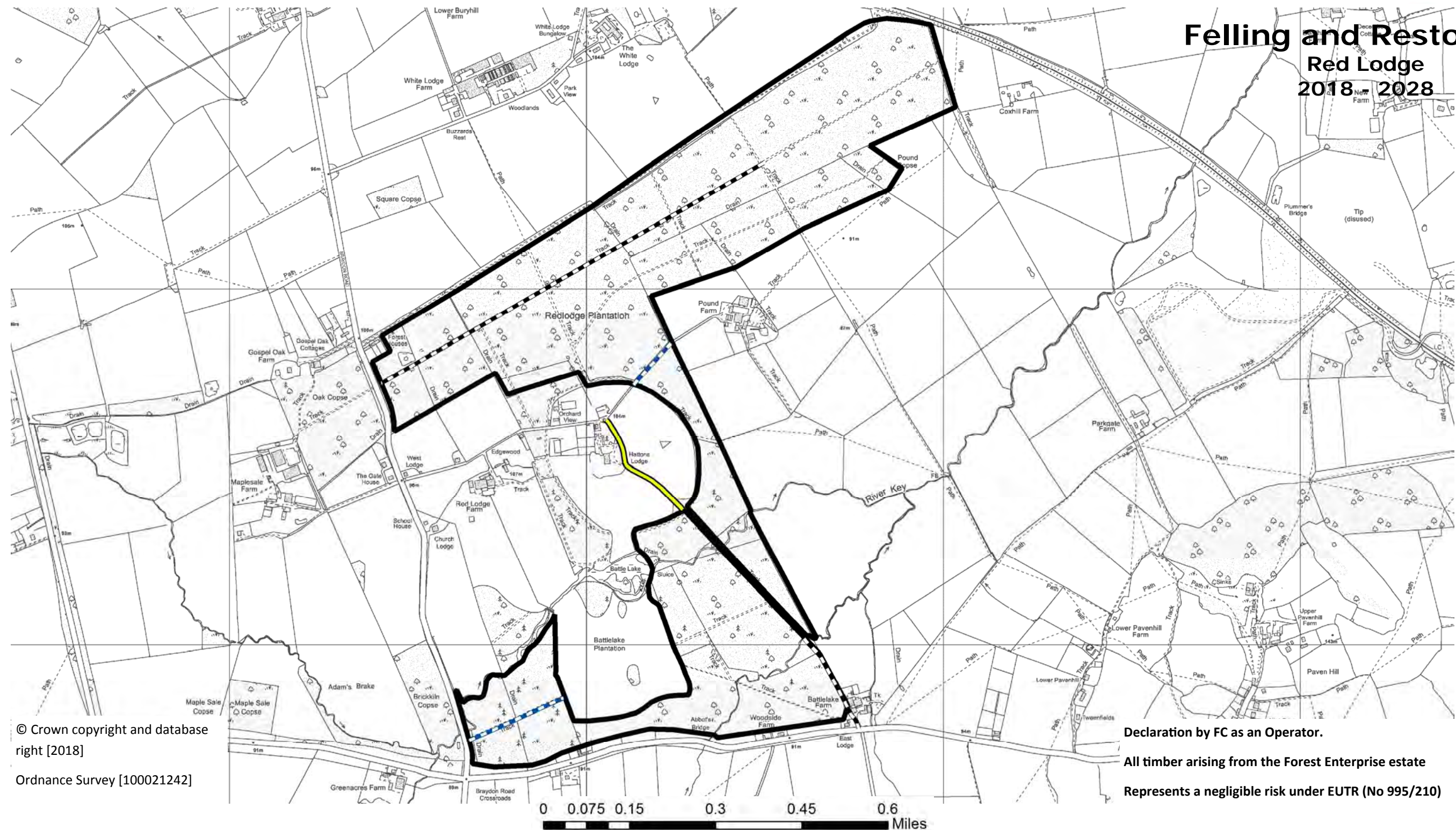
### Legend

#### Next Thinning Intervention

- 2019
- 2020
- 2021
- 2022
- 2023
- 2024
- 2025
- 2026
- 2027
- 2040





# Felling and Restocking Red Lodge 2018 - 2028



Red Lodge has no clearfells within it for the next 10 years. Red Lodge will be progressed towards broadleaved shelterwood in the northern half of the woodland. Management and timber harvesting operations will be undertaken through a thinning regime. Timber will be extracted throughout the area of broadleaved shelterwood at sustainable quantities, intervals will be determined by the Beat Team with the extraction of timber including selected p.1820 oak. This provide economic return whilst trees with high ecological value will be left to mature and in time maintain the deadwood resource of the woodland. Crown thinning will target oaks which are identified as having future potential to create high quality oak logs. Underplanting will be considered after felling operations to increase diversity and resilience. The removal of norway spruce and japanese larch will be the main objective in the south-western tip of the site.

## Felling and Restocking Somerford Common 2018 - 2028

### Legend

-  Fell 2017-2021
-  Fell 2022-2026

#### Coupe 53047 (1.18ha)

Fell 2017-21 Mixed broadleaves, mixed conifer and beech

#### Restock 53047a (1.18ha)

90% Native Broadleaves through coppice and natural regeneration

10% Open

#### Coupe 53054 (1.1ha)

Fell 2017-21 Mixed broadleaves

#### Restock 53054a (1.1ha)

90% Native Broadleaves through coppice and natural regeneration

10% Open

#### Coupe 53051 (2.25ha)

Fell 2017-21 Mixed broadleaves, mixed conifer and beech

#### Restock 53051a (2.25ha)

80% Native Broadleaves through coppice and natural regeneration

20% SOK through enrichment planting

#### Coupe 53055 (1.74ha)

Fell 2022-26 Mixed broadleaves

#### Restock 53055a (1.74ha)

90% Native Broadleaves through coppice and natural regeneration.

10% Open

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Ordnance Survey [100021242]

Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate

Represents a negligible risk under EUTR (No 995/210)

0 0.05 0.1 0.2 0.3 0.4 Miles

## Felling and Restocking

Webb's Wood  
2018 - 2028

### Legend

-  Fell 2017-2021
-  Fell 2022-2026

**Coupe 53057 (1.3ha)**  
Fell 2017-21 Mixed broadleaves, mixed  
conifer and beech

**Restock 53057a (1.3ha)**  
100% Open

**Coupe 53058 (1.6ha)**  
Fell 2022-26 Mixed broadleaves

**Restock 53058a (1.6ha)**  
90% Native Broadleaves through coppice  
and natural regeneration  
10% Open

**Coupe 53056 (1.5ha)**  
Fell 2022-26 Small-leaved Lime

**Restock 53256a (1.5ha)**  
90% Native Broadleaves through coppice  
and natural regeneration  
10% Open

**Coupe 53046 (2.91ha)**

Fell 2017-21 Norway spruce

**Restock 53046a (2.91ha)**

90% Native broadleaves through natural  
regeneration

10% Open

0 0.05 0.1 0.2 0.3 0.4 Miles



# Management Prescriptions

**Red Lodge  
2018 - 2048**

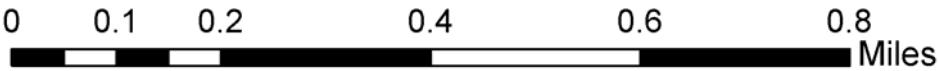
This management coupe is to be thinned approximately every 10 years as per broadleaf conventions. Very small numbers of mature p.1820 oak to be felled at Beat Teams discretion on a periodic basis, the gaps created by these fellings will be managed to promote natural regeneration and underplanting where necessary.

1820's oak will be felled on a single tree selection system basis, trees with higher ecological value will be left standing. Understorey will be maintained through LISS silvicultural systems to ensure favourable habitat for Bechstein and other bat species in perpetuity.

Thin out the remaining poor formed conifer within this coupe. Broadleaves to also be thinned during operations.

## Legend

- Removal of conifers by thinning
- Broadleaved shelterwood



Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate

Represents a negligible risk under EUTR (No 995/210)

## Legend

-  Fell 2017-2021
-  Fell 2022-2026
-  Removal of conifers by thinning
-  Conifer retention
-  Conifer Shelterwood
-  Broadleaved shelterwood



# Management Prescriptions Somerford Common 2018 - 2048



Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate

Represents a negligible risk under EUTR (No 995/210)

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# Management Prescriptions

## Webbs Wood 2018 - 2028



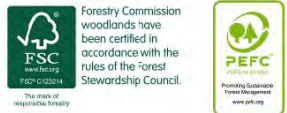
Declaration by FC as an Operator.

All timber arising from the Forest Enterprise estate

Represents a negligible risk under EUTR (No 995/210)

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# Restock Prescriptions

## Legend

### Restock Species

- Mixed broadleaves
- Oak
- Small leaved lime
- Scots pine
- Not to be restocked



Scots Pine grows particularly well on this site, this corner of Somerford Common will be stocked with Scots Pine or other suitable evergreen conifer species. Restocking will occur through natural regeneration and enrichment planting if necessary.

These areas will not be planted and retained as open habitat. This will provide valuable open space for a range of species within the forest plan area.

Most of the woodland within the forest plan area will rely on natural regeneration. Underplanting and enrichment planting may be used as deemed necessary by the beat team, where this is to be used species diversity and resilience must be considered.

Any enrichment planting or natural regeneration within Red Lodge will have native broadleaves favoured, oak should form a key component within the mix due to the high quality oak Red Lodge is capable of producing.

Note: Beech, Sycamore and Sweet Chestnut are not within their native range but are considered to be 'naturalised'



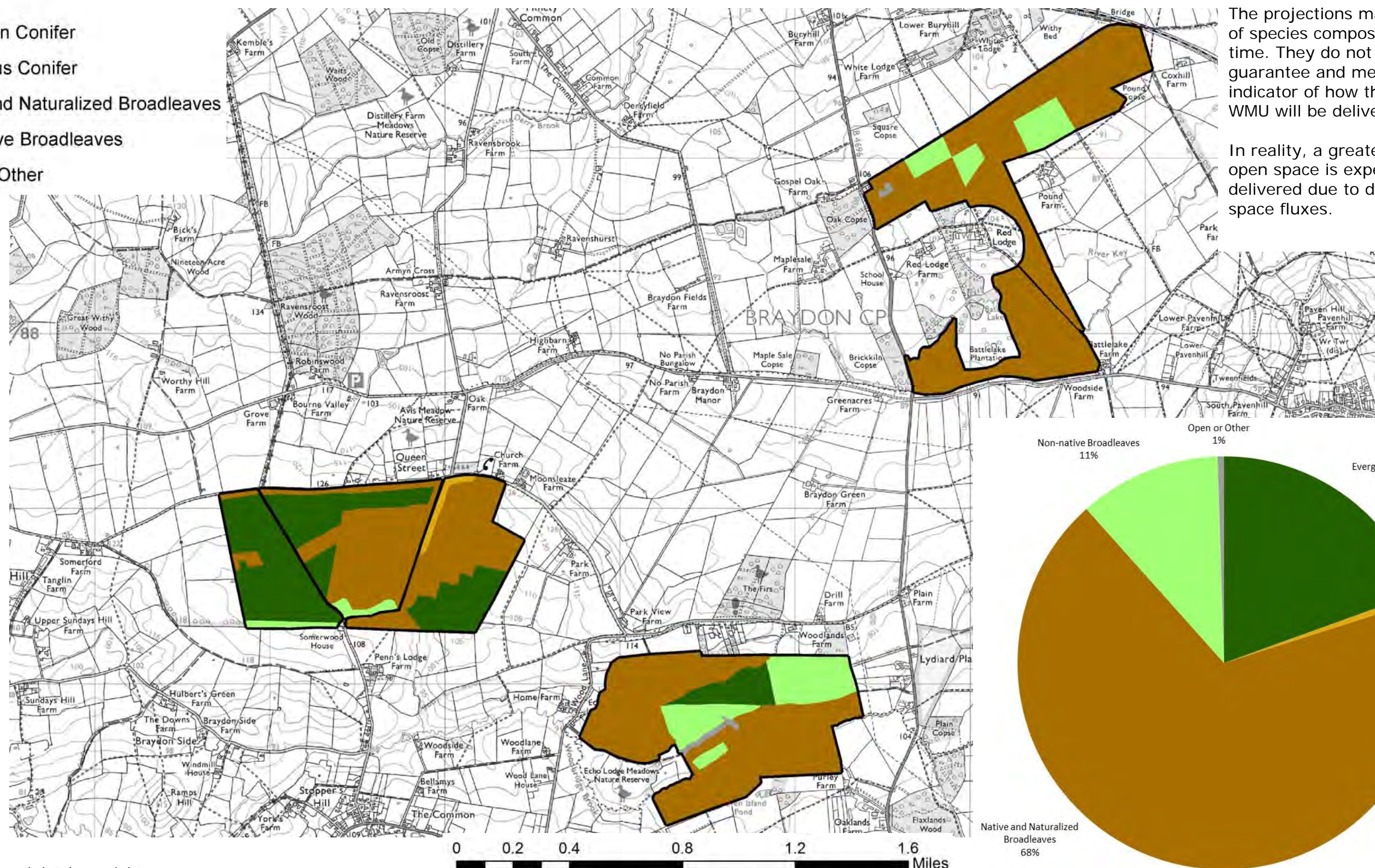
# Indicative Future Species 2048

## Legend

- Evergreen Conifer
- Deciduous Conifer
- Native and Naturalized Broadleaves
- Non-native Broadleaves
- Open or Other

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

In reality, a greater proportion of open space is expected to be delivered due to dynamic internal space fluxes.



## Conservation - Habitats

### Riparian Habitats

There are watercourses within all three of the woodlands in the Forest Plan area. The River Key flows through Red Lodge, The Woodbridge and its tributaries run through Somerford Common and Webbs Wood. All of the watercourses will have riparian management around them with specific emphasis on the watercourse running through Webbs Wood. Riparian zones will allow the recruitment and retention of suitable broadleaved wet woodland species, including Alder, Willow and Birch. Patchy areas will also be utilised to create a dappled shade effect along all of the watercourses.

### Ponds

There are ponds within Red Lodge and Somerford Common. Those in Red Lodge support populations of great-crested newt. Pond management will involve maintaining the area from intense shading and retaining terrestrial habitat for over-wintering newts.



**Corridor Habitats** Corridor habitats will be maintained and enriched where possible through annual ride cutting and cyclic ride side management. The Forest Plan will increase the amount of corridor habitat available throughout the area. The main emphasis of corridor habitat creation and maintenance will be within Somerford Common which is of particular value for bats, butterflies and birds. The plan will incorporate open habitats at ride junctions as well as widen the rides on the site through ride side management. The plan will link existing open habitats such as those already found within Somerford Common through a targeted ride side management regime. Once the ride sides are cut they will be managed through a variety of cutting rotations to provide habitat for a range of species, for example shrubby rideside blackthorn within Somerford Common will be cut on a 3 - 5 year rotation to provide a mosaic of suitable habitats for butterflies. This will include the repeated cutting of some areas to maintain open and transient habitats, other rides will have a longer duration in between cutting interventions, this will provide a more suitable habitat for brown hairstreak.

**Deadwood** Mature Broadleaved trees will be allowed to mature as much as possible to provide a suitable deadwood habitat resource. This is particularly applicable at Red Lodge where there are older p.1820 oak trees. Trees with a high timber value potential will be felled and put to market, however some trees will be left to remain as standing dead wood. This balanced approach of removing small quantities of the large oak will ensure conflict between managing the woodland for timber and conservation are minimised. Trees of high ecological deadwood value will be identified during operational assessments, trees with decaying snags and hollows are of particular value providing a habitat for smaller birds, raptors and invertebrates.

**Coppice Coupes** Coppice coupes will be used to diversify the age structure of the woodland and provide a mosaic of habitats, many of which will be felled well before maturity providing ecological diversity. Much of the coppicing will be centred around Somerford Common due to the suitability of its current stand structure for conversion to coppice coupes. Other areas have notably been coppiced in the past such as the Hornbeam under the large mature oak trees at Red Lodge, where coppicing will continue alongside thinning operations where possible.

**Non Native Species** Non native species are having a negative impact on the woodland and open habitats within the Forest Plan area. These species will be managed in line with Forest District policy to ensure negative impacts are minimised. Grey squirrel, fallow and muntjac deer can cause damage to natural regenerating broadleaves and newly coppiced stools. Deer will be managed sustainably and coppice coupes will be protected through fencing. Control of non native plants such as rhododendron, cherry laurel and bamboo using targeted use of glyphosphate will be used where impacts on habitats is severe.

The Forest Plan area is used by a wide range of flora and fauna including some which are rare. Some of the rarer species, that are listed as Priority Species and that can be managed for, are indicated below. It is important that the character of the wider area is taken into account when looking at the management prescriptions for the Forest Plan. Woodland within the locality and the national character area is generally low, only accounting for 3% of total land cover. These mosaic of woodland and open habitat are valuable habitat for a host of flora and fauna that is highly dependant on the Braydon woodlands.

## Species Conservation

**Flora** The wide, often waterlogged, woodland rides provide suitable conditions for a variety of locally characteristic neutral grassland plants including greater butterfly, common spotted and pyramid orchids, skullcap and devil's-bit scabious. Managing the woodlands through coppice and thinning and linking grasslands through wide, sheltered rides will greatly benefit both the botanical richness of the woodland as well as the invertebrates, bats and birds that depend on them.



**Brown Hairstreak** is the largest hairstreak found within Great Britain.

The species breeds in the same areas year after year and was last found in Webbs Wood in 2015 and in Somerford Common in 2018. The butterfly spends much of its time basking high up in tall trees and shrubs. This species also shown to be in severe decline and is listed as a priority species.

Favourable management includes the establishment of Blackthorn on ride edges, glades and within the wider woodland environment as well providing opportunities for basking. Ride side management regimes will allow Blackthorn to establish before being cut on a cyclical basis to provide a range of age classes across



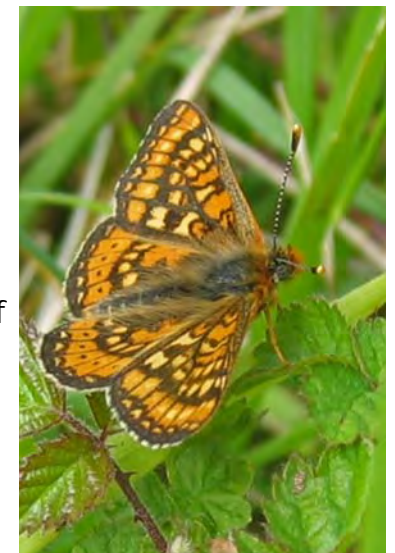
**Marsh Tit** have been recorded at all three of the woodlands within the forest plan area. Although called Marsh Tits they are most abundant in broadleaf woodland where they generally nest in willows and alders. The Marsh Tit is a Red List species and priority species on the UK Biodiversity Action Plan.

The management plan will deliver a more open canopy and increase shrub layer on the ground floor through both thinning and coppicing operations. This will benefit the Marsh Tit as well as many other woodland species.



**Duke of Burgundy and Marsh Fritillary** are two priority butterfly species that were once common within the complex of unimproved grasslands and woodlands throughout Braydon Woods but have now not been recorded since 2001 and 2007 respectively. Because the Marsh fritillary is more able to disperse across the wider landscape than the Duke of Burgundy efforts to restore and enhance devil's-bit scabious rich core habitat at Somerford Common through grazing will be prioritised.

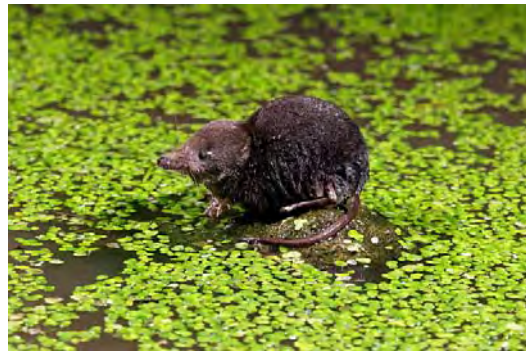
The rapid decline of the Duke of Burgundy corresponds with the decline of coppice management and the loss of scrubby grasslands. As this species are not wide dispersers like the marsh fritillary, and there are no known populations in the vicinity, this species is unlikely to recolonise naturally. Habitat suitability will be assessed, with a view to considering a reintroduction project if conditions are favourable.



## Species Conservation

**Water Shrew** are found throughout Europe, the water shrew only very rarely strays from water and is a territorial animal. The water shrew can usually be found around ditches, streams, ponds and rough bushy ground adjoining water.

The management plan will not directly address water shrew habitat although this will be considered during operations as it is likely that these mammals are present within the forest plan area. Water shrew population losses are generally attributed to water pollution and habitat loss, the retention of riparian zones will aim to alleviate any such pressures.



### Bats

The Braydon Woods complex supports all four Annex II bat species including Lesser Horseshoe, Greater Horseshoe, Barbastelle and Bechstein's. Of particular importance due to their rarity in the landscape is the Barbastelle. A species that roosts in trees, with a preference for standing dead oaks, the Barbastelle is very rare, found only in key habitat throughout southern and central England and Wales.

The Braydon Woodlands also provide a stronghold for Bechstein Bats - one of the UK's rarest mammals. This bat favours dense undisturbed woodland. All bat species depend upon matrices of broadleaf woodland with ample connectivity with feeding areas such as open rides, grasslands and water.

The importance of the Braydon Woodlands for rare bats should not be under-estimated and the requirements of bats must be taken into account when planning thinning operations throughout areas of suitable habitat to ensure connectivity with feeding habitat is maintained. Single tree selection systems will be utilised within the mature oak, ensuring trees with potential bat roosting features are retained. Around a dozen bat boxes have been installed at Red Lodge in partnership with Wiltshire Bat Group to provide increased bat roosting opportunities and to aid monitoring.



**Great Crested Newt** are the biggest of the native newt species found within the UK. The distribution of the newts is patchy and they have all but disappeared from some parts of Europe.

Although Great Crested Newts have currently only been recorded at Red Lodge, the ponds at Somerford Common will be treated with the same management prescription. The management plan will look to maintain suitable habitat for the species by keeping the ponds at Red Lodge and Somerford Common open. Suitable habitat around the pond will be maintained to ensure ground covers allows the newts to find food, shelter and areas to hibernate over winter.



The forest plan area has no recorded heritage features within it. The nearest heritage feature is a scheduled monument on the periphery of Webbs Woods, this is the remnants of earthworks from a rabbit warren.



The Braydon Woods area experiences a medium level of low-key recreational usage. Two out of the three woodlands are open access with only Red Lodge not dedicated under the CROW act due to the nature of its landholding. Red Lodge however still has informal recreation occurring on the site and there are multiple public rights of way running through it.

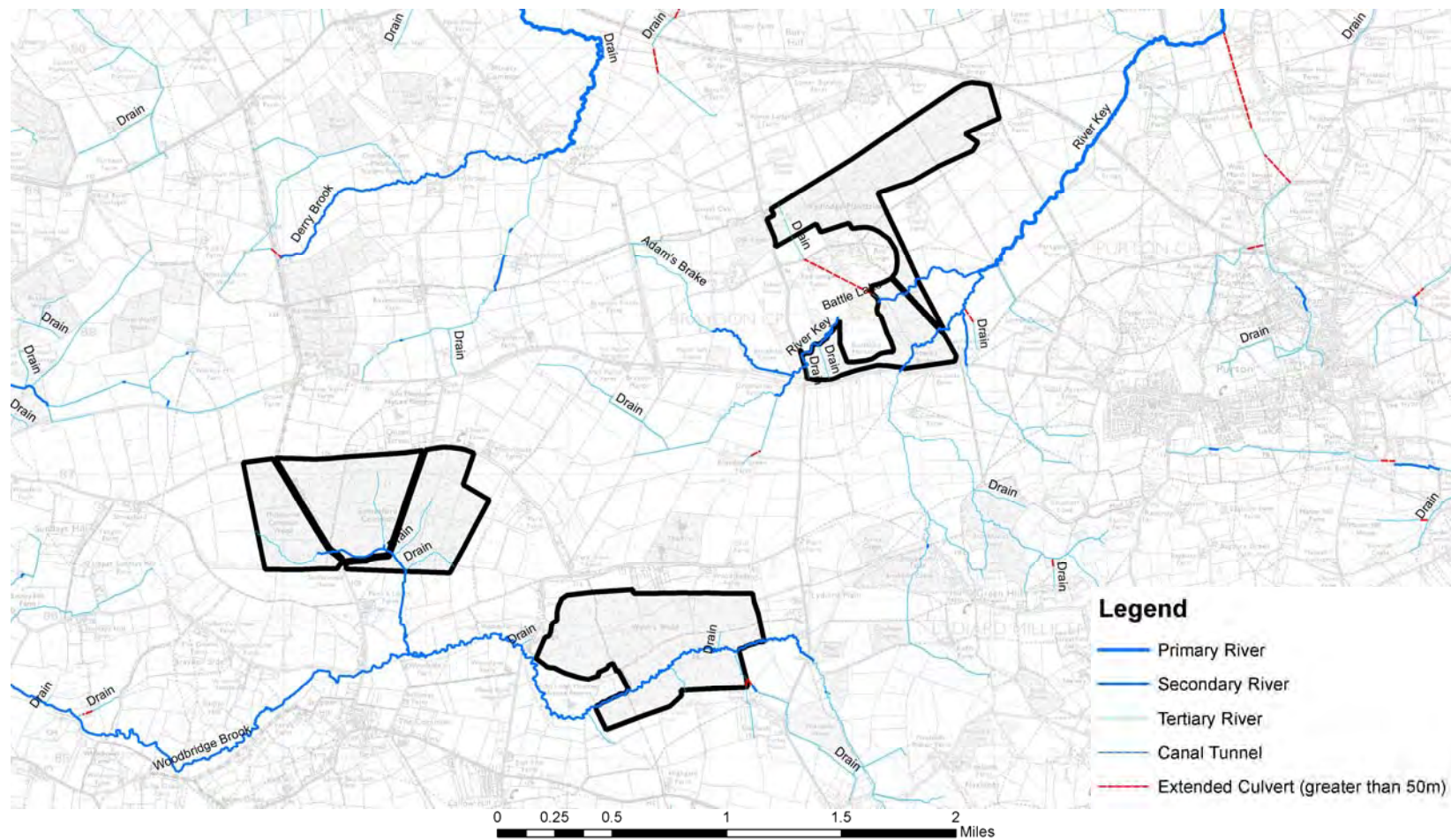


## Water and Riparian Management

### Riparian Management

All riparian zones within the forest plan area will be managed sensitively in line with Forest and Water guidelines to protect and enhance the soil and water quality. A coupe of broadleaved shelterwood totalling approximately 5 hectares has been placed around the watercourse running through Webbs Wood. This riparian zone will be managed through continuous cover forestry and natural regeneration, these native broadleaves will create a dappled shade along the length of the watercourse. It is expected that Alder, Elm and Willow will colonise the wetter area. The riparian zone will be created during routine forestry operations with gradual removal of trees from the riparian zone, culmination in increased light penetration and aeration.

The only clearfell within the watercourse locality is a block of norway spruce to the south of the water course. This will be removed and then native broadleaves replanted. This will better compliment the riparian zone and the edge of the coupe adjacent to the watercourse will be managed as a riparian area as the stand establishes.

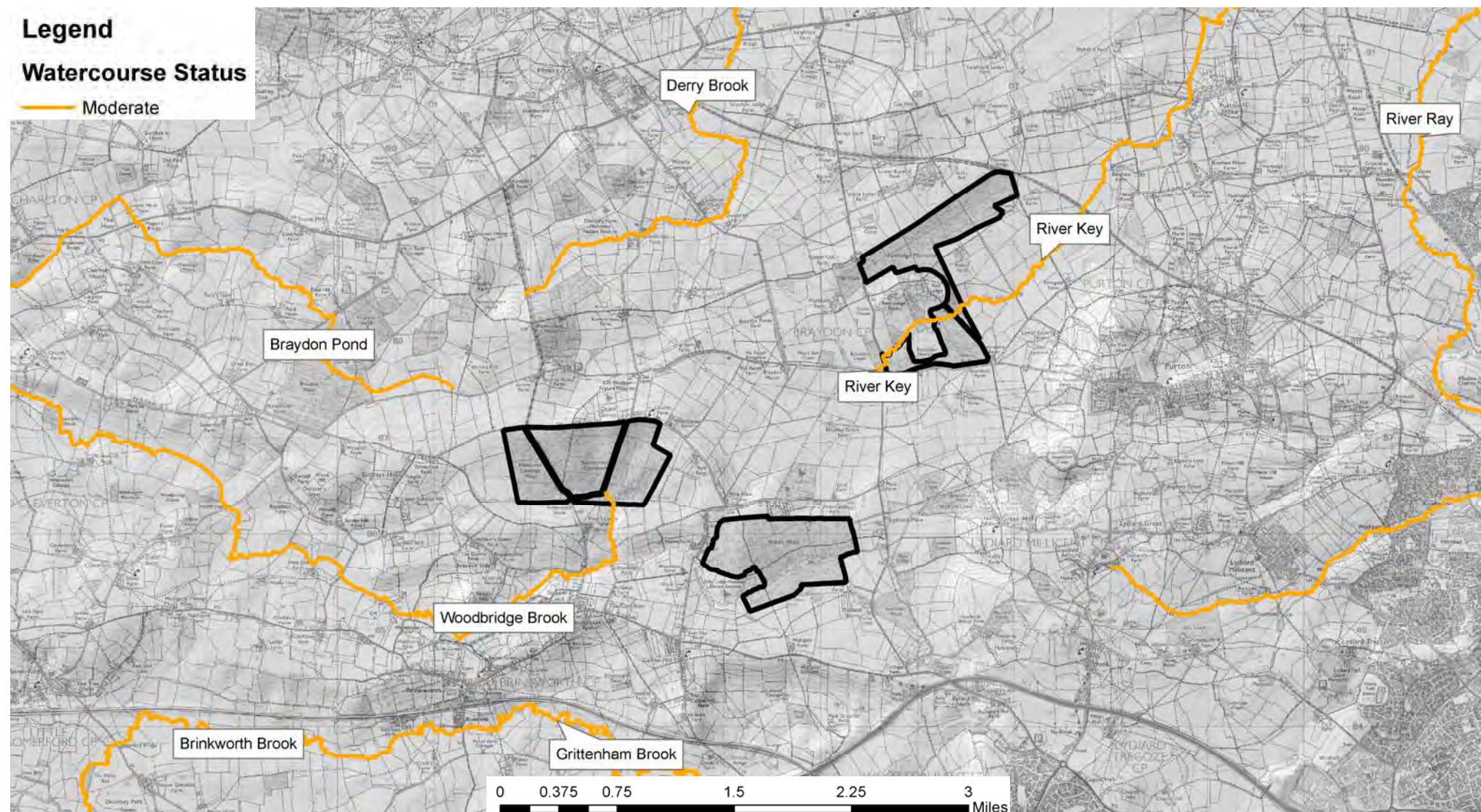


### River Key and Woodbridge Brook Catchment

The Woodbridge Brook runs through Somerford Common and Webbs Wood, this brook is 12km long and is a tributary to the River Avon and has a catchment area of around 26km<sup>2</sup>. The River Key is 10.5km long and is a tributary to the River Thames with a catchment area of 27km<sup>2</sup>. Both the Woodbridge Brook and River Key are designated as primary rivers by the Environment Agency. The River Key has a moderate overall water status and the Woodbridge Brook is of high watercourse status. All three sites sit near the head water of the watercourses.

### Legend Watercourse Status

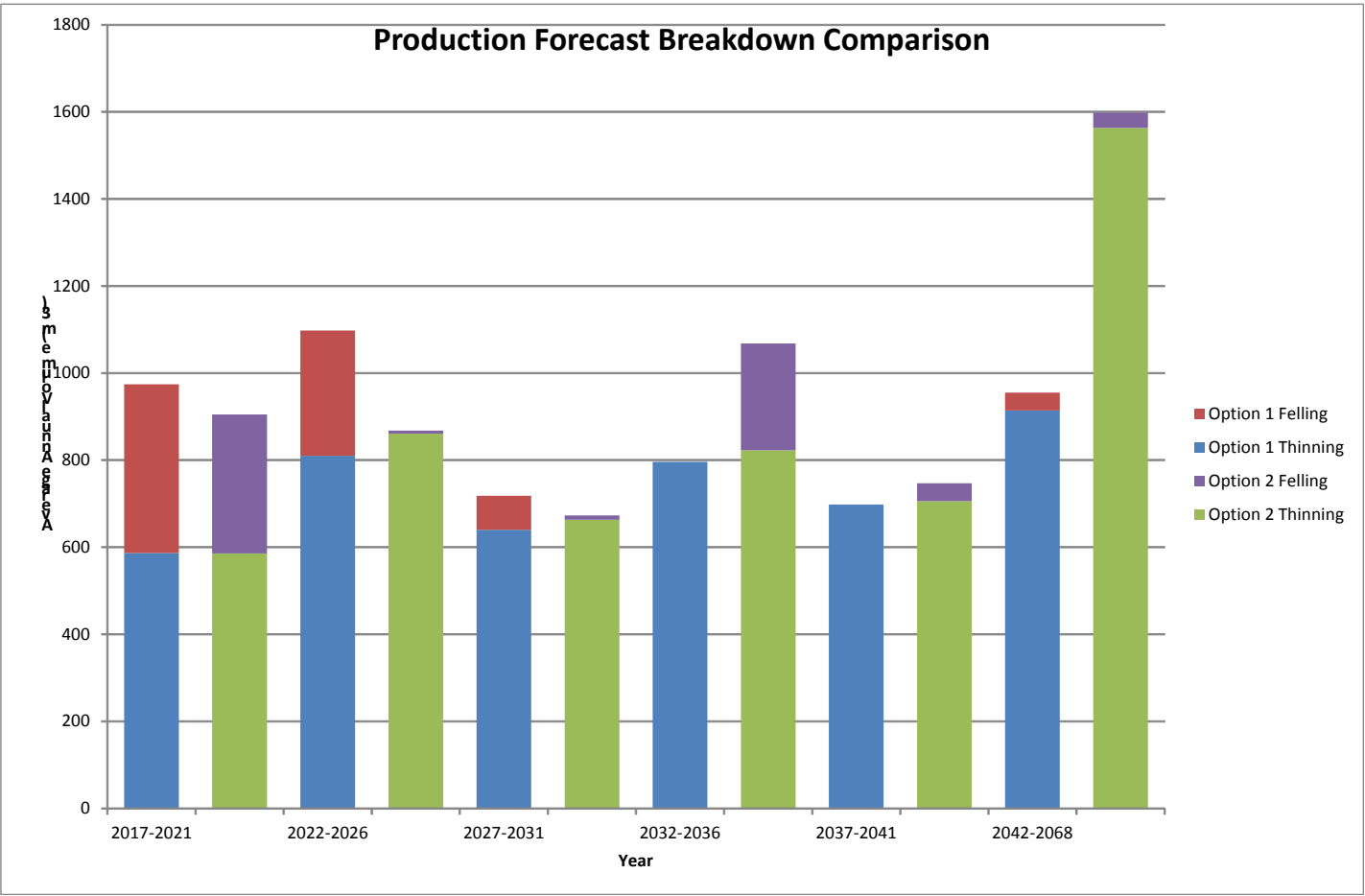
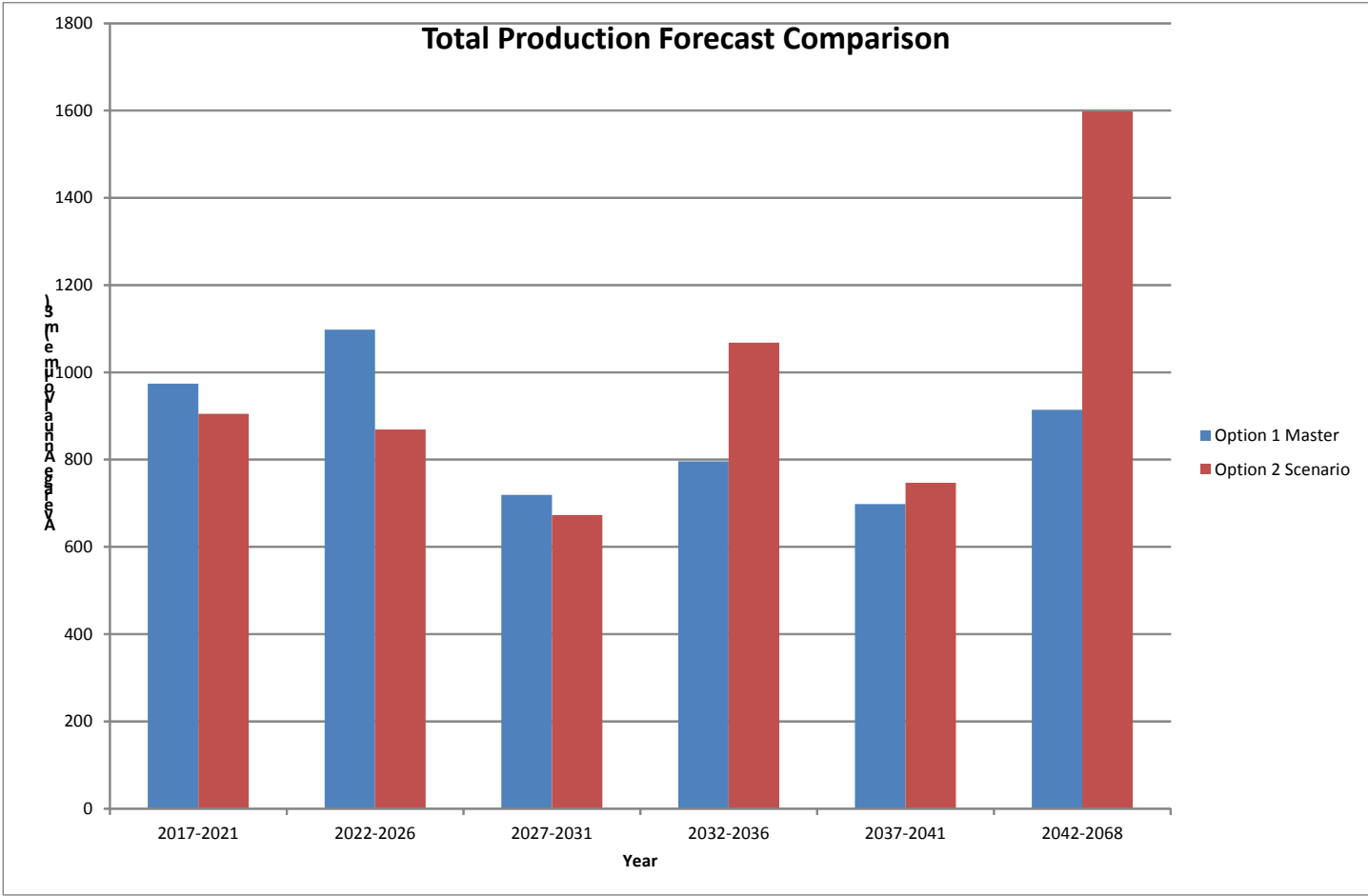
Moderate



Option Testing



Option 1 – Current Forest Plan (Master)	Option 2 – Proposed Forest Plan (Scenario)
The continued production of sustainable and marketable woodland products.	
A relatively balanced programme was already in place, thinning makes up the more substantial component of the production forecast volume although felling does play an integral part too.	The plan has moved towards more production from thinning rather than felling as this is felt more appropriate for the Forest Plan area. The production remains consistent however with less reliance on clear felling.
The diversification of woodland species and structure for greater ecological and economic resilience.	
The plan makes little attempt to diversify the woodland species composition and structure.	The plan looks to diversify age structure and resilience through thinning and continuous cover forestry, species diversity is encouraged.
The provision and maintenance of recreation facilities.	
The plan recognises the informal recreation provision, access via the Countryside Rights of Way Act and public rights of way.	The plan recognises the informal recreation provision, access via the Countryside Rights of Way Act and public rights of way.
Deliver well designed forests that both protect and enhance the internal and external landscape in keeping with the local landscape character.	
Local landscape character is acknowledged, minimal internal and external landscaping was to take place however.	The majority of the felling coupes have been removed, internal landscaping and ride side work has been specifically mentioned. Open areas within the forest plan have been encouraged. Continuous cover forestry will maintain the external landscaping aesthetics.
To conserve, maintain and enhance cultural and heritage assets.	
No mention of cultural and heritage assets.	No heritage or cultural assets within the plan area although one directly adjacent scheduled ancient monument is mentioned.
Protect and enhance woodland and open habitats and their associated species.	
The plan made little provision for open space or riparian management.	The new plan has created open space, maintains existing open space and specifically creates and manages riparian zones.
To protect and enhance areas of Ancient Semi-Natural Woodland and restore areas of PAWS in line with “Keepers of Time”.	
The plan has made provisions for restoration of ASNW through fellings.	The new plan makes acknowledgement of the need to continue to improve the naturalness of Webbs Wood whilst acknowledging the progression the site has already made. This will be undertaken through the removal of non-native species.



# Legend



Fell 2017-2021



Fell 2022-2026



## Coupe Prescriptions

	Coupe	Area (ha)	Existing Crop	Rationale/ Prescription	Restock	Area (ha)	Restock Proportion	Rationale/ Prescription
Somerford Common	53047	1.18	p.1962 NS p.1962 MB	Native broadleaves within this coupe will be coppiced, this will increase age diversity in the broadleaf crops within this area of the woodland.	53047a	1.18	90% Native Broadleaves 10% Open	Natural regeneration from coppice stools will restock this coupe, it is likely that around 10% of the area will remain as open space.
	53051	2.25	p. 1965 OK p.1961 MB p.1961 EL p. 1963 NS p. 1963 SP	This coupe will be felled as most of the crops within it are over or coming up to their maximum mean annual increment.	53051a	2.25	80% Native Broadleaves 20% SOK	This coupe will restock through natural regeneration of native broadleaves, it is expected some of this will be regeneration from coppice stools. SOK will be planted through enrichment planting where necessary.
	53054	1.1	p.2002 MB	These coupes will both be coppiced as the crop is suited to this form of management. This will also compliment the adjacent grazing enclosure and provide a mosaic of diverse coppice habitats within this area.	53054a	1.1	90% Native Broadleaves 10% Open	These coupes will be restocked through natural regeneration of the coppice coupes. It is envisaged that there will be around 10% of open space within these areas.
	53055	1.74	p.2002 MB		53055a	1.74	90% Native Broadleaves 10% Open	
	53046	2.91	p.1957 NS p.1960 Mb 10% Open	Around a quarter of this Norway Spruce has blown over from recent high winds. The remaining Norway Spruce will be removed in line with the Keepers of Time policy.	53046a	2.91	90% Native Broadleaves 10% Open	The area will be replanted with native broadleaves, this will further the restoration of this ancient woodland site. This will increase the naturalness score for the coupe from a class 4 to a class 1.
Webbs Wood	53056	1.55	p.2002 SLI	This coupe will be coppiced to regenerate the small leaved lime within it. This will also link in with the management of Echo Lodge.	53034a	1.55	90% Native Broadleaves 10%Open	Coppice will be the method of restocking within this coupe.
	53057	0.72	p.1956 MB p.1956 MC p.1956 BE	This coupe will be felled to create a woodland glade within the centre of the woodland and a habitat corridor to Echo Lodge. This glade will be interconnected to other open areas through transient open habitats along the forest road and ride network as prescribed within the conservation habitats map.	53039a	0.72	100% Open	This area will be managed through cyclic cutting so that the glade and ride remains open.

**Legend**

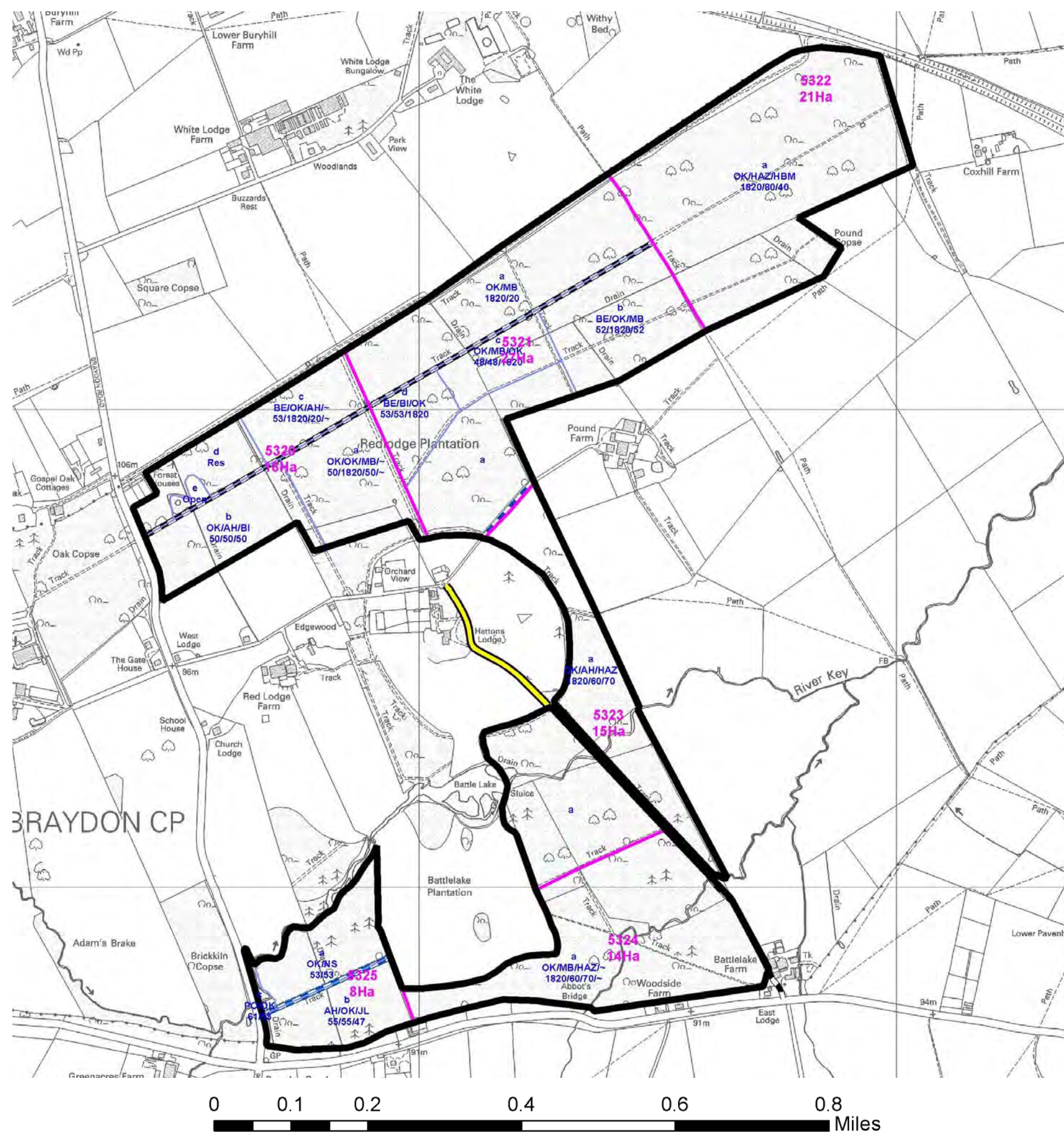
- Telephone Line Overhead
- Telephone Line Underground
- Powerline Overhead
- Water Courses
- Class A/B Roads
- Class C Roads
- Legal access/Unclassified
- Classification unassigned

0 0.2 0.4 0.8 1.2 1.6 Miles

# Stock Data

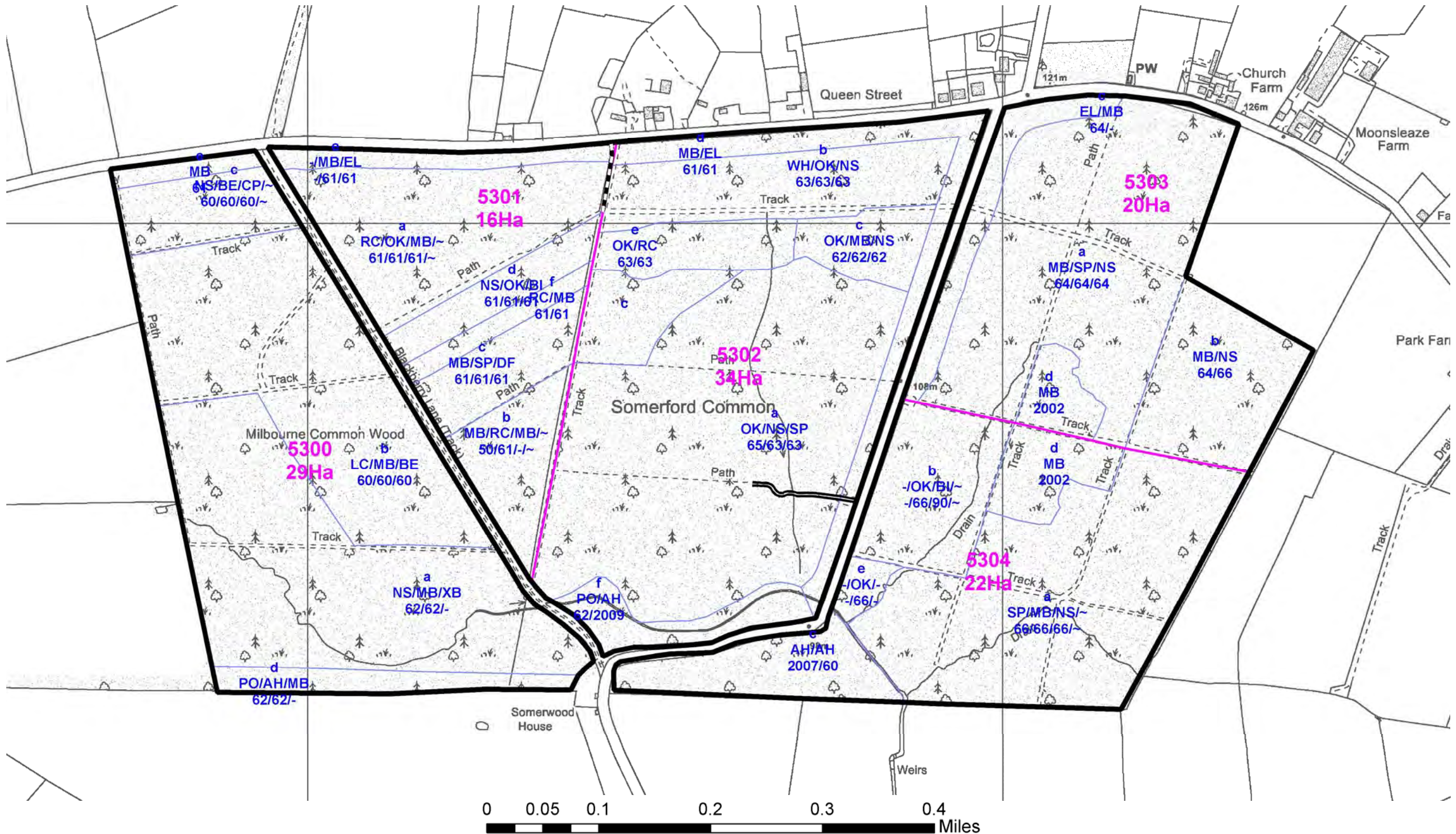
2018

Red Lodge





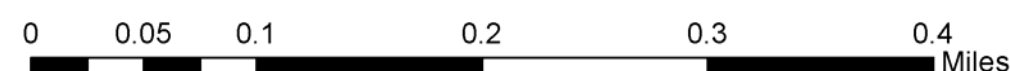
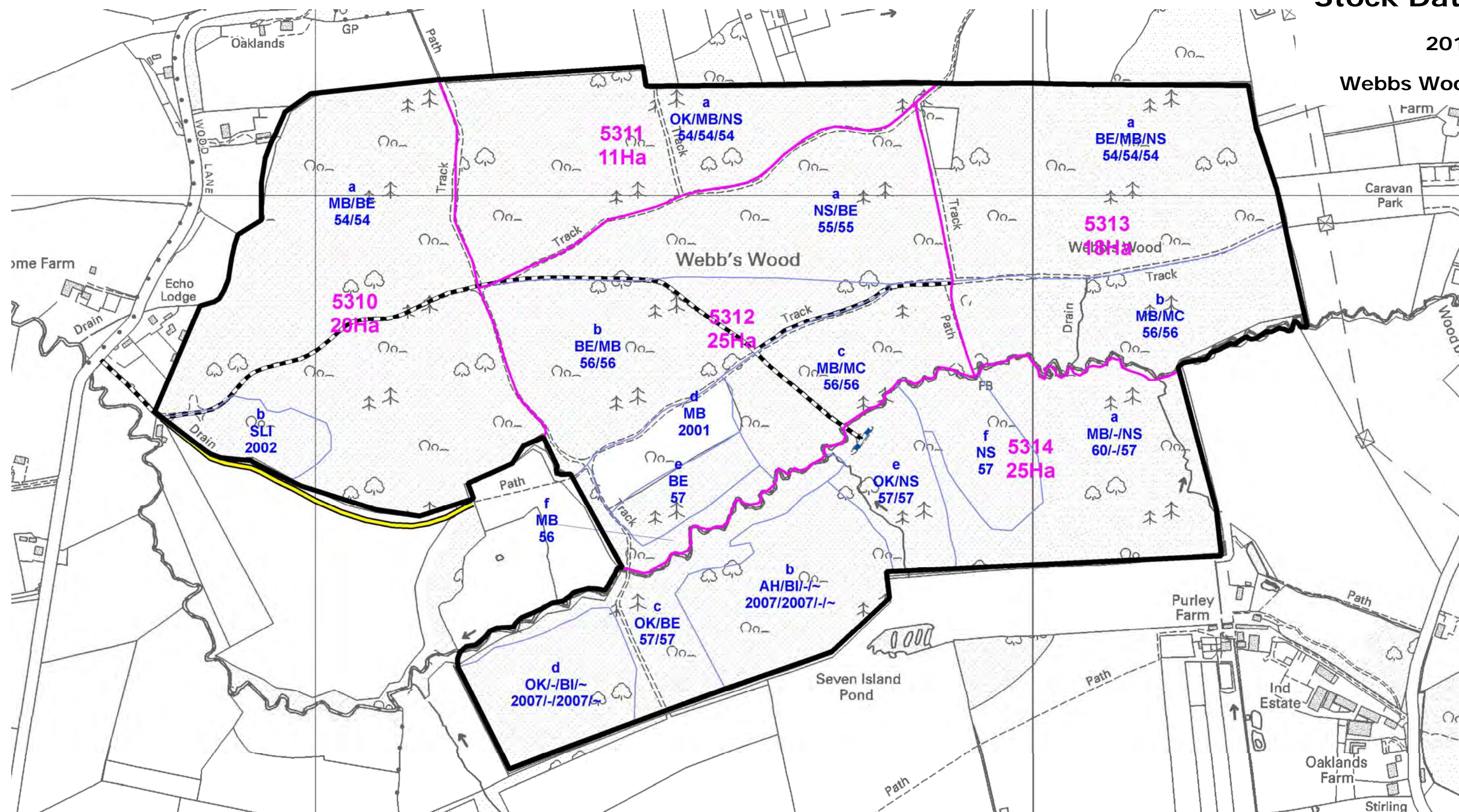
# Stock Data



# Stock Data

2018

Webbs Wood

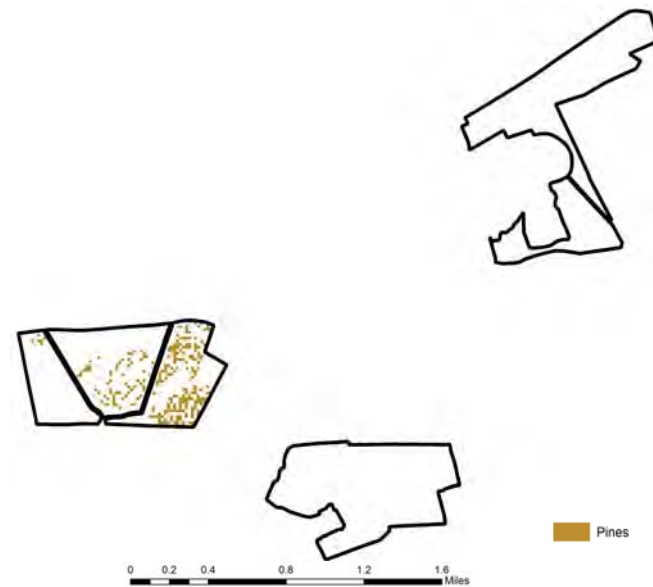


## Name: *Dothistroma Needle Blight (DBN)*

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, only Somerford Common has a minor proportion of Pine as a component within it. The impact has therefore been insignificant within Somerford Common, it is envisaged that these Pine elements will be retained due to their good form and growth.



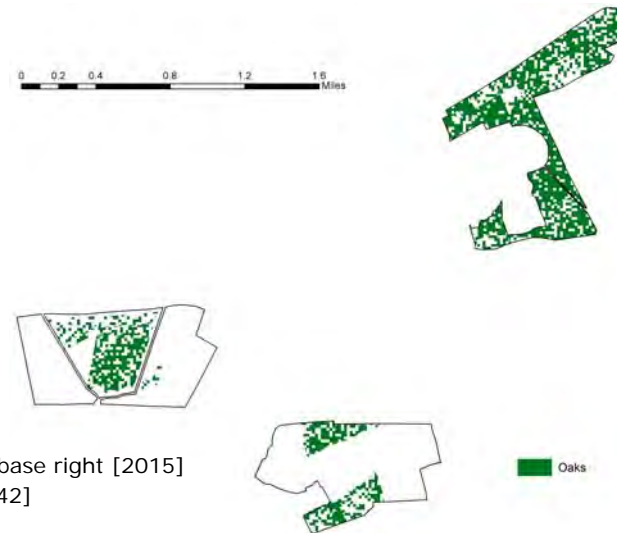
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## Name: Oak 'dieback' or 'decline'

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.



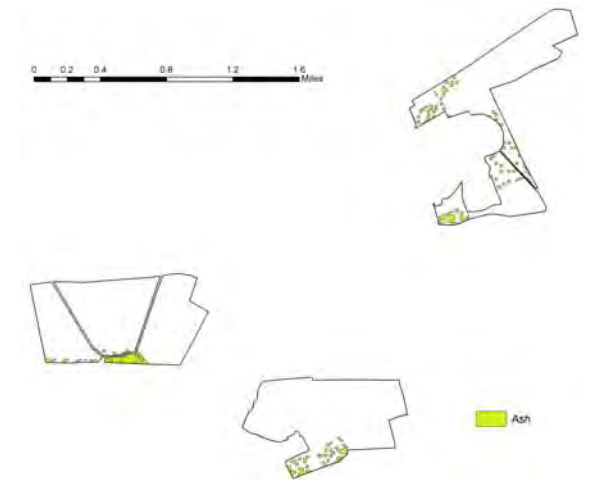
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## Name: *Hymenoscyphus fraxineus*

First appearance: 2012

Attacks: Ash

Often referred to as ash dieback, a disease of ash trees caused by *Hymenoscyphus fraxineus* fungus. The disease is now found in most areas of the UK. Ash trees within the plan area are likely to be affected by this disease, this will be monitored although trees will only be proactively felled where they represent a health and safety risk.



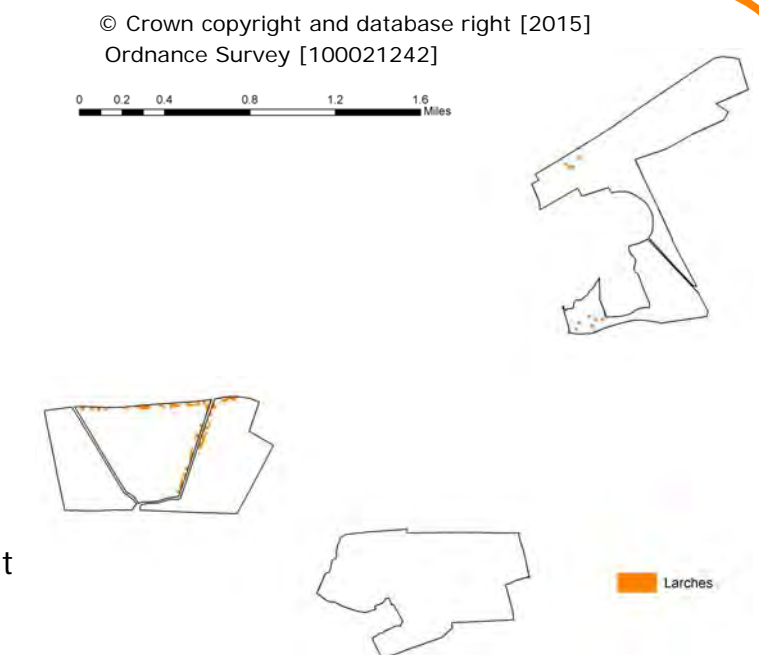
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## Name: *Phytophthora ramorum (PR)*

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.

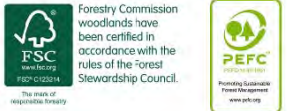


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Glossary

Term	Abbreviation	Description
Ancient Semi-Natural Wood-land	ASNW	An ancient woodland site, where trees and other plant species appear to of established naturally rather than having been planted. Predominantly these sites will contain 80% or over of site native species or species native to the surrounding area.
Alternatives to Clearfell	ATC	Alternative to Clearfell is similar to CCF and refers to management systems where stands are regenerated without clearfelling.
Ancient Wood-land Site	AWS	A site that has technically been wooded since 1600AD and is unlikely to have been converted to farmland in the last few centuries.
Continuous Cover Forestry/ Low Impact Silvicultural Systems	CCF/ LISS	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.



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		<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>
Stand		<p>A group or area of trees that are more or less homogeneous with regard to species composition, density, size, and sometimes habitat.</p>
Thin	TH	<p>Selective removal of trees from a wooded area, giving remaining trees more space to grow into larger trees. Thinning is done to:</p> <ul style="list-style-type: none"> <li>Improve the quality and vigour of remaining trees.</li> <li>Remove trees interfering with mature or veteran broadleaf trees.</li> <li>Give space for tops (or "crowns") of broadleaf trees to develop and potentially act as a future seed source.</li> <li>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.</li> <li>Create gaps for group planting or enrichment.</li> <li>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.</li> <li>Improve the economic value of a wood.</li> <li>Help realise opportunities to enhance ecological value.</li> </ul> <p><b>NOTE:</b> This list is not in any order of priority and will vary depending on management objectives.</p>
Yield Class	YC	<p>A method of measuring the growth rate or "increment" of a crop of trees by age and height; measured in m<sup>3</sup> per Ha per annum. E.g. A crop with a YC of 16 is one that has an annual increment of more than 16m<sup>3</sup> but less than 17m<sup>3</sup>, although generally only even numbers are used when stating YC.</p>