Forest Plan West Devon

2015 - 2025



PEFC PEFCOR-40 1001

| CONTENTS | | Page |
|---------------|----------------------------------|------|
| Application I | Form | 2 |
| 1.0 Policy & | Context | 3 |
| 1.1 | Strategic Objectives | |
| 1.2 | Consultation | |
| 1.3 | Implementation | |
| 1.4 | Protected species and habitats | |
| 1.5 | Cultural Heritage | 4 |
| 2.0 Location | Мар | 5 |
| 3.0 General | Description | 6 |
| 3.1 | Woodland Summary | |
| 3.1.1 | Production Forecast | 7 |
| 3.1.2 | Ecosystem Services | |
| 3.2 | Location and Access | 9 |
| 3.3 | Tenure | |
| 3.4 | Physical Environment | |
| 3.5 | Landscape setting & designations | 10 |
| 5.0 Manager | nent Objectives | 11 |

| CONTENTS | Page | | |
|--|---------|--|--|
| 5.0 Review & Implementation | 12 | | |
| Current Land Use | | | |
| Current Species Groups | | | |
| Age Structure | | | |
| Future Species | | | |
| Maps | | | |
| General Analysis | 13 | | |
| General Concept | 14 | | |
| Habitat & Ecosystem Services Analysis | 15 | | |
| Habitat & Ecosystem Services Concept | 16 | | |
| Long Term Felling &B Management Types | 17 | | |
| Felling & Restock - Bramble & Cookbury | 19 & 20 | | |
| Felling & Restock - Holsworthy & Leaworthy | 21 & 22 | | |
| Felling & Restock - Halwill Main Block | 23 & 24 | | |
| Felling & Restock - Quoditch & Witherdon | 25 & 26 | | |
| Felling & Restock - Wadland & Northcombe | 27 & 28 | | |
| 6.0 Tolerance Table | 29 | | |
| Appendix 1- Record of consultation | 30 | | |
| Appendix 2 – Major Policy Documents | 32 | | |
| | | | |

1.0 Policy & context

The Forestry Commission (FC) has been independently audited against the UK Woodland Assurance Standard (UKWAS) and its management standards have been endorsed by the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC). The FC is committed to maintaining woodland management to these standards.

This plan has been prepared in order to achieve compliance with UKWAS and comply with FSC and PEFC standards.

The Public Forest Estate in the West Devon Forest Management Unit lies within West England Forest District which covers the west of England as far as North Shropshire.

1.1 Strategic objectives for the management of woodland on the Public Forest Estate in the South West.

Management of woodlands on the Public Forest Estate will deliver Government aims for forestry in England as described in the Forestry Policy Statement which is available from the DEFRA website. In Summary we will seek to achieve the following key objectives:

- **Protecting** the nation's trees, woodlands and forests from increasing threats such as pests, diseases and climate change,
- Improving their resilience to these threats and their contribution to economic growth, people's lives and nature,
- **Expanding** them to increase further their economic, social and environmental value.

Further details on how these objectives will be achieved and implemented in West England are available in our strategic plan due for publication in 2015.

1.2 Consultation

Consultation has been carried out with identified stakeholders as shown in the consultation record at appendix 1. Our method of identifying consultees is based upon the three major sensitivities of any particular woodland: landscape, recreation and environment, coupled with the level of change we anticipate being caused by the renewed Plan.

1.3 Implementation of plan objectives

Before major forest operations are undertaken a documented Operational Site Plan is completed for the proposed operation. This identifies site constraints and opportunities and ensures that all actions are consistent with current statutory and UKWAS requirements.

1.4 Protected Species and habitats

Where the Operational Site Plan has confirmed that European Protected Species (EPS) or other protected species or habitats are present on a site, operations are undertaken in accordance with guidelines agreed by Natural England.



1.5 Cultural Heritage

Scheduled Monuments

All Scheduled Monuments are subject to a separate Management Plan, agreed with English Heritage.

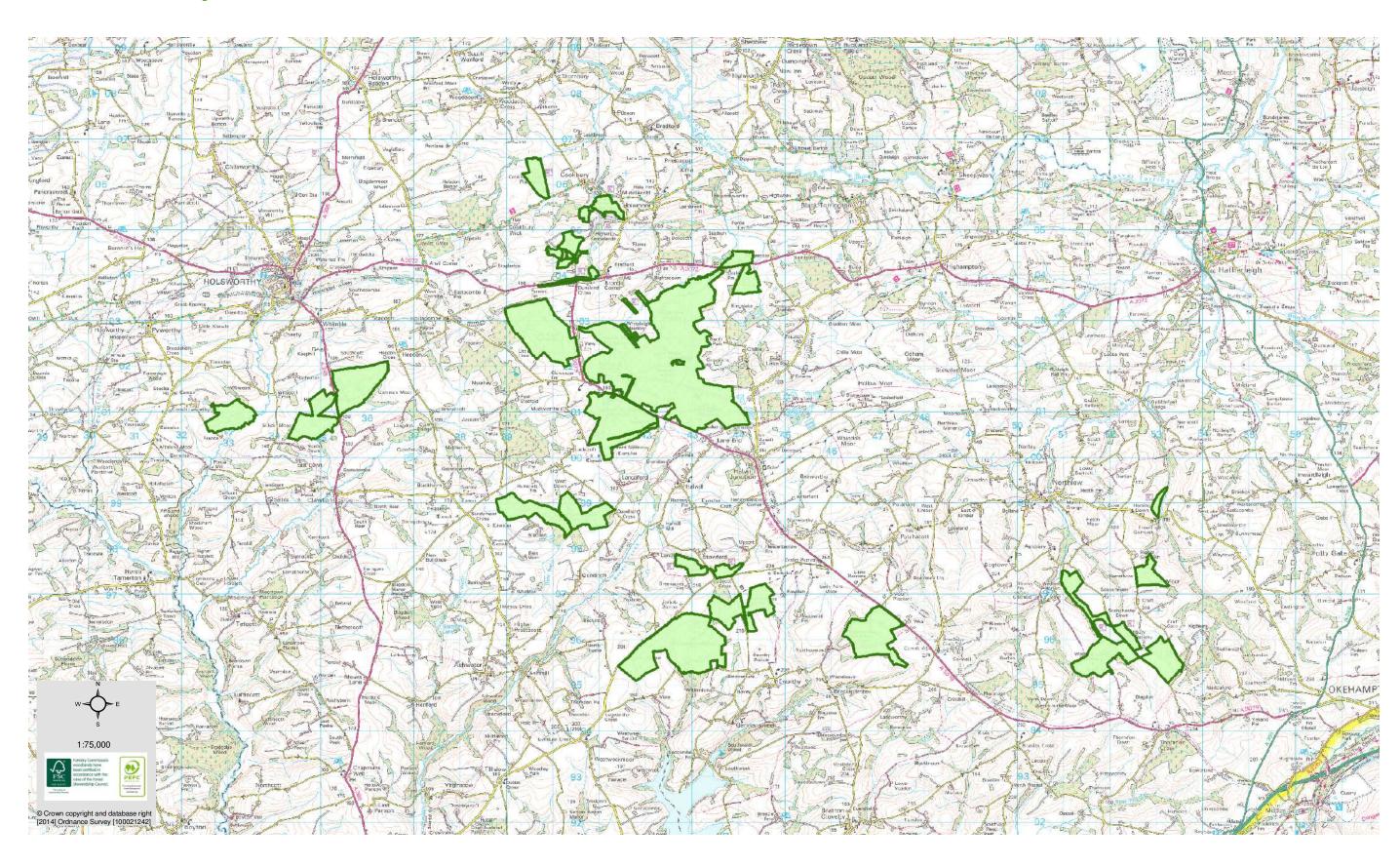
At Forest Plan level Scheduled Monuments will simply be mapped on the ecosystems services map. Any additional felling agreed in the Scheduled Monument plan will be subject to liaison with Forest Services.

Consultation with English Heritage on any potentially damaging operations to Scheduled Monuments will take place at the Operational Site Plan Stage.

Other Heritage Features

Work on all other heritage features are subject to an agreement with Local Authority. During the course of this plan we will identify significant heritage features and incorporate appropriate actions into our core work, but as a minimum all heritage features will be identified by liaising with the relevant representative within the organisation and a suitable working method agreed prior to any operation.

2.0 Location Map





3.0 General Description

| Topic | Description | Management Considerations | Proposals |
|----------------------|--|---|--|
| 3.1 Woodland Summary | The West Devon Forest Management Unit (FMU) extends over 1826 Hectares of the Public Forest Estate in Devon. The woodland is primarily conifer plantation, but has numerous belts of broadleaves, scrub and open space running through it. Approximately 92% of the woodlands are under 50 years of age with the majority (25%) between the ages of 20 – 30 years. There is a range of tree species but the dominant species by far is Sitka spruce comprising approximately 74% of the forested area. | commercial resource to the local economy is significant. Past silvicultural management, ground preparation and choice of species has been heavily influenced by wet soils and exposure leading to wind blow. Traditionally the concept of terminal height has been adopted and most conifer crops were felled between 40 and 50 years of age. Sitka spruce is well suited to the West Devon | and species choice to provide wider economic benefit and to be more resilient to climate change, plant health issues and financially. Engage with specialist advisors and researchers to learn more about the issues with Sitka spruce. Establish trials using different ground preparation techniques and consider establishing a species trial. With a view to increasing stability the design of forest edges will adhere to recommendations documented in the Forestry Commission's Technical Paper No.16. There will also be a presumption towards thinning crops and extending rotations. This will widen the opportunities to introduce different silvicultural systems as an alternative to clear felling. Active management will increase in areas of broadleaves which have developed naturally. Identify and monitor the development of these areas. |



| Topic | | Descrip | tion | | Management Considerations | Proposals |
|---|--|--|---|---|--|--|
| 3.1.1 Woodland Summary (Production) | Timber Production Forecast | | | | | |
| (Troudetion) | Forecast bas Plan: | sed on th | ne exist | ing Forest | | |
| | Forecast Period 2013-2016 2017-2021 2022-2026 2027-2031 2032-2036 2037-2041 2042-2046 | All Species 13712 16382 20796 23196 14103 12175 14374 | Conifers 13670 16223 20748 23085 14014 11829 14220 | Broadleaves 42 159 49 111 88 345 153 | | |
| | Forecast base | ed on this | Forest P | lan: | | |
| | Forecast Period 2013-2016 2017-2021 2022-2026 2027-2031 2032-2036 2037-2041 2042-2046 | All Species 9321 18605 19231 18136 19011 11087 22679 | Conifers 9277 18523 19150 18032 18885 10986 22495 | Broadleaves 44 83 81 104 126 101 184 | | |
| | (The figures show volume production standing.) | • | | _ | | |
| 3.1.2 Woodland Summary (Ecosystem services - Habitat features, species interest and heritage) | species, Red a | fauna inclu rds and so and Roe de so several | ding gro everal b er and G Europea | und nesting ird of prey rey squirrel. n Protected | Monuments are covered by separate plans agreed with Natural England and English Heritage respectively. Butterfly Conservation have provided information on how best practice can be | Incorporate agreed target work areas to improve the habitat for the protection and expansion of butterfly species within the |



| Topic | Description | Management Considerations | Proposals |
|--------------|---|--|--|
| 3.1.2 Cont'd | There are two separate SSSI's which straddle FC land and neighbouring land. Whiteleigh Meadows is designated for the unimproved grassland (Culm Grassland) which is botanically rich and is currently in favourable condition. Dunsland is designated for rare lichens associated with veteran trees and is currently in unfavourable / recovering condition. Cookworthy (911 hectares) and North down (138 hectares) are both identified in the joint Butterfly Conservation (BC) / FC conservation strategy; 'Lepidoptera on FC Land in England'. The habitat in these woodlands supports Pearlbordered Fritillary and Dingy Skipper amongst other species. There are three further sites which are identified in the joint FC and BC strategy for Wood White. There are several areas either adjacent to or in close proximity to FC land which are managed by the Devon Wildlife Trust, some of which are county wildlife sites. Devon Wildlife Trust are collecting seed from grassland areas on FC land which are botanically rich. The plan area straddles two water catchments, Tamar to the South West and Torridge to the North East. The part which is in the Torridge catchment also falls within the North Devon Nature Improvement Area. Three ancient monuments which have been scheduled by English Heritage are located in the plan area. In addition there are numerous other heritage features which have remained undesignated. | etc.) for the benefit of butterflies as well as advising on specific work programmes / projects. Devon Wildlife Trust have provided information on local projects they are undertaking within the plan area, including the Working Wetlands project. This project is helping to reverse Culm decline by carrying out targeted habitat management, creation and restoration. In addition to providing habitat for many rare species, helping achieve the objectives of the water framework directive and water quality for consumption are key drivers. The Environment Group at Devon County Council provide information on unscheduled heritage features. These are taken into consideration at the site planning stage prior to the commencement of any operation. | Through the scheduled felling and replanting / regeneration programme ensure identified corridors, particularly those adjacent to watercourses, are managed in accordance with the District policy on Environmental Corridors. Also through scheduled operations manage the woodland edge to create greater permeability, increase connectivity between the woodlands and identified areas externally and allow species to move more freely across the landscape. Continue local partnership with Devon Wildlife Trust to maintain and improve the botanical value of our open spaces. Pilot an approach using data from Devon County Council to categorise heritage |
| | | 8 | |

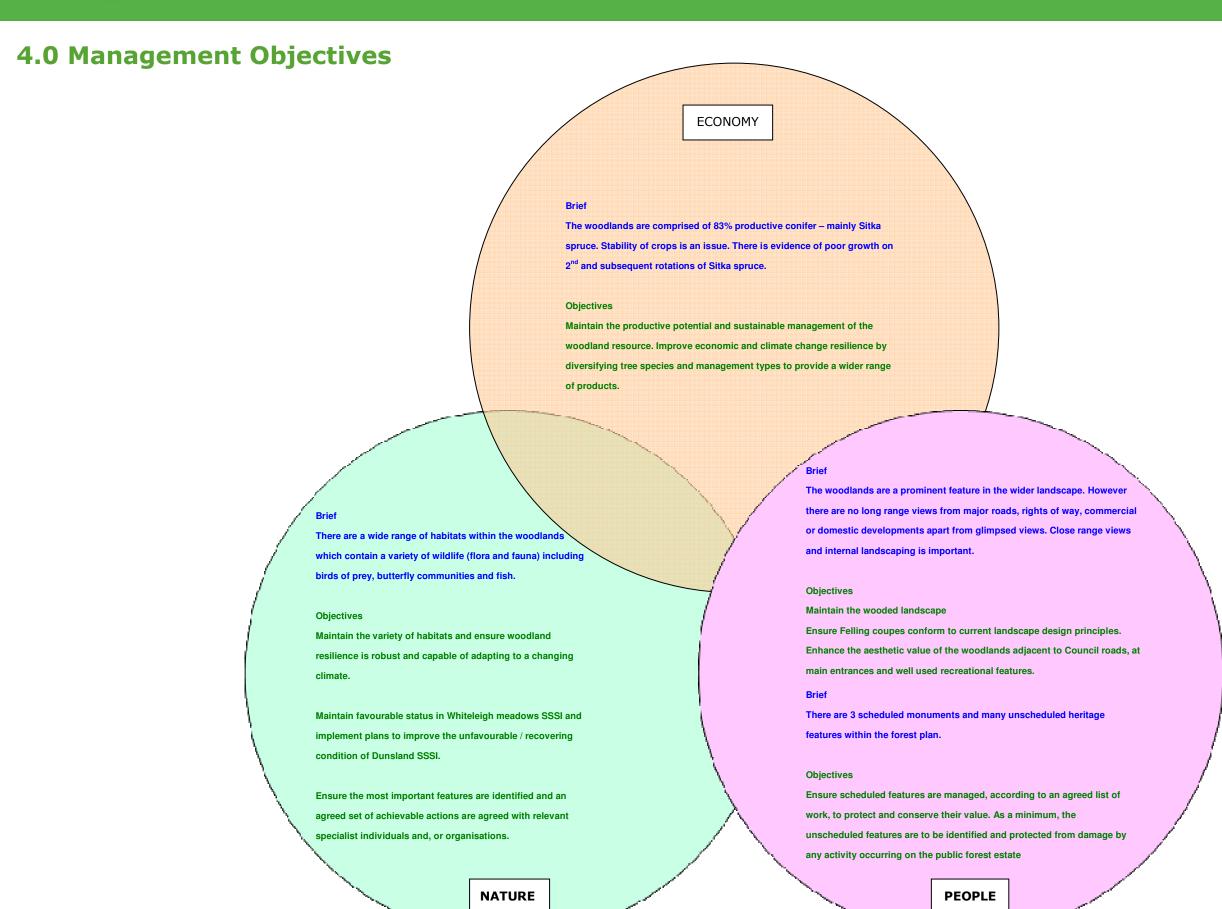
West Devon

2015-2025 West England Forest District

| Topic | Description | Management Considerations | Proposals |
|------------------------------------|--|---|---|
| 3.2 Location & Access | The West Devon FMU is located between Holsworthy and Oakhampton. It is within West Devon Borough Council and Torridge District Council unitary authorities. It is spread over several Parish council areas – Clawton, Ashwater, Cookbury, Broadwoodwidger, Halwill, Black Torrington, Bradford, Holsworthy Hamlets, Germansweek, Bratton Clovelly, Beaworthy, Northlew, Inwardleigh. Vehicular Access to the majority of the Public Forest Estate is good. Internally the woodland is serviced by a good network of forest roads, tracks, rides and routes suitable for forest machine access. 1334 Hectares are Dedicated Open Access under the Countryside Rights of Way act. | woodland offer a valuable recreational resource to the local community, and as such it is well used, mainly by dog walkers and horse riders. Maintenance of the access routes for forestry activities is vital. | visitors including the informal car parks. Improve the visual appeal and sense of place on external boundaries adjacent to council roads, car parks and access points through the implementation of scheduled |
| 3.3 Tenure & management agreements | 1736 Hectares of the FMU area is registered as freehold with the Land Registry. The remaining 90 Hectares is Leasehold. | | Maintain current arrangements into the future. Ensure management is consistent with standards expected by UKWAS. |
| 3.4 Physical Environment | Elevation of the plan area ranges from 100 – 200m above datum. Rainfall ranges from 478mm in the Summer to 712mm in the winter, and the average over the last 30 years is 1200 – 1400mm per annum. The underlying geology is the mudstone, siltstone and sandstone from the Holsworthy Group. Soil type is mainly Surface Water Gley | Classification tool (ESC) rates the main species currently on site as suitable at the present time. Using the same tool the 2050 HI model which predicts impact of climate change rates the main species as follows: | There are quite a few other species which may be considered as alternatives; however a risk based approach to species selection at restocking stage will be applied. It is likely that the alternative species used for restocking will include Swamp cypress, European silver and Noble fir, Western hemlock, Japanese Red and Western Red cedar and aspen. Introducing mixtures and the possibility of |

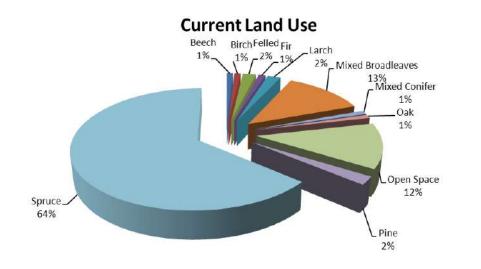
| Topic | Description | Management Considerations | Proposals |
|--|--|---|---|
| 3.4 Cont'd | (7i imperfectly aerated & 7c cultivated) with some Brown Gley (7bc cultivated). There is obviously a variation across the area but in general the Soil Moisture Regime is moist or wet and the Soil Nutrient Regime is poor or medium. Rooting depth is limited to 30cm across many areas. | Marginal / unsuitable - Douglas fir, Norway spruce, Beech. It is high risk to plant species highly susceptible to phytophthora ramorum in the South West; therefore larch will not be used. In addition to soil conditions, exposure, and | As previously mentioned a species trial managed in partnership with Forest Research may be considered to find out how a wider range of alternative species would perform in the West Devon environment. |
| 3.5 Landscape Setting and Designations | Natural England Landscape Character Area Profile is 149 The Culm. The West Devon Forest Plan area is not within an AONB. | Rolling, open plateaux with many small but deep valleys, fast-flowing rivers and streams | ensure that future management |

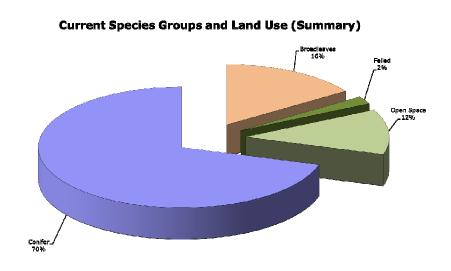


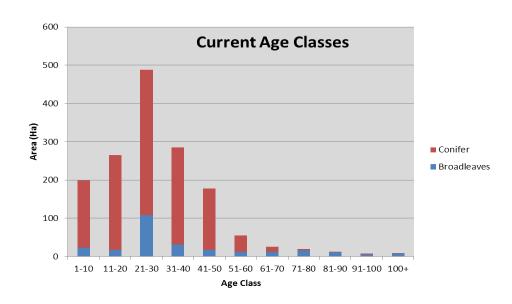




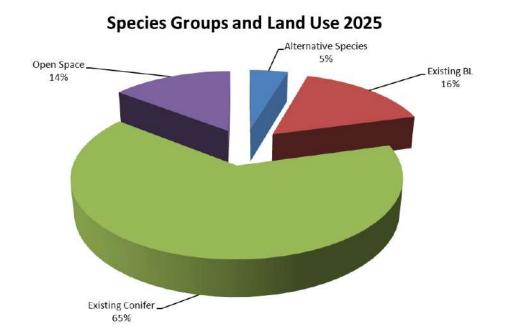
5.0 Review and Implementation

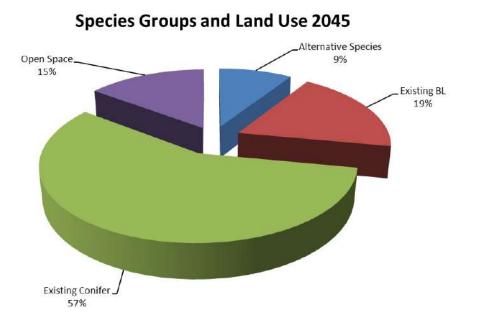






The graphs on this page illustrate in broad terms how the Forest Management Unit is made up currently and what the composition is likely to look like when the management actions described later in this document are implemented.





The alternative species which we intend to use could include Swamp cypress, European Silver and Noble fir, Western hemlock, Japanese Red and Western Red cedar and aspen. Other species may be used as additional information becomes available on their characteristics and suitability to individual sites.

Woodland Summary

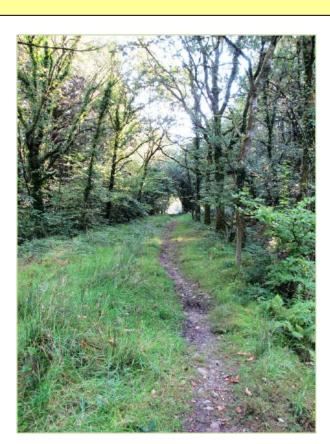
The woodlands in the West Devon Plan area are made up mostly of productive conifer plantations; the primary species being Sitka spruce (see details of land use on p12). It has become apparent through observations of Sitka spruce planted as second or third rotation crops that there is an issue resulting in patchy establishment and checked growth. The exact causes have not yet been established but it is likely that low ph, poor soil aeration by the compaction of the soil particles and water logging may have been exacerbated by the perpetuation of a monoculture of Sitka spruce.

Timber quality and yield from conifers, with the exception of the issues described above, is very good. The broadleaf element (Oak, Beech, Birch and Willow) is normally located in and around existing hedge banks, boundaries and other linear features such as watercourses. It is quite scattered and often difficult to reach so is not easy to manage commercially. There are some individual examples of decent quality mature Oak and Beech but the majority is likely to be used in the fuel wood market.

Deer pressure through browsing is an established problem and squirrel damage is an increasing issue.

The acid clay soils are poorly drained and the relatively high rainfall means that conditions are wet throughout the year.

There is a high occurrence of wind blow due to a combination of factors including exposure, soil conditions and delayed thinning / limited silvicultural management.





Access and Usage

The woodlands are serviced by an extensive system of forest roads. There is also a large network of rides and secondary access routes which function as pedestrian access routes, but due to the ground conditions suffer disturbance when used by forestry machinery. Most of the woodland blocks have relatively low visitor numbers, usually dog walkers and horse riders. The most popular areas are the main block in the centre of the plan area and Circuit Moor to the west, both of which have informal (non - chargeable) car parking facilities.



Landscape

The woodlands are a prominent feature in the wider landscape. However there are no significant long range views from major roads, rights of way, commercial or domestic developments apart from glimpsed views. The plan sits within a large scale landscape with wide panoramic and distant views. The surrounding land use is almost entirely agricultural grazing land with large scale, irregular field patterns. Internal felling coupes carried out recently are of an appropriate scale and, because the majority of the woodlands are on plateaus or gentle slopes, are well screened by adjacent stands of trees or hedge banks. Close range views of the external woodland edge from council roads and internal landscaping is important.





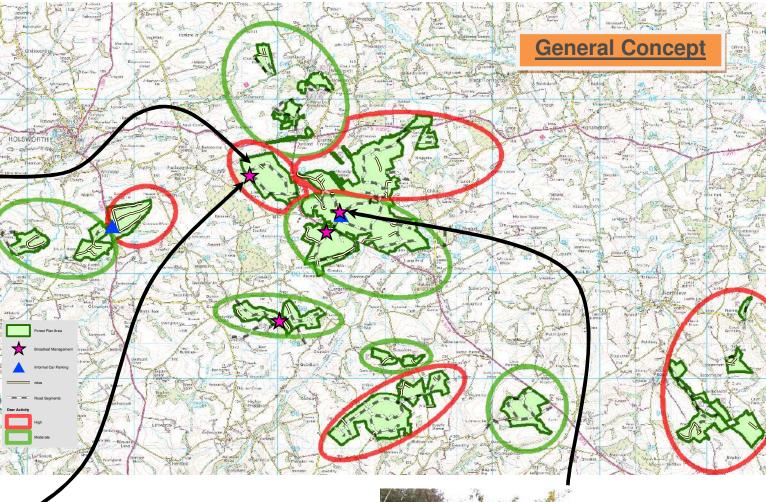
Learn more about the issues with patchy establishment and poor growth performance in sitka spruce. Establish a trial to monitor any effects that ground preparation and planting in mixtures with other species may have.



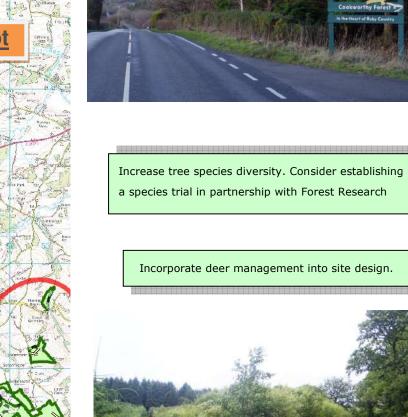
Area of mixed broadleaves & conifer not re spaced.

Increase the stability of crops through timely thinning interventions and good design of Internal and external edges. Aim to increase rotation age and provide options for alternative silvicultural systems.

Improve the aesthetic appeal of external boundaries and incorporate improvements to the internal access network.



Increase the area of managed broadleaf woodland to achieve the 'critical mass' necessary to support a commercial enterprise and supply the local market. Focus management on selected \Rightarrow sites across the plan area and monitor development.

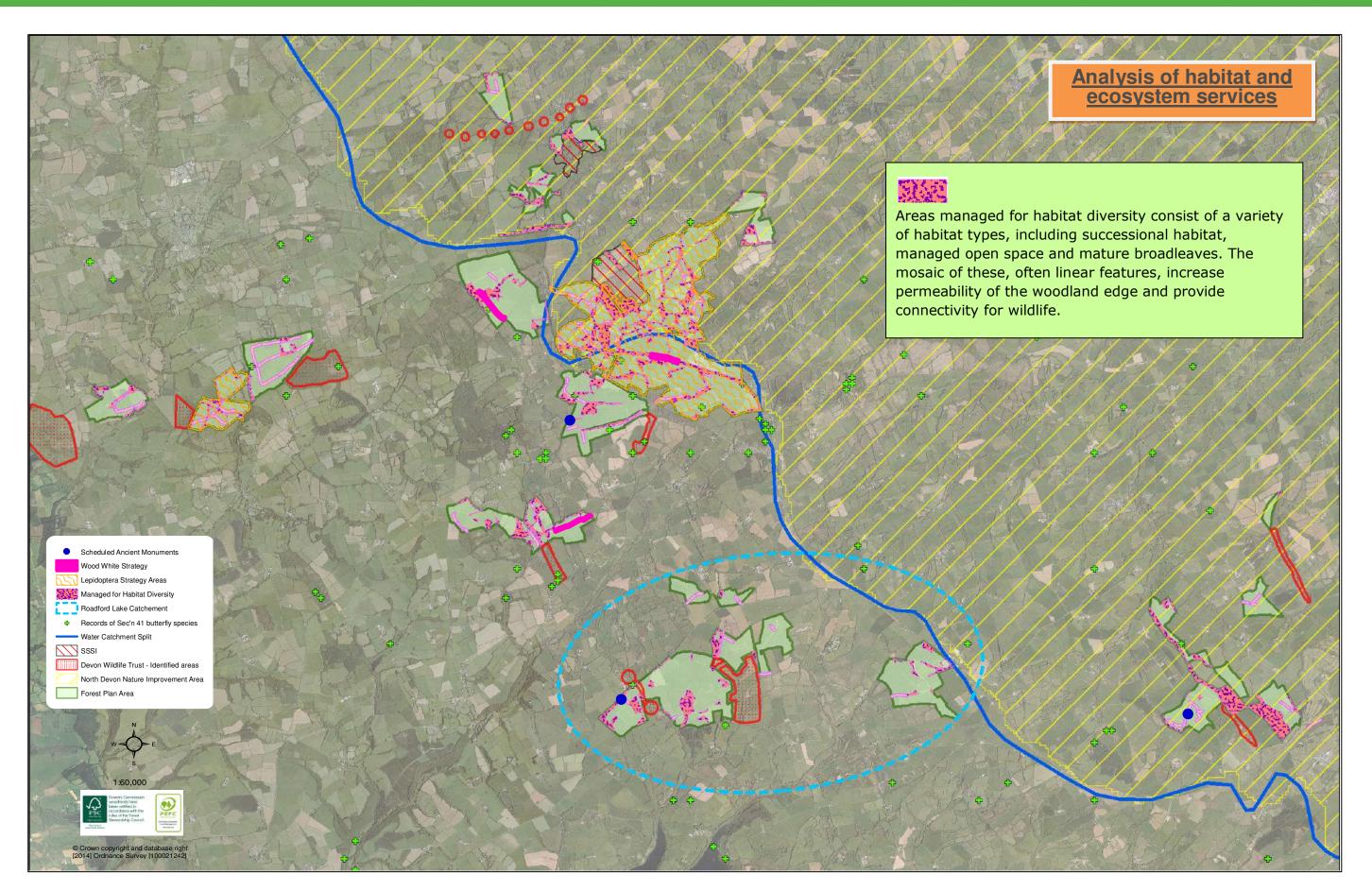




Maintain provision for low key recreational activities through maintenance of existing facilities.









• Corridors

- 1, 2 & 3 Wood White Strategy Area. Manage corridor and forest road in liaison with Butterfly Conservation. Facilitate monitoring of Wood White populations in conjunction with Butterfly Conservation.
- 4 Create a continuous corridor adjacent to water course, which links the field to the west with the forest ride to the east. Maintain roughly 50/50 balance of open space (grass and rush) and woodland shrubs (Hazel, willow and thorn).
- 5 Carry out willow scrub management to increase permeability of the forest edge and create a mainly open corridor along the watercourse which links the SSSI to the forest road, ride and habitat corridor network.

Improve diversity of habitat and create link from the SSSI to similar habitat to adjacent privately owned woodland through felling and regeneration to take place within the plan period.

Increase tree species diversity & structure in this part of the Lepidoptera strategy area to link with existing native broadleaves and recent restocking of Aspen on the boundary through felling and regeneration scheduled to take place within the plan period.

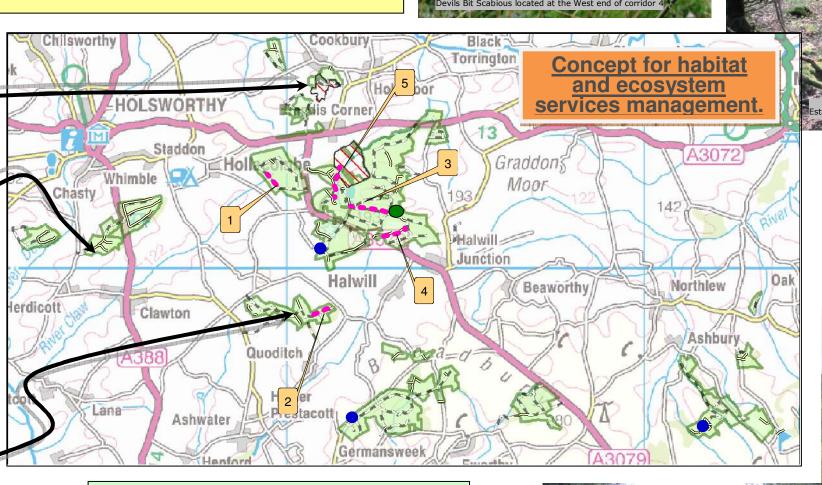
Scheduled Ancient Monuments

Manage in accordance with a separate plan formally agreed with English Heritage. Review this plan at least every 10 years in line with the Forest Plan renewal process.

> Increase diversity of habitat, improve permeability of the woodland edge and improve the water course corridor through felling and regeneration scheduled to take place within the plan period.

> > SSSI

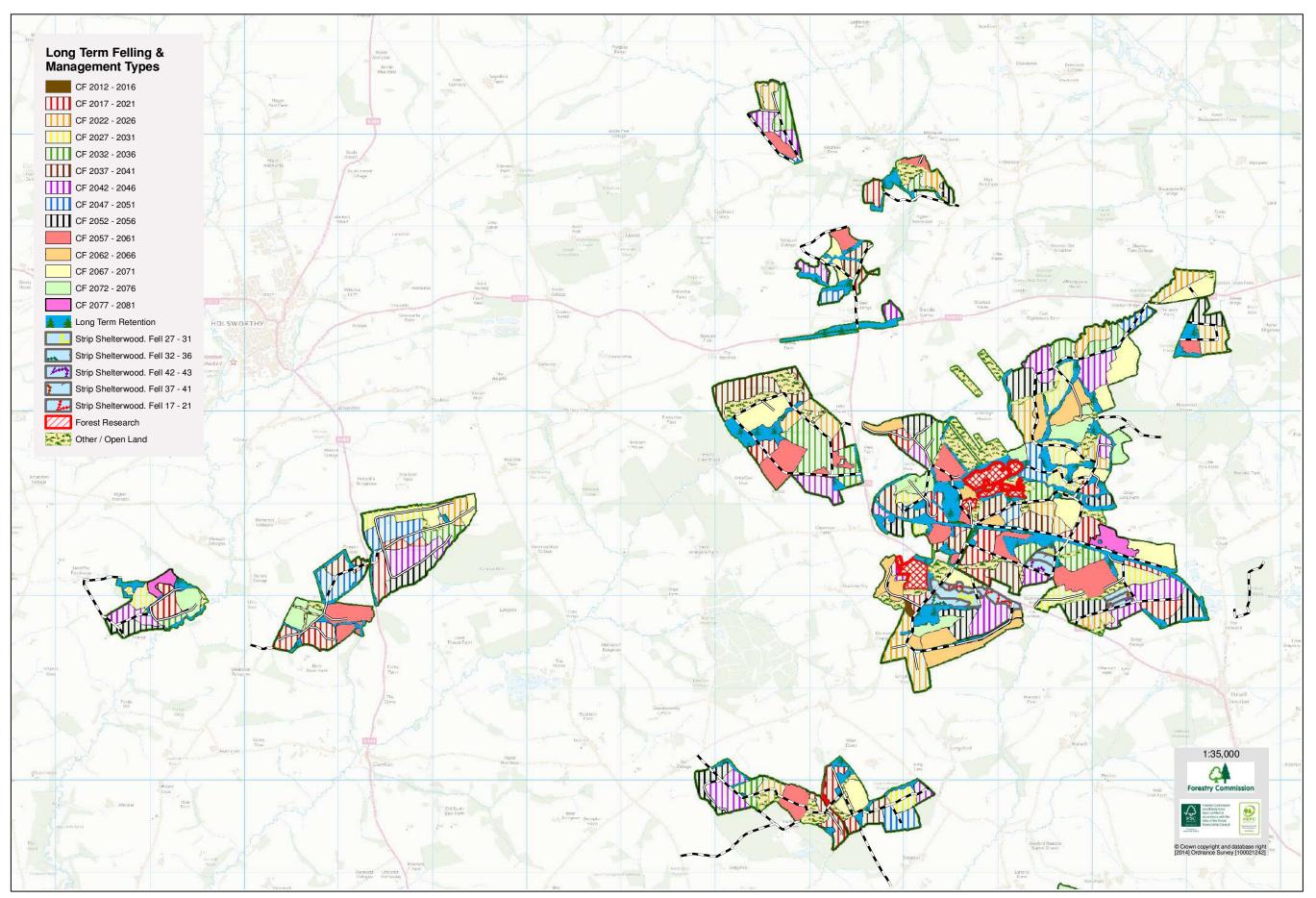
Manage in accordance with separate plan formally agreed with Natural England. Review this plan at least every 10 years.

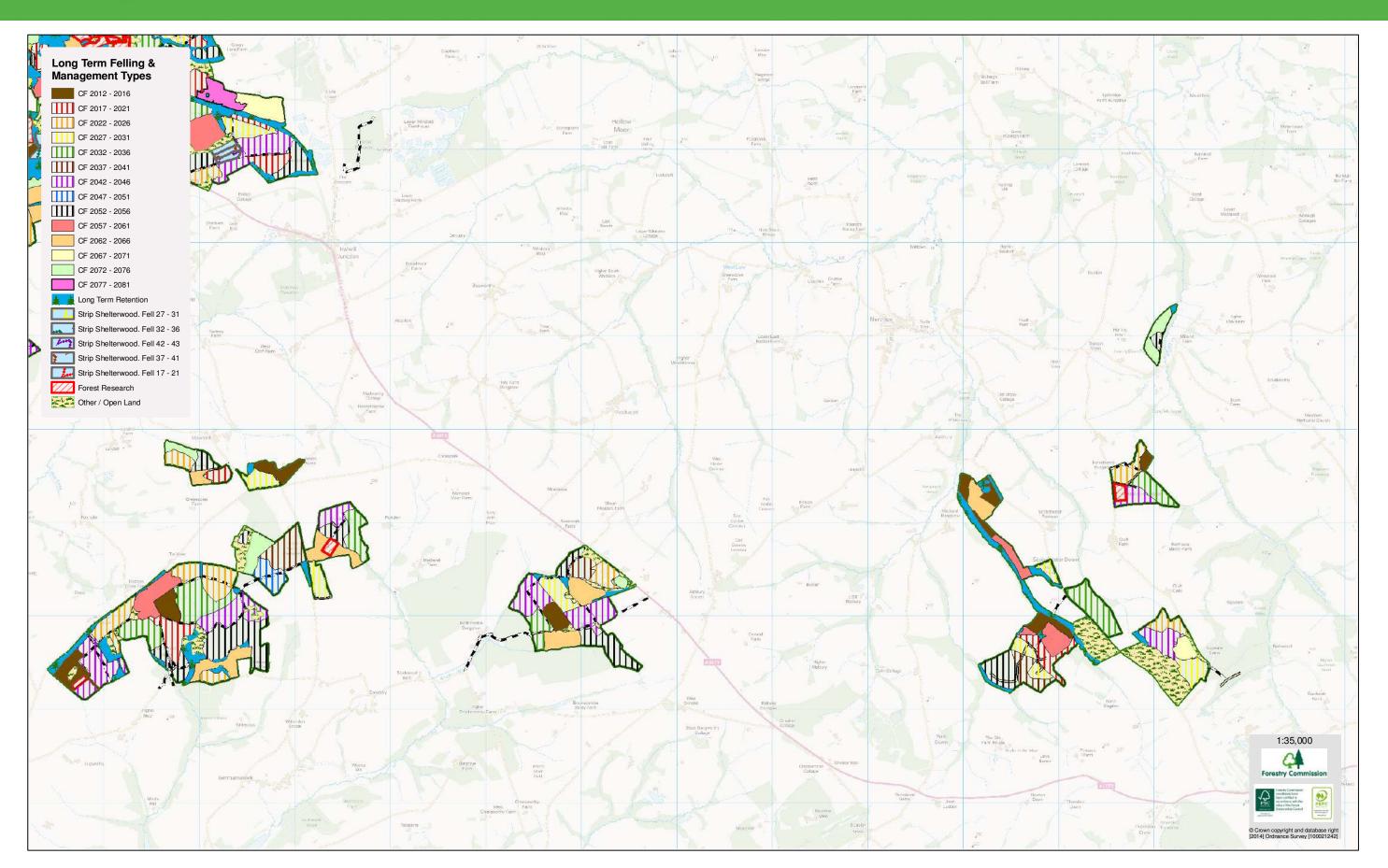


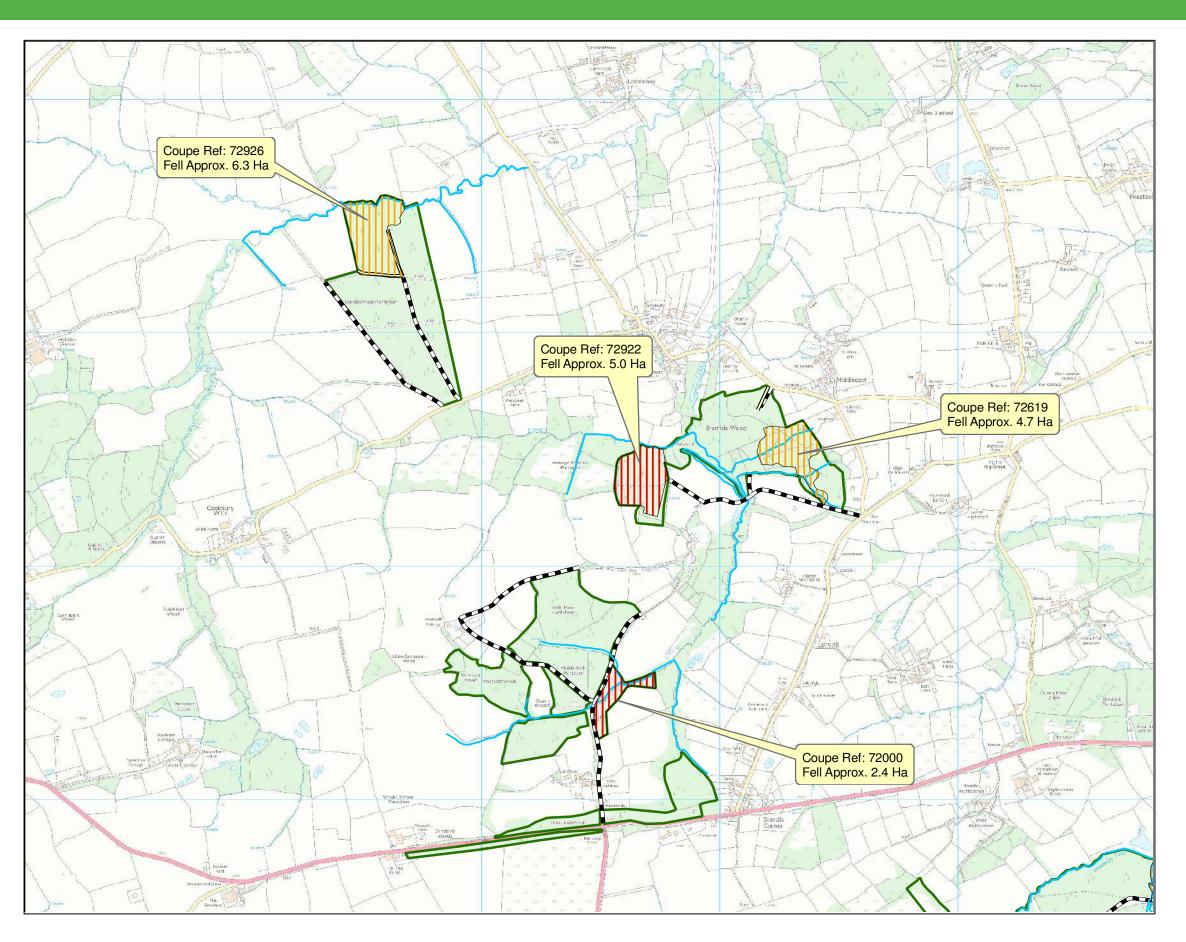
Manage the woodland edge for the benefit of nature and forest users but also to safeguard the road infrastructure and increase stability of commercial plantations so that longer term rotations and alternative silvicultural systems could be considered in the future. Apply best practice as described in local guidance document 'Design and management of Environmental Corridors'. This will be achieved through implementation of the principles outlined in the guidance when a felling coupe and subsequent restocking / regeneration, detailed later in this plan, is carried out adjacent to any road, ride, hedge bank or watercourse.

Targeted work for BC Carry out cyclical cutting of vegetation and extend habitat through felling and regeneration to take place within plan period.

unplanted and established native broadleaves retained. The trees at the edge of the plantation are more widely spaced in order to allow wind into the crop. The picture to the left shows an older plantation which is beginning to overhang the forest road and grow into the canopy of the native broadleaves.







Felling in Plan Period Bramble & Cookbury Clearfell 2012 - 2016 Clearfell 2017 - 2021

Clearfell 2022 - 2026

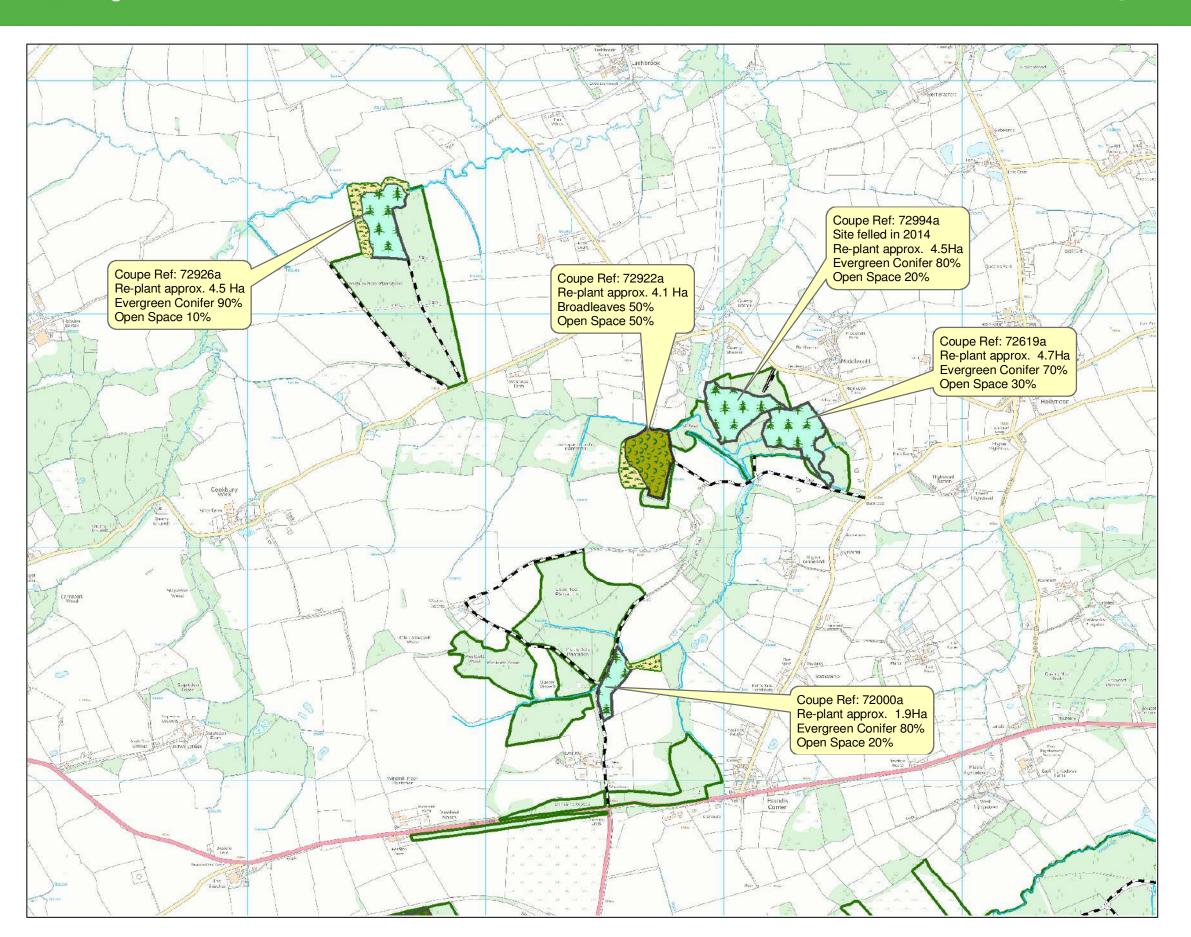


1:15,000









Restocking and Regeneration in Plan Period

Bramble & Cookbury

Replant Conifer

Replant Conifer / Broadleaf Mix

Replant Broadleaves

Natural Regeneration - Primarily Broadleaves

Natural Regeneration - Primarily Conifer

Successional woodland / open space

Permenant Open Space

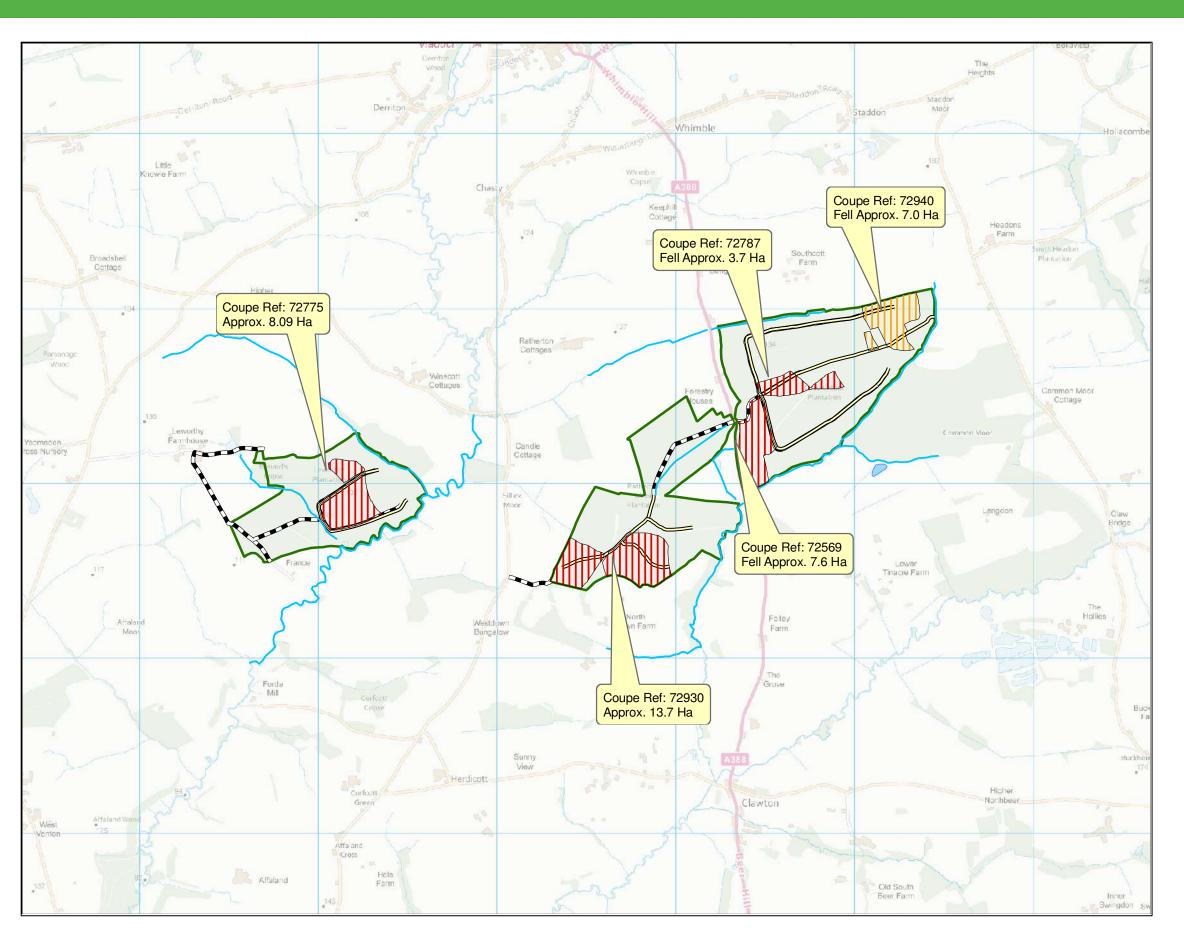


1:15,000









Felling in Plan Period

Holsworthy & Leaworthy

Clearfell 2012 - 2016

Clearfell 2017 - 2021

Clearfell 2022 - 2026



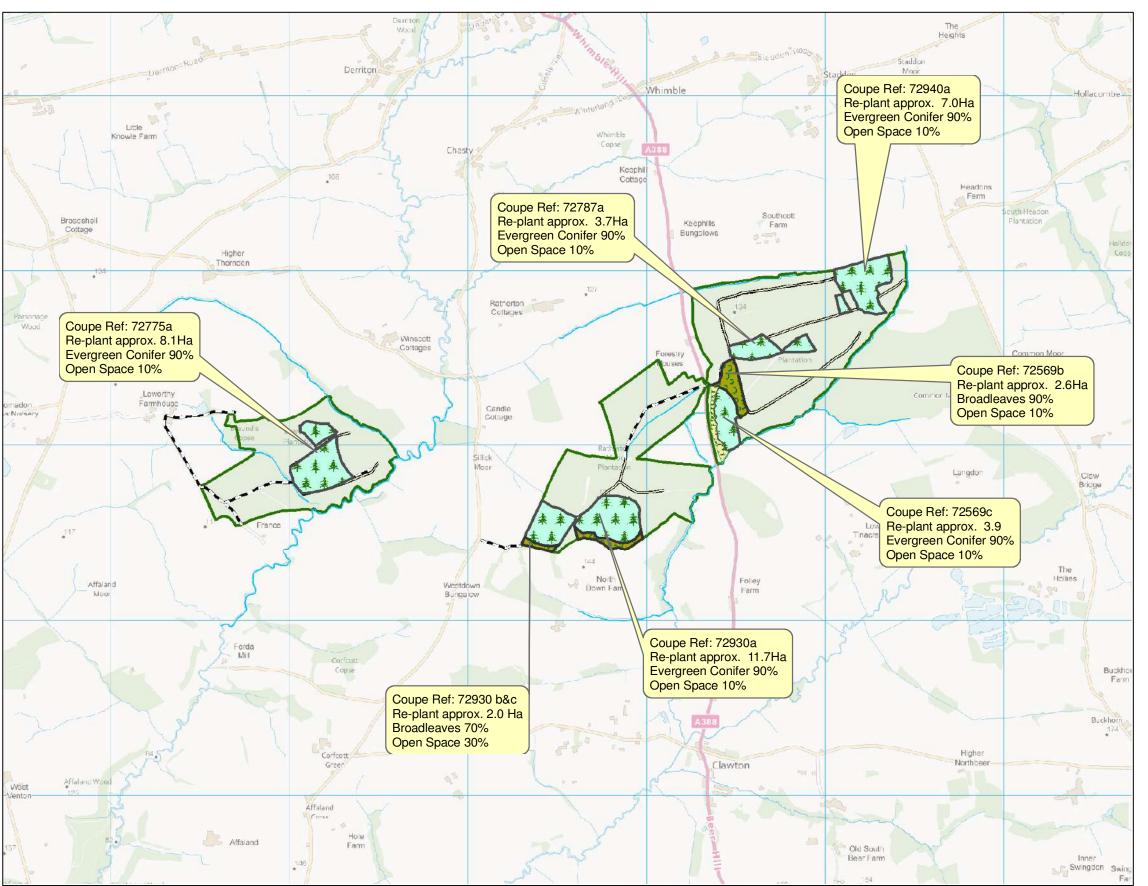
1:20,000













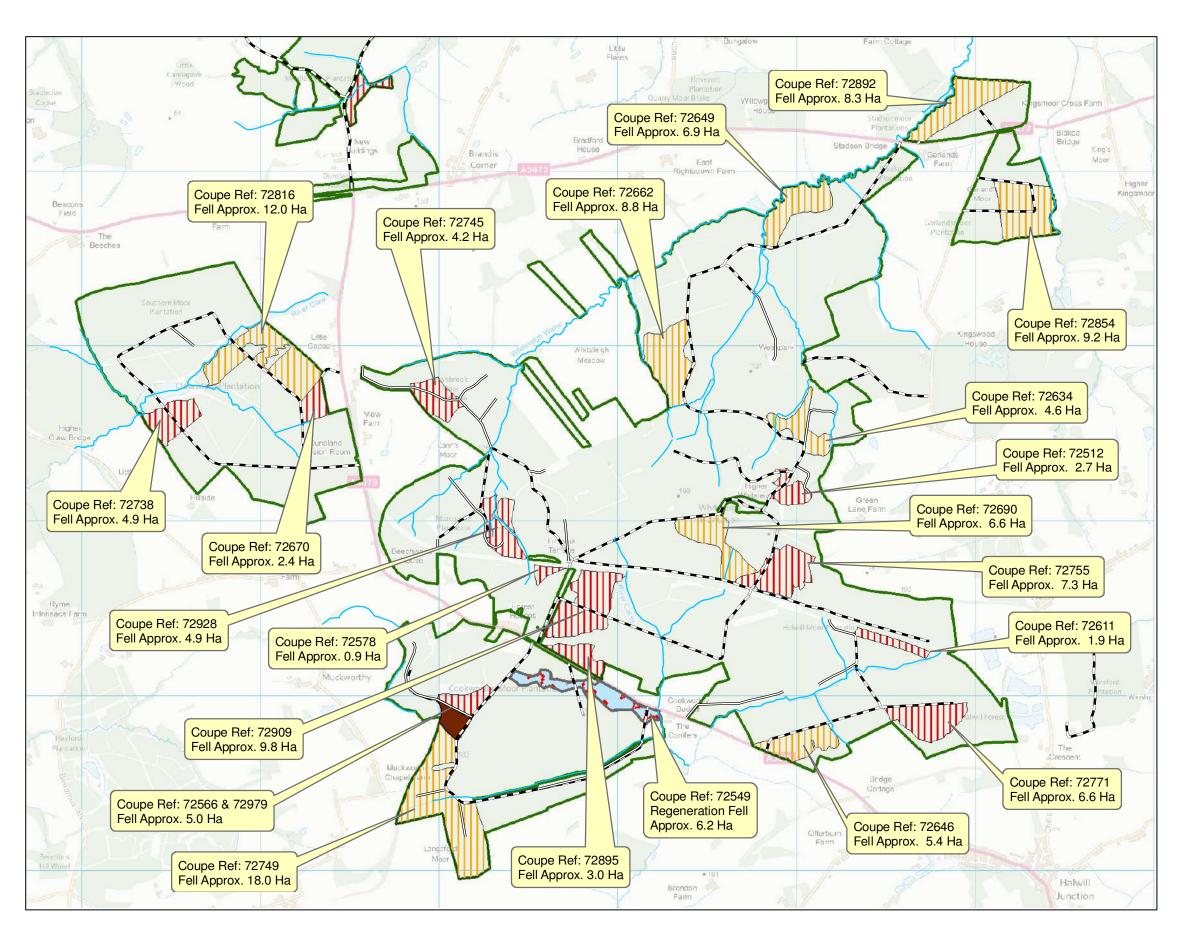


1:20,000









Felling in Plan Period Halwill Main Block Regeneration Felling 2017 - 2021 Clearfell 2012 - 2016 Clearfell 2017 - 2021

Clearfell 2022 - 2026



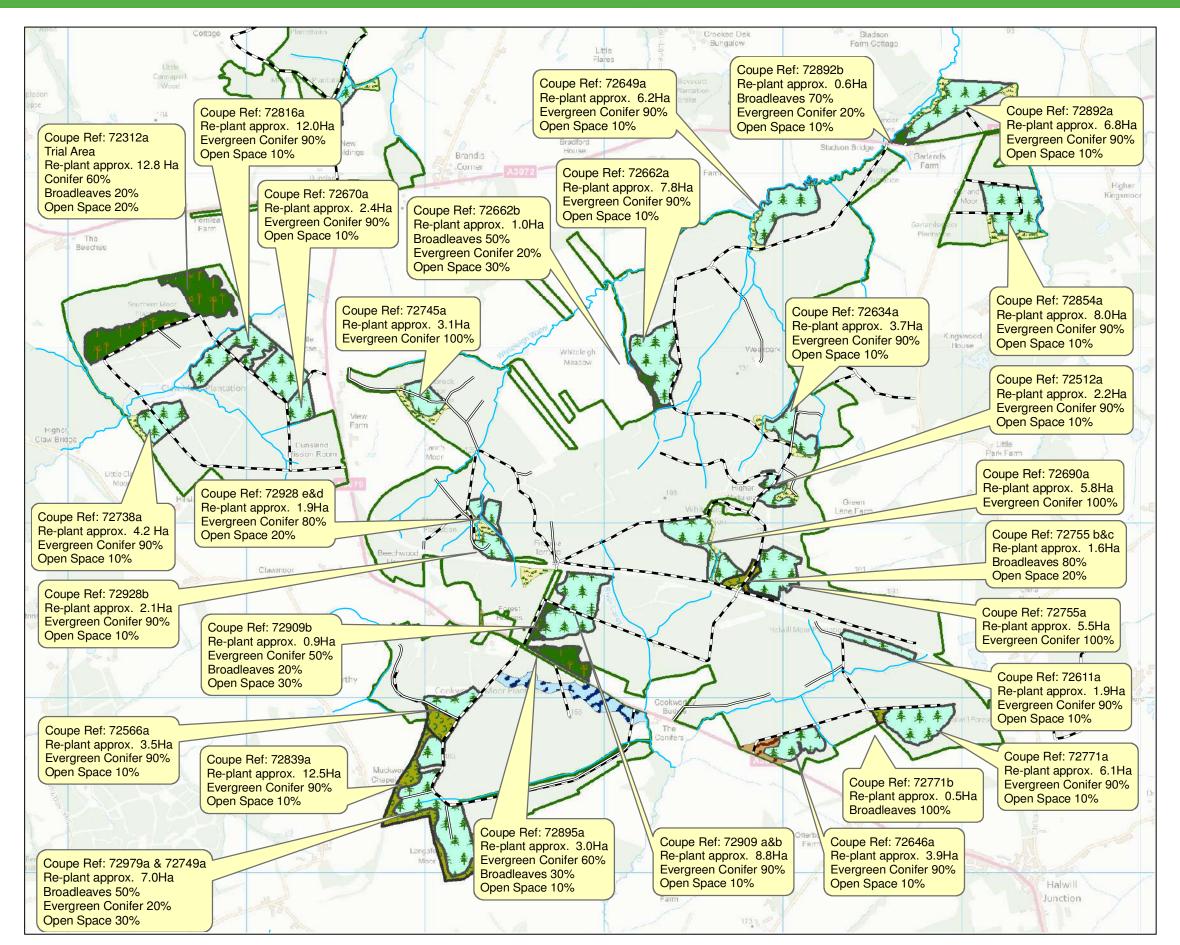
1:20,000











Restocking and Regeneration in Plan Period

Halwill Main Block

Replant Conifer

Replant Conifer / Broadleaf Mix

Replant Broadleaves

Natural Regeneration - Primarily Broadleaves

Natural Regeneration - Primarily Conifer

Successional woodland / open space

Permenant Open Space

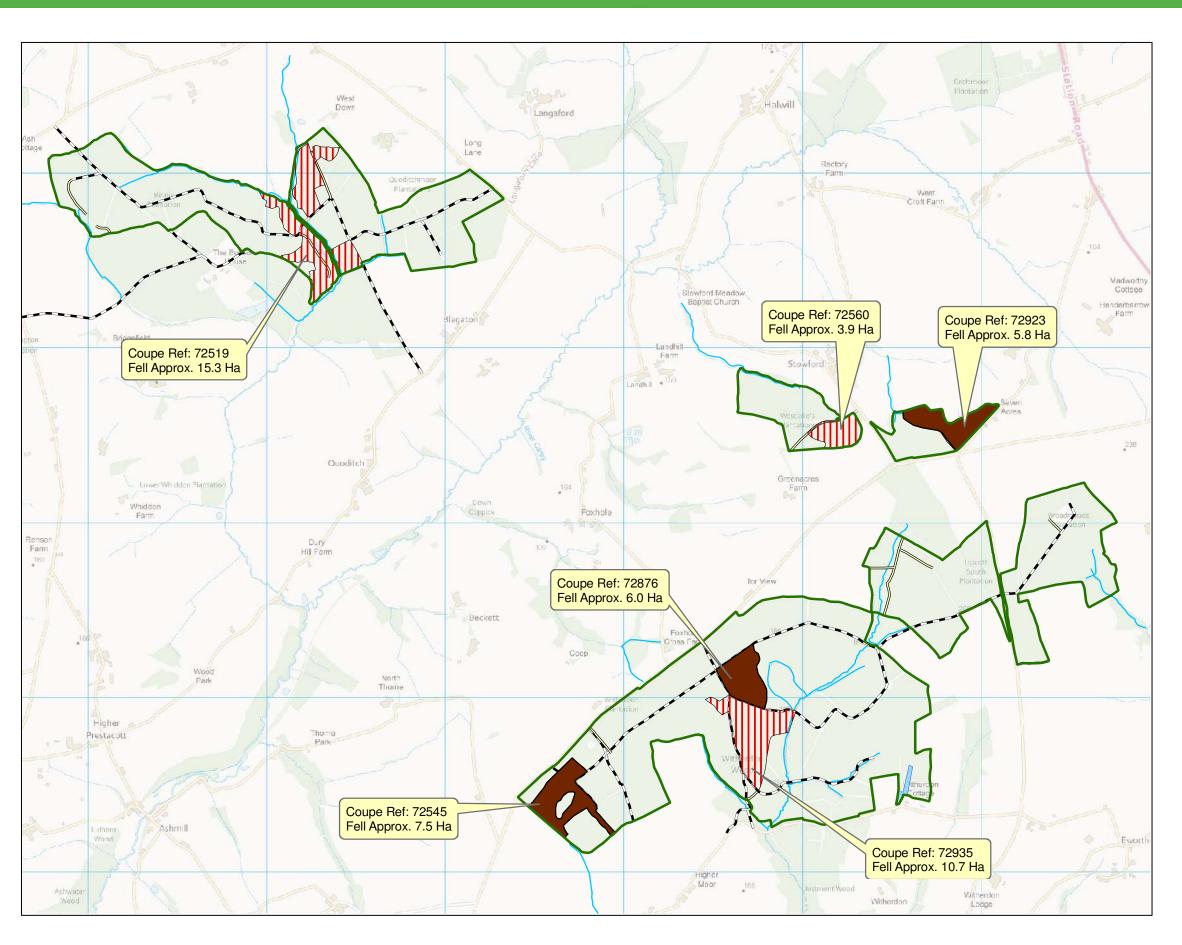


1:20,000











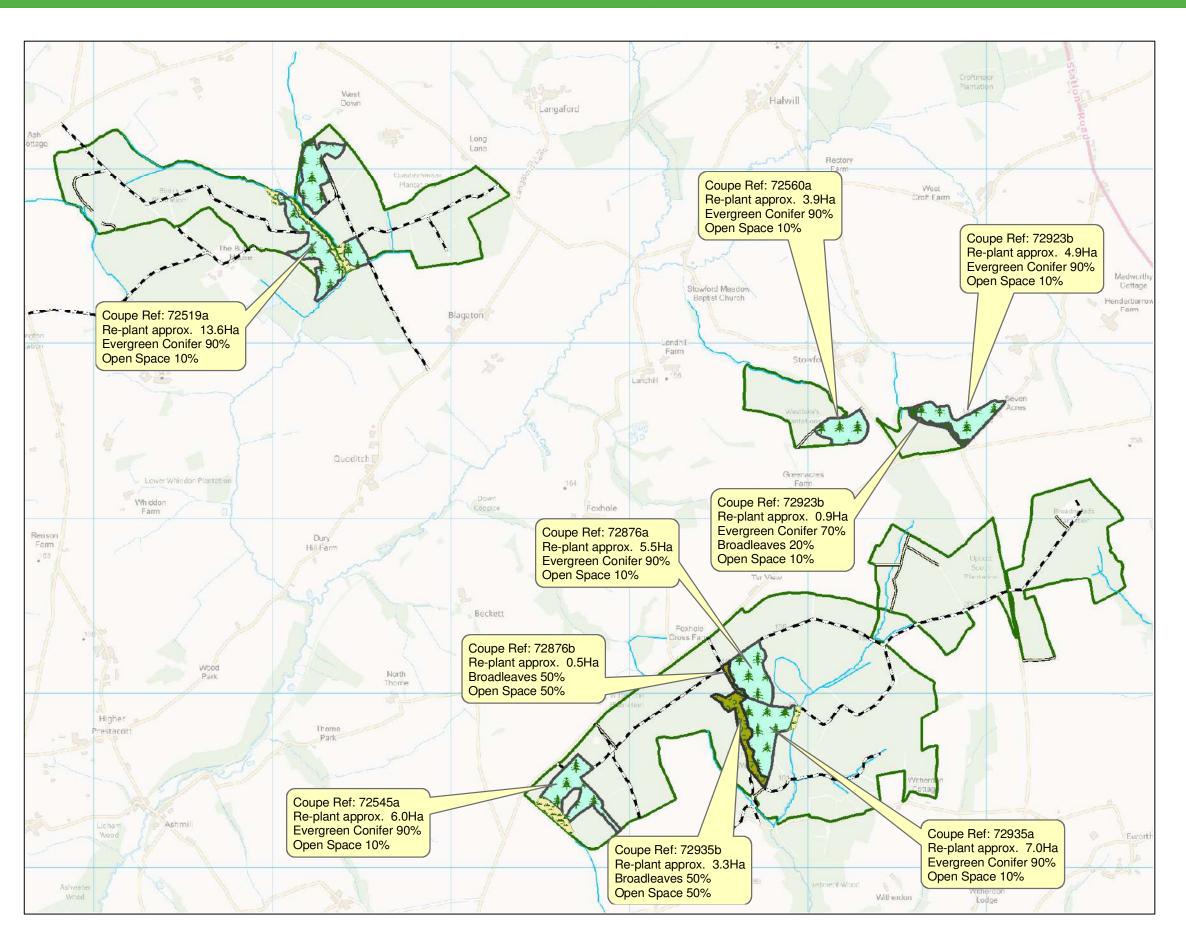


1:20,000









Restocking and Regeneration in Plan Period

Quoditch & Witherdon

Replant Conifer

Replant Conifer / Broadleaf Mix

Replant Broadleaves

Natural Regeneration - Primarily Broadleaves

Natural Regeneration - Primarily Conifer

Successional woodland / open space



Permenant Open Space

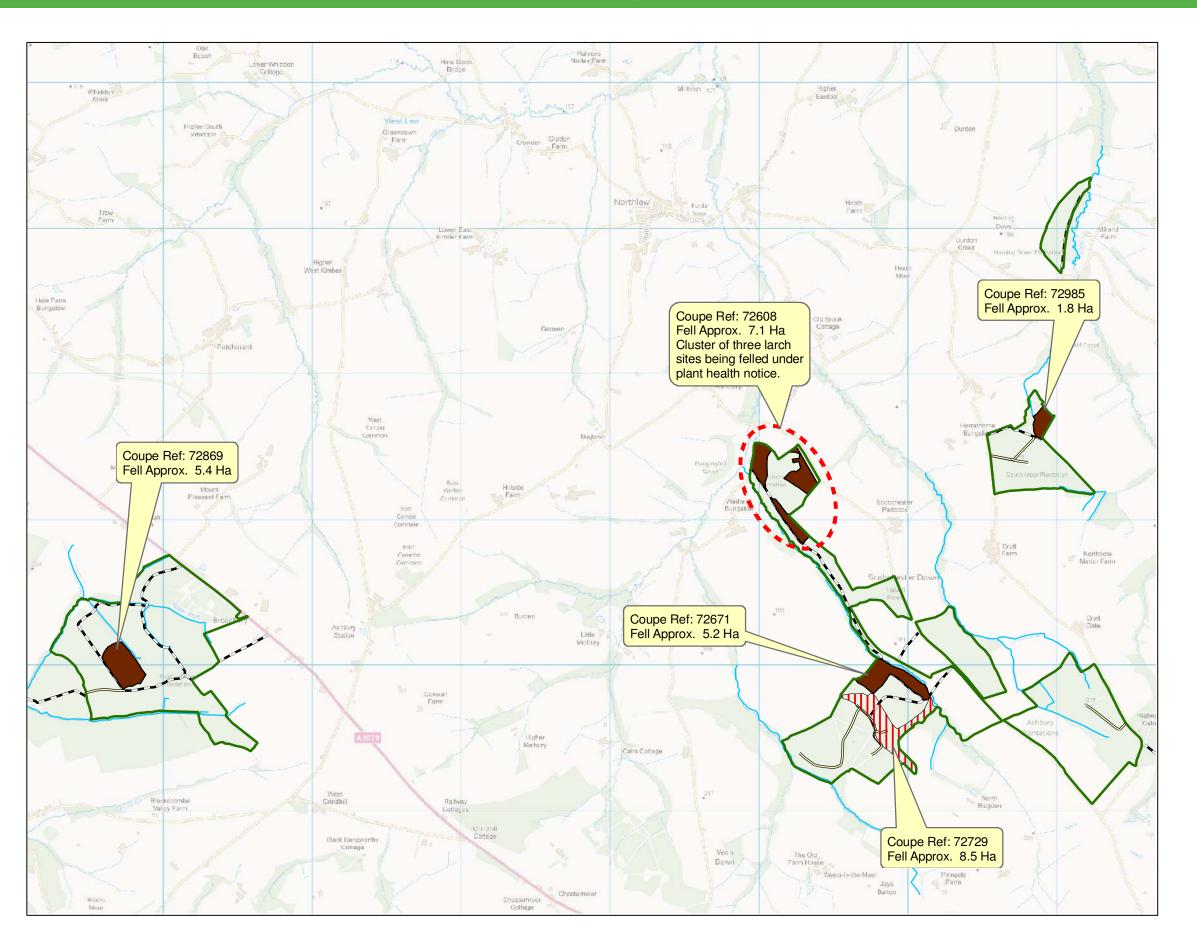


1:20,000









Felling in Plan Period Wadland & Northcombe Clearfell 2012 - 2016 Clearfell 2017 - 2021 Clearfell 2022 - 2026

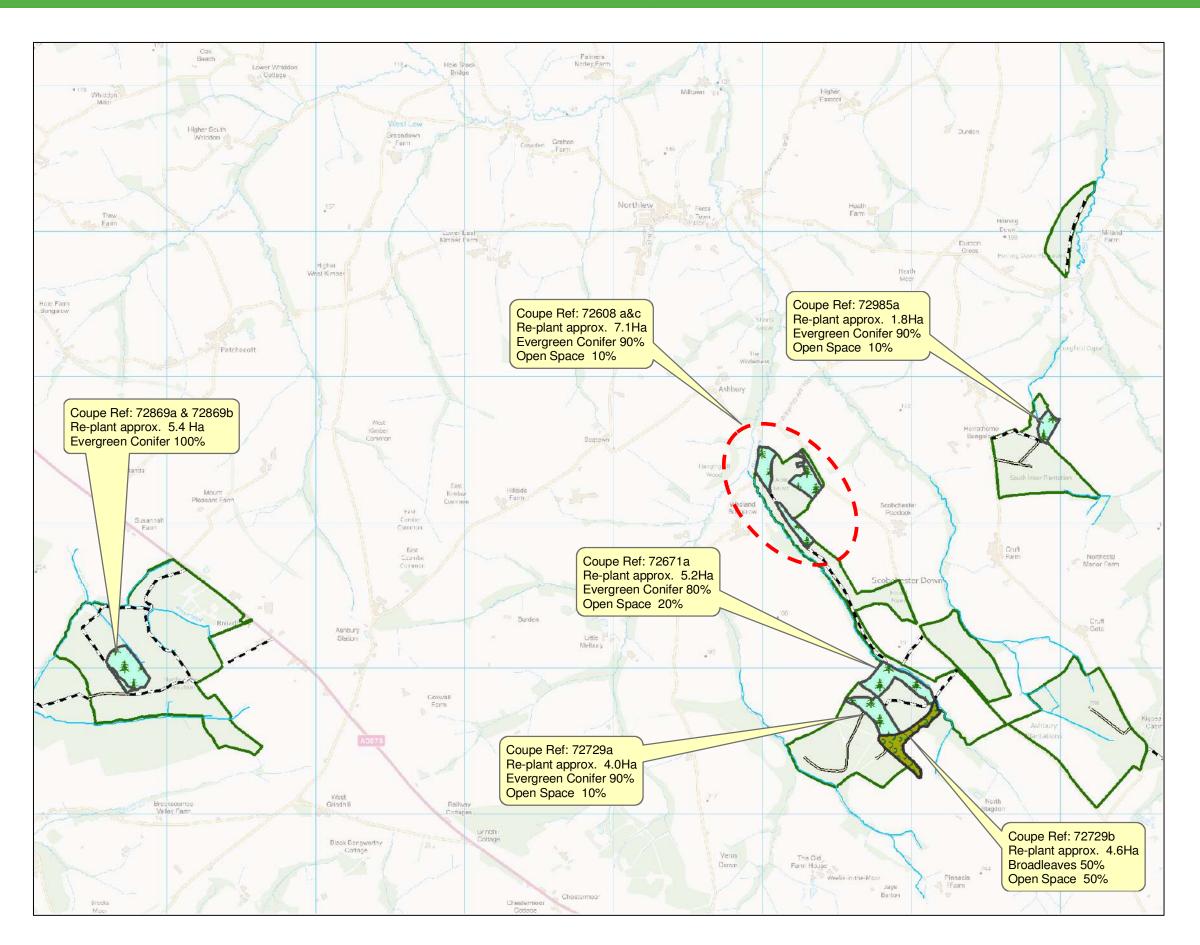


1:24,000









Restocking and Regeneration in Plan Period Wadland & Northcombe

Replant Conifer Replant Conifer / Broadleaf Mix

Replant Broadleaves

Natural Regeneration - Primarily Broadleaves Natural Regeneration - Primarily Conifer

Successional woodland / open space

Permenant Open Space



1:24,000







Appendix 1: Record of consultation (cont'd)

| Consultee | Issues Raised | Forest District Response to Issues |
|--|--|--|
| 4 members of the public responded to the on line consultation. | Two specific issues were raised: | Current levels of public access will be maintained. It is hoped that visitor experience will be enhanced through improvement of road and ride corridor network, normally implemented at the time of re-stocking. |
| | Other responses are included in the summary below. | Clear felling will continue as detailed in the plan with due consideration to wildlife and users of the woodland. Regeneration of felled areas will be as per plan. |

The on line consultation asked for responses to a series of questions. The results are summarised below.

| | Very Important | Important | Insignificant | Very Insignificant | Not Applicable | Not Answered |
|--|----------------|-----------|---------------|--------------------|----------------|--------------|
| How important are the following interests to you or your organisation? | | | | | | |
| Biodiversity and woodland ecology | 67% | 33% | | | | |
| Communities and People (e.g. landscape heritage and culture | 33% | 67% | | | | |
| Climate Change (e.g. carbon capture & flood alleviation) | 33% | 45% | 11% | 11% | | |
| Forest Products and Services (e.g. timber, woodfuel, & non timber products) | | 45% | 33% | | 22% | |
| Forest Protection (e.g. woodland structure, plant health & soil stability) | 22% | 56% | 11% | | 11% | |
| Income & Employment (e.g. game management, timber processing, tourism) | | 45% | 33% | | 11% | 11% |
| Recreation & Access (e.g. leases / permissions, trails, facilities) | 67% | 22% | 11% | | | |
| | Very Well | Well | ОК | Poorly | Very Poorly | Not Answered |
| How well does the plan address your needs and interests or those of your organisation? | 11% | 78% | 11% | | | |
| | YES | NO | Not Answered | | | |
| Do you agree that the plan achieves an appropriate balance of social, economic, and environmental objectives for the woodland? | 100% | | | | | |

West Devon

2015-2025 West England Forest District

Appendix 2: Major policy documents and guidelines that inform our planning and operations:

A Strategy for England's Trees, Woods and Forests The UK Woodland Assurance Standard The UK Forestry Standard

UK Forestry Standard Guidelines: Forests and biodiversity Forests and climate change Forests and historic environment Forests and Landscape Forests and people Forests and Soil Forests and water

National Policies and guidelines

Forest District Strategic Plan Design and Management of Environmental Corridors Use of Urea for stump treatment in former Peninsula District SSSI Management Plan – Whiteleigh Meadows SSSI Management Plan - Dunsland Scheduled Monument Management Plan – Witherdon Scheduled Monument Management Plan – Halwill Scheduled Monument Management Plan - Wadland

Local Policies and Guidelines