

Forest Plan Plym

2014 - 2024



PEFC PEFCOR-40 1001

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1.0 Plym Forest Plan Summary

The Plym Forest Management Unit (FMU) extends over 543 Hectares (1341 acres) of the Public Forest Estate. It is situated just to the north east of Plymouth and is within the South Hams District Council area.

The woodland is a mix of conifer (56%) and broadleaves (44%) most of which are being actively managed to provide timber for local and national markets (approximately 2000 – 3000 cubic metres of timber per year) and to improve the quality of the remaining crop. Roughly 78% of the area is classed as an 'Ancient Woodland Site', which means that an area has been continually wooded since AD 1600. In the period 2010 – 2012 a disease called Phytophthora Ramorum had infected and was killing a particular species of conifer called larch. Some 147 hectares (363 acres) of young and mature larch crops were cleared which left a greater than normal amount of non wooded areas.

Roughly half of the main block is owned freehold by the Forestry Commission and is dedicated open access under the countryside rights of way act. The remainder of the area is leased on a long term basis and permission to access these areas does vary. There is a managed car park which provides access to over 17 Km (10 miles) of forest roads, rides and trails over varied terrain and slopes and is popular with local people for walking, cycling and horse riding. There are also several heritage features within the FMU, some of which are scheduled by English Heritage. These include a post medieval deer park, a 19th century lead mine and an Iron Age hill fort.

The woodland habitat supports a wide variety of wildlife including ground nesting and other birds, several birds of prey and various species of butterflies. There is also fallow deer and grey squirrel. This plan seeks to deliver a 7% increase in the amount of permanent / managed open space, which will improve the matrix of habitats for a wide range of flora and fauna.

The purpose of this Forest Plan is to make people aware of the way the Forestry Commission manage the public forest estate and its planned future management of this site. It aims to outline how every aspect of the forest will be managed for timber production, habitats and landscape as well as look at other elements such as how recreational opportunities in the forest will be managed. Forestry requires us to be forward looking and so this current management plan gives details of the management of Plym from 2014 until 2024. The plan outlines our intentions for the continued management of the site and contains information on the following topics:

Continue the process of restoring ancient woodland sites. Many of the ancient woodland sites currently have a commercial crop of conifer or non native broadleaves growing on them. These areas are called 'Plantation on Ancient Woodland Sites' or PAWS. There will be a number of ways in which restoration will be implemented depending upon the character and requirements of each area. However in the majority of cases the process will be carried out gradually and in some instances will take many generations, perhaps hundreds of years, to complete. Whilst habitat improvement is the main objective in PAWS it is also of fundamental importance that productivity and sustainable forest management continues in these areas. A key component in achieving success will be to monitor representative sites. After implementing this plan over the next 10 years we hope to see a 3% increase in the area of native broadleaves.

Increase resilience to climate change, pets and diseases. We will achieve this by increasing the diversity of tree species and age structure of the woodland. There will be an ongoing programme of clear felling and replanting but we are also looking to implement and develop continuous cover management systems. This means establishing one or more storeys of young trees in an area before the canopy of older trees is removed.

Forests for people. The Forestry Commission will continue to forge links with local councils, user groups and other organisations to pursue any opportunities to develop the recreational potential at Plym.

2.0 Policy & context

The Forestry Commission 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 Glynn Valley Forest Management Unit lies within West England Forest District, an amalgamation of the former Peninsula, Forest of Dean and West Midlands Forest Districts that were combined in April 2012. West England Forest District covers the west of England as far as North Shropshire.

2.1 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 2013.

2.2 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.

2.3 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.

2.4 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.

2.5 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 Heritage map layer. Any additional felling agreed in the Scheduled Monument plan will be subject to liaison with Forest Services.

Consultation with either English Heritage, Local Authority or National Park Heritage Departments on any potentially damaging operations to Scheduled Monuments will take place at the Operational Site Plan Stage.

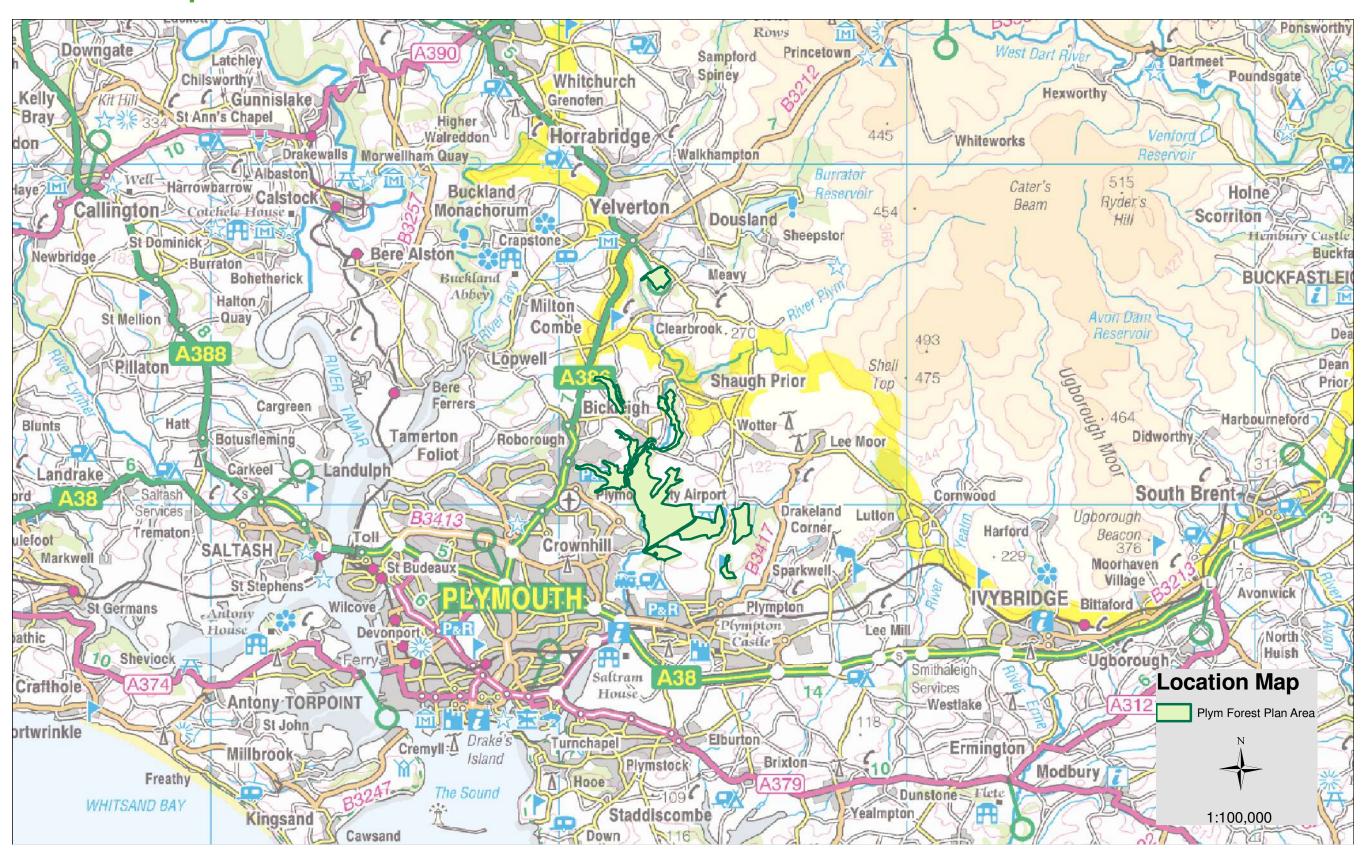
Other Heritage Features

Work on all other heritage features are subject to an agreement with Local Authority or National Park Historic Environment Record Services.

Heritage features will be identified by liaising with the relevant representative within the organisation and a suitable working method agreed prior to operations via the Operational Site Plan process.



3.0 Location Map





4.0 General Description

Topic	Description	Implications for Management	Proposals
4.1 Woodland Summary	extends over 543 Hectares of the Public Forest Estate in South Devon. The woodland	The native broadleaf resource requires targeted management to provide the opportunity for expansion.	Continue to manage on a rotational basis but accept natural regeneration of desirable

Plym

Topic Description		Implications for Management	Proposals
4.1.1 Woodland Summary (Production)	Timber Production Forecast		
	Forecast based on the existing Forest Plan:		
	Forecast All All All All 2013-2016 2111 1800 311 2017-2021 2477 2011 466 2022-2026 1896 1726 170 2027-2031 3523 3038 484 2032-2036 1583 1436 147 2037-2041 2825 2056 769 2042-2046 3366 2672 694 2047-2051 2938 2485 453 2052-2056 2860 2574 286 2057-2099 2838 2187 651 Forecast based on this Forest Plan: All All All Sprocest Plan: All All All All Forecast Period Species Conifers Broadleaves 2013-2016 2812 2498 314 2017-2021 2289 1897 392 2022-2026 3251 2554 697 2027-2031 3109 2560 549 2032-2036 1231 1114 117 2037-2041 2750 2284 466 2042-2046 3150 2469 681 2047-2051 3818 3378 439 2052-2056 3596 3301 295 2057-2099 2425 1968 457 (The figures shown represent an estimate of the average volume production per year. All figures are M3 over bark standing.)		

Plym



Topic	Description	Implications for Management	Proposals
It is spread over several Parish council areas of the Meavy, Shaugh Prior, Sparkwell and Bickleigh. Vehicular Access to the majority of FC landholding is good, although it is restricted to the Darklake block in the west of the plan		useage of this woodland area given it's proximity to Plymouth. Although well used currently there is capacity to carry out targeted areas of work including interpretation, visitor facilities and expansion of formal trails. Access to Darklake, which is the large block of woodland to the west of the river is limited. Normal road vehicles can access from the entrance to the West but forestry machinery and haulage wagons need to cross the river at the ford. The ford crossing is engineered for this purpose and the Environment Agency are satisfied with this arrangement.	visitors including the car park and waymarked trails at the current standard. Foster existing links with local councils, groups and organisations who may be potential partners for future development.
4.3 Tenure & management agreements		Sporting rights are reserved to the landlord in the leasehold parts. There are active commercial shoots running in most of these areas. Prior liaison with the landlord is essential to agree timing of operations. There are pheasant release pens within the wood. Some are located on sites where we are looking to achieve successional habitat of native species.	pens and work with the shoot(s) to minimise any adverse impacts.



Topic	Description	Implications for Management	Proposals
4.4 Physical Environment	The majority of the woodland has a Southerly or Westerly aspect but discrete areas and valleys have a range of aspects and some are on relatively flat plateaus. Rainfall ranges from 436mm in the Summer to 700mm in the winter. The underlying geology is upper Devonian rocks and lower carboniferous rocks. Soil type is Upland Brown Earth (1) Gleyed,	species currently on site as suitable or very 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: Suitable / Very Suitable - Scots pine, Douglas fir, Grand fir, Western hemlock, Beech, Sessile oak, Wild cherry, Silver birch,, Aspen, Sweet chestnut. None of the main species currently on site	sites the choice of species will be site native broadleaves. Therefore the favoured approach, in general, will be to allow areas to regenerate naturally and monitor proportions of species components. The non ancient woodland areas will be primarily restocked with productive conifer species, but any existing groups or individual broadleaves will be retained if they are stable and safe. The exact species choice for coupes beyond the next round of felling interventions will be left open to allow for more accurate
4.5 Landscape Setting and Designations	Natural England National Character Area Profile is 151 South Devon. The Plym Forest Plan area is not within an AONB and does not contain any SSSI.	South Devon NCA is predominantly a plateau,	

Plym

2014-2024

West England Forest District

Topic	Description	Implications for Management	Proposals
		proximity to Dartmoor National Park.	
		Manage the broadleaved woodlands, and particularly ancient woodlands on the steep river valley sides reinstating and supporting traditional management opportunities such as coppicing, and protect and expand important lichen and bryophyte communities.	

5.0 Management Objectives

• Continue sustainable management of the woodland resource and develop woodland resilience.

There will be a presumption for thinning all areas. Continuous cover and low impact silvicultural systems will be adopted where applicable. Where this is not a viable option, clear felling will continue with the intention of diversifying age structure and species composition. Clearfell coupes in the 10 year plan period will be fairly small and, on ancient woodland sites, targeted where there is most gain in terms of enhancing ancient woodland restoration. Select species and provenance according to site characteristics and potential to adapt to changes in climate. Move to a greater cover of native broadleaves in time, with the emphasis on Plantation on Ancient Woodland sites.

· Maintain the wooded landscape.

Ensure quality of coupe design enhances the external landscape. Monitor development of areas designated as successional habitat and react to natural processes to influence the diversity and productivity and continue to manage invasive exotic weed competition in these areas.

• Enhance the woodlands value for nature conservation and biodiversity.

Continue to diversify the woodland age structure and tree species diversity and designate areas of natural reserves. Consolidate existing managed open space and develop a matrix of open and semi open habitat to provide linkages for nature through management of existing corridors, particularly ride and water courses.

Conserve all cultural and heritage features.

Adopt appropriate mitigation measures to avoid damage and where possible improve any issues which may increase the risk of deterioration. Seek opportunities to improve interpretation and promote heritage features to members of the public.

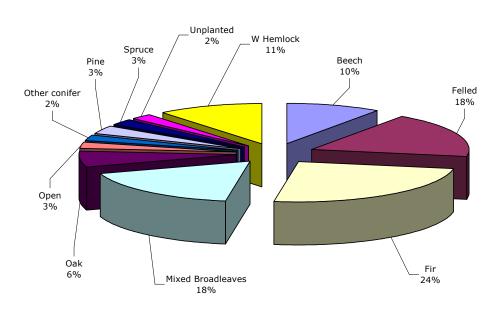
• Maintain open access in freehold areas for formal and informal recreational activity.

Enhance visitor experience by managing internal landscaping along existing corridors, and maintaining access points. Continue liaison with local organisations and pursue any opportunities for partnership working and external funding.

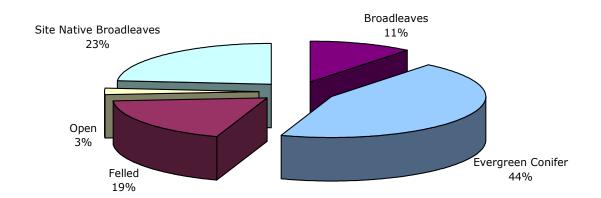


6.0 Silvicultural Management and Implementation





Current Species Groups and Land Use (SUMMARY)



Current Age Classes in Plym 180 160 140 120 Area (Ha) ■ Evergreen Conifer ■ Broadleaves 80 60 40 20 41-50 51-60 61-70 71-80 81-90 91-100 11-20 21-30 31-40 Age Class

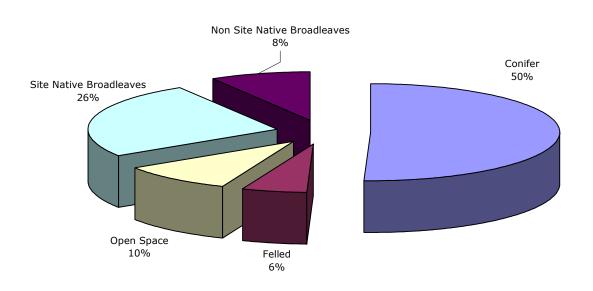
Species and Habitat Composition

This forest plan starts to deliver a move from conifer plantation towards a greater proportion of broadleaved species. There is advanced regeneration of various broadleaved species, shown as MB in the illustrations on this page. The amount of permanent open space will be increased during the life of this plan.

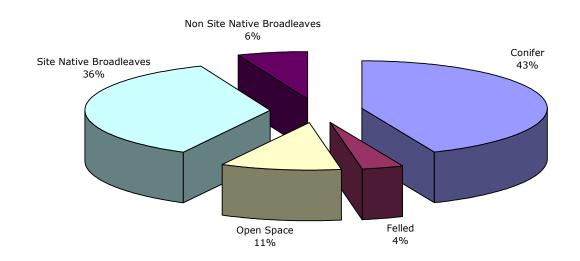
Age structure

The plan aims to increase the diversity of the age structure and begin the process of achieving a greater degree of naturalness.

Future Species Groups and Land Use 2024



Future Species Groups and Land Use 2044



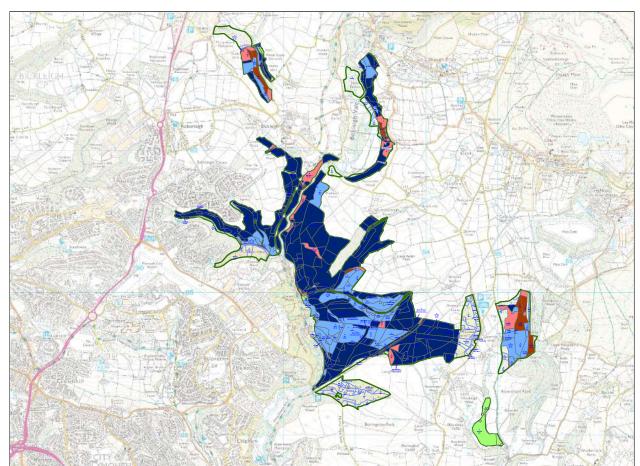
Future Species Model

2014-2024

There is a combination of silvicultural system in this woodland block, clearfell and restocking and continuous cover relying on natural regeneration. Because of the amount of woodland being managed under a continuous cover regime the timing of establishment and composition of species is difficult to predict accurately. The charts on this page seek to illustrate how the woodland is expected to develop over time given the management interventions (woodland thinning and felling) described in this plan.

The preferred method of regeneration, particularly in PAWS areas is to allow it to occur naturally. Major factors which will have an influence on regeneration is lack of seed source, competition from vegetation and predation from mammals. The PAWS management strategy later in this document explains in broad terms how we intend to manage these areas in order to achieve the objectives of the Forestry Commission PAWS policy.







The map below shows the woodland naturalness assessed in 2013. The following table shows the change in woodland composition in percentages over time:

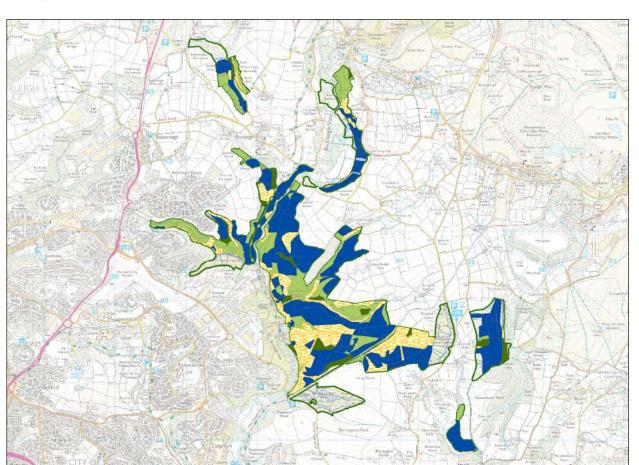
o	% 2007	%2013
>80 Site native tree species (SN)	10	21
50 – 80% site native tree species (RA)	5	20
20 - 50 % Site native tree species (P3)	7	5
<20% site native tree species (P4)	78	54





Significant progress has been made over the last 10 years in moving towards a greater proportion of site native broadleaves. A great deal of this change is due to Larch being removed under plant health notice. Some areas have been restocked with site native broadleaves and some have been left to regenerate over time through natural processes.

The maps on the following page shows how we intend to manage the PAWS area over the life of this plan and beyond. Sample areas will be monitored through site survey and fixed point photography.



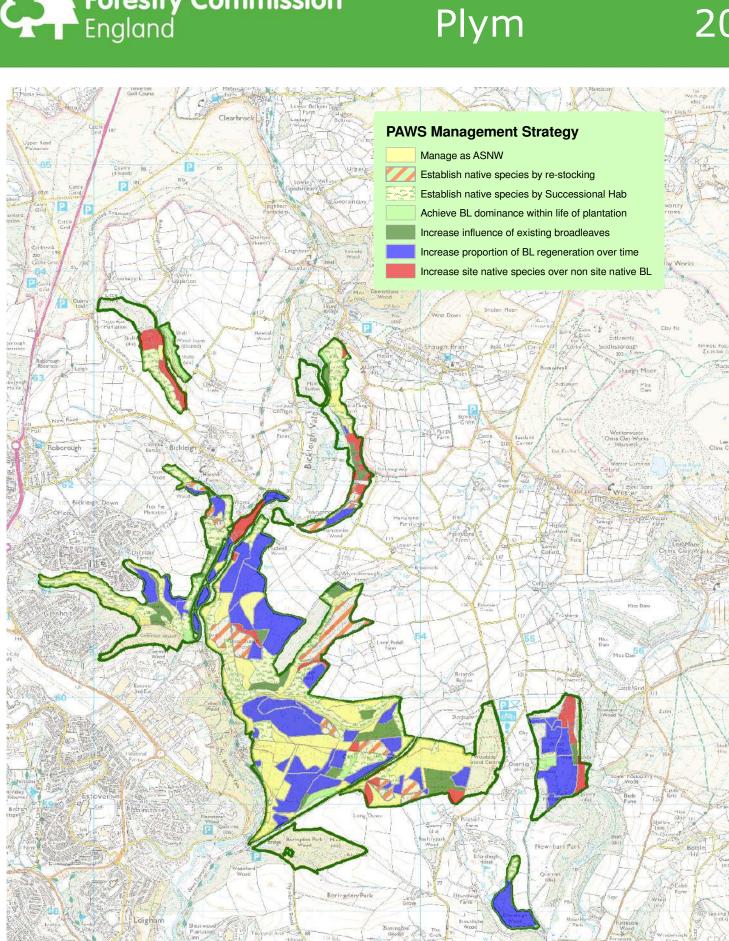








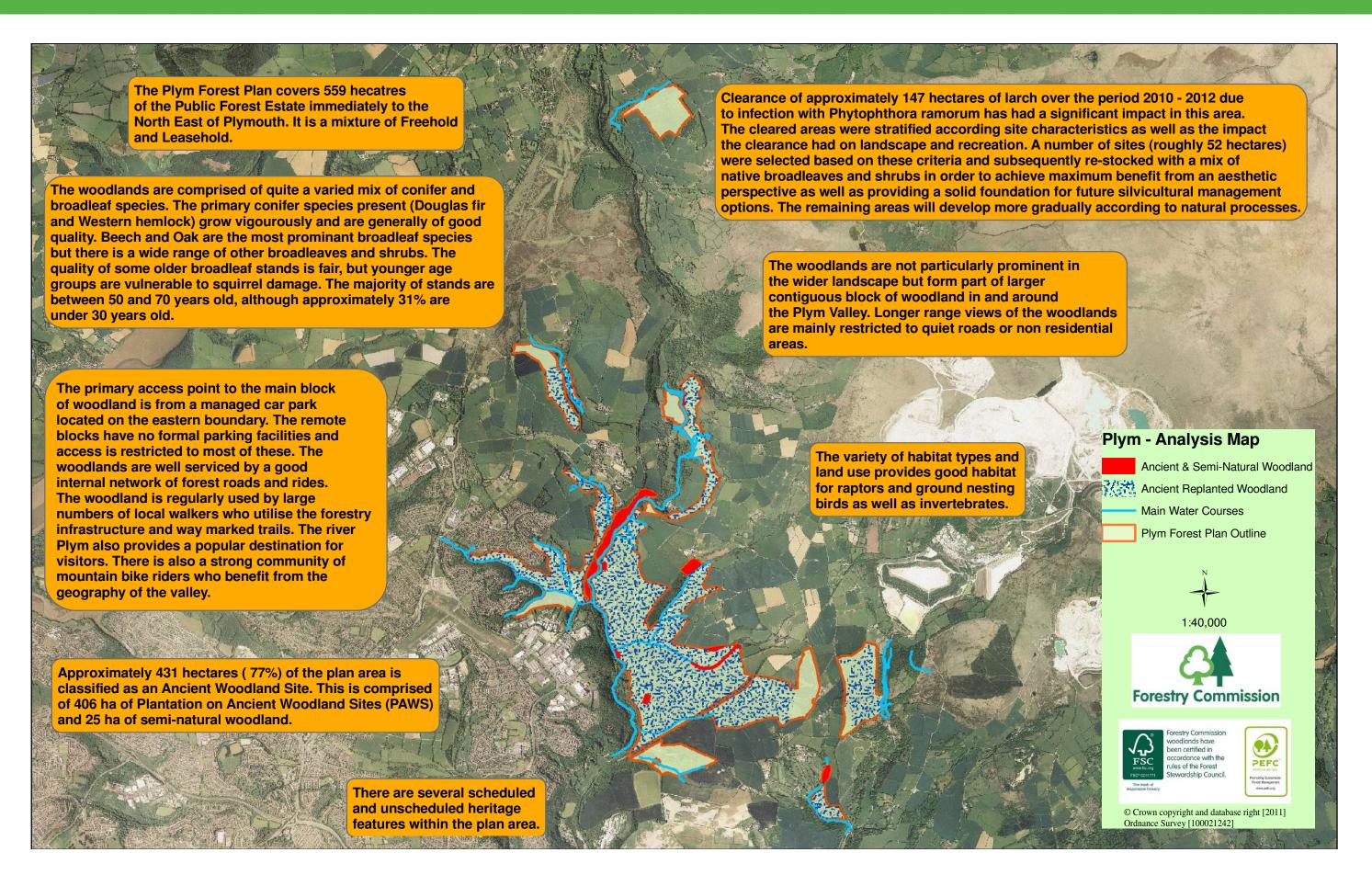




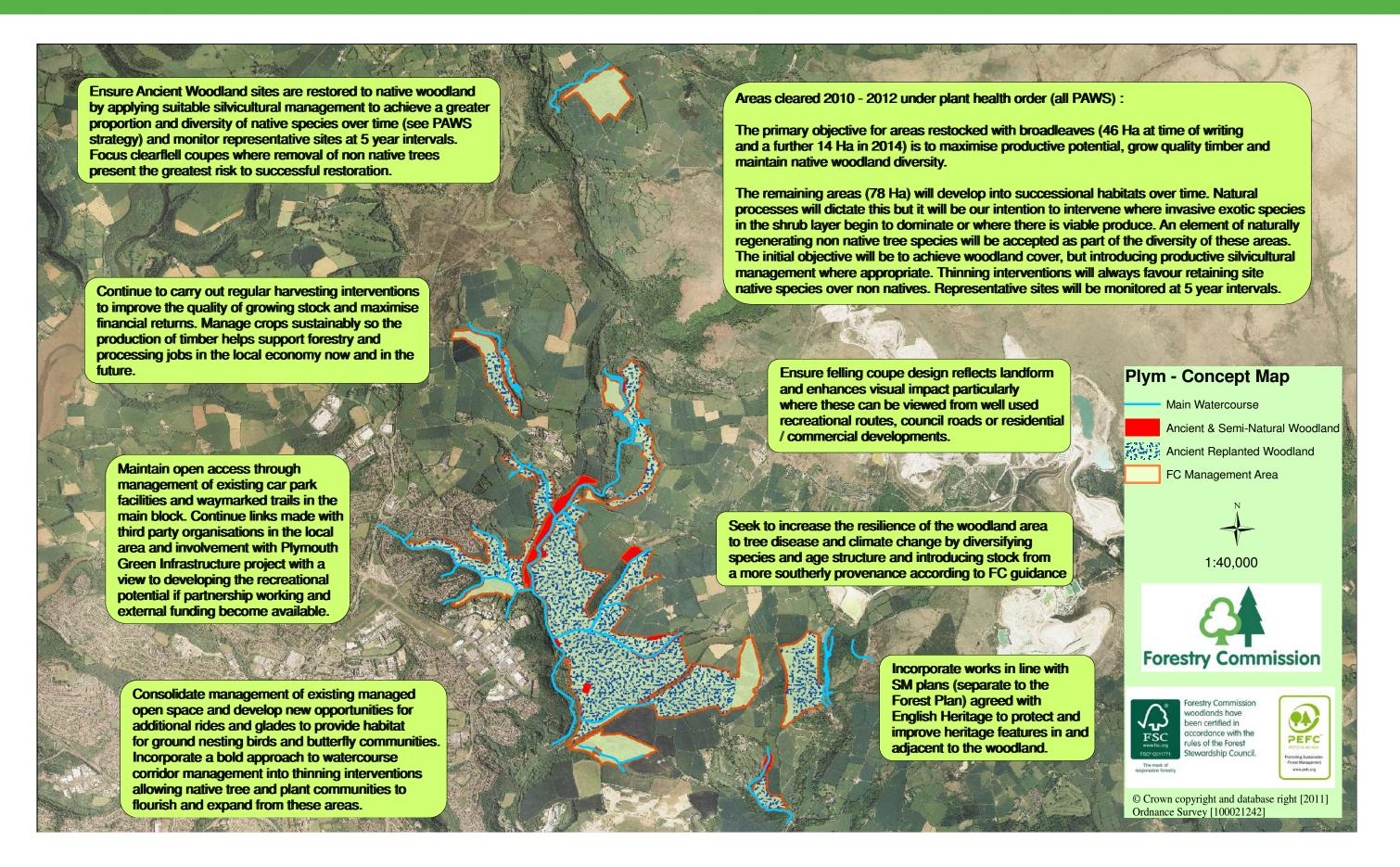
Management Strategy and Likely outcomes

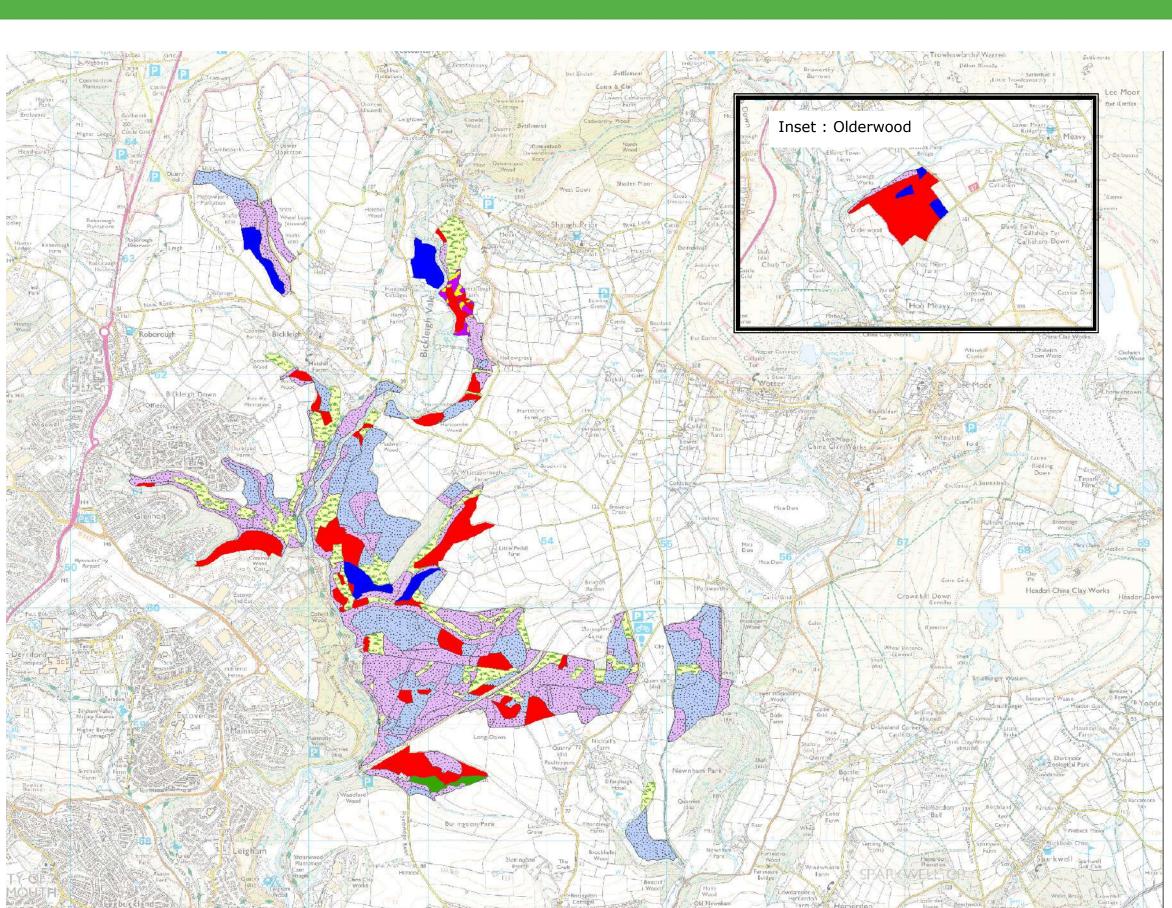
Management Strategy	Management description	Likely outcome
1	Manage as ASNW	ASNW
2	Establish native broadleaf cover by restocking following the scheduled clearfell of existing crop.	When the existing non natives are removed this area will be classified as SN.
3	Manage to achieve maximum regeneration of native tree species through natural processes, following scheduled clearfell of existing crop.	This area should fall into P3 or RA classification through successional habitat, or enrichment planting.
4	Manage to achieve broadleaf dominance in the regenerating understory within the life of existing plantation.	When the existing non natives in the over story are removed classification of this area will be SN.
5	Manage to increase influence of mature / competing broadleaves in the canopy and sub canopy to encourage a greater proportion of broadleaved regeneration within life of the existing plantation.	When the existing non natives in the over story are removed this area is likely to move into classification P3 or RA.
6	Manage to achieve a greater proportion of broadleaf regeneration within life of existing plantation.	This area has a predominantly non native conifer composition. Because of the regeneration potential and shade tolerance of many conifers and the lack of broadleaf seed source, this area will require heavy thinning of non native species and perhaps introduction of native species over the next rotation to progress restoration.
7	Manage to achieve greater proportions of site native tree species in favour of beech.	This area has a predominantly beech over story. Because of the regeneration potential and shade tolerance of beech this area will require heavy thinning of non native species and perhaps introduction of native species over the next rotation to progress restoration.













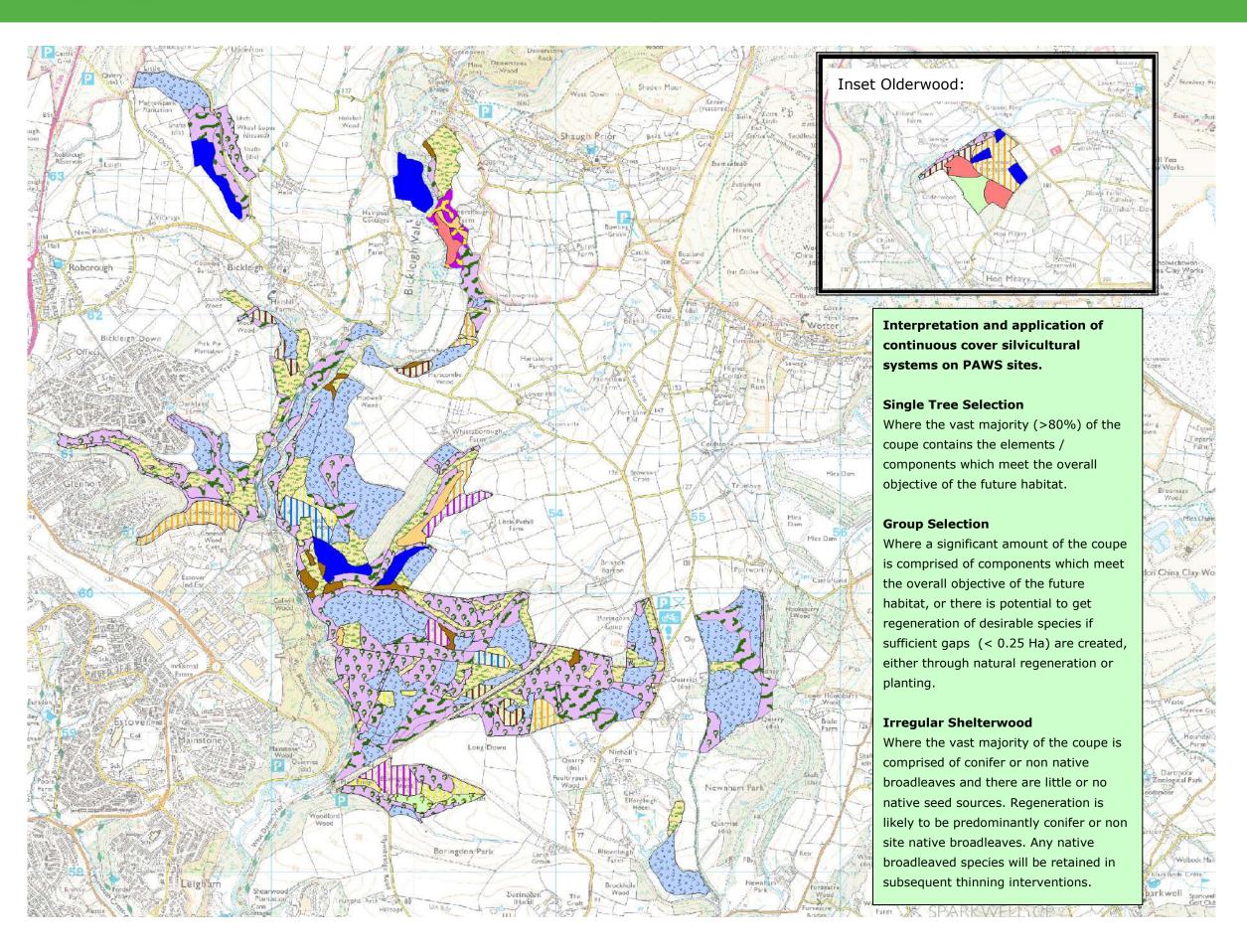


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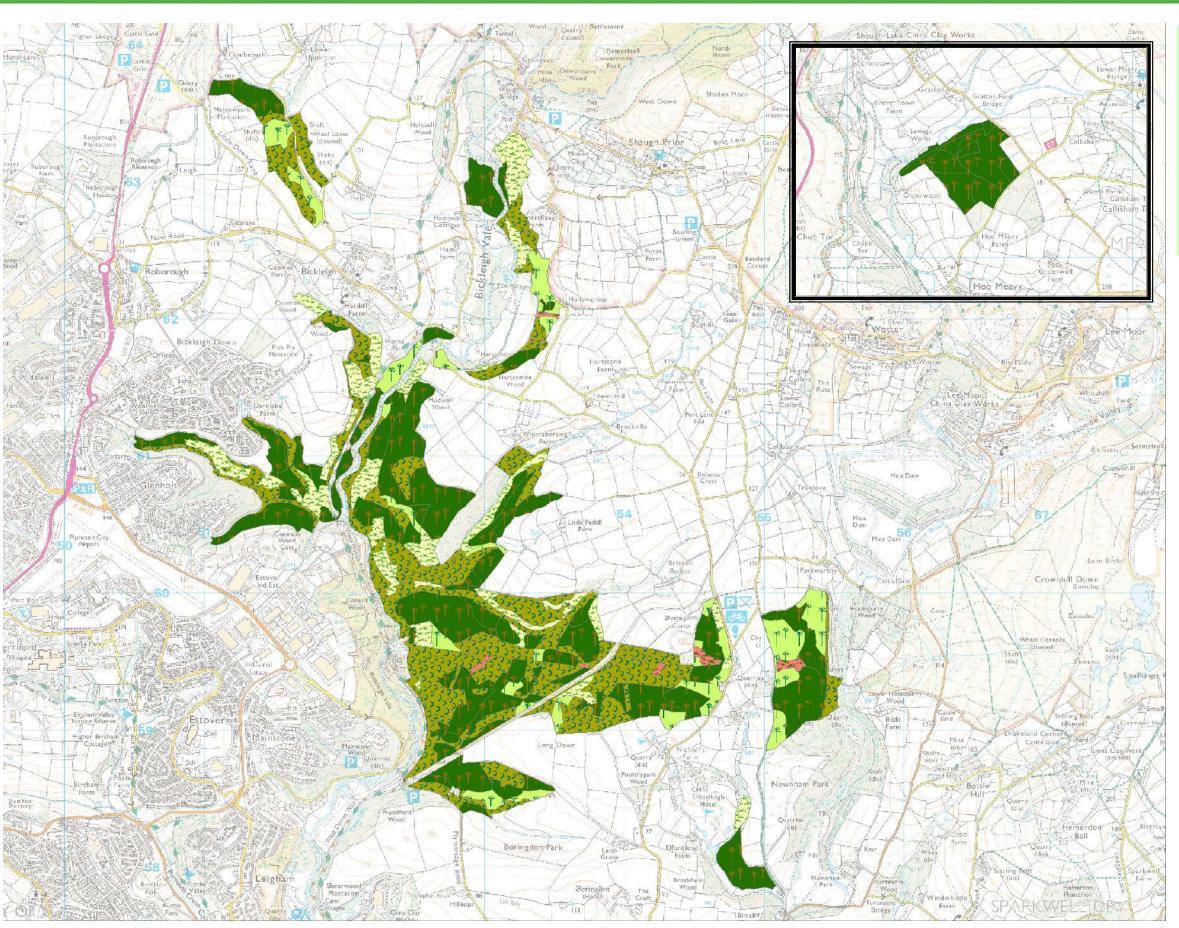


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Future Species

Indicative species mix expected within the next 30 years.

Permanent Open Space

Open space, shrub & broadleaf mix

Mixed native and non site native broadleaves

Predominantly conifer with broadleaf element

Predominantly site native broadleaves

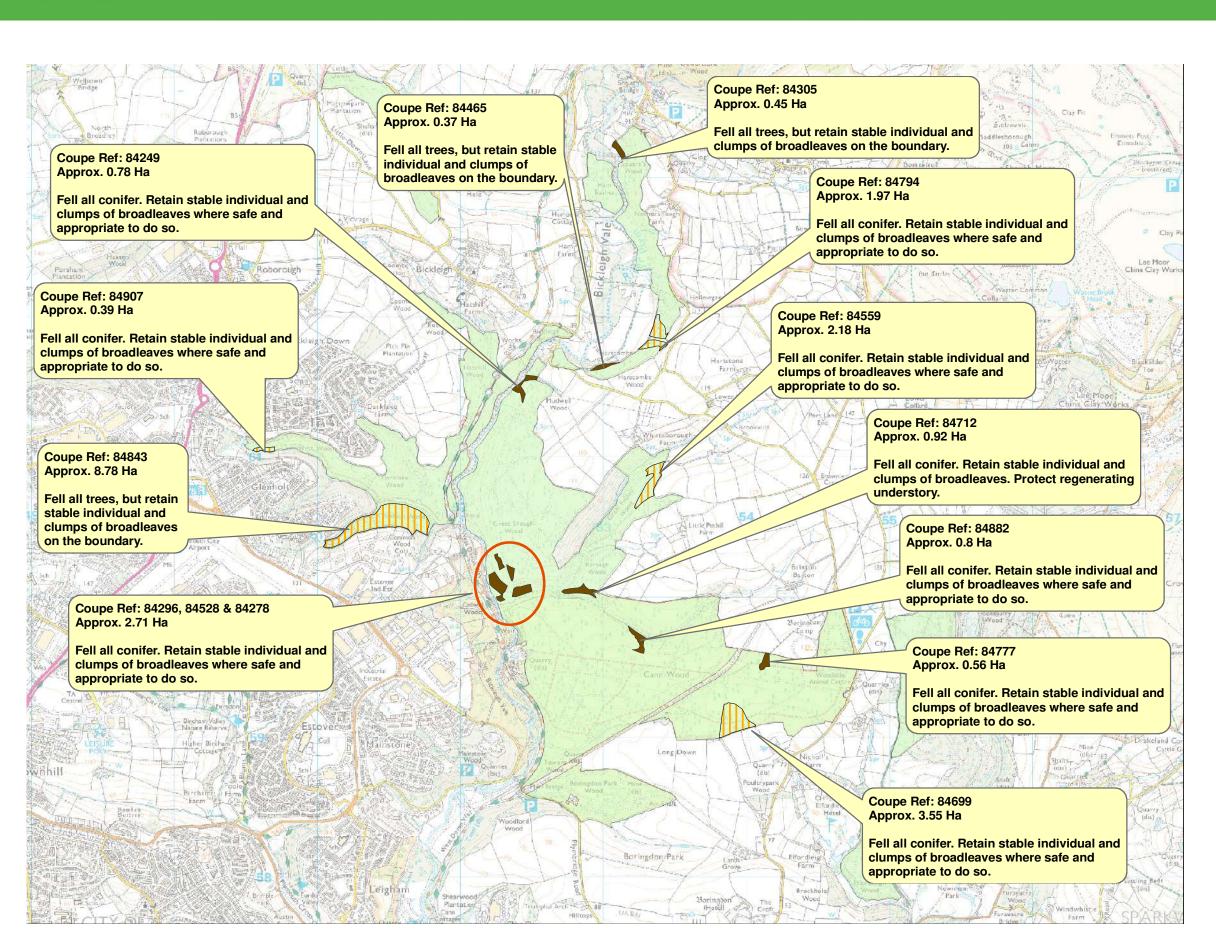


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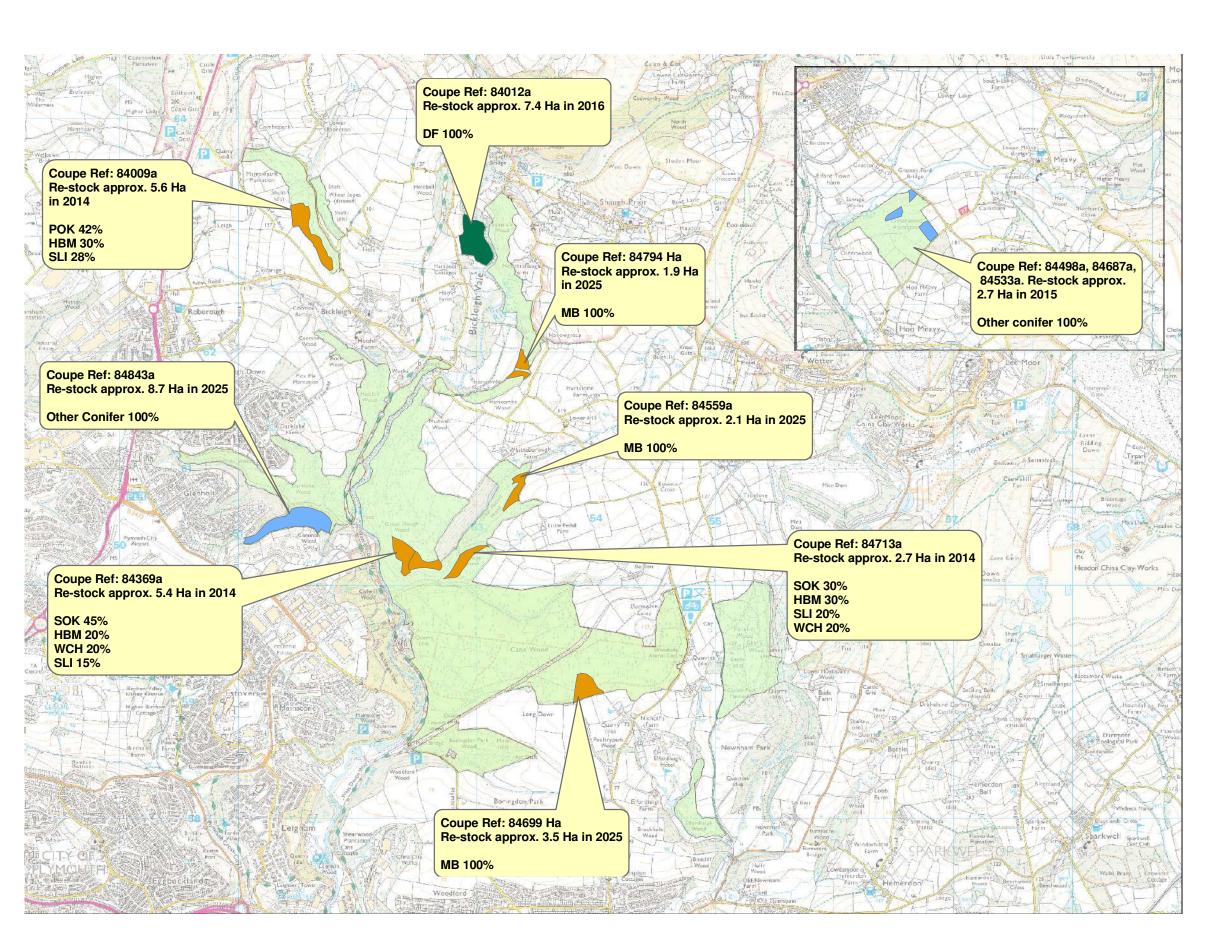


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Consultee	Date Contacted	Date Response Received	Issues Raised	Forest District Response to Issues
Guy Ferguson, National Trust	17/12/13	N/A	No Response	N/A
David Cobbald, Newnham Estate.	17/12/13	N/A	No Response	N/A



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

Peninsula Strategic Plan Peninsula Strategic guide to Planning, Design and Management of Woodlands Design and Management of Environmental Corridors

Local Policies and Guidelines