

Ethy Forest Plan

2013 - 2023

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1.0 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.

Ethy 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.

1.1 Strategic Objectives

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.

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 Design Plan (FDP) level Scheduled Monuments will simply be mapped on the Heritage map layer.

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.

2.0 Location Map



3.0 General Description

Topic	Description	Implications for Management	Proposals
3.1 Woodland Summary	Ethy is a mixture of productive conifer plantation and mature / regenerating broadleaves. It is classified as an ancient woodland site and scattered small groups and individual examples of the older remnant native broadleaves are still evident. The Ancient woodland survey show predominantly W10 – pendunculate oak, bracken, bramble with smaller areas of W14 – beech bramble and W16 oak, birch and wavy hair grass.	<p>The present and future commercial value of the conifer crops is significant in this relatively small and isolated woodland, but is impacted upon by the access (see below).</p> <p>Ongoing management of the broadleaves will develop and enhance woodland structure and promote its expansion.</p>	<p>Apply a mixed model approach including some clearfell areas spread over a wide time period, but manage the majority of the woodland under a lower impact system.</p> <p>Increase the potential for natural regeneration throughout.</p>
3.2 Location & Access	<p>Ethy Wood is located roughly 4 kilometres South East of Lostwithiel. It lies between the River Fowey and the River Lerryn.</p> <p>It is within St Winnow Parish council area and very close to St Veep Parish council boundary.</p> <p>Vehicular Access to the FC landholding is from a network of B roads through an agricultural holding which then leads to an unmetalled road belonging to the National Trust.</p> <p>The 51.1 Hectares of land is predominantly wooded and has good internal access routes.</p>	<p>The woodland is well used for walking by local people and visitors to this popular tourist area and there is a well signed Public Right of Way.</p> <p>The approach road is in fairly poor condition and large vehicle movements are likely to impact on the surface. Consideration needs to be given to other users of the road.</p>	<p>The scale and timing of intervention needs to take account of the potential damage to the road and safety of users, whilst remaining economically viable.</p> <p>Consultation with neighbours and the Council Highways department at operational planning stage is essential.</p> <p>Smaller timber wagons may need to be used.</p>
3.3 Tenure & management agreements	Ethy is registered as freehold woodland with the Land Registry.	As freehold woodland the Forestry Commission has dedicated the area as access land under the Countryside and Rights of Way Act (CROW 2000).	Restrictions on public access are only likely when forest operations require working areas to be closed to the public for reasons of safety.

Topic	Description	Implications for Management	Proposals
3.4 Physical Environment	<p>Elevation of the plan area ranges from 0 – 60m above datum.</p> <p>Aspect of the woods is mainly southerly. The river Fowey and Lerryn boundary two sides of the woods.</p> <p>Rainfall ranges from 444mm in the Summer to 724mm in the winter.</p> <p>The underlying geology is Cornish Killas and Granites, Middle & upper Devonian. Soil type is Brown Earth. The Soil Moisture Regime is fresh and the Soil Nutrient Regime is medium.</p> <p>Slopes range from level to 33% with a few areas on the river banks above 33%.</p> <p>Aspect ranges from Easterly to South Westerly.</p>	<p>Of the main species present on site the Forestry Commission Ecological Site Classification (ESC) tool currently rates them as Suitable or very suitable. The only exception to this is Noble fir which is rated marginal due to moisture deficit.</p> <p>Using the same tool the 2050 Hi model which predicts impact of climate change rates the main species as follows:</p> <p>Suitable / Very Suitable – Radiata Pine, Japanese Larch, Sycamore, Silver Birch, Beech, Pedunculate Oak, Wild Cherry and Sweet Chestnut.</p> <p>Marginal / Unsuitable – Ash, Norway spruce, Douglas fir, Noble fir. The main limiting factor for Norway spruce and Douglas fir is stability and for Noble fir and Ash it is moisture deficit.</p>	<p>Due to its status as an ancient woodland site, conifers will not be planted on the site in future. Management will aim to expand the area of native broadleaved woodland where possible by means of natural regeneration.</p>
3.5 Landscape Setting and Designations 3.5 Landscape Setting and Designations (cont'd)	<p>Countryside Agency Landscape Character Area (LCA) CA21 Fowey Valley.</p>	<p>Relevant extracts from the LCA: The Lerryn creek flows to the Fowey Ria (drowned Valleys). The banks of the Ria and creeks are very steep in places enclosed by large expanses of Oak woodland, some of it ancient. Woodland around water is the dominant characteristic of the lower section of this Character Area. Many Ancient woodland sites have been planted with conifers, maintaining continuous woodland but with 'ancient' sites fragmented and declining, diluting the local historic landscape pattern. One of the pressures affecting the condition is further change from broadleaved woodland to conifer plantation. Guidelines for planning and management quote 'Encourage woodland regeneration both along the banks of the Ria and in the inland valleys' and 'Conserve existing areas of Ancient Woodland</p>	<p>Forestry Commission Policy for managing ancient woodland sites is in line with LCA and Cornwall AONB recommendations for such sites.</p> <p>The woodland will be managed to deliver economic, social and environmental benefits in such a way that the quality of the local landscape will be maintained or enhanced.</p>

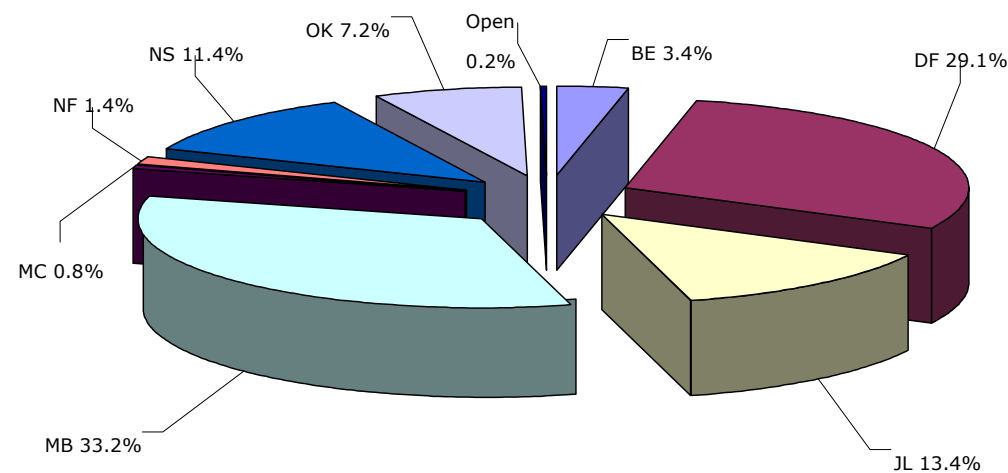
Topic	Description	Implications for Management	Proposals
	Cornwall Area of Outstanding Natural Beauty.	<p>and encourage reversion of plantations to broadleaved woodland when felled’.</p> <p>The Cornwall AONB Management plan endorses the following actions which are relevant to this design plan:</p> <ul style="list-style-type: none"> - Exemplify diversity of natural and semi-natural habitats, - The landscape is accessible - Habitats are actively managed 	

4.0 Management Objectives

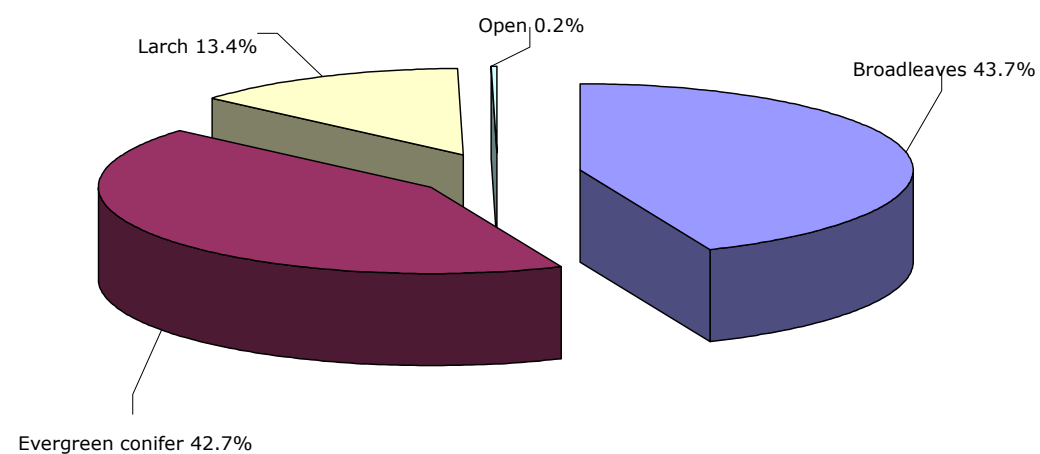
- Continue sustainable management of the woodland resource to the standards required to maintain FSC & PEFC accreditation.
- Promote the development of native woodland species to replace existing areas of conifers ideally by means of natural regeneration.
- Develop the woodlands resilience to changes in climate & the impact of tree diseases through diversification of of species and woodland structure.
- Maintain the wooded landscape and ensure quality of coupe design enhances the external landscape. Continue to develop a greater diversity in age structure within the woodland and develop areas of permanent open space.
- Protect and conserve all heritage & cultural features.
- Maintain the high quality of the landscape and promote opportunities for it’s enjoyment from the woodland.
- Maintain low key informal recreation provision in the woodland.

5.0 Silvicultural Management and Implementation

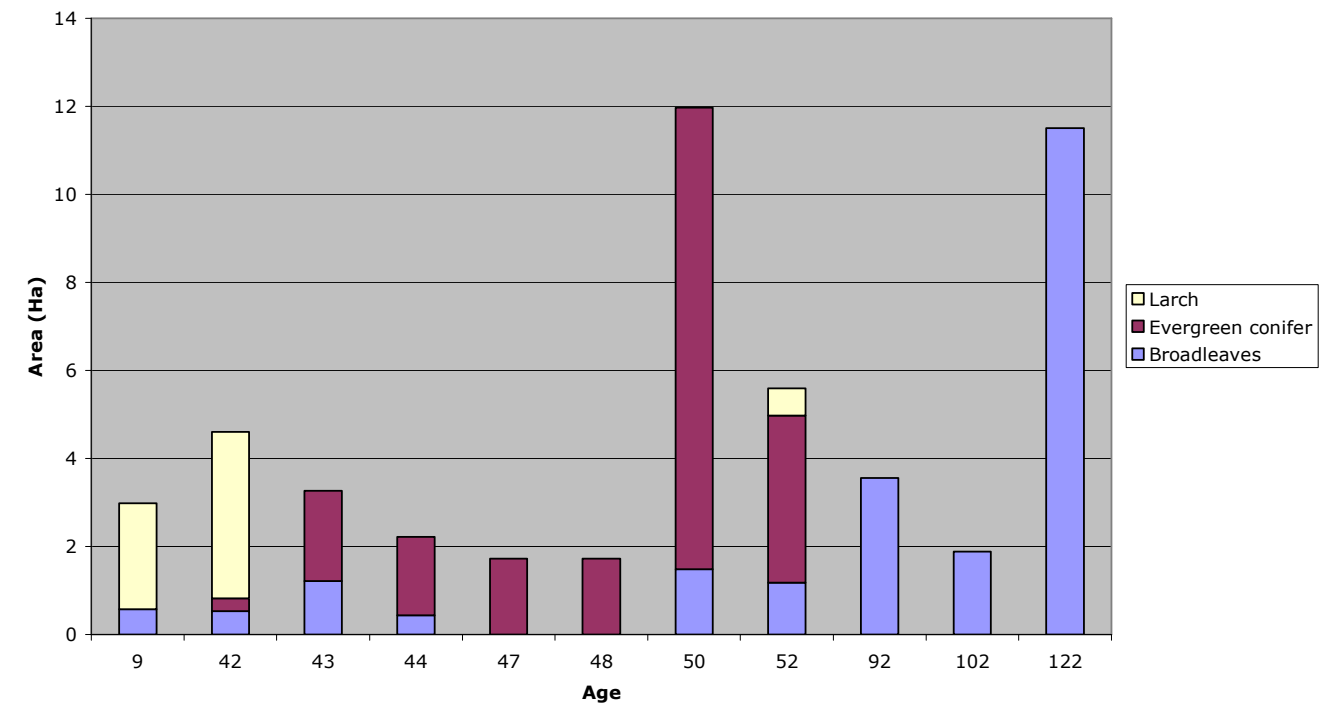
Current Species Composition in Ethy



Current Species Groups in Ethy



Ethy - Age class distribution 2013



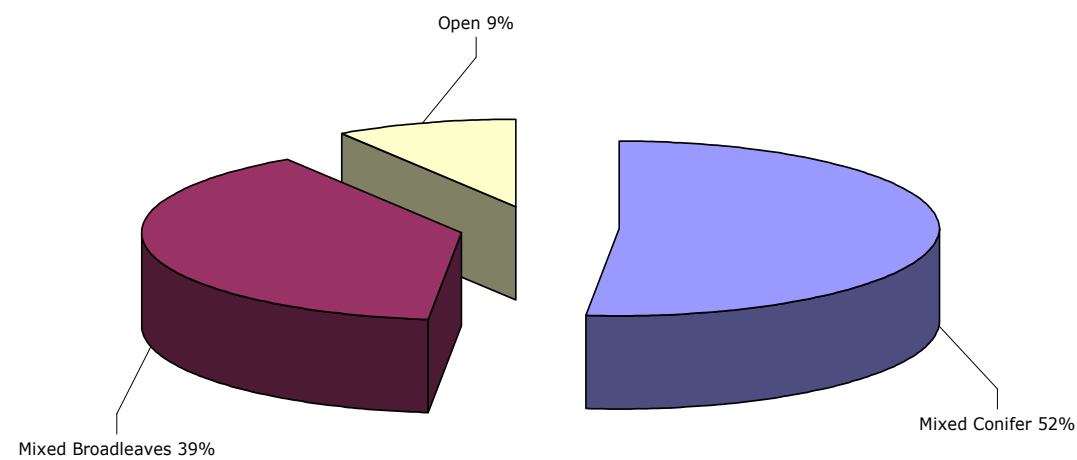
Species and Habitat Composition

This design 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.

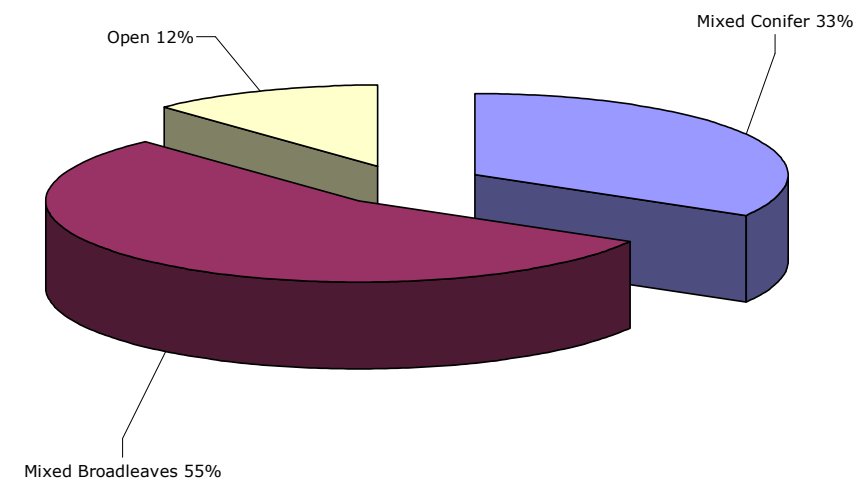
Age structure

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

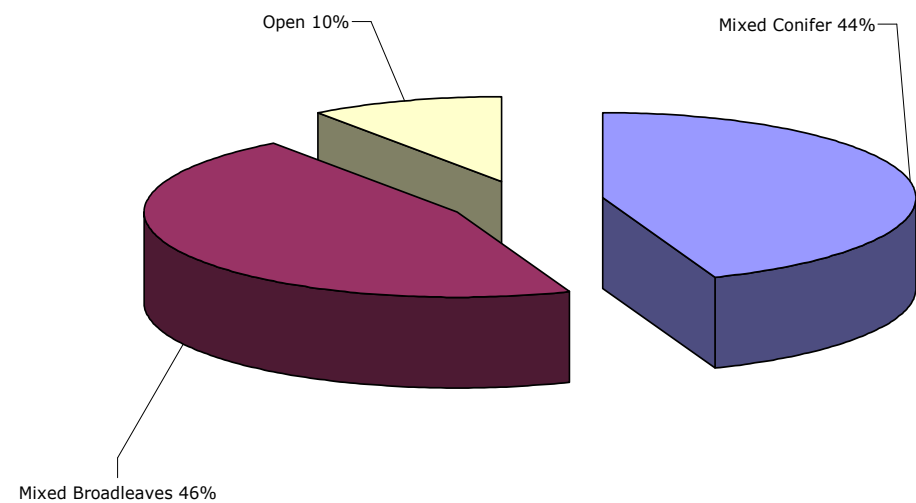
Projection of Future Species Groups in 2017



Projection of Future Species Groups 2080



Projection of Future Species Groups in 2038



Future Species Model

Because the main silvicultural system in this woodland block is one of continuous cover relying on natural regeneration, the timing of establishment and composition of species is difficult to predict. 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.

Because Ethy is classified as PAWS (Plantation on Ancient Woodland Site) a mixed model approach for management here is designed to see how the woodland responds in terms of colonisation with native broadleaved species. The preferred method of regeneration is to allow it to occur naturally. Two factors which will have an influence on regeneration is lack of seed source and competition from vegetation. There are other issues such as predation by mammals but the rationales deal only with silvicultural management.

Rationale for Clearfell coupes

The areas selected for clearfell are those least likely develop a greater degree of naturalness through thinning. Each coupe has different attributes which either enhance or reduce the possibility of regeneration. The coupes selected for felling in this plan period (i.e. felling phase 2017 – 2021) have varying levels of advanced regeneration and availability of suitable seed sources either within or adjacent to them. How these areas respond in terms of regeneration may influence how we manage the remainder of the clearfell areas proposed in this plan.

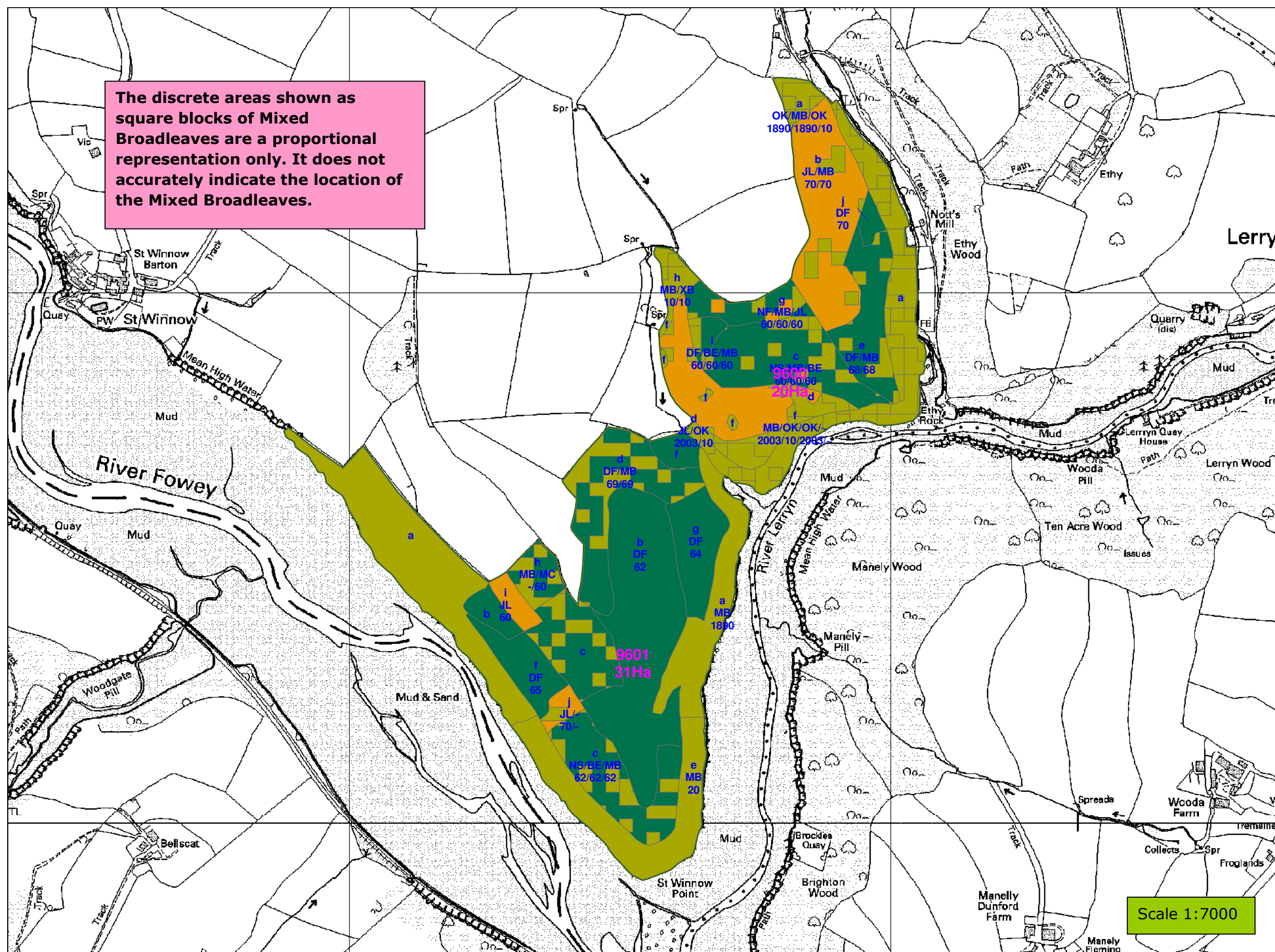
Rationale for Lower Impact Systems

Similarly there is a range of sites chosen for this system. However, in general there is a greater proportion of advanced regeneration and, or mature / semi mature native broadleaves present, either individually or in groups. The Establishment date in the attribute data for the continuous cover coupes (Group and individual selection) is an estimate of when the area is likely to develop a complex structure – i.e. more than 2 storeys. As with the clearfell system there is no certainty that the woodland will respond in this way, within this period of time.

Implementation

In order to provide the best opportunity for the woodland to regenerate naturally it would be appropriate to apply some common practice when carrying out thinning interventions. In short this would entail:

- Removing competition from potential seed sources and / or any advanced regeneration.
- Managing the remaining canopy to control the growth of weed species.



Current Species Groups

- Mixed Broadleaves
- Evergreen Conifers
- Larch



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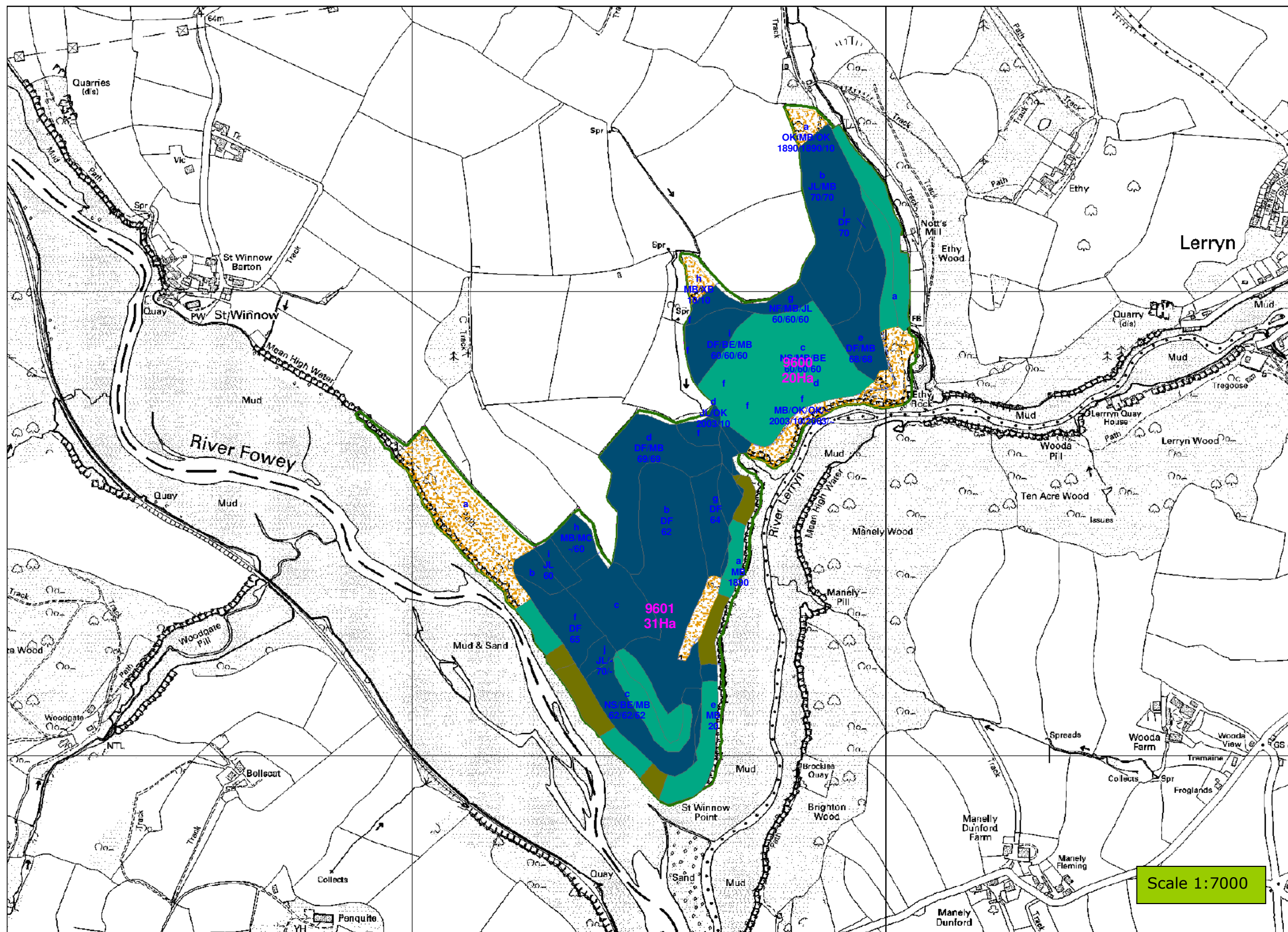
Forestry Commission woodlands have been certified in accordance with the rules of the Forest Stewardship Council








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Scale 1:7000

Scale 1:7000



Woodland Naturalness

-  Other
-  Plantation with 20 - 50% Native Trees
-  Plantation with <20% Native Trees
-  Re-asserting Native Woodland
-  Semi-natural Woodland



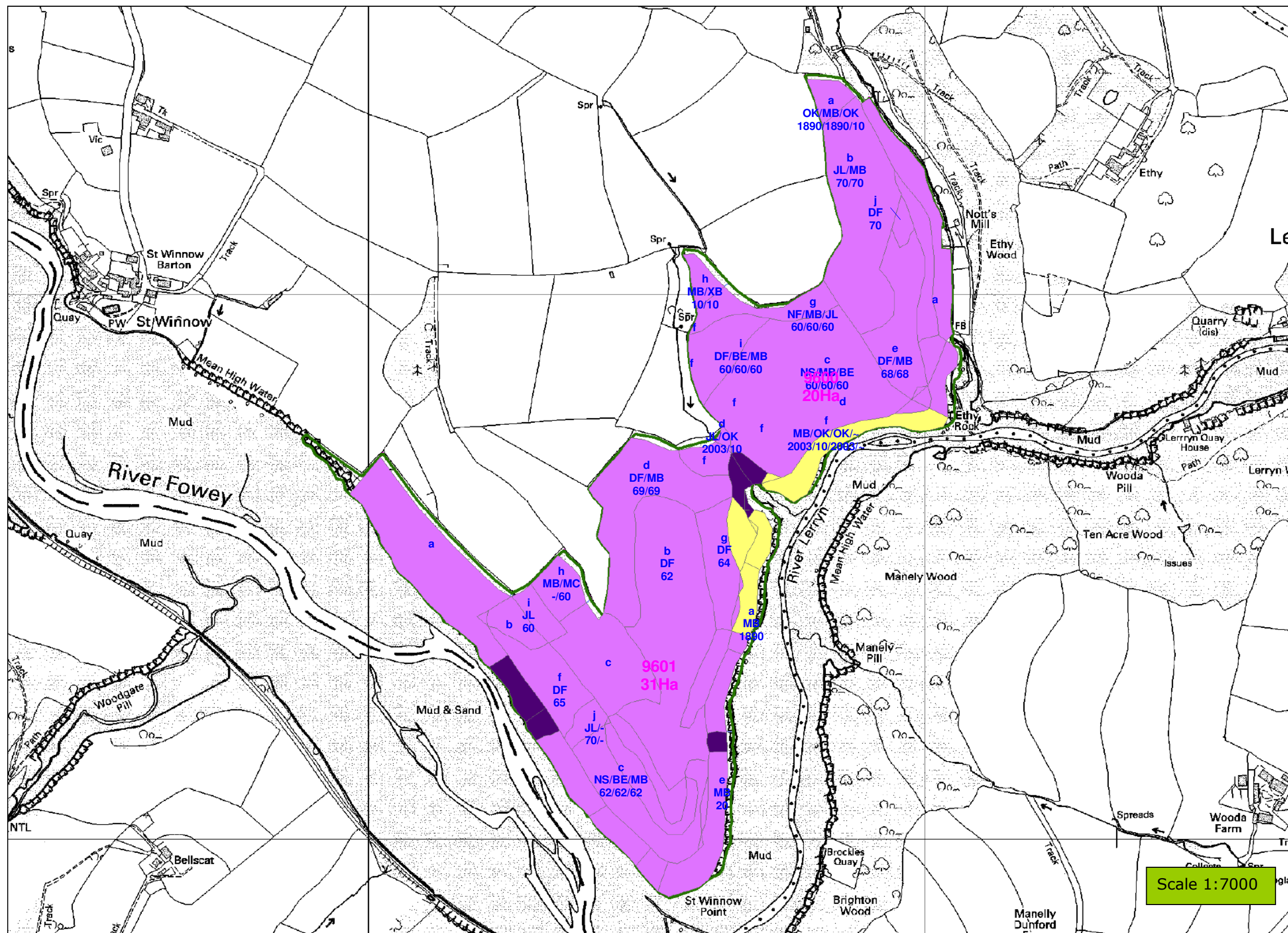
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NVC Classification

Community

- W4 Birch woodland with purple moor grass
- W5 Alder woodland with Greater Tussock-sedge
- W8 Lowland mixed broadleaves with dog's mercury
- W10 Lowland mixed broadleaved woodland with bluebells/wild hyacinth
- W12 Beech - Ash woodland with dog's mercury
- W14 Beech - Oak woodland with bramble
- W15 Beech - Oak woodland with wavy hair grass
- W16 Lowland Oak - Birch woodland with bilberry
- Wet Woodland
- Other



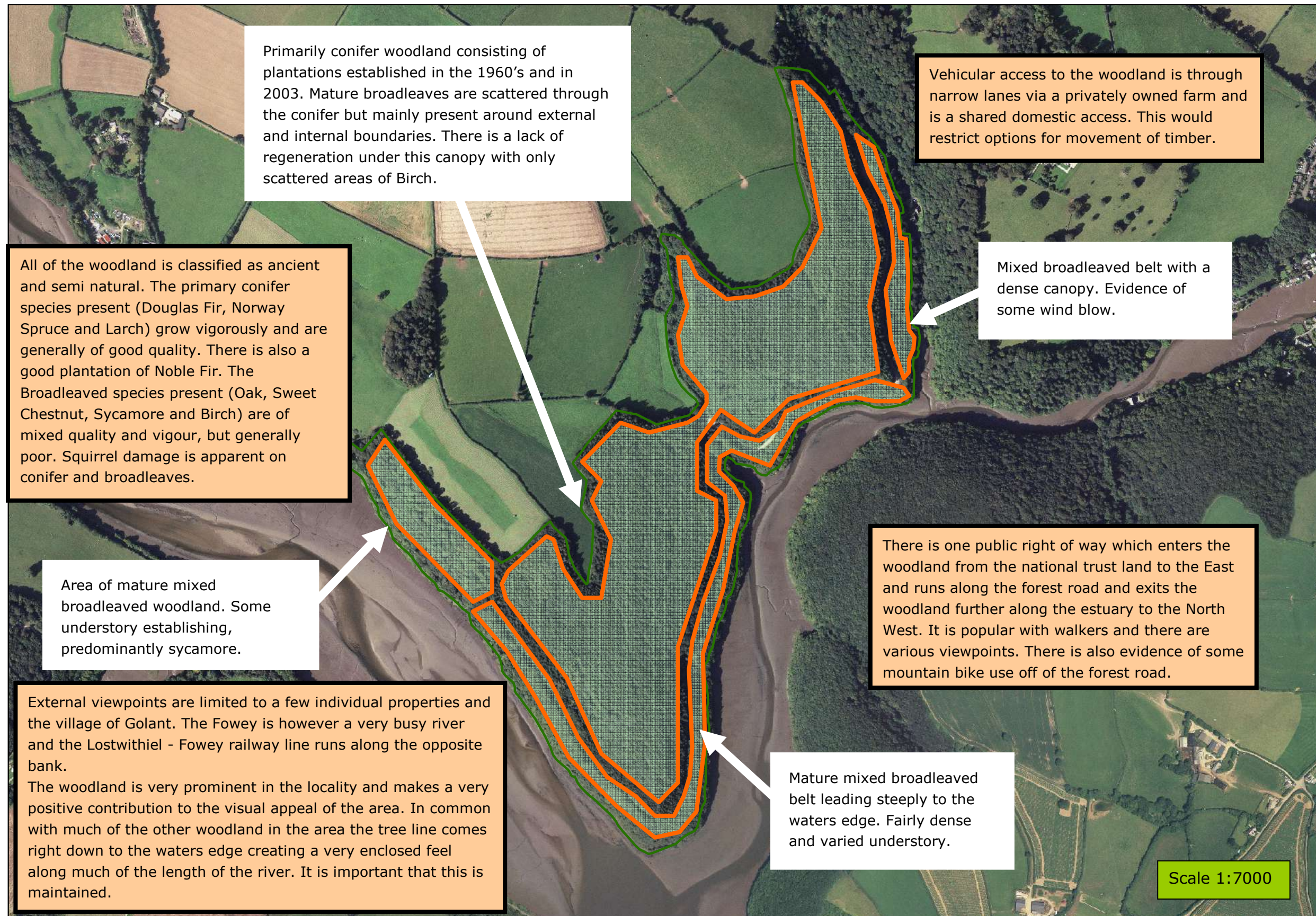
Forestry Commission



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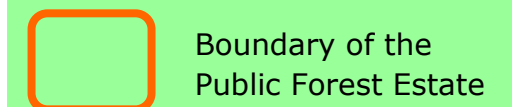


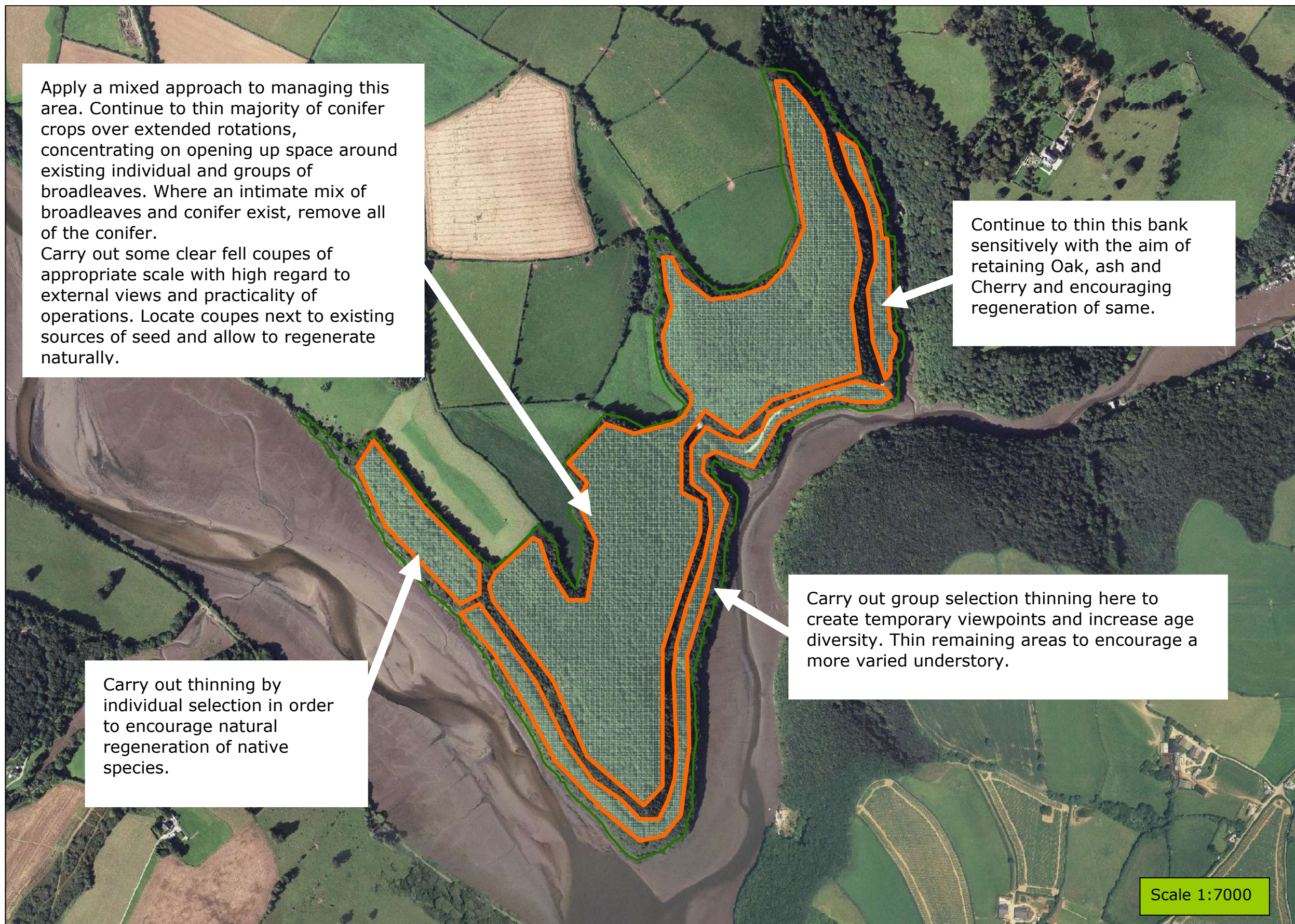
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Analysis Map

This map briefly describes the woodland and some of the issues.





Concept Map

This map describes the broad intentions for the management of the woodland.



Boundary of the
Public Forest Estate



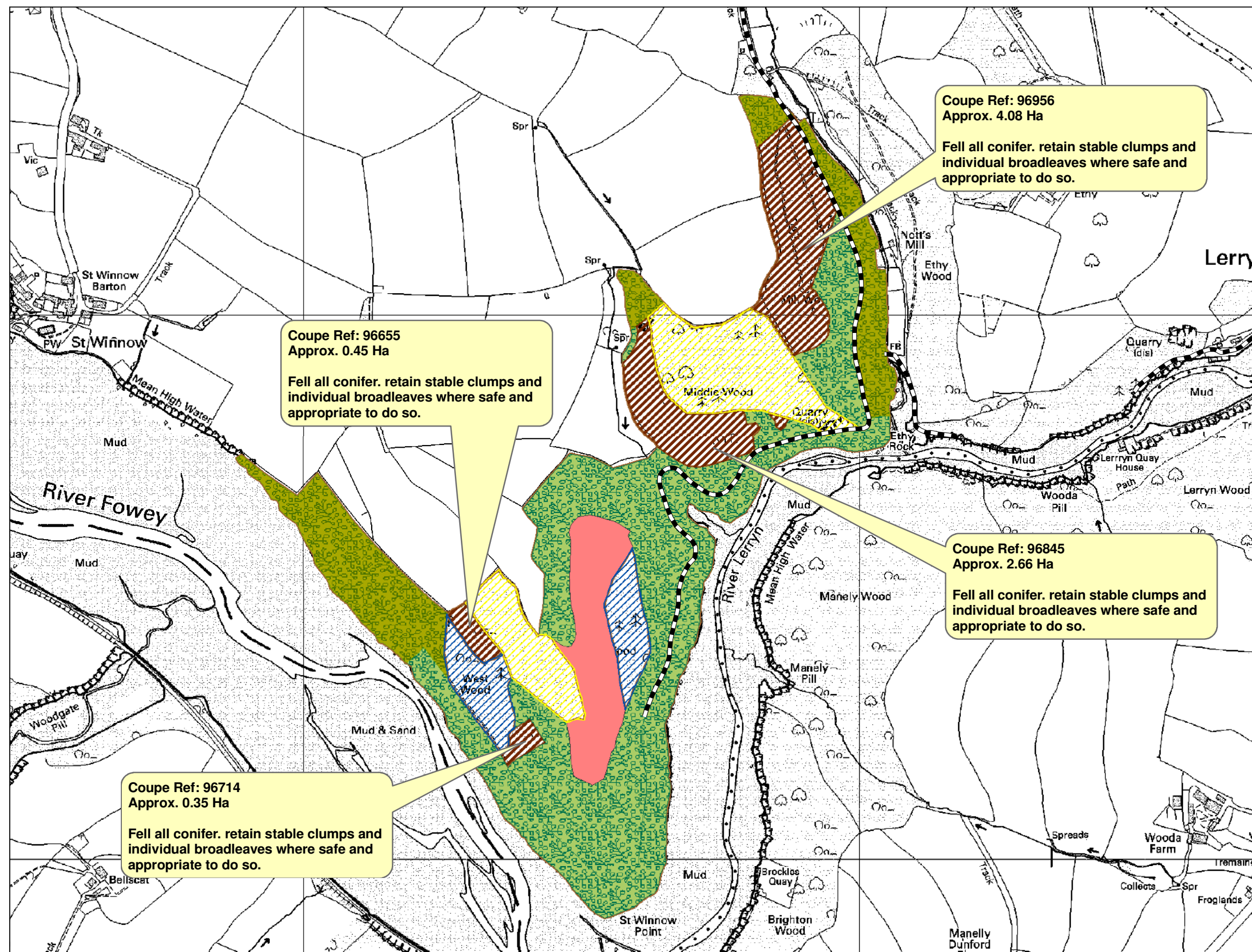
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Felling and Silvicultural Systems

— Road Segments

Fell Year / Management Type


 Fell 13/14 under Plant Health Notice

 Fell 2027 - 2031

 Fell 2042 - 2046

 Fell 2057 - 2061

 Group Selection

 Individual selection



1:7,000



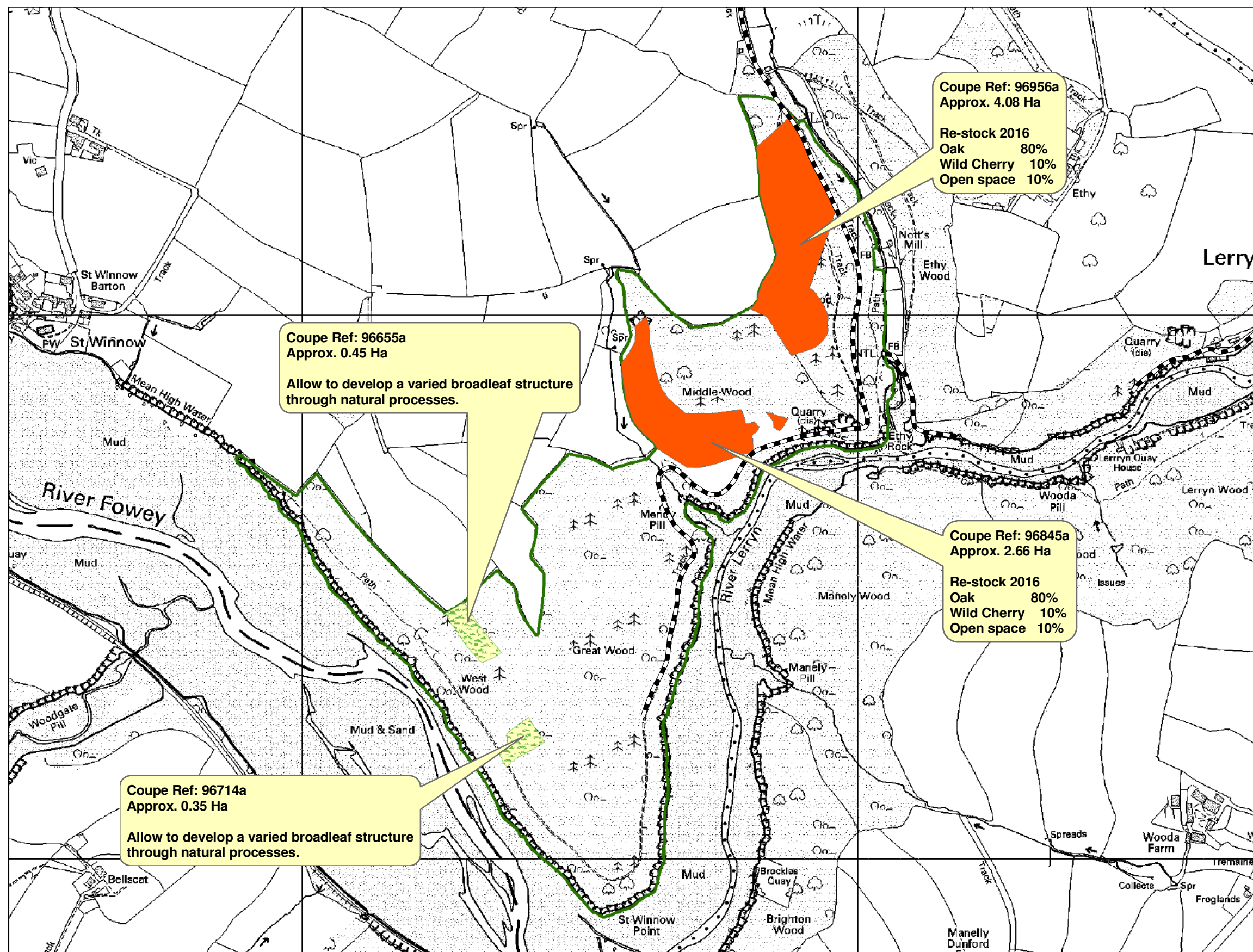
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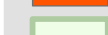
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Re-stocking / Regeneration within plan period

-  Road Segments
-  Successional Habitat
-  Plant - Oak & Cherry
-  Management Area



1:7,000



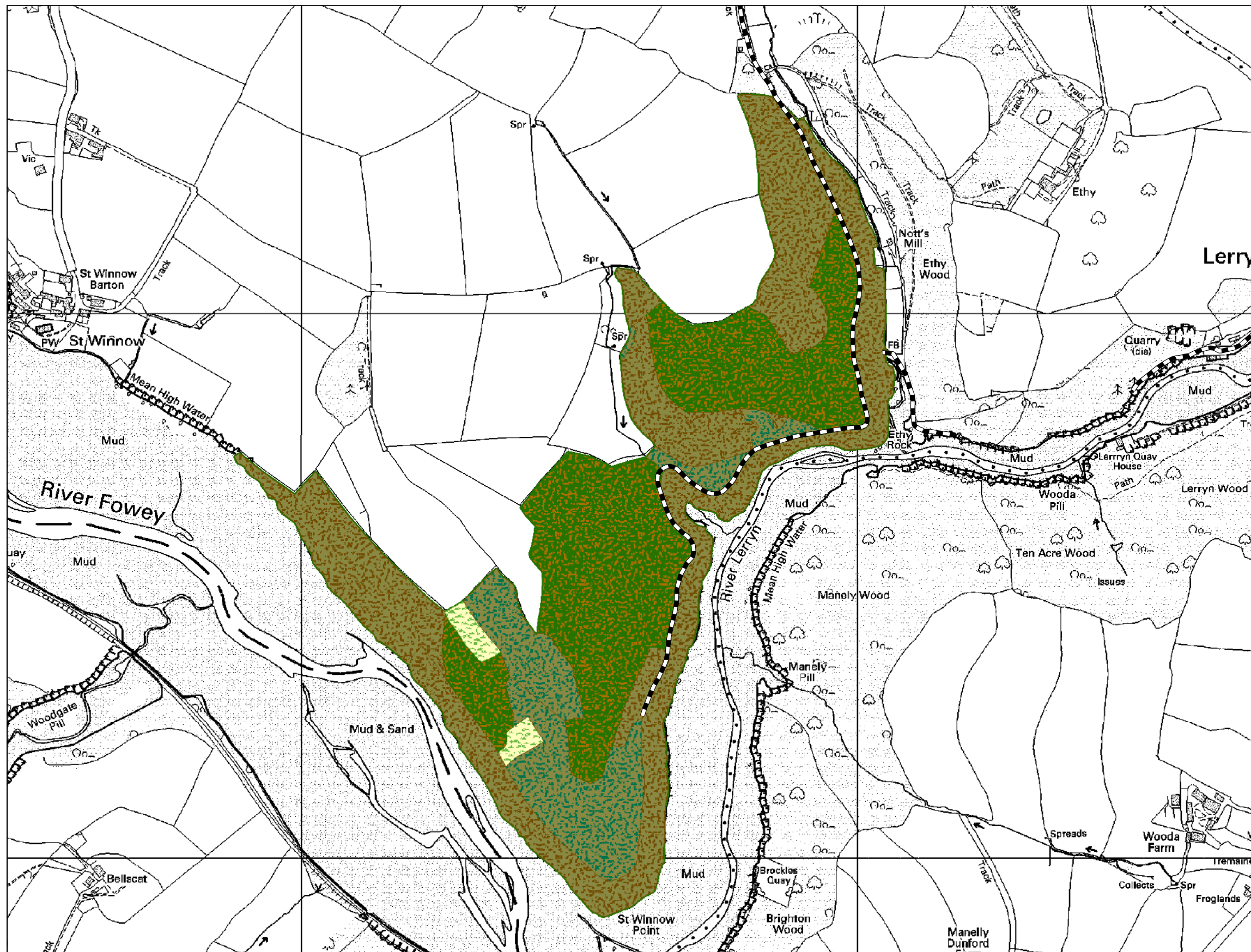
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


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Indication of species change in the long term

-  Successional Habitat
-  Conifer thinned to increase broadleaf element.
-  Broadleaves
-  Predominantly broadleaves with conifer element.
-  Road Segments



1:7,000



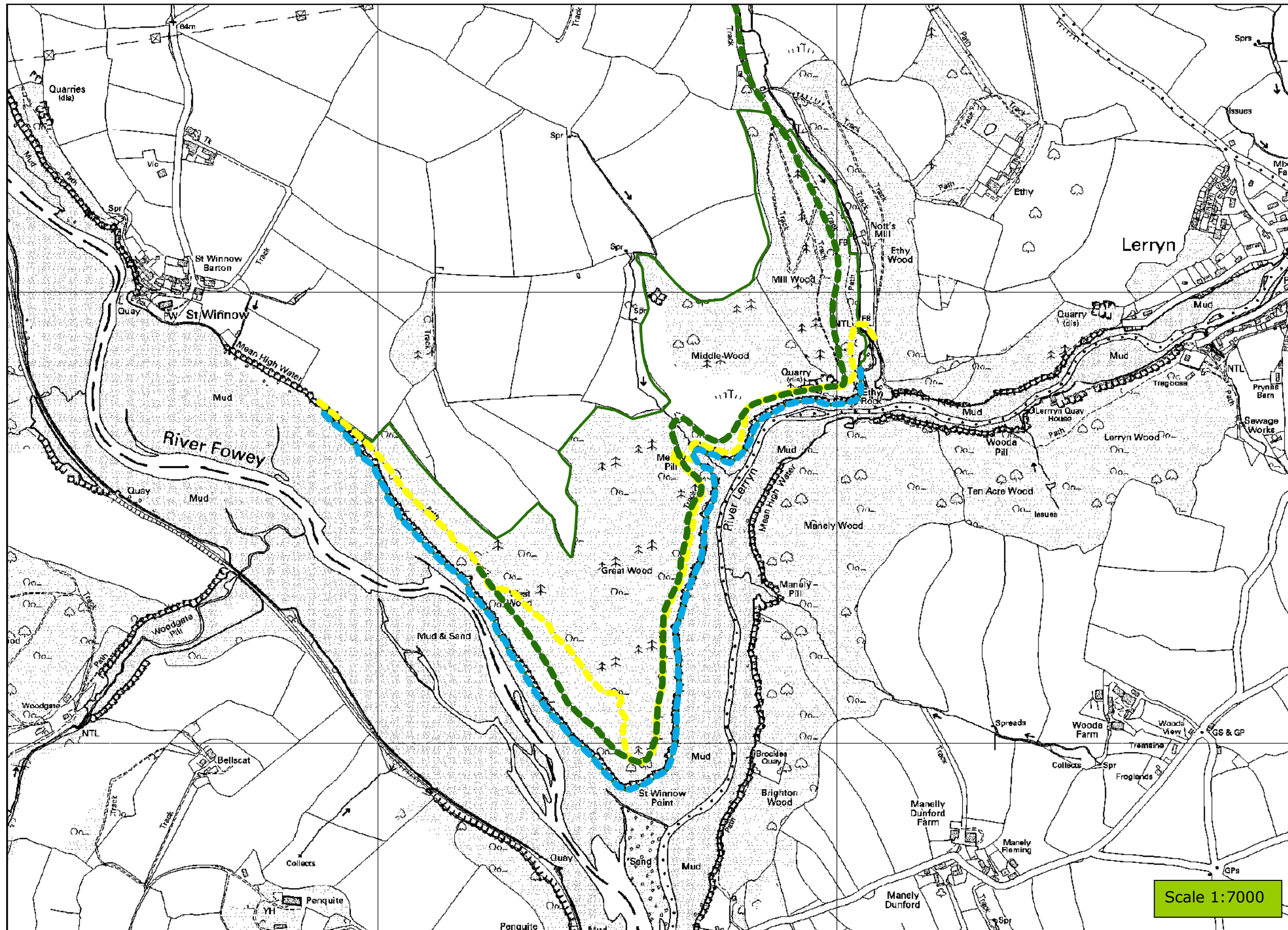
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Corridors

Type

- Forest Road
- Recreation
- Watecourse



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

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 forestry policies and guidelines

Peninsula Strategic Plan (pending publication of West England Strategic Plan)

Local policy