

Linsty Green Forest Plan 2017



Planning and District Context

The Strategic Plan for the Public Forest Estate in England outlines the delivery of forest policy at a national level. At a regional level there are six Forest Districts covering the country that directly oversee the implementation of policy actions in local public forest estate woodlands. Forest Enterprise England is the organisation responsible for managing the English public forest estate.

North England Forest District (NEFD) is the management unit that manages the public forest estate in Northern England. This is an extensive area encompassing 9 county or unitary authority areas from the Scottish border to Durham and Lancashire.



Our task is to realise the potential of each of the forests in our care for sustainable business opportunities, wildlife and nature conservation, and the enjoyment and well-being of local people and visitors. Each of our forests supports the economy through local jobs, sustainable timber production and the provision of recreation and tourism opportunities. All are funded by revenue from timber sales and recreation provision.

The woodlands of the district are currently arranged in 62 management areas, and their management is covered by individual ten year Forest Plans that identify local issues and the broad silvicultural management of the woods. Forest Plans are reviewed every five years.

These plans and their associated forest operations ensure that produce from the woodlands is endorsed by the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC) as being produced from woodlands under good management that meet the requirements of the UK Woodland Assurance Scheme (UKWAS) and the UK Forest Standard (UKFS).

Individual Forest Plans aim to deliver a range of public benefits with achievable objectives that deliver the three drivers of sustainable land management outlined in the North England Forest District Strategy.



These key drivers are supported by the following Forest District Policy;

- we will optimise the financial return from timber production compatible with achievement of other forest district objectives while complying with the UK Forestry Standard and meeting the requirements of the UK Woodland Assurance Scheme
- we will provide public access to all our forests and woodlands where there are no legal or safety restrictions. We will encourage and permit a wide range of recreational activities from walking and quiet enjoyment to more specialised activities including orienteering, horse riding and motor sports.
- we will ensure that rare and threatened habitats are protected and managed to maintain or enhance their conservation value

Linsty Green Forest Plan

This is the second revision for Linsty Green Forest Plan. There are no significant changes to the previous plan but brings it up to date in terms of work achieved over the last 10 years and ongoing implementation of the management objectives.

Part 1 Background Information

Introduction

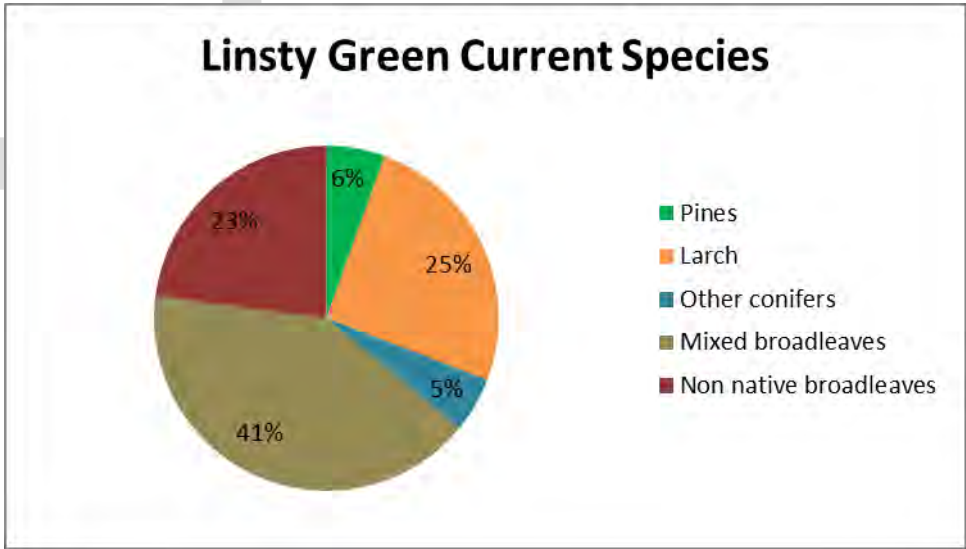
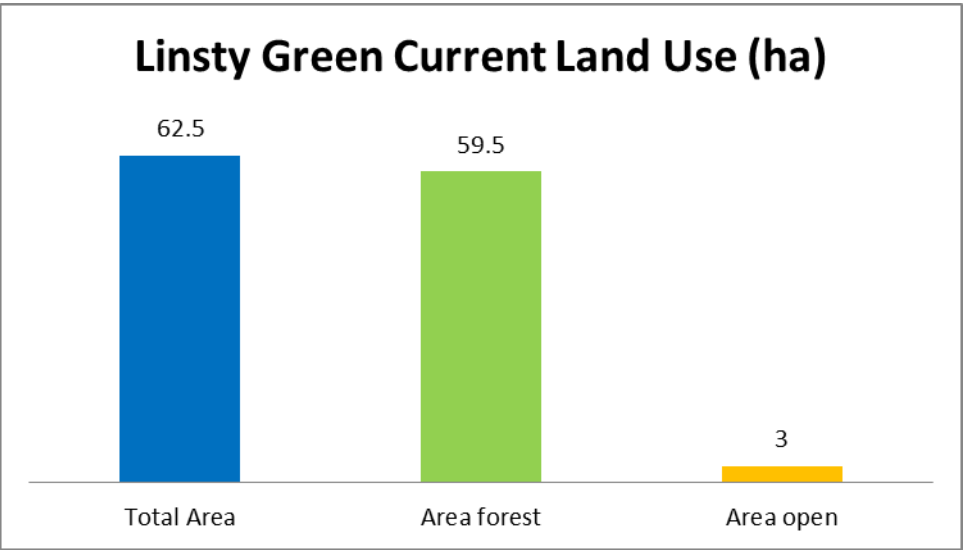
The woodlands of Linsty Green occupy an area of 63 hectares, and comprise several blocks, with the larger ones being known as Linsty Green, Great Hagg and Black Beck Mire. They are situated within the southern end of the Lake District National Park between the villages of Haverthwaite and Newby Bridge, overlooking the River Leven and the busy A590 road. Most of the land is leased from Finsthwaite Estate, and the Pennybridge Estate, with one part of the southern block being freehold.

The mixed species woods are fragmented by minor roads and are part of a densely wooded landscape, much of which is either semi-natural woodland or plantation on ancient semi-natural woodland site. Linsty Green has both categories, and the plantations range from pure exotic conifer to broadleaf-conifer mixtures. In the last 5 years the majority of Linsty Green has had a proportion of non-native trees removed in thinning operations. In recent times the conservation and expansion of locally native habitat allied with an attractive landscape are the main long term management objectives.

Current Woodland composition, species and timber potential

Forest type ranges from Upland oak with a bilberry understorey, pure larch to intimate broadleaf / conifer mixtures. Two smaller outlying blocks in the Rusland Valley mainly comprise attractive high quality young beech. Most of the plantations were established in the early 1960's but there are scattered veteran trees, in particular Scots pine and yew.

The woods are generally mixed species, both native and non-native trees being present. Stands are even aged but there are remnants of an older woodland type. Veteran crab apple, Scots Pine, yew and oak can be found scattered throughout and are protected during harvesting operations.



The productive capacity of the area is moderate and commercial larch plantations typically achieve Yield Class 10 to 14. Reasonable quality broad-leaved species are present and generally achieve Yield Class 4 on the better soils.

Intermittent thinning had taken place during the last 20 years but recently all the blocks with the exception of Black Beck Mire have been thinned, and additional clear fells worked in Linsty Green, A major storm in early 2005 caused extensive damage to conifers in Great Hagg. The result of this work is that all seed bearing Western hemlock have been removed, along with solid areas of canker infected European larch, and a proportion of other conifers. Consequently the proportion of locally native broadleaves has increased, and also they have more space to grow. Natural regeneration has started to appear with birch being the most widespread

and also oak but there are pockets of hemlock. Black Beck Mire is a very dense plantation of mainly beech and mixed conifers, with scattered pockets of oak, yew and alder, and is in need of intervention to safeguard these native species.

Designated areas

All the woodlands are situated wholly within the Lake District National Park and are either Plantations on Ancient Woodland Site (PAW's) or Ancient Semi Natural Woodland (ASNW). The ancient woodland status of the forest dictates that there is a presumption for conversion to native species in line with current Forestry Commission policy.

Landscape, Topography and Soils

Linsty Green is located within in the South Cumbria Low Fells Landscape Character Area (LCA) where two main themes are relevant:

1. Forestry for environment and conservation
2. Forestry for recreation, access and tourism

Linsty Green is part of a wooded hillside overlooking the River Leven and on the other side, the Rusland Valley.

Landscape interest is highly sensitive, and public footpaths run through the woods. There are significant external viewpoints, mainly from the A590 heading in a westerly direction and a longer view from Brow Edge, Backbarrow. The recent thinning has made the woodlands more attractive, and there is great potential to make Black Beck Mire more attractive by thinning, particularly along the roadside. Over time, the woodlands should provide an attractive landscape both from the busy A590 and internally for low key recreation like walkers.

In landscape terms:

- The overall shape and scale of the wood within the landscape is acceptable.
- The wood is a little lacking in structural and internal diversity but this is improving as the programme of thinning progresses.

The main soil type is upland brown earth with rocky skeletal outcrops in places. Topography varies from flat through to steep, and the latter in combination with rocky gullies and limited access means that harvesting is expensive. Wind hazard is typically in the range 2 to 3 and crops are relatively stable. This increases the range of options available for management.

Communities and recreation

It is Forestry Commission policy to promote informal recreation such as walking, cycling, picnicking, and studying wildlife. We also seek to provide opportunities for more specialist users and for events when this is compatible with site conditions and other management objectives.

Recreational activity in Linsty Green is informal. The lessor of Great Hagg, Black Beck Mire and the majority of Linsty Green operates a pheasant shoot using an employed keeper in these areas and is unwilling to dedicate this land permanently for open public access. Access is therefore limited to the public rights of way and permissive path.

The section of Linsty Green immediately adjacent to the village of Backbarrow is extensively used by local people. There is one public footpath which is linked with other informal paths to form walking routes within the woodland. One such route follows a previous extraction track and crosses a stile supplied by the LDNPA and installed by the FC onto neighbouring land and loops around back on to the right of way. Our neighbour, Mrs Booth requested this crossing point be installed to prevent damage to the fence and improve access. As well as local people, visitors to the Whitewater Hotel also use the wood and follow locally written guides.

Access to the other smaller blocks is limited to a public right of way because the lessor does not wish to dedicate the land for open public access.

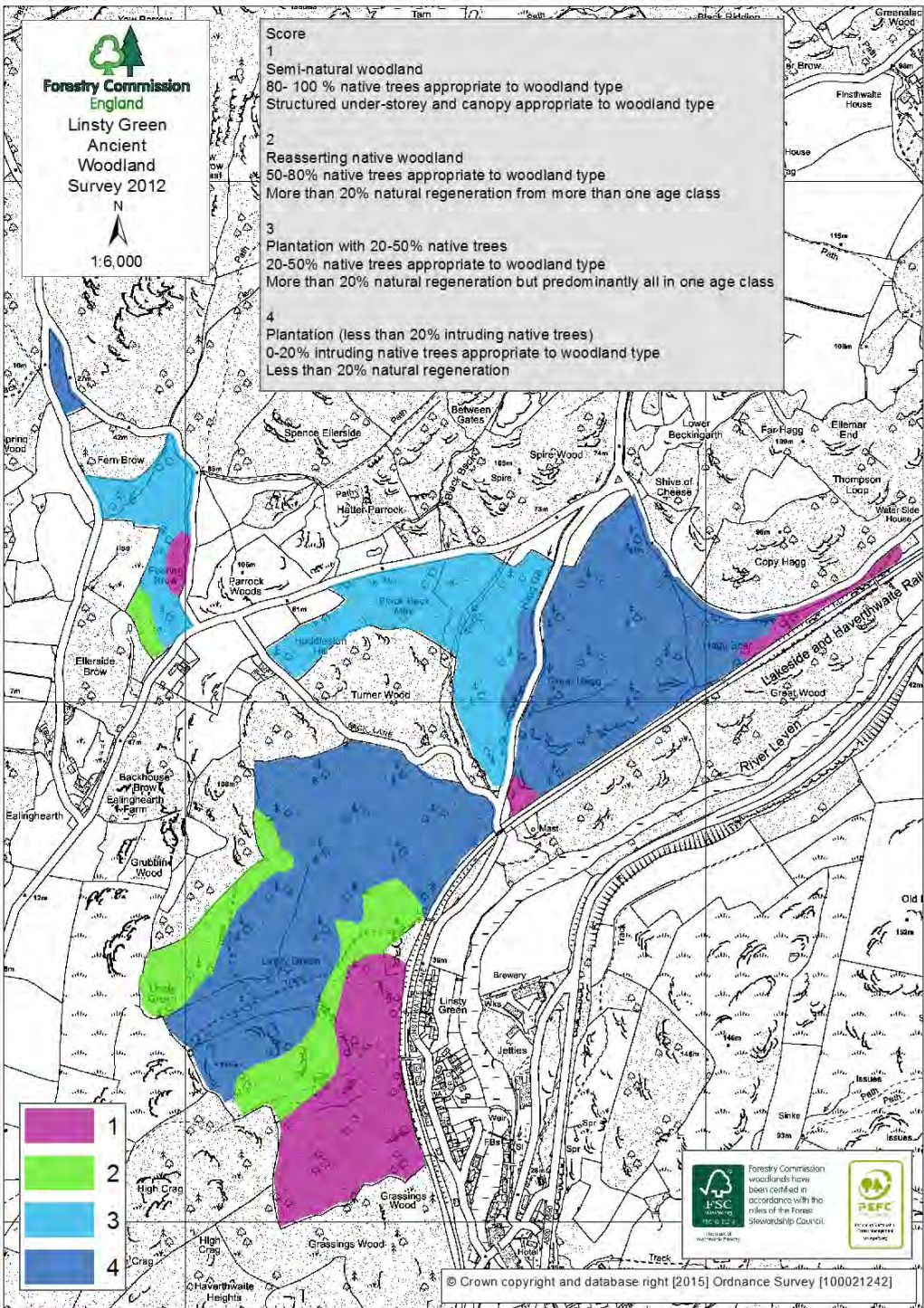
There are periodic problems with fly tipping although this has improved since the woodland has been thinned. Occasionally parts of the woodland are used for small scale orienteering events.

Conservation

The primary objective is to restore Linsty Green to ancient semi-natural woodland in line with the Forestry Commissions Ancient Woodland Policy.

Conservation interest is mostly limited to the area of ASNW and the remnants of this habitat in other areas. Good examples of biodiversity, such as veteran trees, deadwood and riparian zones can be found. Alder Carrs follow some of the watercourses and there are one or two boggy areas and rock outcrops which benefit insects and reptiles as more sunlight reaches the woodland floor following each thinning intervention. A dormouse has been seen in adjacent woodland and although none have been seen in the F.C. woodland and surveys have not been conclusive they could appear particularly as the understorey develops.

Management towards this objective has been ongoing through regular thinning and felling of non-native tree species prior to and through the period of the previous plan. An Ancient Woodland Survey was undertaken in 2012. The results of this survey, shown below in Map 1 will be used to formulate an intervention plan for the PAW's restoration. The rate at which this conversion is achieved will be dictated by successful regeneration of native species following thinning interventions rather than producing a regular sustainable yield.



Heritage

There are no scheduled monuments. A number of undesignated features are located within the woods associated with historic charcoal pit steads and potash kilns. Additionally two milestone markers are situated close to the boundary.

Pests and diseases

Roe deer are present in all woods. Currently the lessor does the deer control with the F.C. having concurrent rights should it be necessary because of excessive deer damage. Grey squirrels are present throughout the woodlands and have the potential to cause damage to mature trees. Larch is under threat from the disease Phytophthora ramorum and consequently there will be no future restocking of larch. Larch will be thinned in areas of continuous cover and proactively removed in the event of disease outbreak.

Access and roading

Due to limited access and no car parking any development of recreation facilities is inappropriate in these woodlands. Access to Black Beck on the PROW is shared with the only available access for timber stacking and haulage shown below.



Part 2 Analysis and Concept

The factors outlined in Part 1 present various opportunities and issues. These are summarised below:

Factor	Opportunities	Issues
Management type	The previous plan changed from a clearfell/restocking management regime to Continuous Cover forestry. There are no plans in this revision to change from CCF but alternative ways to achieve the desired conversion to native MB are proposed as an alternative to natural regeneration.	Deer browsing and dense bracken is adversely affecting the success of natural regeneration of native MB species.
Biodiversity	Improved habitat linkage within the woodland and to adjacent woodland could be enhanced.	Grey squirrels Shading effect of beech
Access/Roading	Small scale timber harvesting possible which limits the disturbance to wildlife and people.	Access for transfer of timber to road haulage is restricted.
Harvesting	Continuous cover management will provide a gradual change in woodland structure which benefits both biological and landscape sensitivity	Yield and timing of operations unpredictable Access to Black Beck for timber stacking conflicts with public right of way
Pests and disease		Deer and grey squirrels present challenges to natural regeneration and hardwood timber quality Sporting rights are retained by the lessee
Future Species/ Climate change	Conversion to locally native MB remains the long term objective. Sycamore could provide a short term cash crop as woodfuel and aid as a nurse species in the suppression of bracken and future replacement with oak	Larch not desirable and ash is not a favoured species in the long term due to Chalara risk. Sycamore would need to be removed prior to reaching seeding age

Current species	Conifer species generally growing well which will provide a sustainable yield throughout the conversion process	Presence of larch (at risk from P. Ramorum), and ash regeneration (at risk from Chalara) will need regular monitoring.
Public access	Low key access to the woodland using PROW and permissive access is appropriate	Leasehold restrictions limit wider expansion of public access. Shared public right of way and timber transfer point in Black Beck

Appraisal of Opportunities and Constraints

Conservation and habitat restoration remain the key drivers for Linsty Green. Previous successful removal of Western Hemlock has had a positive impact on the restoration of semi-natural habitats which combined with regular thinning of the larch and beech crops will provide the opportunity for gradual conversion to locally native mixed woodland. However, the prolific spread of bracken is an issue inhibiting natural regeneration of the desired species. Low key public access is well catered for through the network of public and informal paths.

Part 3 Objectives and Proposals

The following objectives have been identified based on FEE National Policy and NEFD Strategic Plan

Forest District Strategic Goal	How Forest Plan delivers
<p>ECONOMIC</p> <p><u>Wood Production –</u></p> <p><i>‘we will optimise the financial return from timber production compatible with the achievement of other district objectives whilst complying with the UK Forestry Standard and meeting the requirements of the UK Woodland Assurance Scheme’</i></p>	<p>Felling proposals are relatively simple based on the continued thinning of the woodland under a continuous cover regime. Interventions will involve thinning out/removal of the conifer and non-native broadleaf component. The Intervention Plan indicates the number of interventions likely to be required to achieve this using the 2012 AWS to guide frequency and timing of management. Underplanting with locally native species in conjunction with sycamore as a nurse crop to help subdue bracken and provide a viable woodfuel resource in 15-20 years’ time.</p>
<p>NATURE</p> <p><i>‘we will continue to diversify the age class structure of our even-aged woodlands and increase the value of all our woodlands and forest for wildlife’</i></p> <p><i>‘we will ensure that rare and threatened habitats are protected and managed to maintain or enhance their conservation value’</i></p>	<p>ASNW restoration is the primary objective of management and timing and yield of operations will be guided by how the woodland is responding to change and not driven by productivity.</p> <p>Re-survey of ASNW is planned for 2022.</p> <p>Features of interest associated to the ASNW, such as veteran or</p>

	<p>feature trees, will be protected and enhanced during operations through sympathetic management.</p> <p>Underplanting using tree shelters following thinning interventions will diversify the age class structure and species diversity. Control of bracken using sycamore as a nurse crop will reduce the dependence on the use of chemicals for bracken control. This supports the FC’s chemical reduction policy.</p> <p>Create a linked mosaic of hazel and bramble habitat in an attempt to provide future habitat for dormice.</p>
<p>PEOPLE</p> <p><i>‘we will utilise the land and resources at our disposal to assist communities close to our forests to enhance their environments and hence their quality of life’</i></p> <p><i>‘we will provide public access to all our forests and woodlands where there are no legal or safety restrictions...’</i></p>	<p>Due to restrictions in the lease there are no further plans to expand public access beyond the current level of use.</p>

Part 4 Monitoring plan

The objectives identified in section 3 will be monitored in the following ways;

Objective	Criteria for success	Assessment
ECONOMIC Wood production Sustainable economic regeneration	Marketable parcels of timber on offer to local contractors for potential production of firewood, charcoal or on site sawmilling. Improved timber harvesting access and infrastructure	Contract and sales records
NATURE Restructuring	Delivery of Forest Plan felling/thinning/coppicing proposals Ancient Woodland survey	Five yearly Forest Plan review Re-survey planned for 2022
PEOPLE Visual enhancement to visitors.	Maintenance of Ancient woodland characteristics and ongoing restructuring of the woodland.	Five year Forest Plan review.

Part 5 Forest Plan Maps

- Location – 1:50,000 scale showing location in context of other woodland in the local area
- Current Species – species composition in 2016
- Landscape and Topography – indicating the landscape setting of the woodland and local area
- Soils and Geology – indicating soil composition and underlying geology across the woodland
- Conservation and Heritage – statutory and non-statutory conservation and heritage features.
- Access and Recreation - formal public rights of way and FC access.
- 5 Year Intervention Plan – represents outline of 5 year intervention plan.
- Management Type – showing Continuous Cover and areas of Minimum and Low Intervention.
- Future Species – representing the long term vision for future species composition and open habitat.

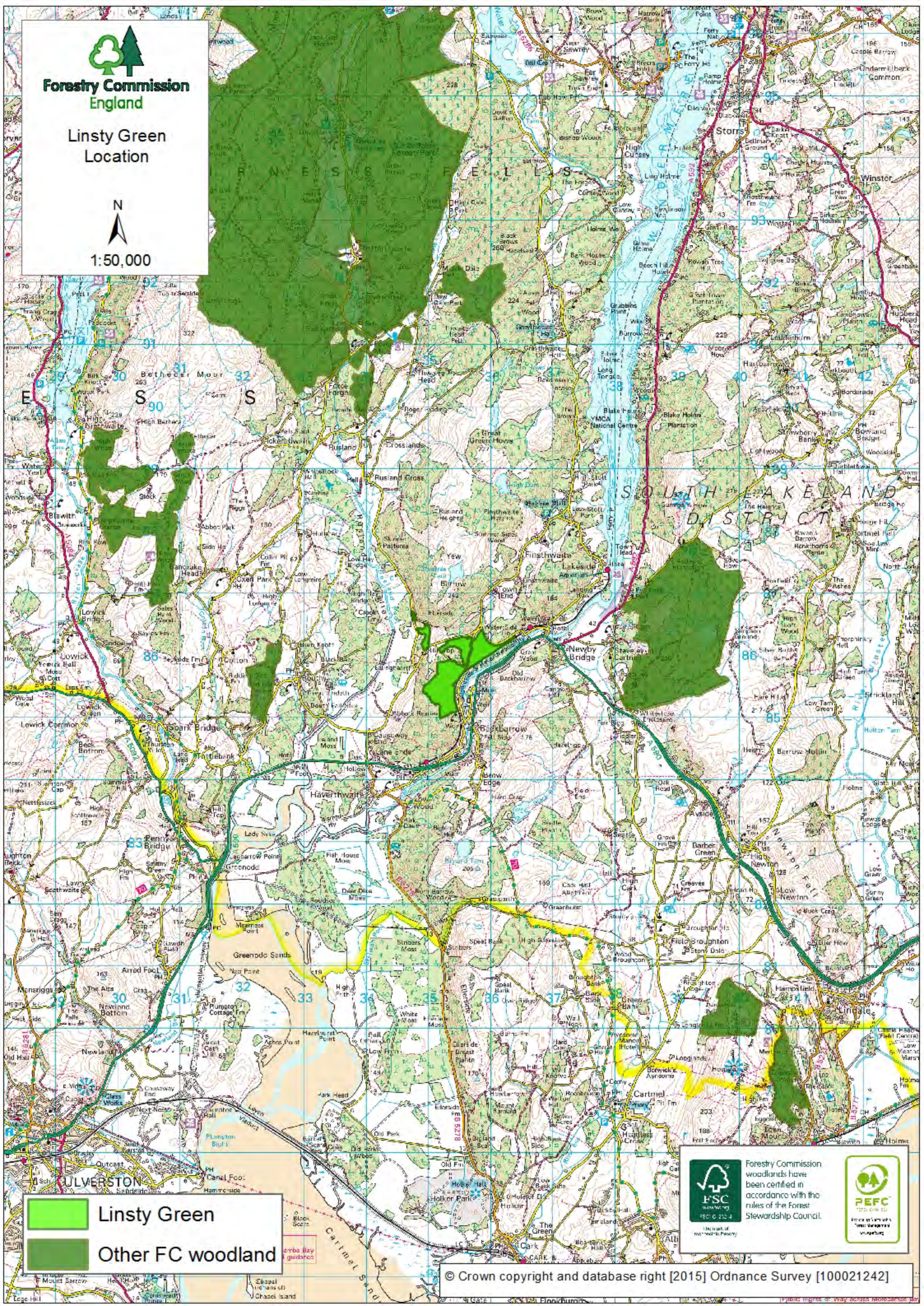



Forestry Commission
England


Linsty Green Location



1:50,000



 Linsty Green

 Other FC woodland



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



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Forestry Commission
England

Linsty Green Landscape and Topography



1:6,000

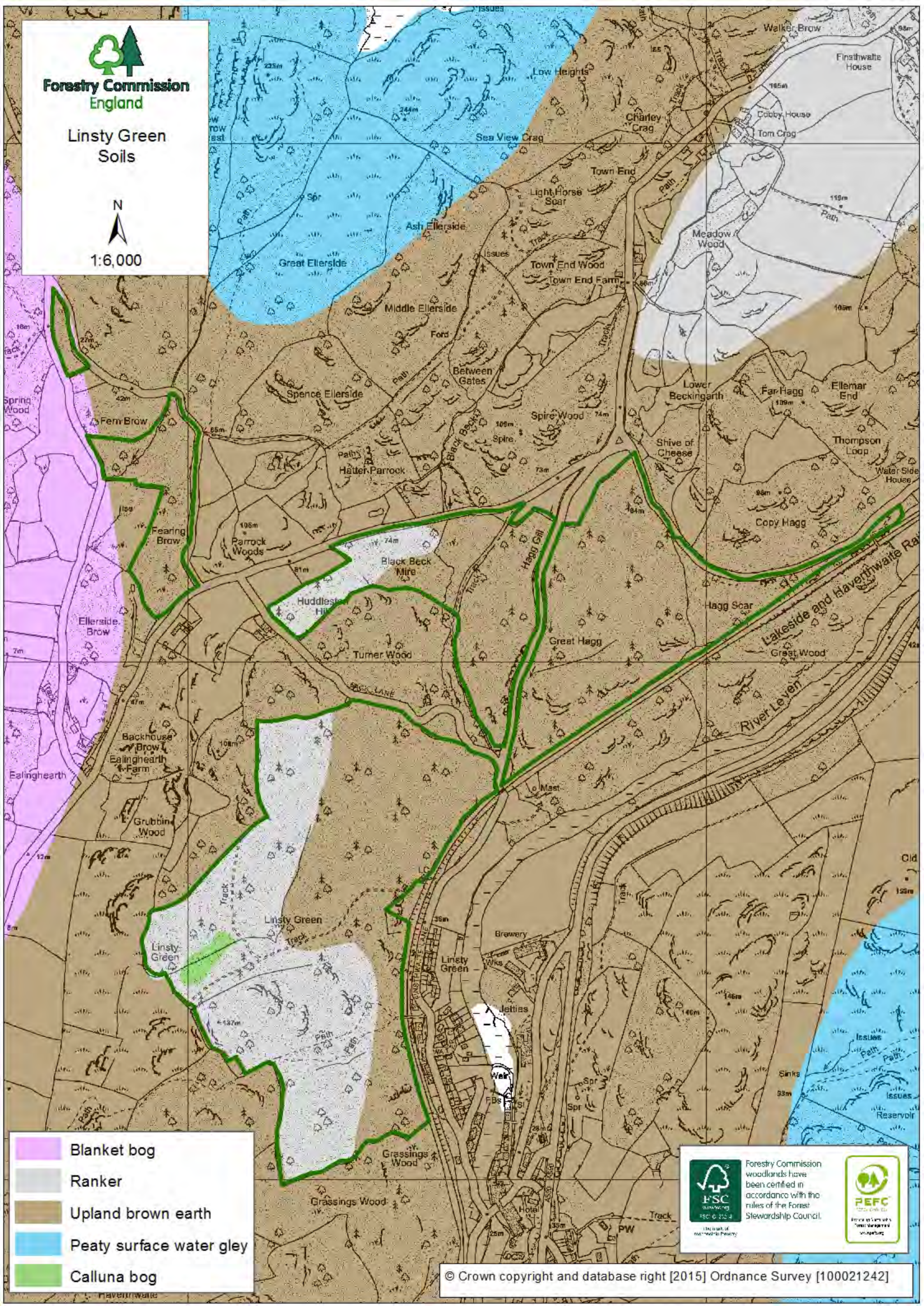
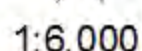
Linsty Green is part of a wooded hillside overlooking the River Leven to the east and on the western side, the Rusland Valley. Landscape interest is highly sensitive, and there are significant external viewpoints, mainly from the A590 heading in a westerly direction and a longer view from Brow Edge, Backbarrow.

 A590
 50m contours



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Calluna bog

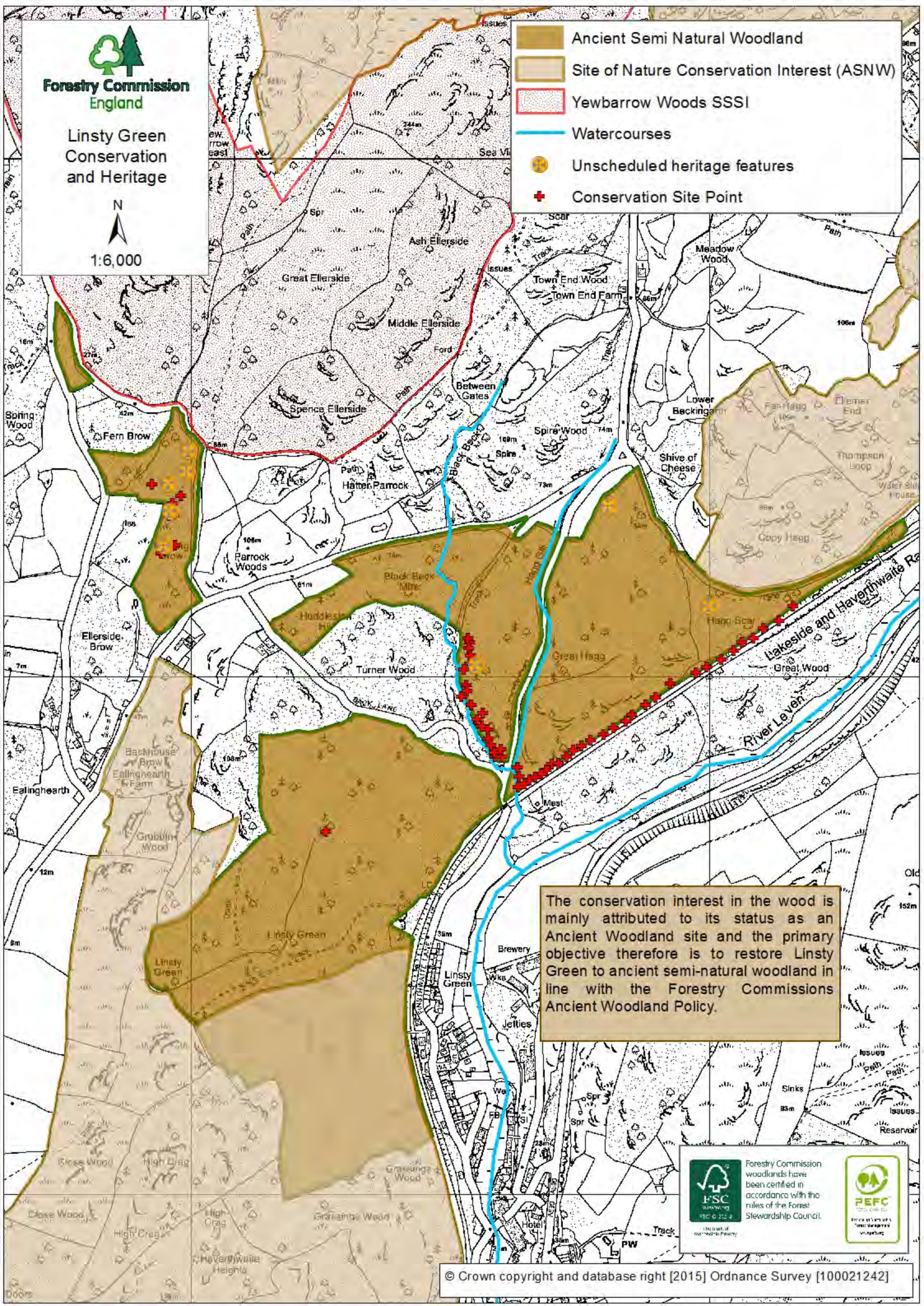


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1:6,000

- Ancient Semi Natural Woodland
- Site of Nature Conservation Interest (ASNW)
- Yewbarrow Woods SSSI
- Watercourses
- Unscheduled heritage features
- Conservation Site Point



The conservation interest in the wood is mainly attributed to its status as an Ancient Woodland site and the primary objective therefore is to restore Linsty Green to ancient semi-natural woodland in line with the Forestry Commissions Ancient Woodland Policy.

Linsty Green Access and Recreation



1:6,000

Low key access to the woodland using public footpaths and permissive access from Backbarrow is appropriate. Leasehold restrictions limit wider expansion of public access.

- Access points
- Open Access
- LDNP boundary
- Footpath
- FC road
- Rides
- Minor road
- Trunk road



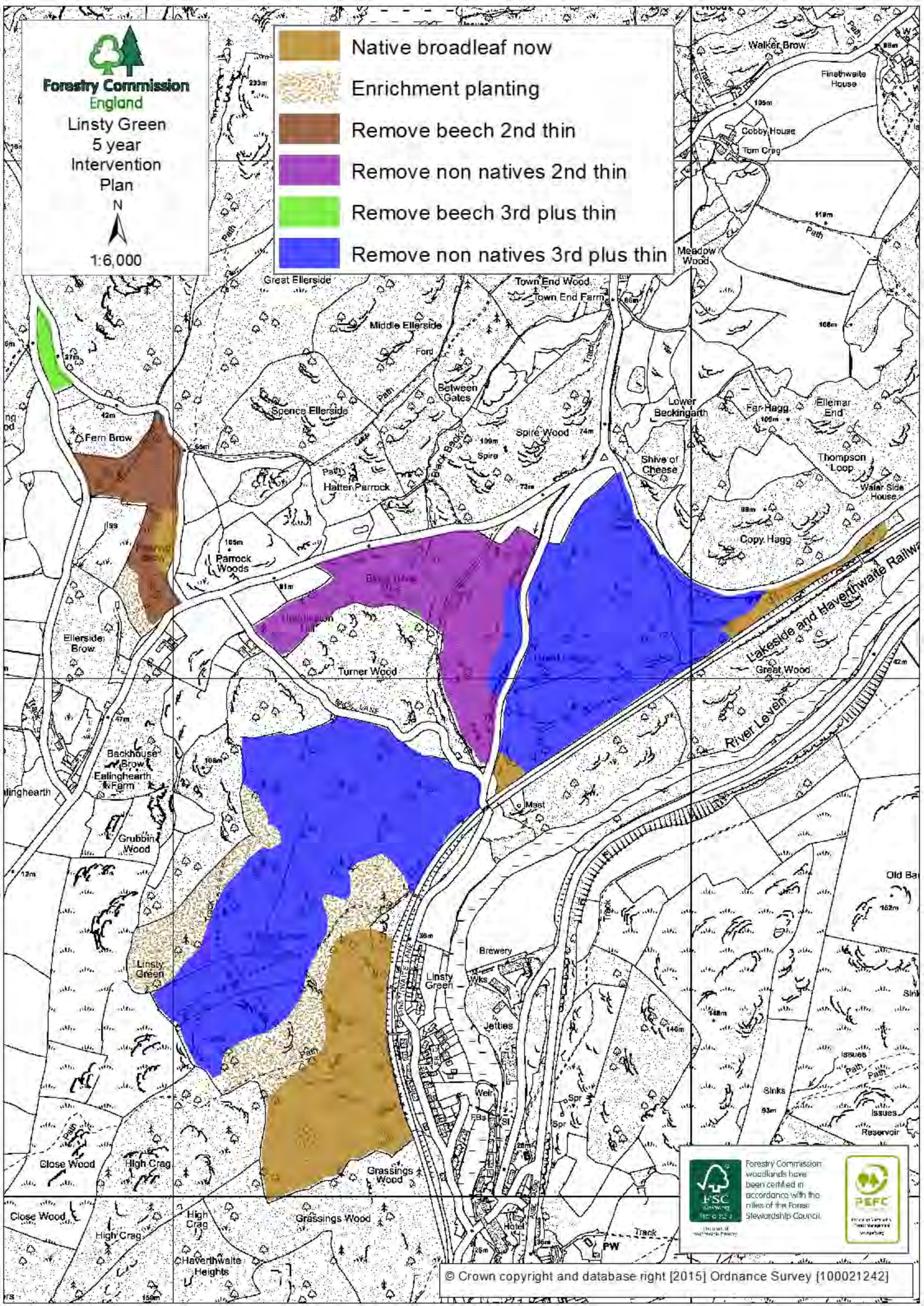
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1:6,000

- Native broadleaf now
- Enrichment planting
- Remove beech 2nd thin
- Remove non natives 2nd thin
- Remove beech 3rd plus thin
- Remove non natives 3rd plus thin



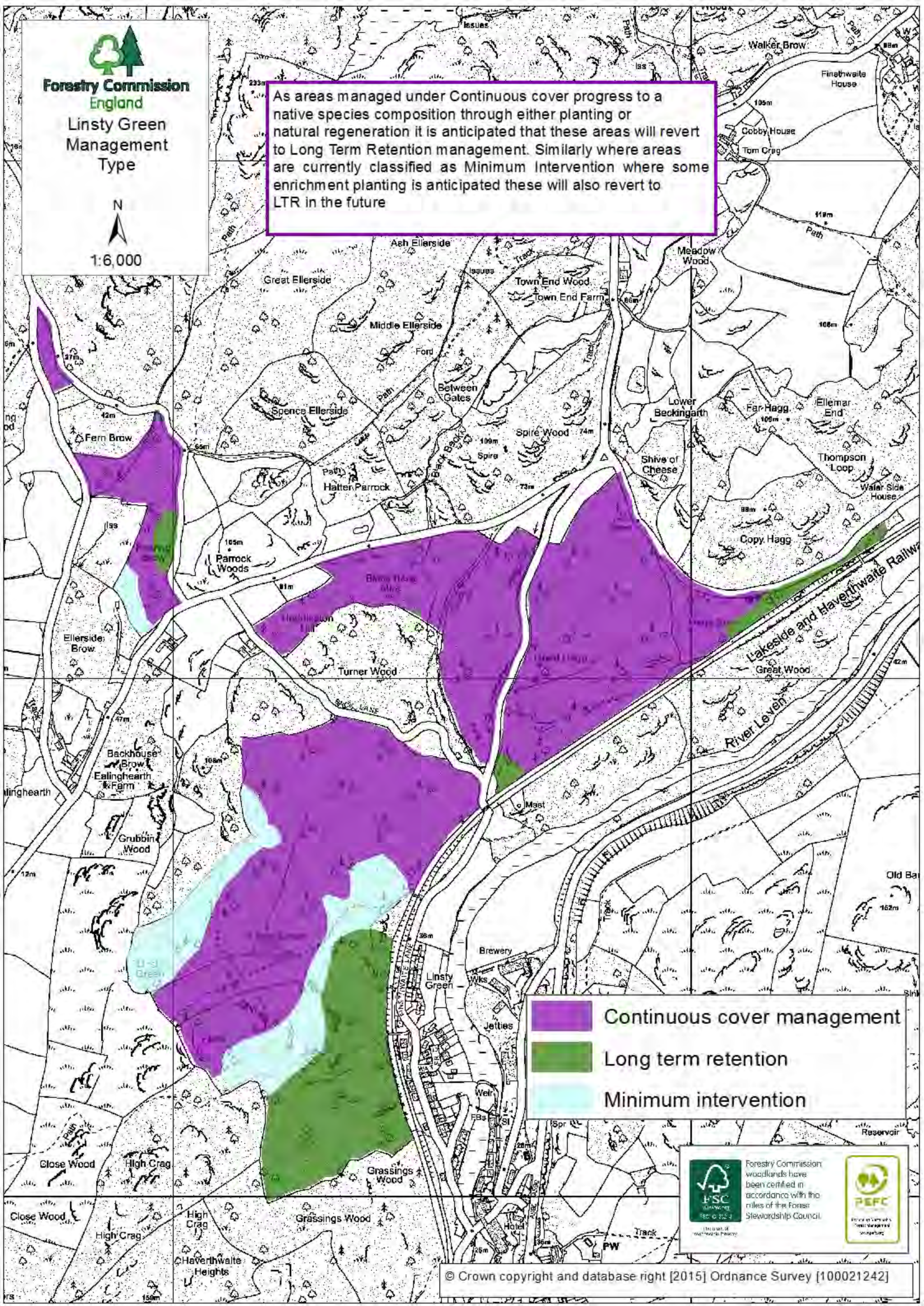
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1:6,000

As areas managed under Continuous cover progress to a native species composition through either planting or natural regeneration it is anticipated that these areas will revert to Long Term Retention management. Similarly where areas are currently classified as Minimum Intervention where some enrichment planting is anticipated these will also revert to LTR in the future



- Continuous cover management
- Long term retention
- Minimum intervention



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1:6,000

Open broadleaved scrub habitat will dominate along wayleaves associated with watercourses, forest roads and rides. In terms of area this will equate to approx 10% of the total area in line with UKWAS and UKFS open habitat requirements

Elements of conifer and non-native broadleaf species may still be present in the woodland over the next 25 year period. However, other than where these species have an historical interest such as a feature tree the longer term aim will be to restore entirely to native species

- Mixed broadleaves
- Watercourses
- Rides



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



Part 6 Forest Plan Outcomes

Nature Conservation

Restoration of Ancient Semi Woodland habitat is the primary objective of management. This will be achieved through the ongoing removal of non-native species principally by thinning with some localised felling of Western Hemlock due to its potential to generate shade tolerant natural regeneration.

Through the ongoing management of Linsty Green we will;

- Restore species richness of the semi-natural woodland communities.
- Maintain and enhance other habitats of local and national importance.

Landscape Appraisal

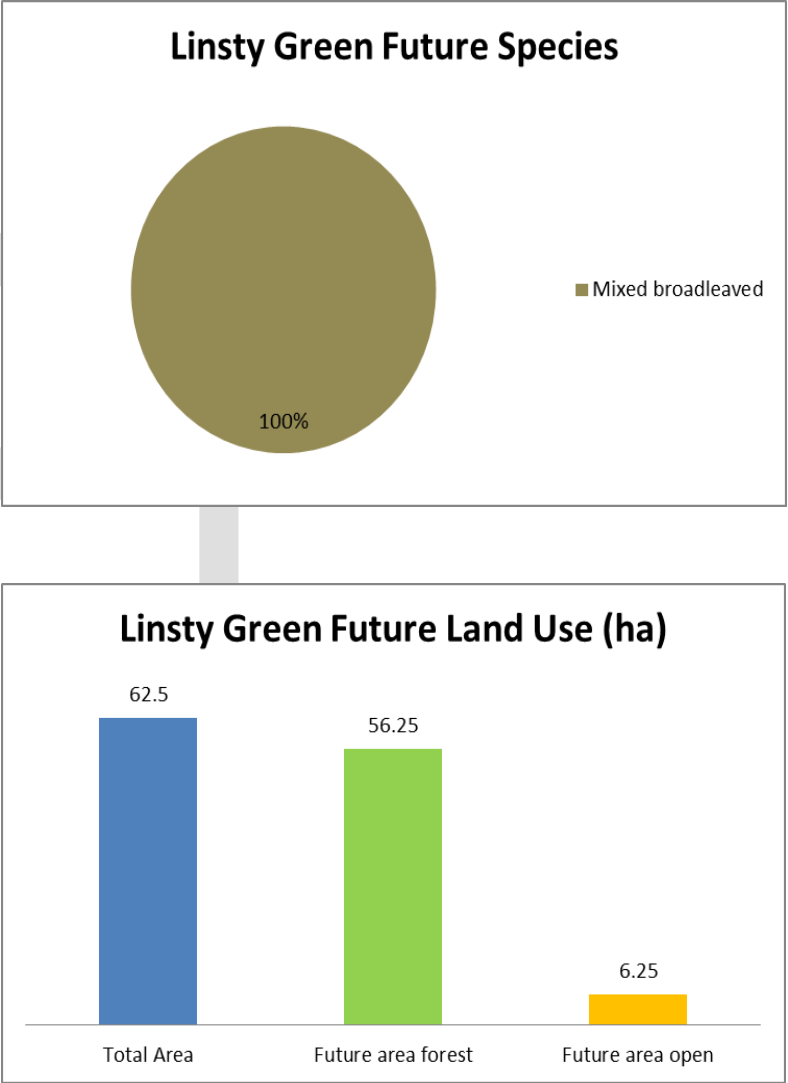
Visual sensitivity is assessed with consideration to the importance and nature of views of the woodlands from key viewpoints. A comprehensive landscape appraisal was completed as part of the previous forest plan, at which time the landscape benefits of Continuous Cover management of the woodlands was recognised. All the woodlands fit well in the landscape in their current form and the ongoing continuous cover management through the period of this plan will continue to protect and enhance the landscape character of these woodlands.

Timber production

Timber production is not a major objective of the Forest Plan and therefore there is no analysis of future timber yield or productive capacity. The harvesting of timber, through either the removal of any remaining exotic conifer or non-native broadleaved species will be dictated on the basis of progress toward PAW's restoration guided by ongoing Ancient Woodland survey.

Future Species

The future species composition shown below represents the minimum requirements for UK Woodland Assurance Scheme, UK Forest Standard and Forestry Commission policy for the restoration of Ancient Woodland sites.



The United Kingdom Forest Standard (UKFS)

The UKFS is the reference standard for sustainable forest management in the UK. The UKFS is supported by a series of guidelines which outline the context for forestry in the UK, defines standards and requirements and provides a basis for regulation and monitoring. These include General Forestry Practice, Forests and Biodiversity; Climate Change, Historic Environment, Landscape, People, Soil and Water.

Linsty Green Forest Plan is able to demonstrate that relevant aspects of sustainable forest management have been considered and the stated objectives in Part 3 show how sustainable forest management will be achieved. The plan provides a clear means to communicate the proposals and to engage with interested parties and serves as an agreed statement of intent against which implementation can be checked and monitored.

In addition to conforming to general sustainable forest management principles UKFS is demonstrated in the following key areas:

Productivity	Productive potential is optimised through the delivery of the thinning programme, ecosystem services and other non-market benefits included in biodiversity, climate change mitigation, water, people and landscape.
Structure	Future species composition; 100% native species and a minimum 10% open ground meets UKWAS and UKFS minimum requirements for PAW's. Long term structure will improve through linking of permanent broadleaved and open habitats.
Silvicultural	Continuous cover forestry (CCF) principles will be adopted with long term retention (LTR) of areas of broadleaved woodland as these develop. This will improve species and age class diversity over time.
Biodiversity	Management of priority habitats and species are the primary objective. Ecological connectivity achieved by extending and linking areas of native broadleaved woodland and open space will be enhanced ensuring that the area is managed with conservation and biodiversity as a major objective.
Climate change	CCF/LTR areas will minimise soil disturbance. Natural regeneration will benefit forest resilience.

Landscape	The planning process refers to the Local Landscape Character Assessment to inform the appropriate woodland management and design.
Historic	Historic features are recognised and their safeguard will be incorporated into operational management.
People	The Forest Plan is consulted with individuals, the local community and organisations with an interest in the management of the area.
Water	Water quality will be protected through adherence to Forest and Water guidelines as a minimum during any harvesting and forest management operations.

Longer term management proposals

The proposals in this plan continue to build on the success of previous plans to support the management of Linsty Green. Exotic conifers and non-native broadleaves will continue to be removed offering timber to markets across the region.