

Ravensworth Forest Plan 2017



North England Forest District



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.

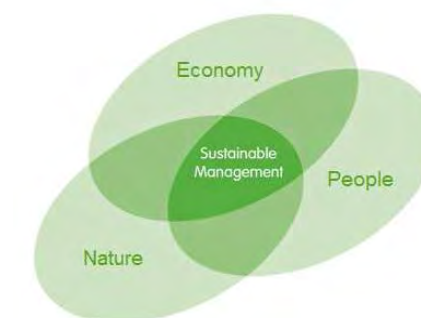


Our task is to realise the potential of each of the forests in our care for sustainable business opportunities, wildlife and nature conservation, and the enjoyment and well-being of local people and visitors. Each of our forests supports the economy through local jobs, sustainable timber production and 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.

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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

Ravensworth Forest Plan

This is the second revision for the Ravensworth 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.

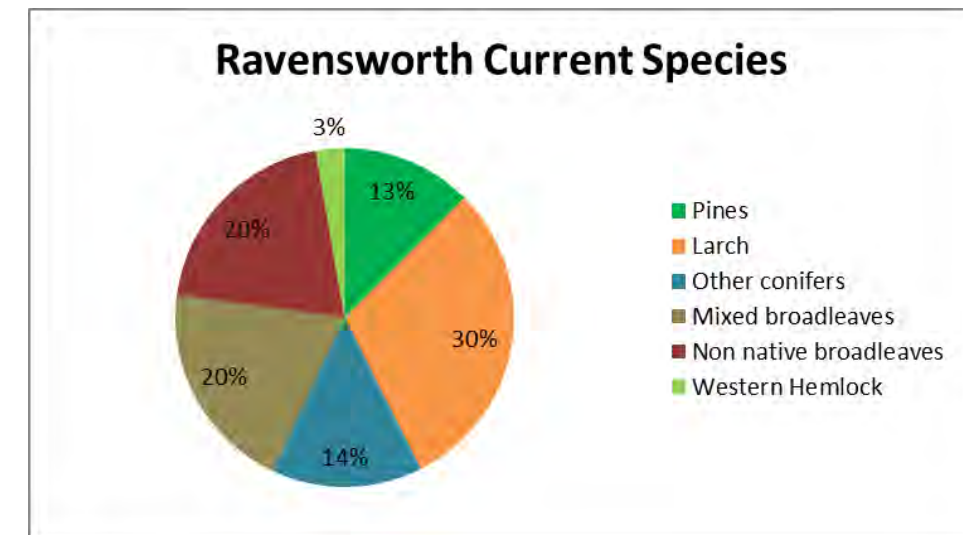
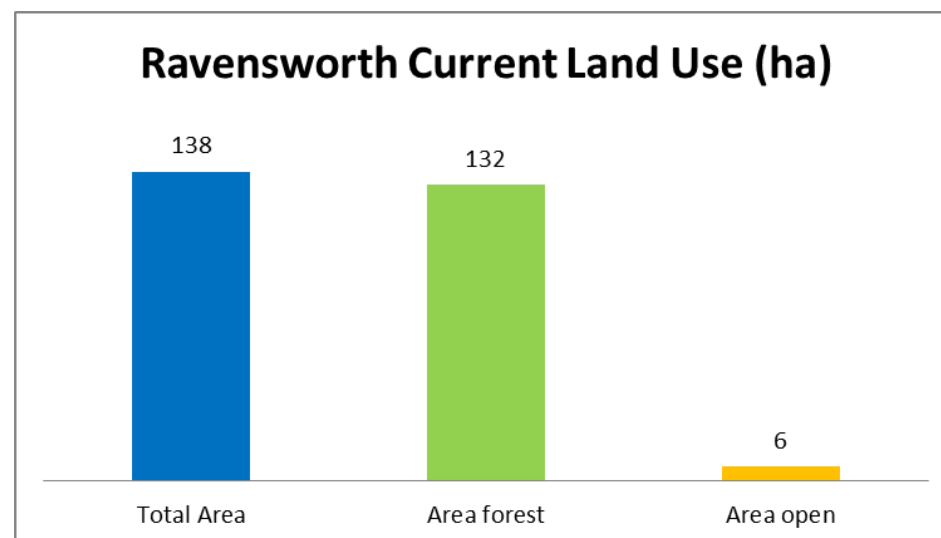
Part 1 Background Information

Introduction

Ravensworth occupies an area of approximately 140ha made up of three forest blocks abutting the west side of the Gateshead Newcastle A1 bypass and is the largest mature area of forest in the Great North Community Forest. The forest came into Forestry Commission ownership in 1953 when a 999 year leasehold interest was purchased for forestry purposes, with sporting rights retained by the freeholder. The main block amounts to 120.4ha with two smaller outlying blocks of woodland, Robins Wood 9ha and Shanks Wood 9ha, to the east.

Current Woodland composition, species and timber potential

The majority of the crops date from the mid-1950s to the mid-1960s having undergone significant harvesting during or shortly after the Second World War. As was common with post war restocking the site was mainly restocked with coniferous species in order to increase its timber productivity, and even-aged stands of conifer remain though remnant elements of the native broadleaf cover are still present. Intermittent thinning has taken place over the years and the woods are generally composed of a mix of both native and non-native species.



The productive capacity of the area is moderate and commercial plantations typically achieve Yield Class 10. The site is relatively stable with wind hazard classification in the range from 2 to 4, hence economic rotation length is not generally limited by the likely onset of wind throw. However, the majority of the crops are approaching economic maturity.

Designated areas

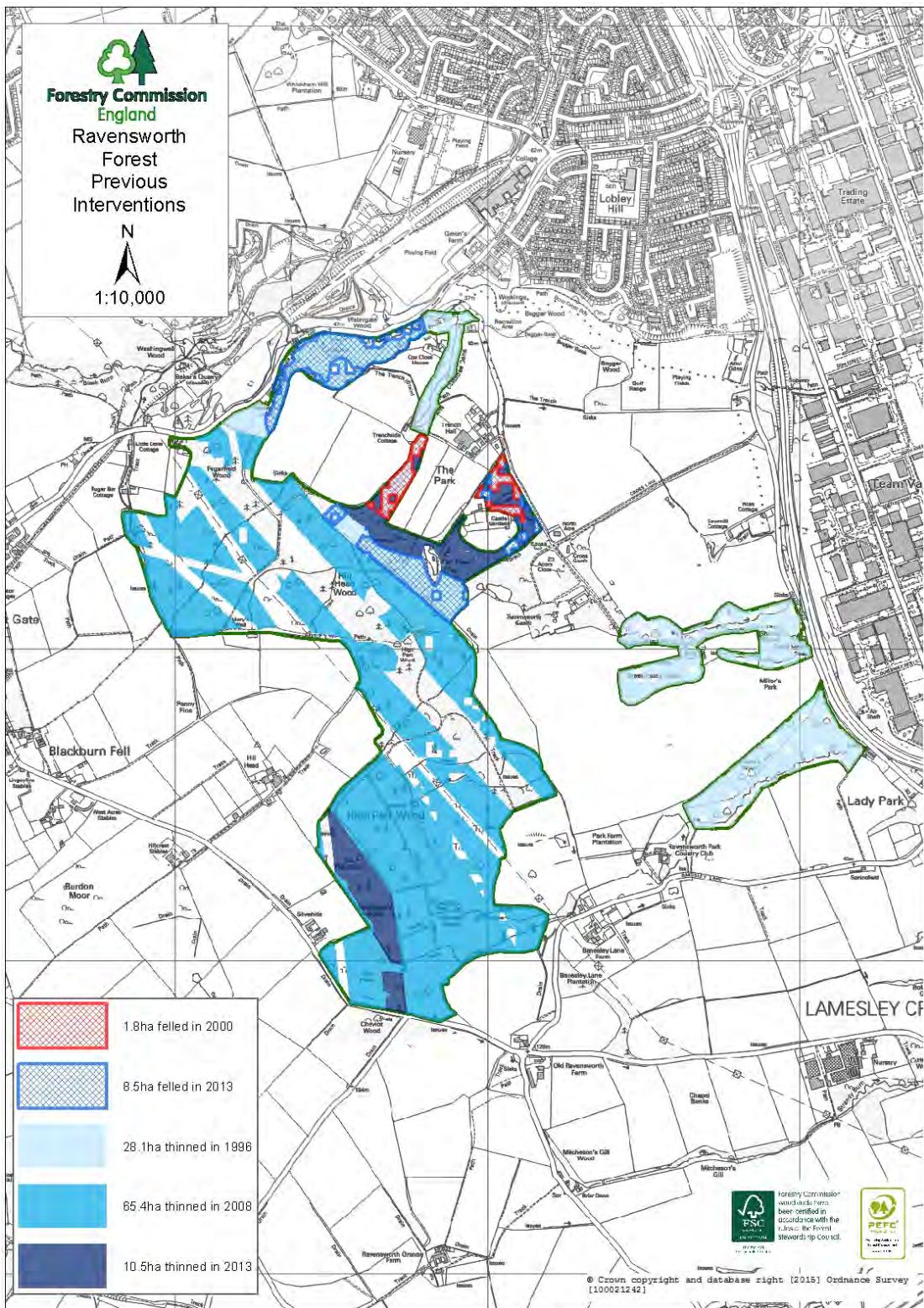
All the woodlands, except for Robin's Wood are either Plantations on Ancient Woodland Site (PAW's) or Ancient Semi Natural Woodland (ASNW). The ancient woodland status of the forest dictates that there is a presumption for conversion to native species in line with current Forestry Commission Policy.

Conservation

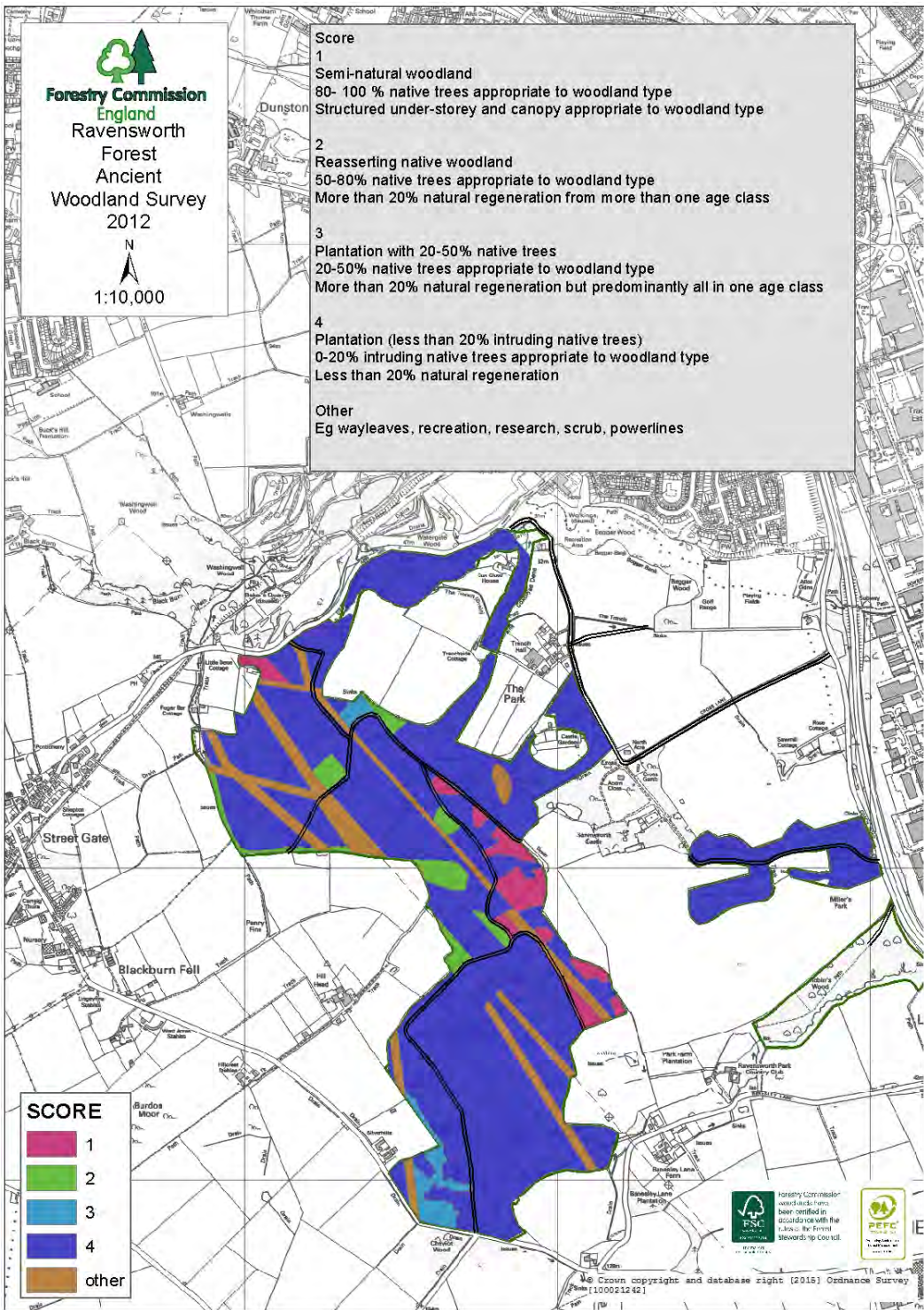
The conservation interest in the forest is mainly attributed to its status as a Plantation on Ancient Woodland Site (PAW's) and the primary objective therefore is to restore Ravensworth to ancient semi-natural woodland in line with the Forestry Commissions Ancient Woodland Policy. The site is also listed as a Site of Nature Conservation Interest (SNCI), this being a localised designation which reflects the importance and size of the woodland in what is generally an urban landscape rather than the value of any specific species.

Conservation interest is mostly associated to the area of ASNW and the remnants of this habitat in other areas. Examples such as veteran trees, deadwood and riparian zones will be safeguarded and enhanced during thinning operations.

Management towards this objective has been ongoing through thinning and felling of non-native tree species since 1996 and through the period of the previous plan indicated on Map 1 below.



An Ancient Woodland Survey was undertaken in 2012. The results of this survey, shown below in Map 2 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.



Landscape and Topography

Ravensworth is located within a landscape typical of a pastoral estate and despite its close proximity to urban Gateshead the area retains a much more rural aspect than the adjoining urban landscape. External views of the forest are an important consideration to local residents, acting as a buffer between this external urban and internal rural landscape.

Ravensworth has a generally eastern aspect and the landform is a stepped slope starting relatively steep at the higher elevation, then levelling at mid-elevation and then again steepens to the east. Being adjacent to the A1 western by-pass the forest is highly visible from the west-facing slope of the urban fringe making it an important feature in the landscape of Gateshead. Often buildings frame the forest and only limited areas of the forest are in view from any single viewpoint. Consequently changes in forest structure are likely to have a major influence on views from Gateshead and so where practical structural change should be a gradual process with an emphasis on maintaining a continuous cover of trees and limiting the amount of clearfelling in the plan.

Heritage

The historic interest of the wider Ravensworth estate is significant, though most of the features of interest are outside the area of FC leasehold woodland. Outside the FC leased area are the ruins of a 14th century castle and South Lodge which are Scheduled Ancient Monuments. Additionally are the remains of a 19th century estate house and part derelict remains of an old stable block, both Grade II listed. However, part of the formal grounds to the house extends onto the leasehold area of the forest which includes a number of features of historic interest. These relate to features of the parkland associated with the now ruined Ravensworth Hall and consist of a number of specimen/old trees, old carriageways and rides/paths and quarries as well as some infrastructure remnants including the original Ha-ha and estate gas house. Although Ravensworth is not a designated historic Park and Garden, the forestry planting here (as part of the wider original Estate, including its parkland) forms part of the planned setting of the adjacent designated heritage assets. There is no doubt that parts of Ravensworth Forest were planted in a structured way in relation to the historic environment, and the aspirations for ASNW restoration need to be tempered in some areas in light of these original intentions. Within the area of the forest previously occupied by the formal garden exotic trees also represent an important part of the historic environment at Ravensworth, planted in the 19th century specifically because of their exotic qualities.

Specimen Cedar and Scots Pine



Ha-ha surrounding the old Castle gardens



Entrance to the estate gas house



Communities and recreation

Due to restrictions in the lease there is no public access into or within the forest. Given the Forestry Commission's policy on promoting public use of woodlands and the close proximity of Ravensworth to the major urban conurbation of Gateshead a long term aim would be to gain public access, though this is not an issue that can be addressed by the Forest Plan. One public footpath brushes the North West corner of the forest but there is no other formal public access on to the estate.

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

There are two main access points from the public highway into the woodland. The entrance most commonly used is at the southern end of the wood. Internally forest operations are adequately served by a network of forest road and tracks and there are no plans for further development or extension.

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	Continuous cover management Long term retention of native MB	
Biodiversity and heritage	Protection of features associated to ASNW, such as veteran/feature trees or ground flora provide opportunity to target thinning operations for greatest benefit. Recognition of historic park and garden features	Rhododendron locally prolific within the woodland. Some exotic tree species or groups of non-natives may be of historical significance
Access/Roading	Adequate internal network of forest road	Access to the public highway is restricted to the southern access point due to safety issues elsewhere
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
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 woodland remains the long term objective for the woodland. 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 before seeding

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	Close proximity to large urban area and location within Great North National Forest.	Leasehold restrictions limit expansion of public access

Appraisal of Opportunities and Constraints

1. Landscape impact – the significance of the forest in the view from the residential areas of Gateshead and the A1 dictate that any changes in forest structure need to be progressive wherever practical so that changes do not dominate the view. The Historic context of the landscape needs to be protected where appropriate.
2. Ancient Woodland status – the forest is classified as an Ancient Woodland site (with the exception of Robin's Wood) and it is Forestry Commission policy to convert the species composition to native broadleaf. Where practical this can be done through a series of interventions encouraging and releasing broadleaf species on the site, thereby dovetailing this with the landscape requirements above. However, in some areas the planted species and/or the previous silvicultural history will preclude this.
3. Areas of Western Hemlock and un-thinned crops – Western Hemlock is highly shade tolerant and as such has the ability to regenerate densely in low light levels beneath an intact canopy. Therefore some clearfelling of WH will be needed to eradicate WH from the wood.

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 forest under a continuous cover regime. Interventions will involve thinning out/removal of the conifer and non-native broadleaf component with the aim to thin the main area of Ravensworth wood within the next 5 years. 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. 2.5ha of Western Hemlock will be clear felled.</p>
<p>NATURE and HERITAGE</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><u>ASNW restoration</u> 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 be driven by productivity.</p> <p>Features of interest associated to the ASNW, such as veteran or feature trees, will be protected and enhanced during operations through sympathetic management.</p> <p>Re-survey of ASNW is planned for 2022.</p>

	<p><u>Historic Environment</u> - Over the next five years, up until the 5 year review of the plan, we will seek to identify and map ‘exotic’ non-natives throughout the wood concentrating effort initially within the original area of historic park and garden that is within land managed by FE. We can then begin to build a better understanding of the wider historic environment and incorporate into future revisions of the plan.</p> <p>Historic features will be routinely identified and protected during our planning and implementation of forest operations. This would be an appropriate time for us to undertake an assessment of these features within the boundary of the original castle pleasure grounds.</p> <p>Map the distribution of rhododendron through the woods with an objective of developing an action plan for the progressive eradication of rhododendron taking into account any areas that may have significance associated with the historical park and garden of Ravensworth Castle.</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 is no public access into or within the forest.</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	Marketable parcels of timber on offer to the market	Contract and sales records
Sustainable economic regeneration	Maintain timber harvesting access and infrastructure	
NATURE and HERITAGE		
PAW's restoration	Delivery of Forest Plan felling/thinning/coppicing proposals	Five year Forest Plan review
	Ancient Woodland survey	Re- survey planned for 2022
Invasive species	Map distribution of rhododendron	Five year review
Historic features	Map exotic conifers as part of PAW's planning	Five year Forest Plan review
	Protect and enhance features	Operational constraints and five year review
PEOPLE		
Visual enhancement to visitors.	Maintenance of Ancient woodland and historic landscape 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 2017.
- Landscape and Topography – indicating topography of the woodland and local area.
- Soils – indicating soil composition across the woodland.
- Heritage – statutory and non-statutory heritage and historic landscape features.
- Nature Conservation – statutory and non-statutory conservation features.
- Access and Services - formal public rights of way, FC access and local services.
- Intervention Plan – represents outline of 5 year intervention plan.
- Operations Proposals – showing felling proposals.
- Management Treatment – indicating areas by management prescription Continuous cover, Long term Retention, Minimum Intervention and clearfell.
- Future Species – representing the long term vision for future species composition.



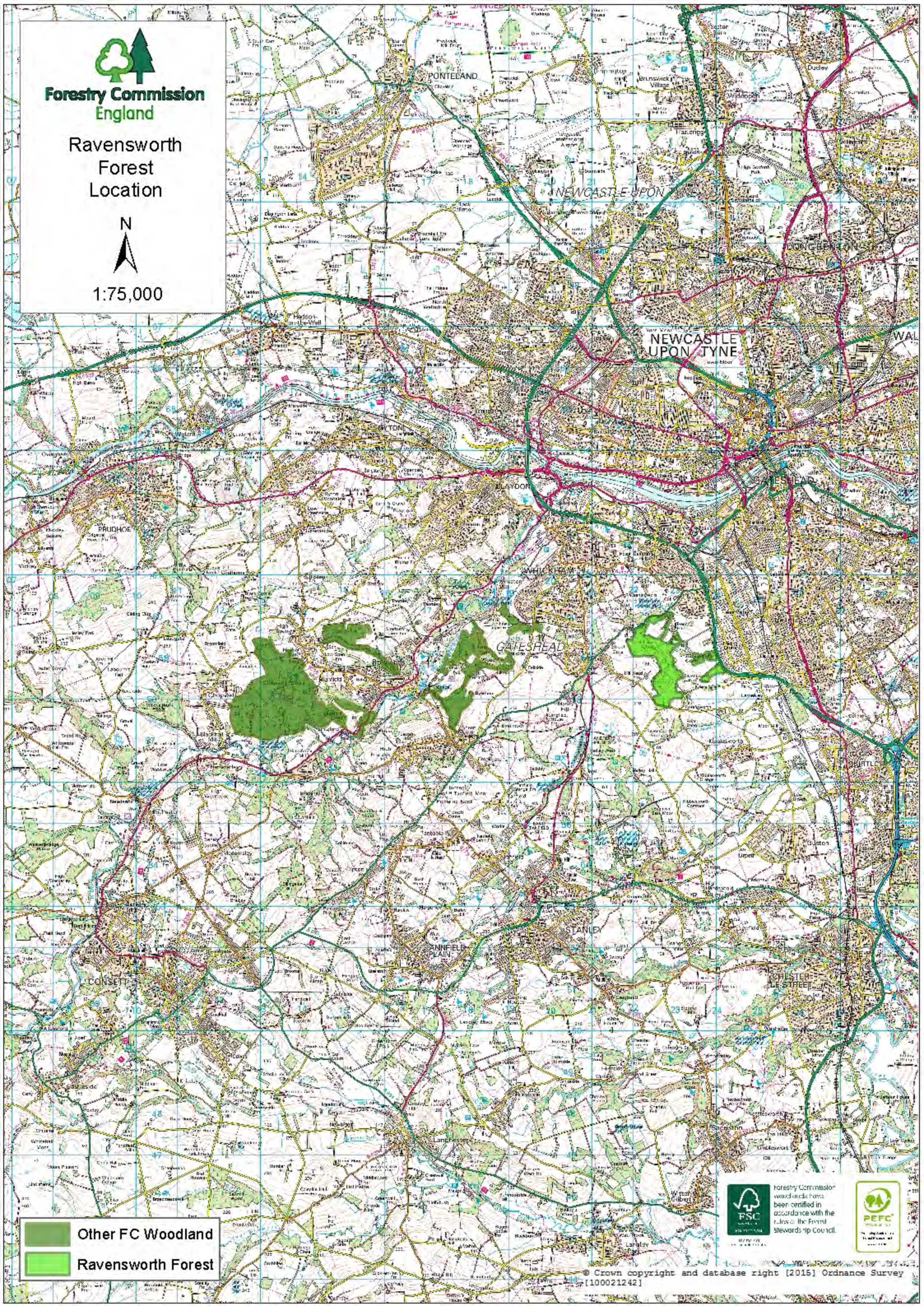
Forestry Commission
England

Ravensworth Forest Location

N



1:75,000



- Other FC Woodland
- Ravensworth Forest



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





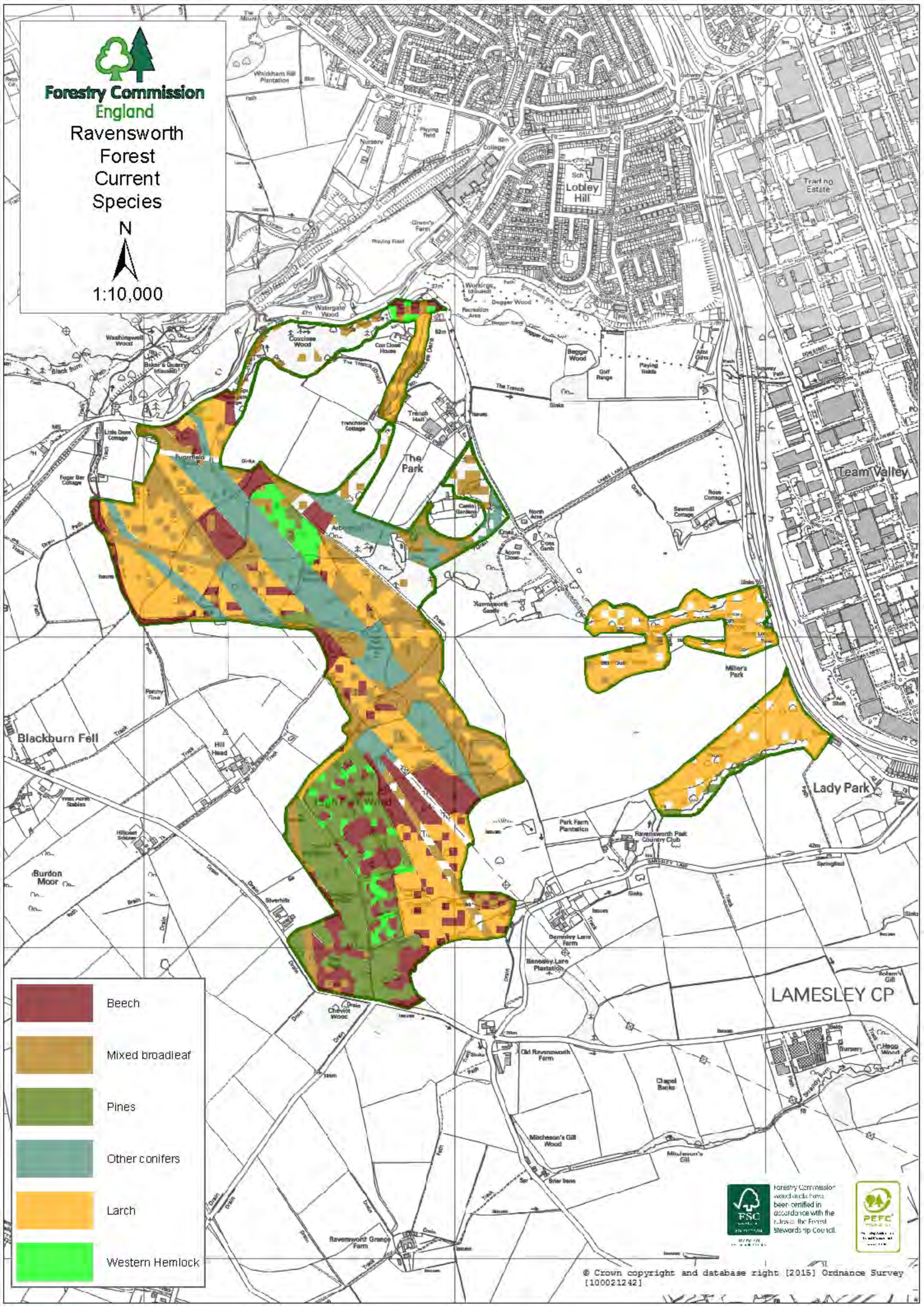
Forestry Commission
England

Ravensworth
Forest
Current
Species

N



1:10,000



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Ravensworth
Forest
Landscape and
Topography



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50m contours



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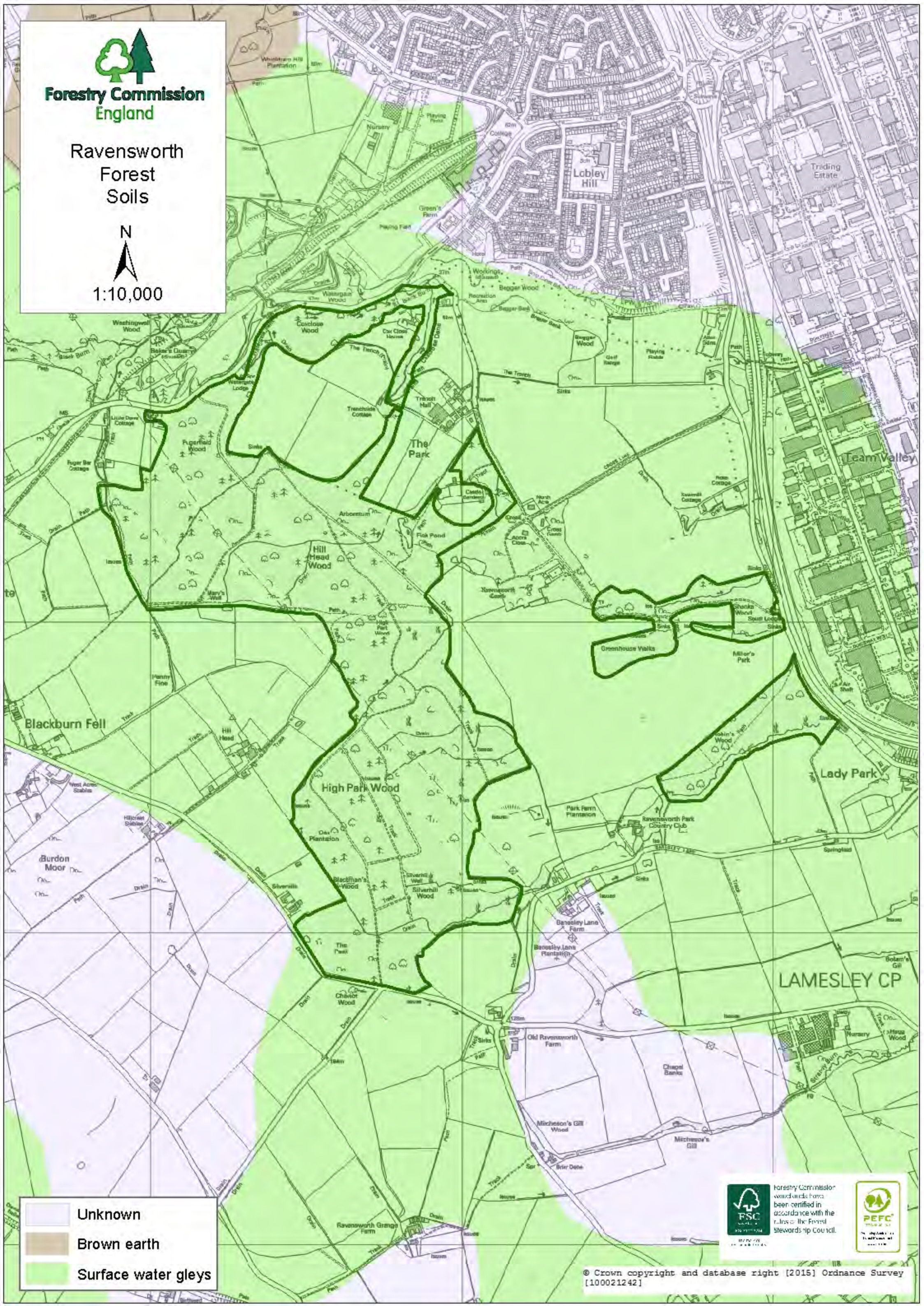


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England

Ravensthorpe Forest Soils



1:10,000



Unknown

Brown earth

Surface water gleys

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rules of the Forest
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PEFC
Programme
Certified

-  Coal Pit
-  Disused quarry
-  Gas house and gasometer
-  Gate piers and ditch
-  Ha ha
-  Quarry
-  South Lodge (SAM)
-  Team Wagonway
-  The Trench
-  Carriage drive
-  Path
-  Rides
-  Historic boundary of Ravensworth park
-  Scheduled Ancient Monument
- Historic Landscape**
-  Castle complex
-  Approx boundary of pleasure grounds
-  Important to setting of the castle

The historic interest of the estate is significant, though many of the features of interest are outside the area of FC leasehold woodland. Outside the FC leased area are the ruins of a 14th century castle and South Lodge which are Scheduled Ancient Monuments. Additionally are the remains of a 19th century estate house and part derelict remains of an old stable block, both Grade II listed. However, part of the formal grounds to the house extends onto the leasehold area of the forest which includes a number of features of historic interest. These relate to features of the parkland associated with the now ruined Ravensworth Hall and consist of a number of specimen/old trees, old carriageways and rides/paths and quarries as well as some infrastructure remnants including the original Ha-ha and estate gas house.

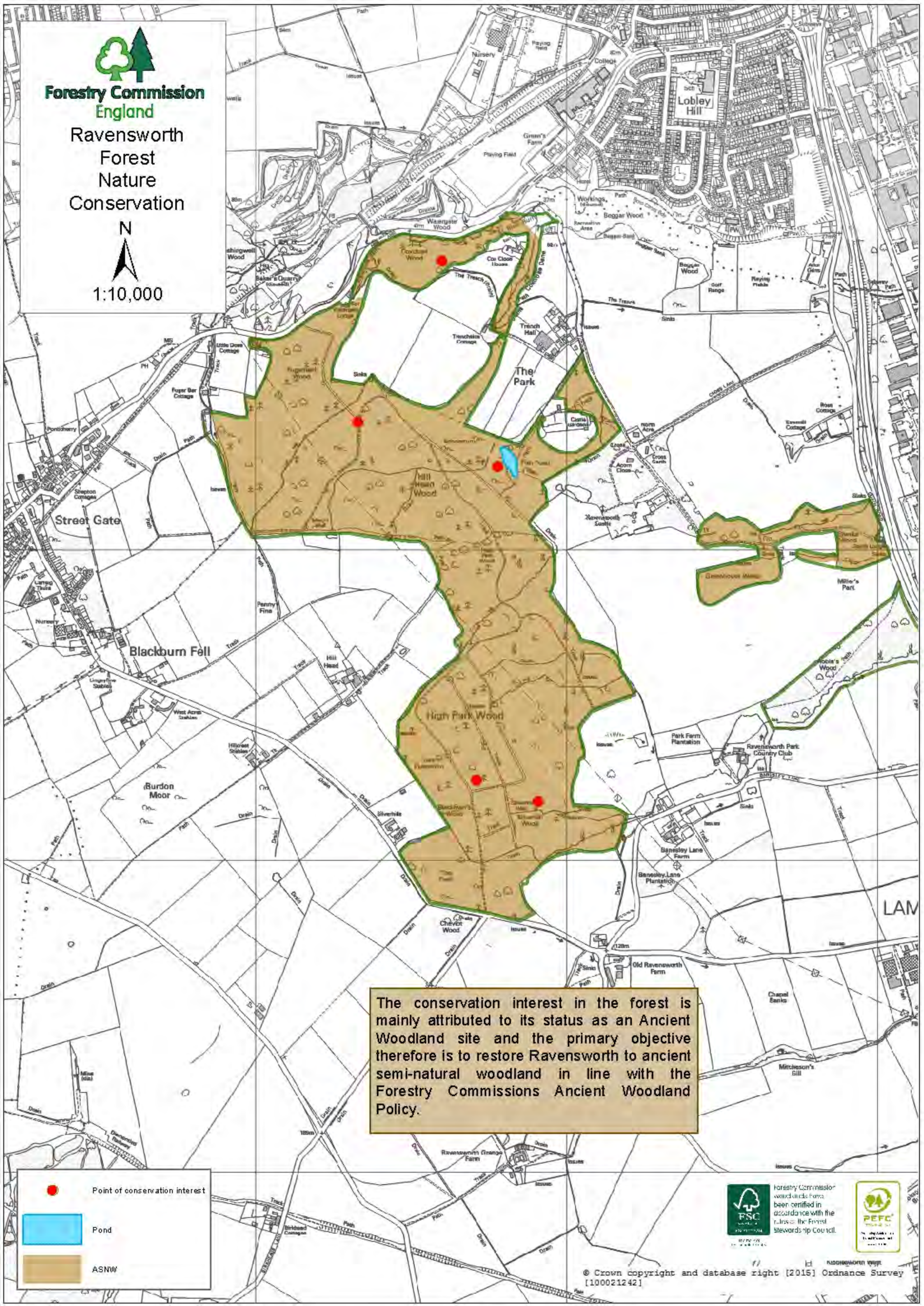


Forestry Commission
England

Ravenstworth Forest Nature Conservation

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



Point of conservation interest



Pond



ASNW



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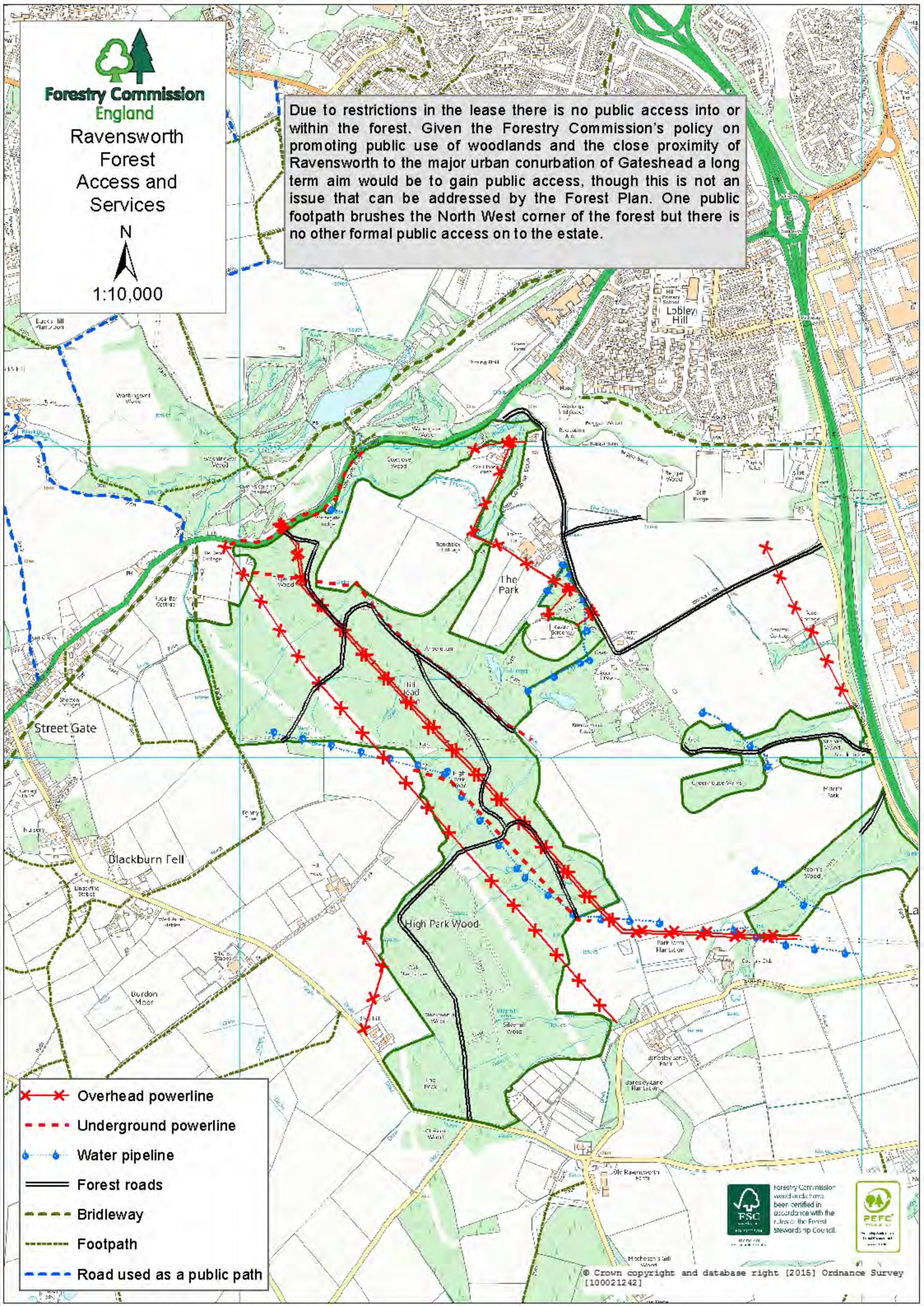
Forestry Commission
England

Ravensworth Forest Access and Services



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Due to restrictions in the lease there is no public access into or within the forest. Given the Forestry Commission's policy on promoting public use of woodlands and the close proximity of Ravensworth to the major urban conurbation of Gateshead a long term aim would be to gain public access, though this is not an issue that can be addressed by the Forest Plan. One public footpath brushes the North West corner of the forest but there is no other formal public access on to the estate.



- Overhead powerline
- Underground powerline
- Water pipeline
- Forest roads
- Bridleway
- Footpath
- Road used as a public path



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





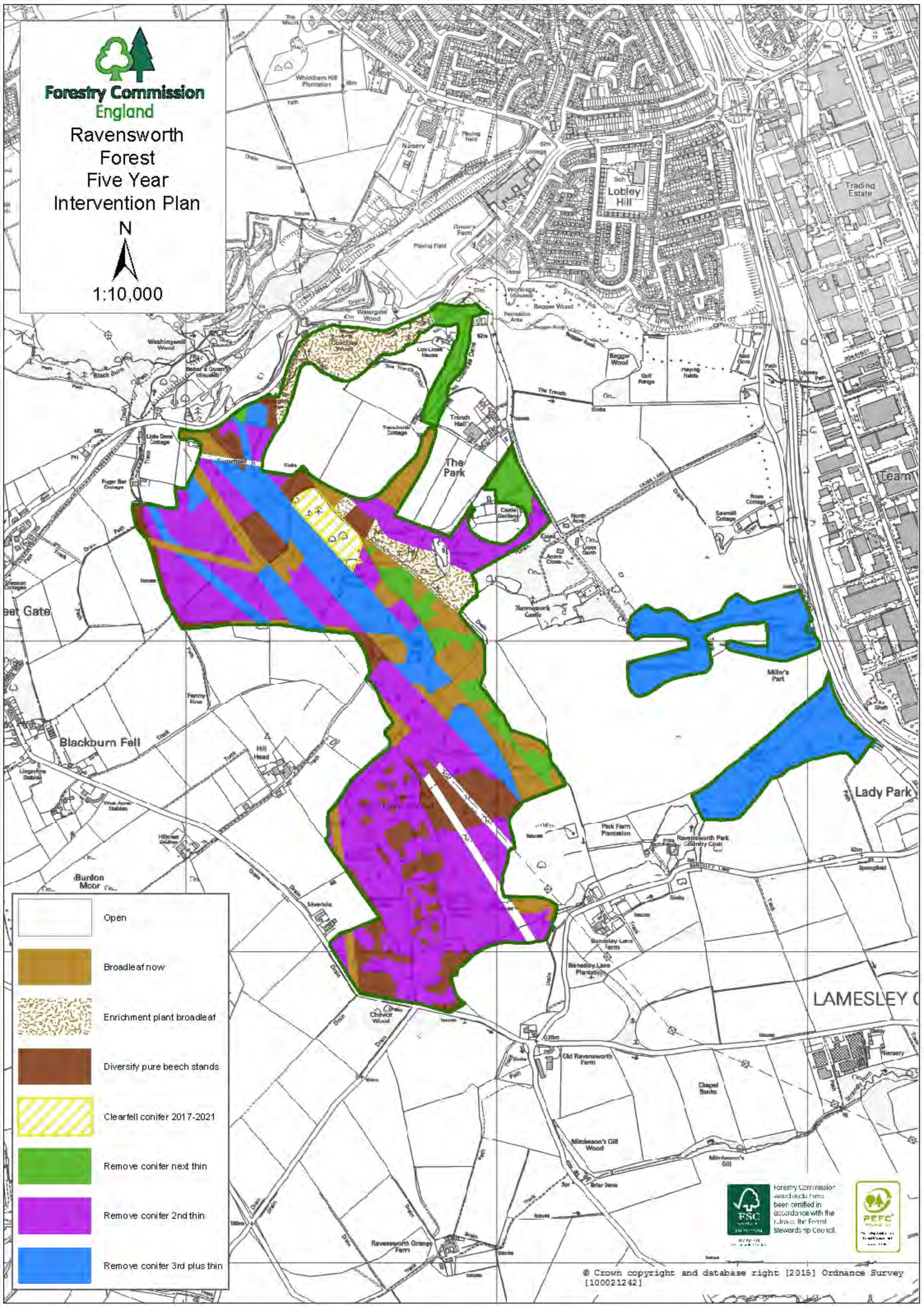
Forestry Commission
England

Ravensthorpe Forest Five Year Intervention Plan

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Forestry Commission
England

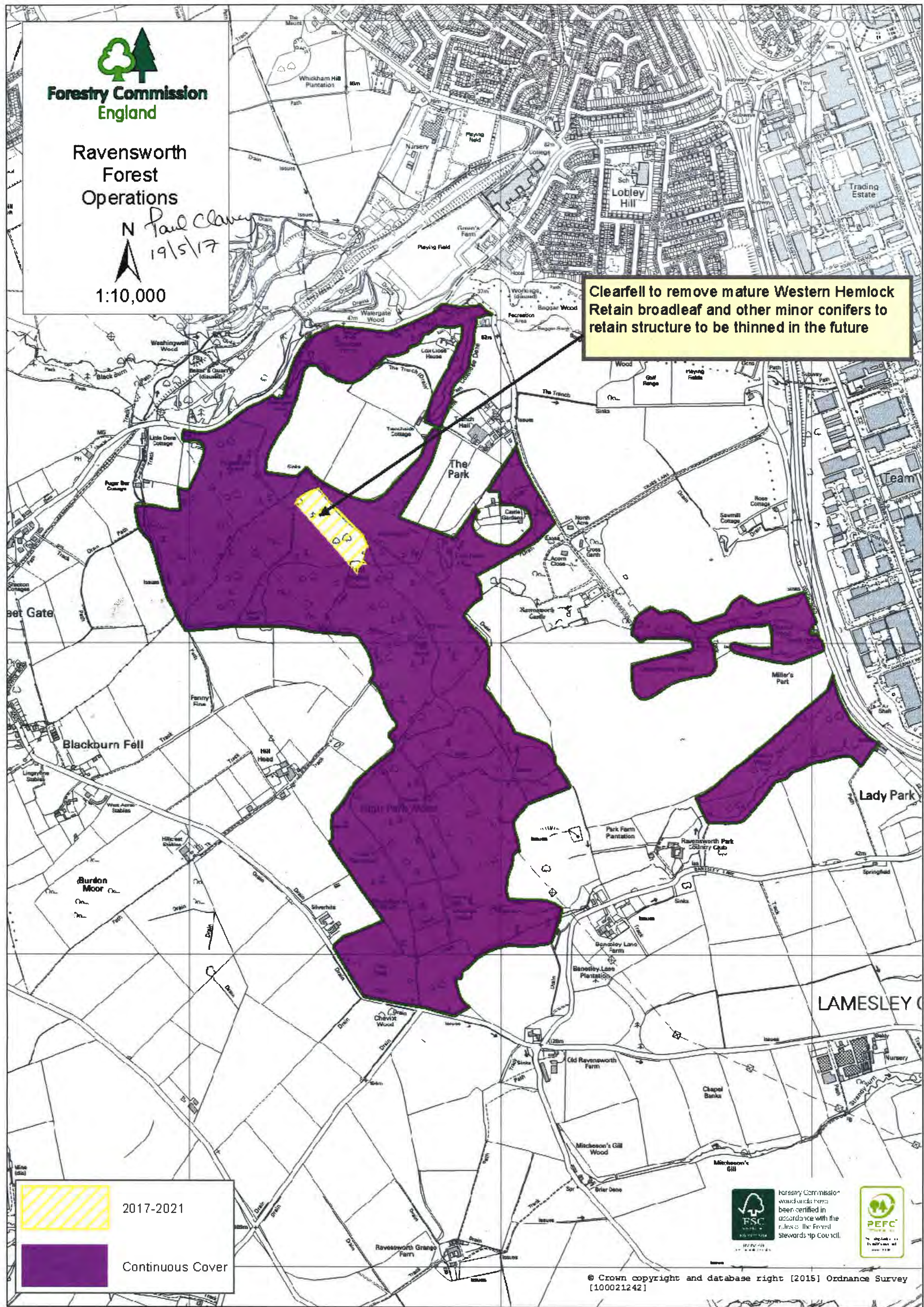
Ravensworth Forest Operations



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Paul Claver
19/5/17

**Clearfell to remove mature Western Hemlock
Retain broadleaf and other minor conifers to
retain structure to be thinned in the future**



2017-2021

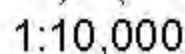


Continuous Cover

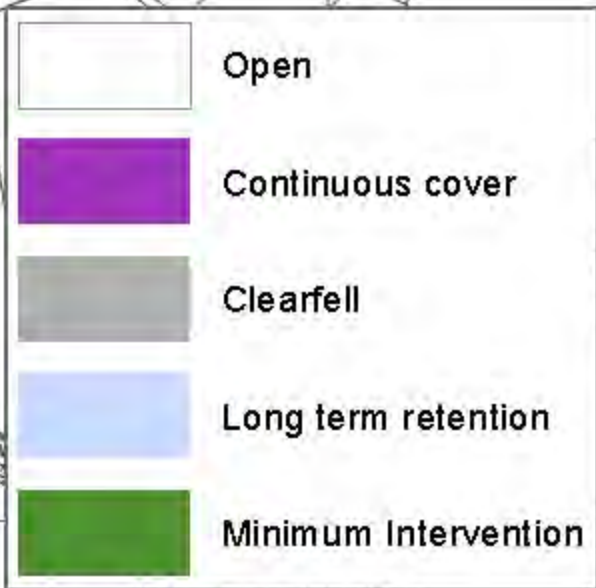


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As areas managed under Continuous cover or clearfell progress to a native species composition through either planting or natural regeneration it is anticipated these areas will revert to Long Term Retention management. Similarly where areas are currently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





Forestry Commission
England

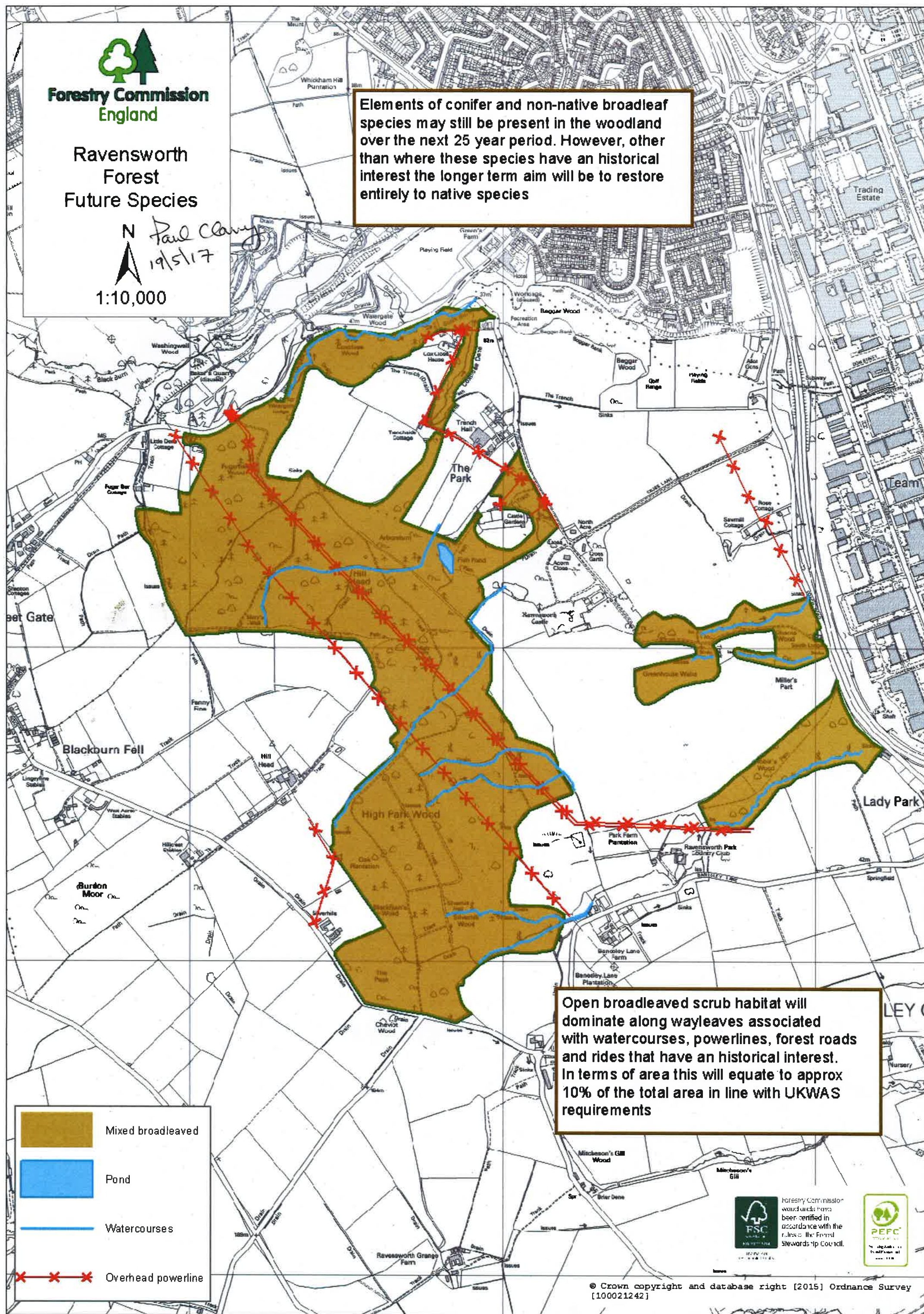
Ravensthorpe Forest Future Species



Paul Clancy
19/5/17

1:10,000

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 the longer term aim will be to restore entirely to native species



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



Mixed broadleaved



Pond



Watercourses



Overhead powerline



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Part 6 Forest Plan Outcomes

Nature Conservation

Restoration of Ancient Semi Woodland habitat is the primary objective of management. This will be slowly 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 Ravensworth we will;

- Restore species richness of the semi-natural woodland communities.
- Maintain and enhance other habitats and heritage features 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, Ravensworth, Shanks and Robin's wood 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 the removal of 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.

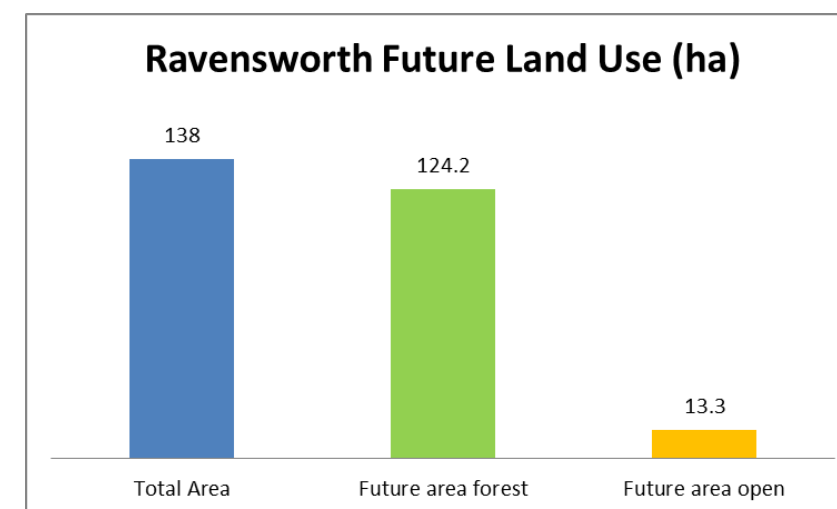
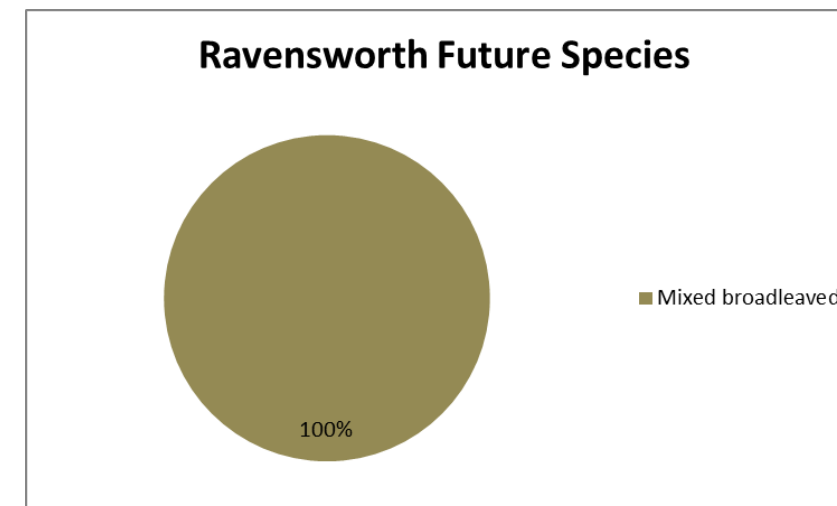
Historic Landscape

Non-scheduled historic features (carriageways, rides, quarries, ha-ha and estate gas house) present within the area controlled by this plan will be routinely protected during operations and opportunities taken to repair or enhance as appropriate. It is recognised that some trees also represent an important part of the historic environment at Ravensworth, planted in the 19th century specifically because of their exotic qualities. Therefore, rather than a blanket presumption at

this stage that these (and all the rhododendron mentioned in Part 3 of the plan) will be removed, any decisions will be informed by an analysis of the heritage significance of these areas and individual trees. During the planning and implementation of thinning operations, therefore, decisions will be informed by analysis of the heritage significance of these areas and individual trees, with those that add significance to the historic environment retained.

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.

Ravensworth 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	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 Ravensworth with continued thinning under a Continuous Cover Management regime, gradually restoring the woodland to native species whilst continuing to provide timber to markets across the region. The retention of groups or individual exotic trees of historical landscape significance will ensure that any potential future heritage restoration projects of a collaborative nature can be incorporated into future plans. Public access to Ravensworth, although currently unattainable will remain an aspirational objective should the situation change in the future.