

# Gibside Estate Design Plan 2018

DRAFT



## 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.

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 Standard (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 Standard;
- 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;
- we will ensure that rare and threatened habitats are protected and managed to maintain or enhance their conservation value;

## Gibside Estate Design Plan

This is the fifth revision of the design plan for Gibside and includes proposals working towards achieving the management objectives as previously agreed in joint consultation between the Forestry Commission and the National Trust. There are no significant changes to the plan through the current review but brings it up to date in terms of work achieved over the last 10 years and ongoing delivery of the management objectives.

### Part 1 Background Information

#### Introduction

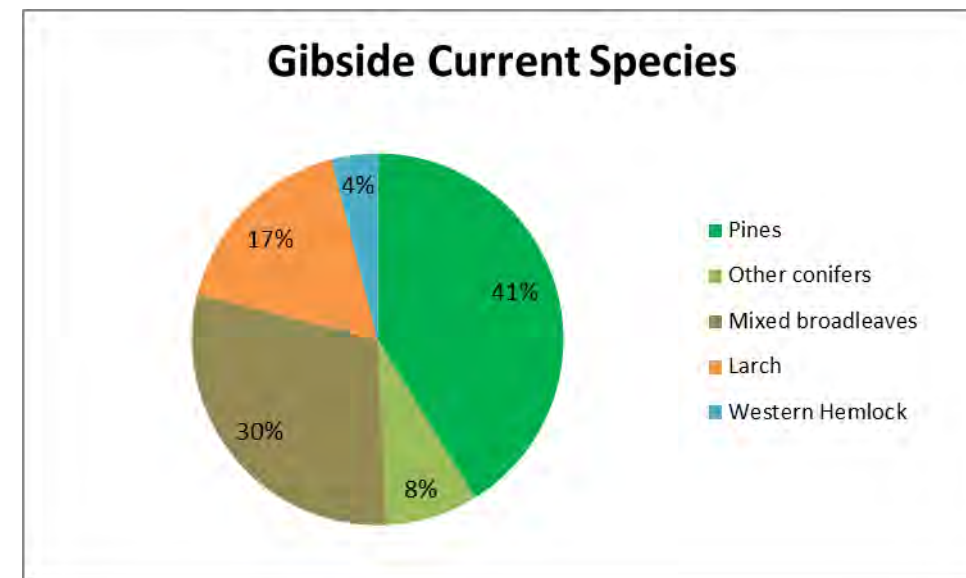
Situated 6 miles South West of Gateshead, Gibside estate is regarded as one of the greatest examples of 18<sup>th</sup> Century landscape design. Owned and managed by the National Trust, the Forestry Commission holds a leasehold interest in the 136 ha of the woods on the estate.

#### Background Information and Woodland status

The woods on the estate form the background structure within which a series of formal vistas and drives were placed. The landscape was created by George Bowes between the years 1730 to 1767, but became derelict around the time of the Second World War, when the majority of the woods were clear-felled. Remnants of the original landscape plantings still survive notably some common lime and yew planting along the vistas and drive, and beech and oak within the woodlands. Work to restore elements of the 18<sup>th</sup> century designed landscape of the estate is ongoing, and will be a long-term process.

The Forestry Commission gained a leasehold interest in the woods in the mid 1950s. Under a 'deed of surrender' the Forestry Commission will only maintain an interest in the trees on the estate until either the current crops are felled, or for an agreed value in 2036 when management of all the estate woods will revert to the National Trust. The trees planted on the estate were planted predominately in the period from 1950 into the 1970's (see Planting Year map) with commercial species in line with government policy at the time to provide a strategic timber resource. As indicated on the Current species map the woodland structure is a mixture of spruce, pine, larch and fir, with a broadleaf component including beech, oak, ash and wych elm. The growth rates are variable with yield classes <sup>1</sup> ranging from 0 to 22 reflecting the varieties of trees present.

<sup>1</sup> Yield class is a measure of the amount of wood one hectare of trees will increase by in one year as an average over its life



The woods are within windthrow hazard classes<sup>2</sup> 2-4 (see Wind Hazard map), the lower lying and southern end being the most stable and where practical the wood is subject to ongoing thinning. A proportion of the trees planted are already mature from the standpoint of commercial harvesting however, again reflecting the variability of species and growth rates, the date at which the crops will reach economic maturity has a wide range.

The landform of the site is generally a northwest facing slope with numerous steep sided valleys which require specialist felling and extraction equipment. It is therefore the terrain, previous thinning regimes and the historic infrastructure, which are the limiting factors on forest management.

#### Designated areas

All the woodlands are either Plantations on Ancient Woodland Site (PAW's) or Ancient Semi Natural Woodland (ASNW). The northern part of the estate is a Site of Special Scientific Interest (SSSI) and the southern part holds a county wildlife designation as a Local Wildlife Site (formally known as a Site of Nature Conservation Interest (SNCI)). Both of these designations are a reflection of the ASNW qualities of the site (the full extent of these designations is shown on the Nature Conservation map).

<sup>2</sup> Wind hazard class is a measure of how stable a site is for growing trees it ranges from 1 to 6, 1 being the most stable. Wind hazard class 6 sites would normal be considered too exposed to plant trees.

Conservation

Historical landscape and Archaeology

The historic interest of the Gibside estate is significant and is Grade 1 listed in Historic England’s "Register of Parks and Gardens of Special Historic Interest in England". Additionally the majority of the buildings are listed, with Gibside Hall also being a scheduled monument. The estate woodlands are most noted for the 18<sup>th</sup> century designed landscape of vistas and formal drive placed within them (see Historic vista map), which are undergoing a process of restoration, as resources become available. The majority of the vistas have now been reopened, however a number of the drives still require significant work. The 1767 map of the estate (copied from the original survey by James Stephenson) has identified an additional historic vista not identified in the previous forest plan, shown below.



Many other structures of archaeological interest are known to exist, listed below (see Historic archaeological features map).

Number	Feature	Number	Feature
600	Chapel	638	Drift mine entrance
601	Former walled garden and associated structures	639	Former quarry (sandstone)
602	Shell of "Green house"	640	Lower reservoir
603	Stable block	641	Remains of field walls
604	Ruined building	642	Site of brick/tile kiln
605	Column/landscape feature	643	Cutwater, leap and site of mill
606	Restored garden building	644	Level and spoil mound
607	Earthworks of levelled terrace/axis	645	Wee/spring surround
608	Water feature	646	Course of wagonway
609	Water feature	647	Causeway/culvert
610	Causeway/culvert/former waggonway	648	Well/spring
611	Causeway/culvert	649	Gatepost
612	Bridge/causeway (restored)	650	Well/spring surround
613	Drift mine	651	Former quarry (sandstone)
614	Drainage adit entrance	652	Stone trough
615	Holloways	653	Site of gate piers
616	Earthworks of former drive	654	Hollow way
617	Remains of lodge/cottage (buried foundations)	655	Shallow shaft workings (coal)
618	House	656	Former drive/ possible wagonway
619	Remains of ornamental pond	657	Site of iron working forge
620	Causeway/culvert	658	Earthworks at crossing of vistas "round point"
621	Ice house	659	Course of former drive/ track
622	Planting mound and stone basin	660	Site of building
623	Remains of "little house"	661	Riverside walls
624	Remains of bath house (buried foundations)	662	Former drive/ bridge abutments
625	Footbridge on Gunners walk (rebuilt)	663	Stone culvert
626	Retaining walls (part rebuilt)	664	Paved stream
627	Riverside walls	665	Buttress wall/ culvert
628	Burial ground enclosure and sundial	666	Site of sawmill
629	Former reservoir	667	Brick building
630	Terraces of former amphitheatre	668	Old kennels/ blacksmiths shop
631	Spring surround	669	Culverts
632	Footbridge (rebuilt)	670	Buttress wall/ culvert
633	Course of walk (restored)	671	Landscape walk
634	Stone steps (2 flights)	672	Ha-ha wall and ditch
635	Remains of gate piers	673	Sheepwash site
636	Three retaining walls	674	Boundary stone
637	Higher reservoir	675	Culvert

## Nature Conservation interests

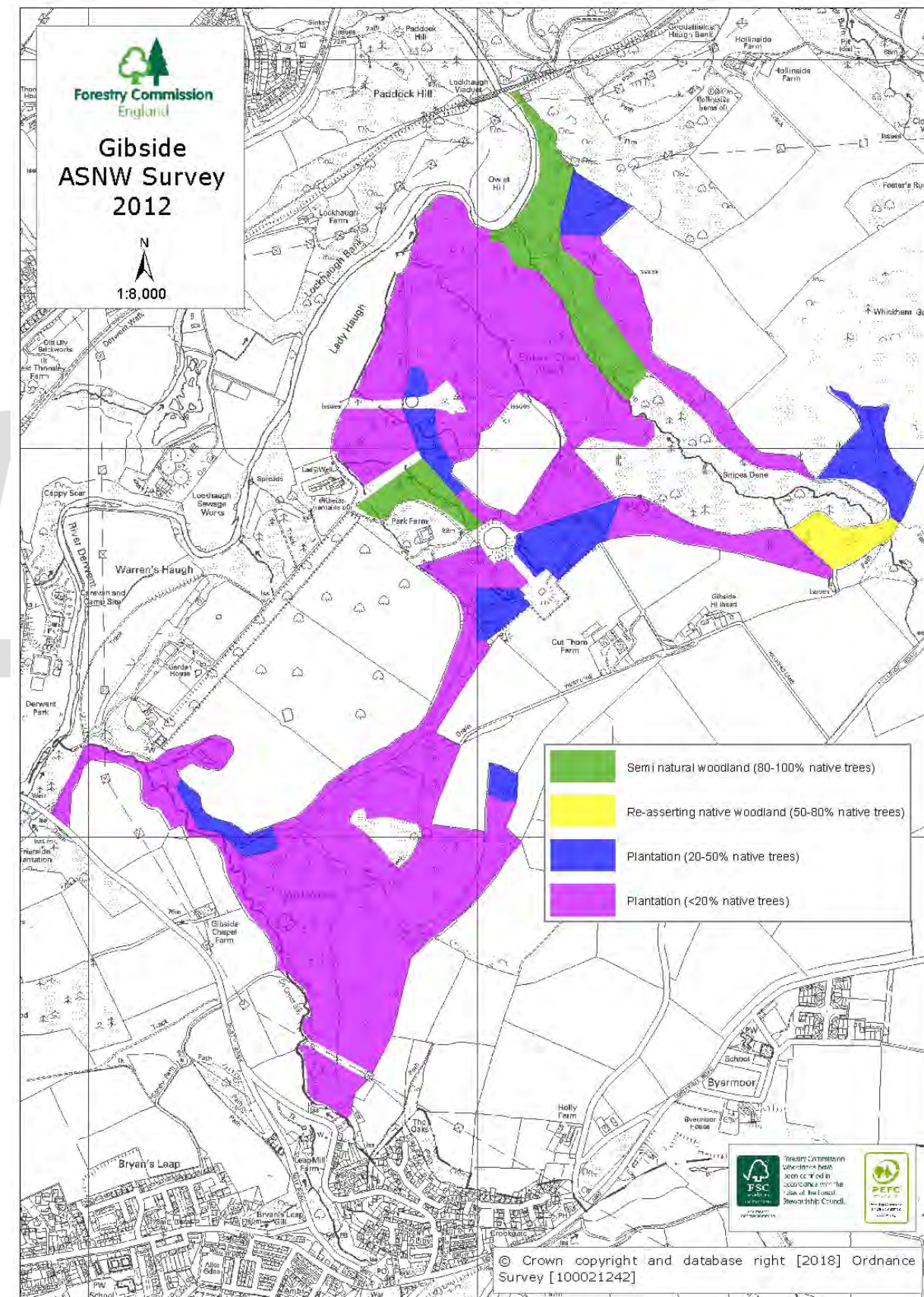
All the woodland appears on Natural England's register of ancient woodlands, mainly as ancient replanted woodland with some remaining ancient semi-natural habitat. The conservation interest in the woodland is therefore mainly attributed to its status as a Plantation on Ancient Woodland Site (PAW's). The ancient woodland status of the woodland dictates that there is a presumption for conversion to native species in line with current Forestry Commission Policy. An ancient woodland survey in 2002 indicated 2.6 % semi-natural species, with an additional 4.8% containing 50 to 80% native species and 85% being less than 20% native species. Management towards PAW's restoration has been ongoing through thinning and felling of non-native tree species throughout the period of the previous plan and the results of a re-survey in 2012 (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 the successful regeneration of native species following thinning interventions rather than producing a regular sustainable yield. Additionally the rate of ASNW restoration needs to consider the restoration of the main elements of the 18<sup>th</sup> century designed landscape and woodland structure in keeping with the estates historic context.

Gibside is a particularly important site for amphibia, reptiles and invertebrates. All species of newt, including great crested newts (*Triturus cristata*) are present as well as common frogs, toads and four species of reptile. Most notably, the grass snake (*Natrix natrix helvetica*) maintains a breeding population here, close to the northern limit of their distribution in the British Isles. They feed around the existing water bodies and on the ride edges wherever there is sufficient cover. Older areas of woodland also support a diverse invertebrate fauna including several notable species of fly, for example *Scoliocentra caesia* and *Neolaria ruficeps*, the nationally rare beetle *Pterostichus cristatus*, and the ancient woodland lemon slug *Limax tenellus*. Bats are present on the site, including populations of natterer's and noctule bats, which utilise natural tree roosts.

## Recreation and infrastructure

The Gibside estate is managed by the National Trust as a visitor attraction for its members and the public. Although there are no public rights of way through the estate public access is provided in the woodland areas and actively encouraged throughout all parts of the estate. The recreational development of the estate includes a car park, cafe, and shop together with waymarked walks and there are regularly organised events including open air concerts and guided walks. Forest Enterprise work closely with the National Trust when planning and implementing forest operations to minimise disturbance to visitors and manage health and safety.

Map 1 Ancient Woodland Survey 2012



## Part 2 Analysis and Concept

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

Factor	Opportunities	Issues
Current species	Conifer species generally growing well which will provide a sustainable yield throughout the conversion process	Larch at risk from Phytophthora Ramorum, and ash regeneration (at risk from Chalara) will need regular monitoring.  Western Hemlock is highly shade tolerant and as such has the ability to regenerate densely in low light levels beneath an intact canopy.
Management type	Continuous cover management possible throughout the estate.  Long term retention of native mixed broadleaved areas managed with minimum intervention will enhance biological value.	Thinning intensities need to recognise the important historic and biological features throughout the woodland. Over thinning could lead to crop stability issues.  Some clearfelling of Western Hemlock will be needed to eradicate from the wood.
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 landscape and garden features. An additional historic vista has been identified (James Stephenson survey 1767)	Some exotic tree species or groups of non-natives may be of historical significance and need to be retained.
Access/Roading	Adequate internal network of forest road	Forest roads are shared with the public requiring careful planning and adherence to the highest standards of health and safety
Harvesting	Continuous cover management will provide a	Yield and timing of operations unpredictable.

	gradual change in woodland structure which benefits both biological and historic landscape sensitivity.  Opportunities to optimise timber value should be taken where other priorities of management are not compromised.	Remaining areas of Western Hemlock need to be clear felled to prevent natural regeneration.
Future Species	The historic landscape objectives will lead to a woodland structure that retains a wide amount of species diversification.	PAW's restoration with conversion to locally native mixed broadleaved species will be influenced by the historical landscape objectives
Pests and disease		Larch is at risk from Phytophthora Ramorum, and ash at risk of Chalara.
Public access	Close proximity to large urban area and location within Great North National Forest.	Leasehold restrictions limit expansion of public access

### Design Concepts

1. Restoration of the main elements of the 18<sup>th</sup> century designed landscape notably opening the remaining planted vistas and re-establishing the formal drives.
2. Restoration of woodland to recreate a structure more in keeping with the earliest reliable record of 1866, and a move away from 20<sup>th</sup> century commercial forestry to a forest structure more in keeping with the commerce of the 18<sup>th</sup> and 19<sup>th</sup> century.
3. Though related to change in woodland structure a specific issue relates to the presence of Western hemlock within the woodlands. The aim is total removal of this species from the estate, and the progress made throughout the period of the previous plan should be continued.
4. Staged conifer removal: As Gibside is an ancient woodland site a general revision of the felling proposals has been made to schedule conifer removal from the estate. This should be achieved at a gradual rate over time and take full consideration of the historical context of the woodland.

### 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><b>ECONOMIC</b></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 Standard'</i></p>	<p>Felling proposals are generally based on the continued thinning of the forest under a continuous cover regime. Interventions will involve thinning of the conifer and non-native broadleaf components with the aim to thin the main areas of Snipes Dean wood and West wood once every 5 years, alternating between these areas. The Intervention Plan indicates the number of interventions likely to be required using the 2012 AWS to guide frequency and timing of management. Additionally, in the period 2022-2026 1.8ha of Western Hemlock will be felled and approx. 0.9ha of mixed conifer (west of the banqueting suite) felled to open up the historic vista identified in the 1767 survey.</p>
<p><b>NATURE and HERITAGE</b></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><i>Historic Environment</i> – the primary aim of thinning and felling interventions will be to recreate woodland structure more in keeping with the 1866 Gibside report including restoration of the main elements of the 18<sup>th</sup> century designed landscape notably opening up the remaining planted vistas and re-establishing the formal drives.</p> <p>Historic features will be routinely</p>

	<p>identified and protected during our planning and implementation of forest operations.</p> <p><i>ASNW restoration</i> - timing and yield of operations will be guided by how the woodland is responding to change.</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><b>PEOPLE</b></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>We will continue to work collaboratively with the National Trust to ensure that our operations minimise disturbance to visitors to the estate.</p>

Part 4 Monitoring plan

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

Objective	Criteria for success	Assessment
<b>ECONOMIC</b>  Wood production	Marketable parcels of timber on offer to the market	Contract and sales records
<b>NATURE and HERITAGE</b>  PAW’s restoration  Historic features	Delivery of Forest Plan felling/thinning proposals  Ancient Woodland survey  Protect and enhance features	Five year Forest Plan review  Re- survey planned for 2022  Operational planning
<b>PEOPLE</b>  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 Outcomes

Felling Proposals

The felling proposals incorporate continuous cover management across most of the estate, with a staged removal of the commercial conifer through a series of interventions (thinnings). The interventions are also to be used as a mechanism to encourage natural regeneration to succeed the current crop prior to its final removal. The number of interventions required is dependent on the current crop structure and composition, with stands with limited thinning history probably requiring more interventions. An estimation of the number of interventions required to remove the commercial crop is indicated on the Intervention Plan map. The exception to this prescription is remaining areas of Western hemlock where due to the nature of the species clearfelling is still proposed.

The last thinning intervention was undertaken in West Wood in 2017. The next planned intervention will therefore most likely be in 5 years’ time in the Snipes Dean Wood area of the estate. Combined with this thinning will be the removal of the remaining 1.8ha stand of Western Hemlock next to the Old Hall and 0.9ha of mixed woodland to re-open the vista west of the banqueting suite, both in the period 2022-2026. The removal of other remaining small groups or individual Western Hemlock trees that would otherwise be uneconomic to fell on their own will be incorporated into thinning operations.

Timber production is not a major objective of the 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 historic landscape and PAW’s restoration guided by ongoing Ancient Woodland survey.

Restocking proposals

The general aim of the restocking proposal is to restore elements of the historic landscape. Restoring the series of vistas and drives is relatively straightforward, as details of the their structure are well documented, and in terms of woodland management only affect edge treatments to the plantations i.e. felling back the trees in some areas. Reinstatement of the internal structure is more difficult to achieve and not practical in a short time scale without major felling. The best and earliest account of internal structure of these woods is in 1866 (see 1866 planting map), and this account is therefore being used as the basis for the long term vision. However, the woodland is an ancient woodland site and it is interesting to note the national vegetation classification (NVC) estimate for the estate survey in 2002 generally fits with the 1866 account, in that oak appeared to be the species of main interest as a final crop. However there is clear evidence that the woodland

was not all of a native structure in the 19th century and trees described such as large beech probably relate back to the 18th century establishment of the estate’s designed landscape. Restoring specific elements of the historic structure would add an additional dimension to the restoration, and therefore the restocking map identifies general principles for the format of the restocking. However as the intention is to use where practical natural regeneration or retentions to achieve this aspiration, detailed restocking proposals are inappropriate and could be restrictive to the process of natural regeneration. This and long-term future structure will remain the responsibility of the National Trust.

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.

Gibside 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 the retention 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 an important 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/minimum intervention areas will minimise soil disturbance. Natural regeneration and species diversification will benefit forest resilience.
Landscape	The historic landscape character is recognised and used to inform the appropriate woodland management and design.
Historic	Historic features are well recorded and their safeguard will be incorporated into operational management.
People	The 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 all 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 Gibside and the restoration of the main elements of the 18th century designed landscape. Continued thinning under a Continuous Cover Management regime will gradually restore the woodland to native species whilst also continuing to provide timber to markets across the region. In addition the retention of groups or individual exotic trees of historical significance will progress toward the longer term vision of restoring the estate woodlands to the structure found in 1866.

## Part 6 Forest Plan Maps

- Location – 1:50,000 scale showing location in context of other woodland in the local area
- Current Species – species composition of FEE landholding in 2018
- Yield Class – indicating the productive capacity of the current crops
- Wind Hazard – zones of tree stability according to the wind hazard classification
- Planting Year – age class distribution of the woodland
- Heritage – statutory and non-statutory heritage and historic landscape features
- Historic Vistas – showing the location of vistas and historic drives across the estate
- Nature Conservation – statutory and non-statutory conservation features
- Other Resources - formal public rights of way, access, facilities and local services.
- Historical Composition – this map indicates how the woodland structure would have been according to the Gibside Report of 1866
- Design Concepts – indicating the main objectives of management
- PAW's Intervention Plan – showing number of thinning interventions likely to be needed to restore native woodland based on the 2012 ancient woodland survey
- Felling Proposals – showing proposed areas of Minimum intervention, Continuous Cover management and clear felling
- Restocking – indicating the future species composition based on a programme of natural regeneration and planting to achieve restoration of ancient woodland
- Future Vision – representing the long term vision for future species composition incorporating historic landscape objectives



Forestry Commission  
England

## Gibside Location

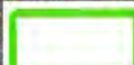





1:50,000

NEWCASTLE  
UPON TYNE

GATESHEAD

STANLEY

-  Gibside Estate Boundary
-  FC woodland interest
-  National Trust Landholding
-  Other FC woodland



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



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Survey [100021242]

# Gibside Current Species

N  
1:8,000

Note: the components shown are  
for the areas of woodland that remain  
in Forest Enterprise management



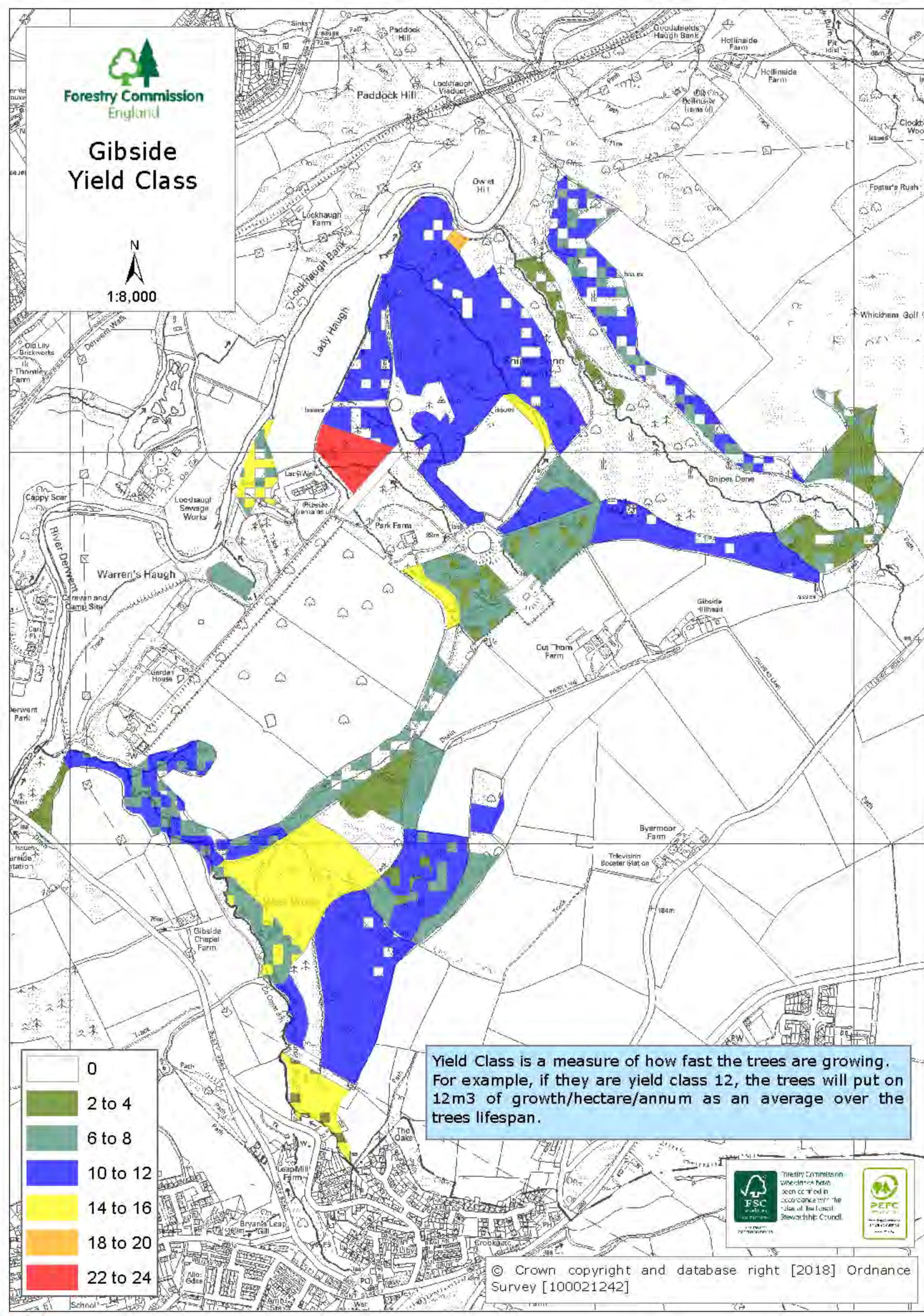


Forestry Commission  
England

## Gibside Yield Class



1:8,000





Forestry Commission  
England

## Gibside Wind Hazard



1:8,000



Forestry Commission  
woodlands have  
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rules of the Forest  
Stewardship Council



PEFC  
Certified  
Product Group

The Wind Hazard Class indicates zonation of the woodland in terms of tree stability, based on exposure and soil type. Zone 1 is the most windfirm and zone 6 the least.

In practical terms crops in zones 1 to 3 should be thinnable, whilst crops in zones 4 to 6 would not be thinned. At Gibside there are more opportunities for extended rotation length and implementation of Low Impact Silvicultural Systems (LISS) such as Continuous cover and Long term retention.



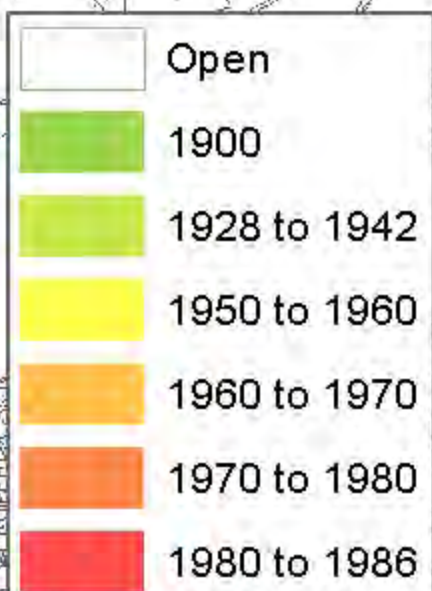


Forestry Commission  
England

# Gibside Planting Year



1:8,000





Forestry Commission  
England

# Gibside Historic archaeological features



1:8,000

See text for full list of numbered features

FC road

Heritage feature

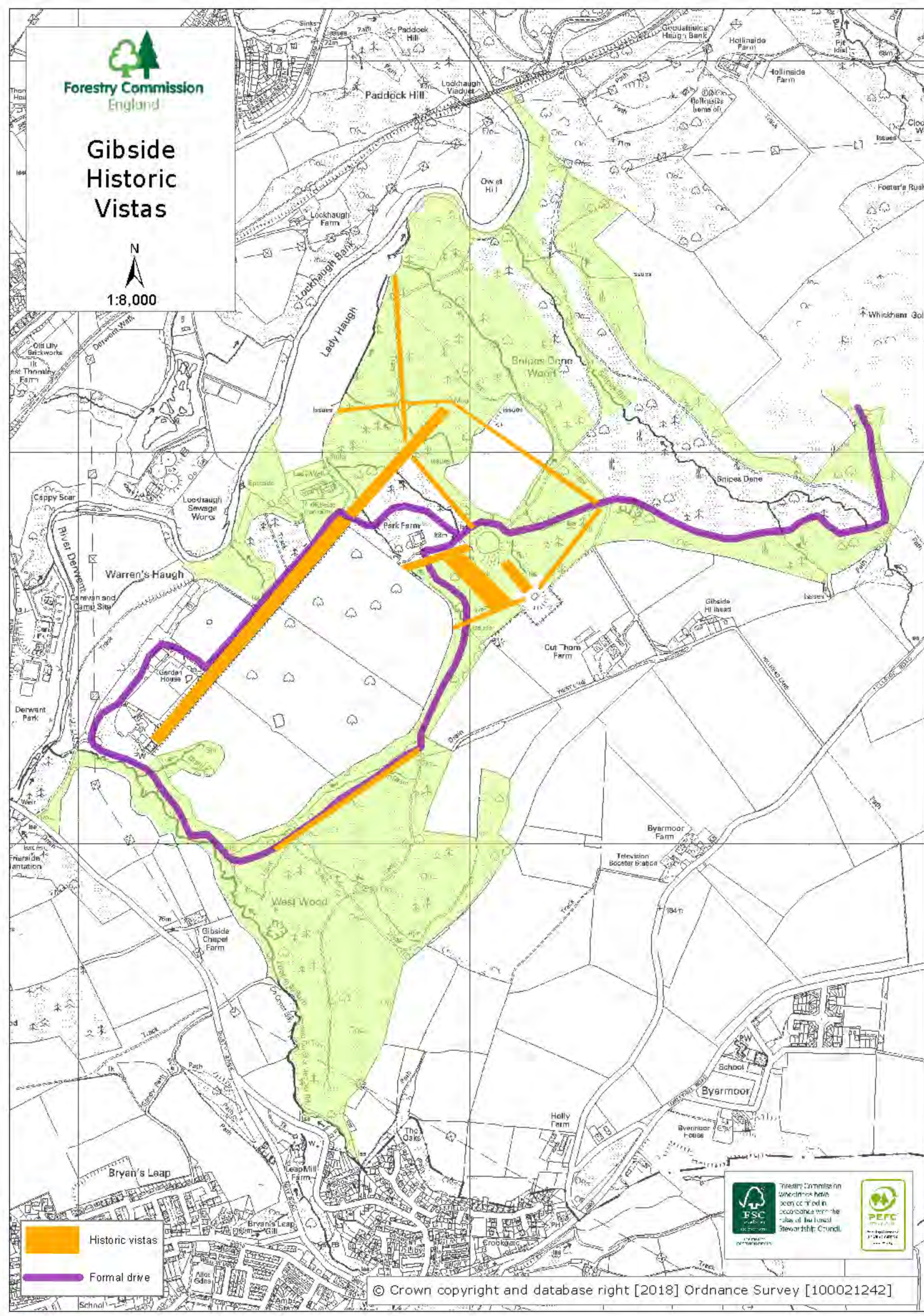
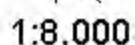


Forestry Commission  
Woodstock have  
been certified in  
accordance with the  
rules of the Forest  
Stewardship Council.





# Gibside Historic Vistas



Timber harvesting has been carried out in accordance with the rules of the Forest Stewardship Council.



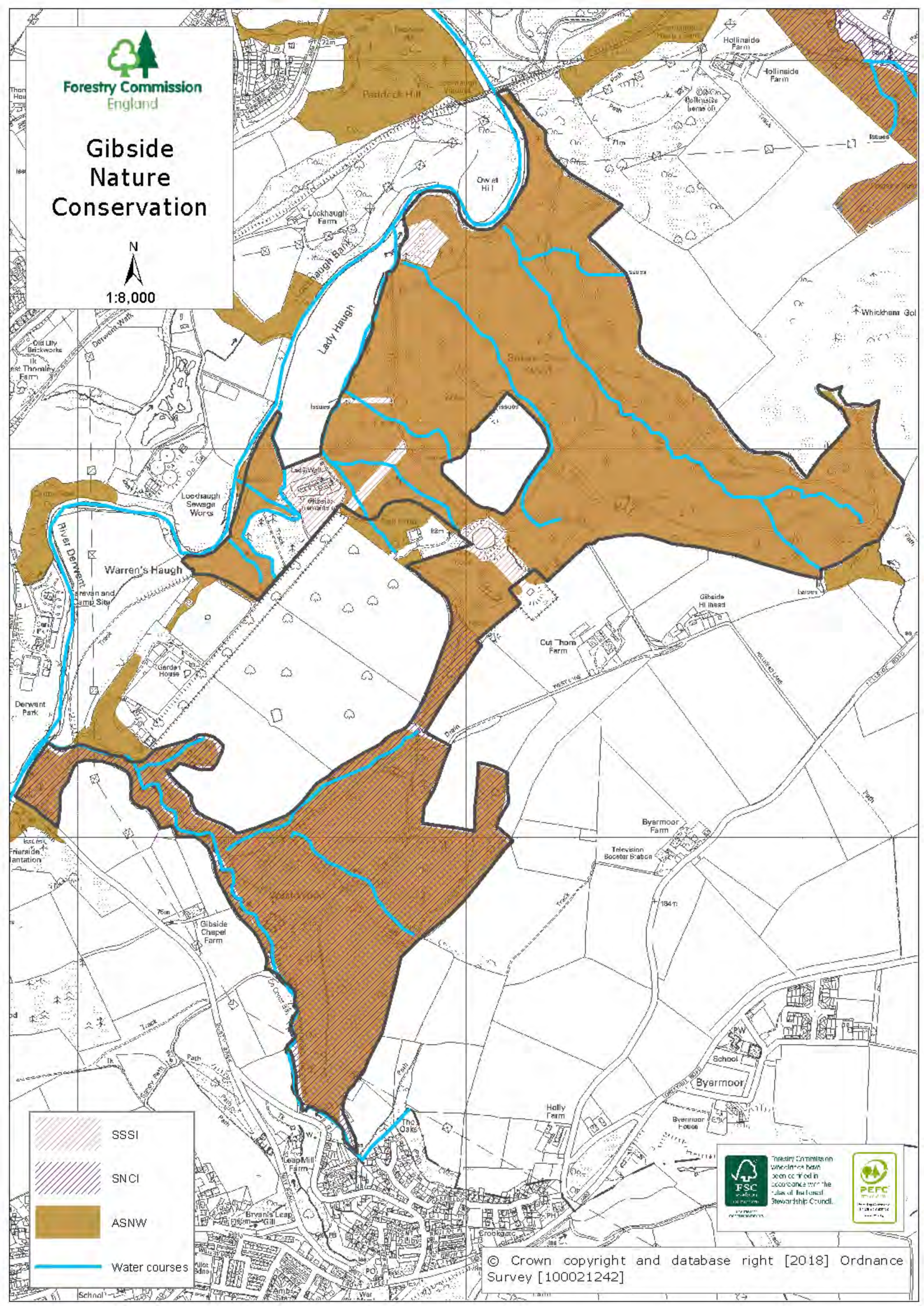


Forestry Commission  
England

# Gibside Nature Conservation



1:8,000



 SSSI

 SNCI

 ASNW

 Water courses



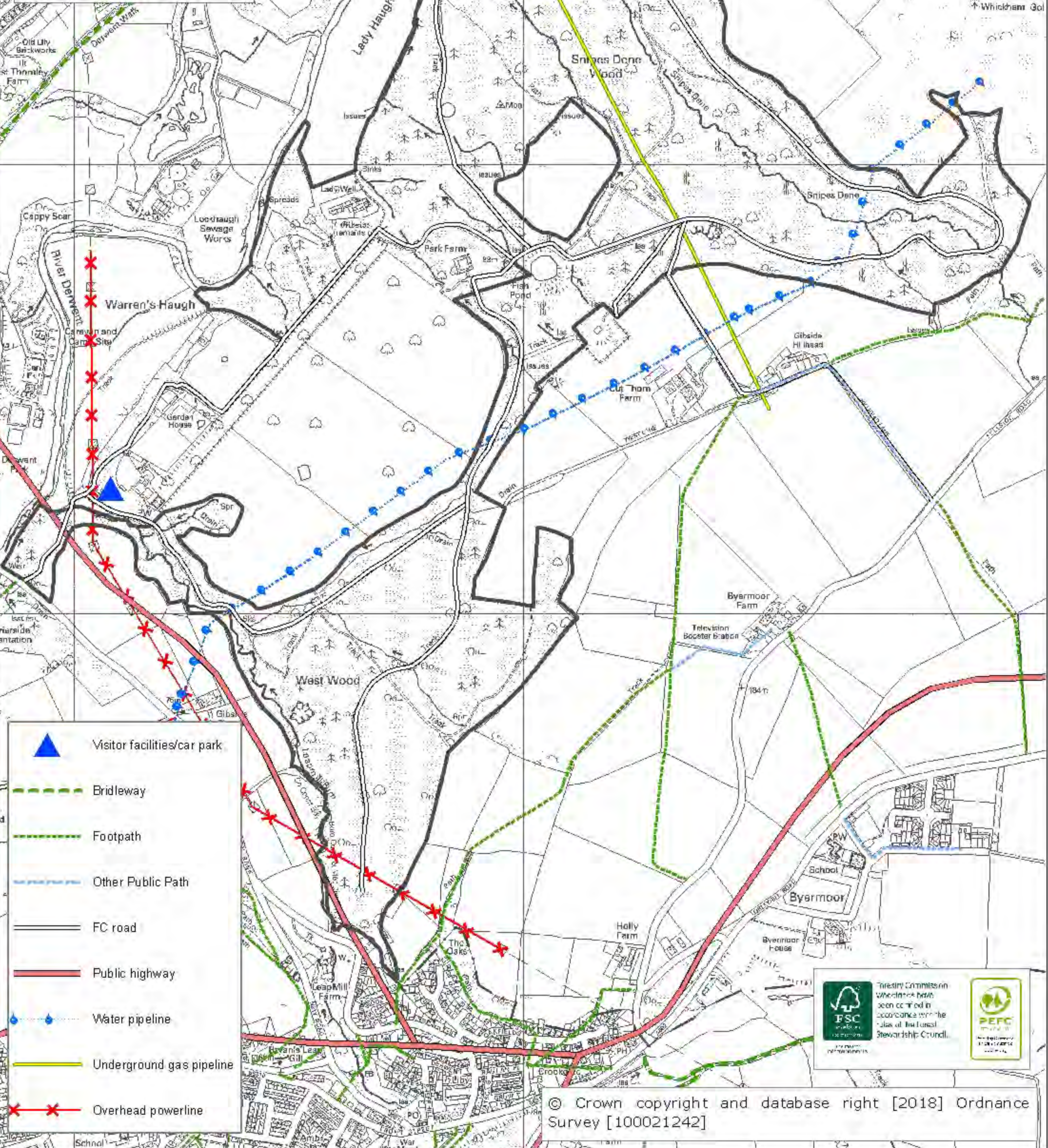
Forestry Commission  
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Stewardship Council.












PEFC  
www.pefc.org.uk

# Gibside Other resources

N  
1:8,000



-  Visitor facilities/car park
-  Bridleway
-  Footpath
-  Other Public Path
-  FC road
-  Public highway
-  Water pipeline
-  Underground gas pipeline
-  Overhead powerline

# Gibside 1866 Planting

N  
1:8,000

**OAK ASH WOODLAND**  
Mainly large oak with some ash and other hardwoods

**OAK CONIFER MIXED WOODLAND**  
These areas were planted with a mix of pine larch spruce and oak, with a proportion of hardwoods. Oak was proposed as the final crop. It is not clear whether the conifers were planted as a nurse or commercial crop or to add variety

**ORNAMENTAL MIX/YEW**  
Trees planted are larch,

**MIXED BROADLEAVES**  
A mixture of hardwoods with some pine

**LARCH**  
Not precisely located the plantation at the top of Snipes Dean was planted with larch

**PURE OAK**  
Most trees are oak

**BEECH (Gibside Old Wood)**  
An area of large beech which included some oak and in some places along the carriage drive combined with various other species to provide fine views. Records mention the presence of underwood so an understorey was also likelt present

**ELM**  
An area of thinned Elm

**MIXED CONIFER with OAK/POPLAR**  
Planted with larch and spruce and a wide mix of pine species, spanish chestnut and poplars. Specific mention that the area would make a fine ornamental plantation

-  Larch
-  Beech
-  Elm
-  Mixed broadleaved
-  Mixed conifer with oak and poplar
-  Oak ash
-  Oak conifer mix
-  Oriental mix with yew
-  Pure oak



**CLOSED DRIVES AND VISTAS**  
Assist in the restoration of the 18th century designed landscape. Through opening up the still closed vistas and widening the route of the formal drive

**REMOVAL OF WESTERN HEMLOCK**  
The aim is to remove the western hemlock component from the estate, through a staged removal approach. Where the operation is uneconomic this will be undertaken when funds are available to FC or NT

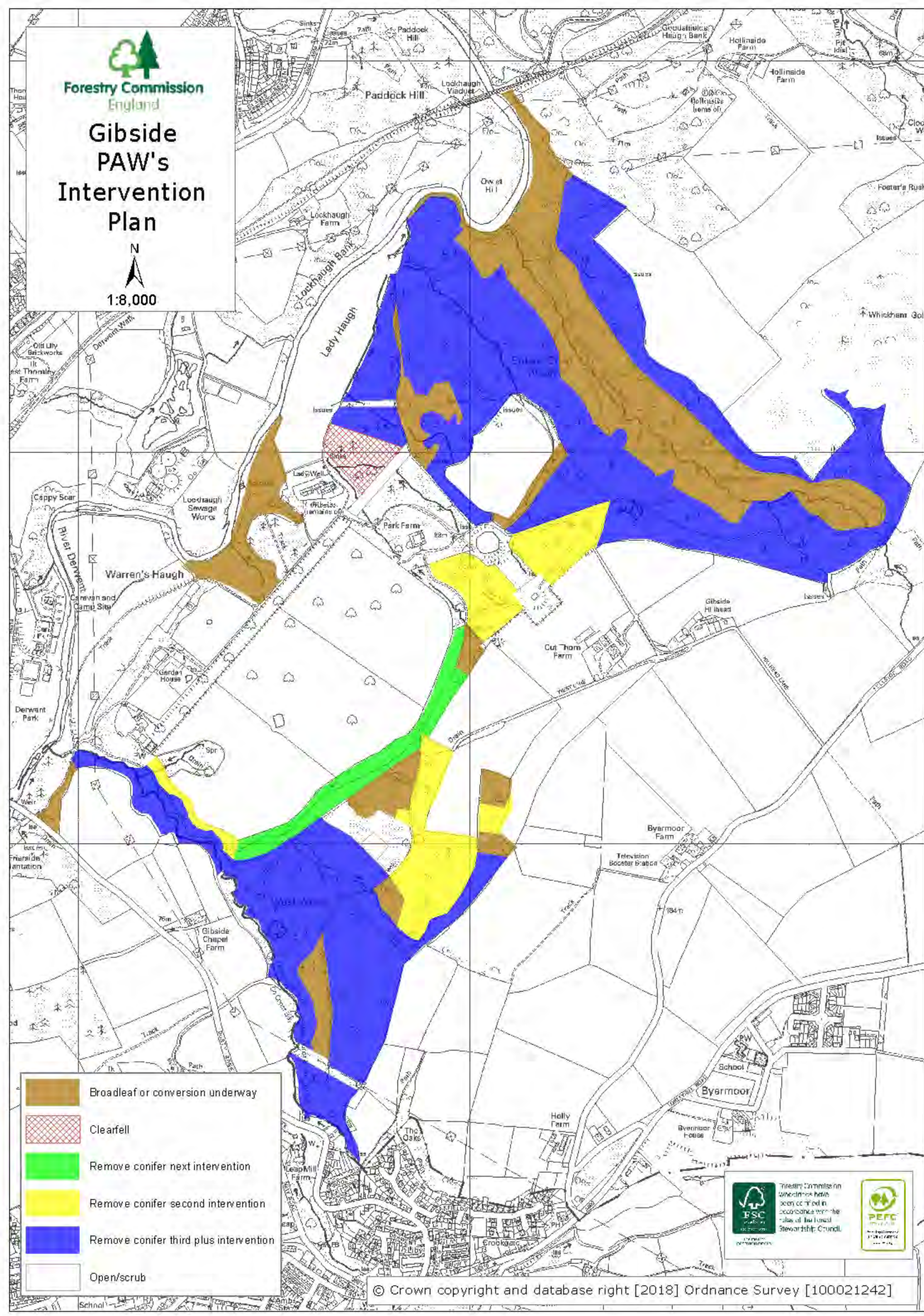
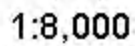
**18th CENTURY LANDSCAPE AND WOODLAND STRUCTURE**  
Aim at recreating previous woodland structure, and 18th century landscape. Either through thinning and natural regeneration, or restocking if insufficient desired species remain after the removal of the commercial crop. Scale and rate of conversion should be appropriate, large scale felling and restocking over a short time period would be inappropriate

- Hemlock treatment**
- Historic vistas
  - Formal drive
  - Landscaped Woodland
  - Fell
  - Hemlock removed
  - Recently felled
  - Uneconomic fell when possible





# Gibside PAW's Intervention Plan



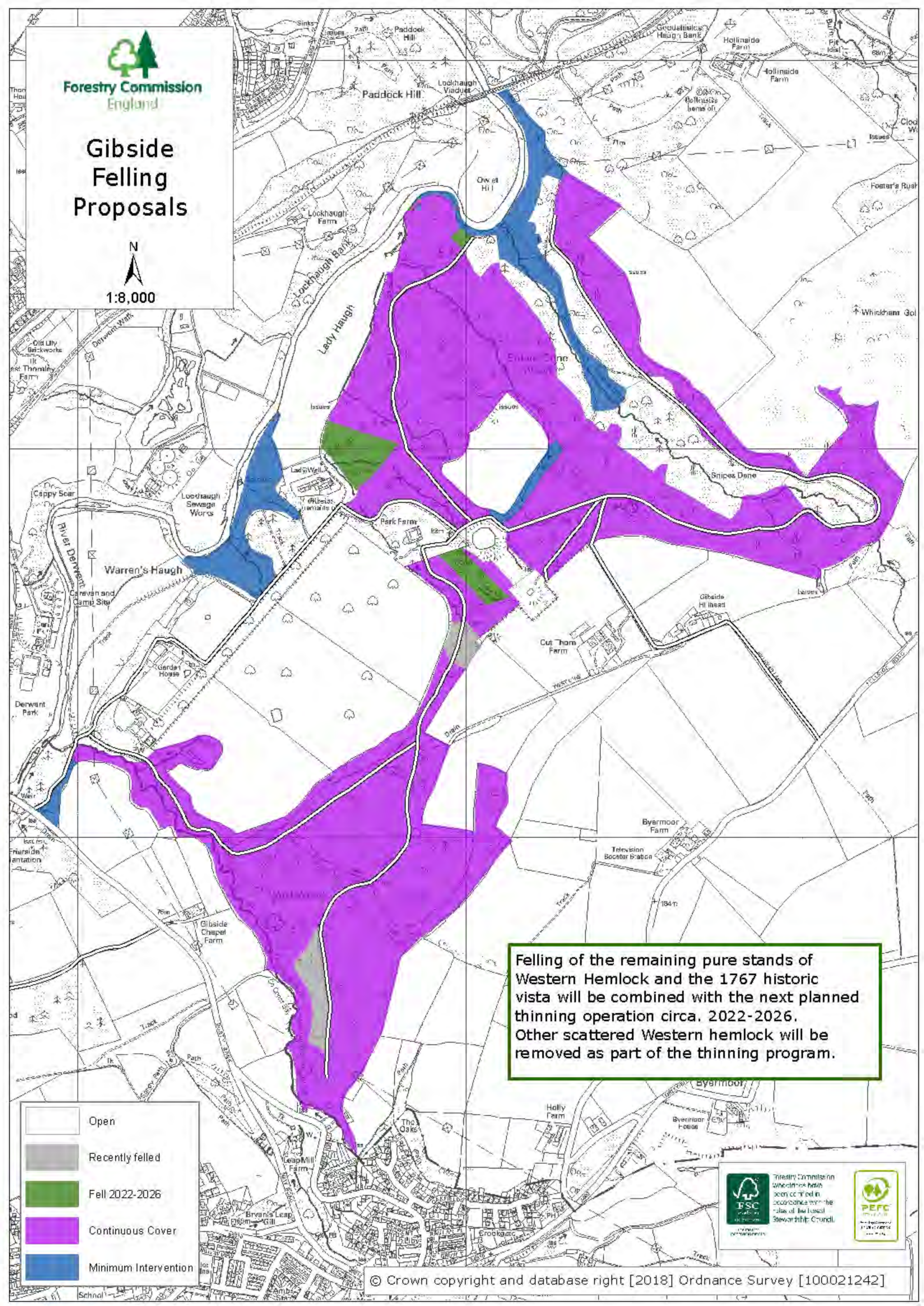


Forestry Commission  
England

# Gibside Felling Proposals



1:8,000



Felling of the remaining pure stands of Western Hemlock and the 1767 historic vista will be combined with the next planned thinning operation circa. 2022-2026. Other scattered Western hemlock will be removed as part of the thinning program.

- Open
- Recently felled
- Fell 2022-2026
- Continuous Cover
- Minimum Intervention



Forestry Commission  
Woodland plans  
seen to meet  
requirements  
of the  
Forestry  
Stewardship  
Credibility





Forestry Commission  
England

## Gibside Restocking



1:8,000



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



PEFC  
Product Group  
Certified

Within the mixed woodlands  
the aim will be to establish  
woodland types in keeping  
with the 1866 Gibside Report

### RESTOCKING PRINCIPLE

The restocking proposals within this plan are an outline. Normal restocking densities will be 1100 trees/ha for mixed broadleaves and 2500 trees/ha for mixed conifers but may, subject to agreement from Forest Services (FS) be less than this in places to meet other management objectives.

Detailed restocking plans will be submitted to FS when Forest Enterprise have relinquished its interest in the trees and restocking will be incorporated into a WGS application by The National Trust.

Thinning of stands will aim to move toward the final desired species ideally through natural regeneration though some supplementary planting may be required.



# Gibside Future Vision

N  
1:8,000

Reinstate mixed ornamental  
woodland in front of the old  
hall

VISTAS and DRIVES  
Continue the reinstatement of  
the formal vistas and drives

Reinstate mixed species  
nature of 19th century  
planting

Within the mixed woodlands  
the aim will be to establish  
woodland types in keeping  
with the 1866 Gibside report

