WOODLAND TRUST

Pontburn Woods

Management Plan 2019-2024

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MAPS

THE WOODLAND TRUST

INTRODUCTION

The Trust's corporate aims and management approach guide the management of all the Trust's properties, and are described on Page 4. These determine basic management policies and methods, which apply to all sites unless specifically stated otherwise. Such policies include free public access; keeping local people informed of major proposed work; the retention of old trees and dead wood; and a desire for management to be as unobtrusive as possible. The Trust also has available Policy Statements covering a variety of woodland management issues.

The Trust's management plans are based on the identification of Key Features for the site and setting objectives for their management. A monitoring programme (not included in this plan) ensures that these objectives are met and any necessary management works are carried out.

Any legally confidential or sensitive species information about this site is not included in this version of the plan.

PLAN REVIEW AND UPDATING

The information presented in this Management plan is held in a database which is continuously being amended and updated on our website. Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.
Please either consult The Woodland Trust website www.woodlandtrust.org.uk or contact the Woodland Trust (wopsmail@woodlandtrust.org.uk) to confirm details of the current management programme.

There is a formal review of this plan every 5 years and a summary of monitoring results can be obtained on request.

WOODLAND MANAGEMENT APPROACH

The management of our woods is based on our charitable purposes, and is therefore focused on improving woodland biodiversity and increasing peoples' understanding and enjoyment of woodland.

Our strategic aims are to:

- Protect native woods, trees and their wildlife for the future
- Work with others to create more native woodlands and places rich in trees
- Inspire everyone to enjoy and value woods and trees

All our sites have a management plan which is freely accessible via our website www.woodlandtrust.org.uk. Our woods are managed to the UK Woodland Assurance Standard (UKWAS) and are certified with the Forest Stewardship Council® (FSC®) under licence FSC-C009406 and through independent audit.

In addition to the guidelines below we have specific guidance and policies on issues of woodland management which we review and update from time to time.

We recognise that all woods are different and that the management of our sites should also reflect their local landscape and where appropriate support local projects and initiatives. Guidelines like these provide a necessary overarching framework to guide the management of our sites but such management also requires decisions based on local circumstances and our Site Manager's intimate knowledge of each site.

The following guidelines help to direct our woodland management:

1. Our woods are managed to maintain their intrinsic key features of value and to reflect those of the surrounding landscape. We intervene when there is evidence that it is necessary to maintain or improve biodiversity and to further the development of more resilient woods and landscapes.
2. We establish new native woodland using both natural regeneration and tree planting, but largely the latter, particularly when there are opportunities for involving people.
3. We provide free public access to woods for quiet, informal recreation and our woods are managed to make them accessible, welcoming and safe.
4. The long term vision for our non-native plantations on ancient woodland sites is to restore them to predominantly native species composition and semi-natural structure, a vision that equally applies to our secondary woods.
5. Existing semi-natural open-ground and freshwater habitats are restored and maintained wherever their management can be sustained and new open ground habitats created where appropriate.
6. The heritage and cultural value of sites is taken into account in our management and, in particular, our ancient trees are retained for as long as possible.
7. Woods can offer the potential to generate income both from the sustainable harvesting of wood products and the delivery of other services. We will therefore consider the potential to generate income from our estate to help support our aims.
8. We work with neighbours, local people, organisations and other stakeholders in developing the management of our woods. We recognise the benefits of local community woodland ownership and management. Where appropriate we allow our woods to be used to support local woodland, conservation, education and access initiatives.
9. We use and offer the estate where appropriate, for the purpose of demonstration, evidence gathering and research associated with the conservation, recreational and sustainable management of woodlands. In particular we will develop and maintain a network of long-term monitoring sites across the estate.
10. Any activities we undertake will conform to sustainable forest management principles, be appropriate for the site and will be balanced with our primary objectives of enhancing the biodiversity and recreational value of our woods and the wider landscapes.

SUMMARY

This public management plan briefly describes the site, specifically mentions information on public access, sets out the long term policy and lists the Key Features which drive management actions. The Key Features are specific to this site – their significance is outlined together with their long (50 year+) and short (5 year) term objectives. The short term objectives are complemented by a detailed Work Programme for the period of this management plan. Detailed compartment descriptions are listed in the appendices which include any major management constraints and designations. A short glossary of technical terms is at the end. The Key Features and general woodland condition of this site are subject to a formal monitoring programme which is maintained in a central database. A summary of monitoring results is available on request.

1.0 SITE DETAILS

Site name:	Pontburn Woods
Location:	Hamsterley Mill
Grid reference:	NZ148557, OS 1:50,000 Sheet No. 88
Area:	109.58 hectares (270.78 acres)
Designations:	Ancient Semi Natural Woodland, Conservation Area, County Wildlife Site (includes SNCI, SINC etc), Local Nature Reserve, Local Nature Site, NULL, Other, Planted Ancient Woodland Site, Site of Particular Ecological Importance

2.0 SITE DESCRIPTION

2.1 Summary Description

Pontburn Woods represents one of the Derwent Valley's largest remaining areas of deciduous woodland. Popular with locals who enjoy good access via a comprehensive path network. Nuthatches number among a healthy population of breeding birds.

2.2 Extended Description

The property known as Pontburn Woods consists of a number of adjoining woods situated approximately 5.5 km northwest of Consett in Co. Durham (NZ1465 5600). They covers 109.78 hectares (271.27 acres) and consists of a mosaic of broadleaf and conifer high forest woodland stretching from the River Derwent southwards towards Dipton. The bulk of the property is located south of the B6310 to the west of Hamsterley Hall on the slopes to each side of the Pont Burn that flows northwards through the woods.

Purchase of the woods was achieved through four separate acquisitions. The first woods to be acquired were compartment 3 and sub-cpts 2a (southern half), 2b, 2c and 2g that were bought in April 1983. Compartments 1 and 4, along with sub-cpts 2a (northern half), 2d, 2i, 2j were added to the property in April 1989. The eastern end of sub-cpt 3c was purchased in February 2002 and the

remaining areas of compartment 2 in March 2004.

Most of the woodland grows on gentle to moderate gradients but steep slopes do occur in various places along the River Derwent and parts of the Pont Burn. Soils are mostly free draining acidic mineral soils over Coal Measures and shale's, though heavier clayey brown earths also occur over boulder clay in compartment 2. Ground conditions also vary considerably across the woods with some areas being very soft and even wet. Besides the Pont Burn, other watercourses flowing through the woods include Red Burn (sub-cpt 3d), Pikewell Burn (sub-cpt 4d) and Fogoes Burn (cpt 2 & sub-cpt 3c).

For management purposes, the woods have been divided into four compartments (1 to 4), and 30 sub-compartments. Currently, mature/semi-mature conifer dominated woodland covers around 52.20 ha (48%) of the site and mixed broadleaves 42.65 ha (39%). Of the remaining 14.93 ha, 12.12 ha (11%) consists of young broadleaved restocking and woodland creation, 1.2 ha (1%) as open ground (mainly in sub-cpt 4d) and 1.2 ha (1%) as way leave corridors alongside the overhead power lines in sub-cpts 4b, c & e that contain mainly young birch coppice. All of the coniferous parts of the woods (except most of sub-cpt 4c) are Planted Ancient Woodland Sites (PAWS), whilst most of the existing broadleaved woodland is Ancient Semi-natural Woodland (ASNW). Most of the existing woodland in compartments 2 and 3 is designated a County Wildlife Site (number 1.1) particularly noted for its ornithological value, whilst sub-cpt 2h also falls within Durham Conservation Area 17.

Among the conifers, Scots pine and European larch dominate, with lesser amounts of Norway spruce and some Douglas fir in sub-cpt 3d. Within the broadleaves, sycamore, oak, ash and beech are all present in varying amounts throughout the woods. Under storey development varies considerably across the woods but where it does exist, species such as hazel, hawthorn, holly, rowan and elder commonly occur along with the regeneration of canopy species. Across most of the woods, bracken, bramble and grasses frequently occur among the field layer, though wood sorrel, wood rushes and dog's mercury and other woodland herbs can be locally abundant.

The main management access enters the woods off the B6310 along the Byway Open to All Traffic (BOAT) that leads to Hamsterely Hall. After crossing the historic Handley Cross Bridge, the left fork of the track is followed, which enters sub-cpt 3e by passing over the ford and joining the main track running north –south through the woods. Several other management access rights exist (see legal map), giving access to other parts of the woods but these are generally undeveloped routes and therefore management access for maintenance is restricted. Certain areas of PAWS woodland do not have sufficient management access to allow restoration to take place. Although several public rights of way cross the site, providing access into the woods from most directions, Pontburn Woods are generally not that well used. This is probably because the Forestry Commission's Chopwell Woods are located immediately to the north, providing many more recreational facilities for those wanting to visit a wood in this area. However, the extensive network of permissive paths within Pontburn Woods does provide extensive informal recreational opportunities that can help realise the Trust's corporate objective of increasing enjoyment of woodland.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Entry to the woods can be gained from a number of access points off the A694 (Lintzfield Road) and the B6310, as well as from public footpaths which run from Dipton, Medomsley and Leadgate. Two small public car parks exist off the B6310 between Hamsterley Mill and Burnopfield from where the woods north and south of the road can be entered. The smaller of the two car parks situated on the route of the Derwent Valley Walk (NZ142 560) provides access onto the old railway viaducts and embankment from where access to Pontburn Woods between the B6310 and the A694 can be obtained via three flights of steps down the embankment.

From the larger car park next to Pontburn Bridge (NZ146 562) access to the woods north and south of the B6310 is possible, though visitors should taken care when crossing the road, as the car park is situated on a blind bend. For those wishing to visit the woods north of the A694, parking is available in the lay-by next to Lintzford Bridge Garden Centre between Lintzford and Hamsterley Mill. From the lay-by, cross the road and enter the woods via the squeeze stile next to the field gate. Please note: cliffs and other very steep slopes exist along the River Derwent, so care should be taken when walking in this area of the woods.

For less-able visitors, access to the main part of the woods south of the B6310 can be obtained by following the track leading to Hamsterley Hall. The entrance to this lies next to the gatehouse midway between the two car parks on the B6310. Follow this public right of way until you cross the bridge then leave the main track and go left down to the wooden field gate next to the ford. Go through this entrance and over the concrete bridge onto the main track running through the woods. This route (except the small stretch between the bridge and the wood's entrance) consists of a semi-metalled surface that follows level ground and runs for about 1km with only one short, moderately steep slope to negotiate. Beyond this the route becomes more uneven and involves climbing a moderately steep slope for about 100m before the track levels off once more.

For visitors wishing to reach the woods by public transport, bus stops exist on both the B6310 between Burnopfield and Hamsterley Mill and on the A694 next to Hamsterley Mill from where visitors can access the woods within a few minutes walk. For those needing public conveniences, public toilets can be found in Burnopfield off Syke Road next to the public house opposite the Leazes Hall. RADAR toilets are located in Consett at the bus station, Medomsley Road and in Company Row, Victoria Road (trading hours) Wetherspoons.

3.2 Access / Walks

4.0 LONG TERM POLICY

To gradually convert those parts of Pontburn Woods currently planted with conifers into predominantly native broadleaved woodland by the middle of the 21st century. The aim will be to create high forest woodland of mixed age and species structure, broadly characteristic of lowland mixed broadleaved woodland as described in the Forestry Commission's Forestry Practice Guide 3. By employing continuous cover forestry methods to gradually remove the bulk of the conifers, existing remnants of ancient woodland ground and canopy flora will be saved so that these can eventually spread and colonise restored areas of the woods where these species have been lost. The four main watercourses within the woods will also be opened up by the removal of conifers to create a mosaic of open space and dappled shade along their margins. Both these activities aim to increase woodland biodiversity and so will help fulfil this corporate objective of the Trust. The broadleaved areas of the woods will be maintained as high forest woodland managed on minimal intervention principles with active work been largely confined to tackling tree safety and other hazard issues.

The current level of informal public access provision existing across Pontburn Woods will be maintained into the future to ensure visitors have extensive access to all parts of the woods. The approach to access facilities will be low-key, providing steps, surfaced paths and bridges where these are necessary to negotiate areas of difficult terrain, in order to provide a more natural woodland experience for visitors.

5.0 KEY FEATURES

The Key Features of the site are identified and described below. They encapsulate what is important about the site. The short and long-term objectives are stated and any management necessary to maintain and improve the Key Feature.

5.1 Informal Public Access

Description

Pontburn Woods form an extensive area of amenity woodland available for informal recreation that stretches from the River Derwent southwards towards Dipton village. It is fully integrated into the local public rights of way network with several footpaths entering the woods from various directions. Once in the woods, an extensive network of permissive footpaths provides access to most parts of Pontburn. The Derwent Walk follows the route of the old railway over the viaduct that crosses the northern end of the site and a Byway Open to all Traffic (BOAT) runs off the B6310 down the west side of the woods.

Significance

Providing public access to woods is a cornerstone of the Trust's management approach to its properties and is encapsulated in its corporate objective of increasing enjoyment and understanding of woodland. It also provides people with a place where they can roam freely to experience, watch and learn about nature without trespassing or causing a nuisance to others.

Opportunities & Constraints

Opportunities
The network of public footpaths that exist in and around Pontburn Woods provides the opportunity for a wide range of people from several local towns and villages to access the woods. The many formal and informal permissive footpaths that run through the woods allow people to enjoy exploring a substantial area of land freely. With the Derwent Walk crossing the woods, people from outside the local area are also provided with the chance of enjoying these woods.
Future opportunities to aquire adjacent land and small carpark off B6310 will be explored, to further increase the linking of paths and woodland.

Constraints
No parking facilities or 'main entrance' to the wood.
There are a few watercourses and associated steep banks that restrict access to all areas.

Factors Causing Change

None identified at present

Long term Objective (50 years+)

To improve the current level of permissive and public access provision to Pontburn Woods, which currently consists of approximately 3km of public footpaths and 4.5km of formal permissive footpaths.
Formal permissive footpaths will be kept open for walkers and where appropriate, surfaces maintained.
Informal permissive paths (ie. desire lines, etc) will be allowed to come and go over time and will not be maintained.
No further public rights of way should be created within the woods.

Short term management Objectives for the plan period (5 years)

During this plan period the short term objective is to:
- Improve the path/track network in the wood.
- Prevent illegal motorbikes using the site.
- Provide a main entrance/parking facility

This will include the following operational works:
1. Renew entrances and signage, this will be undertaken in 2019 and 2020
2. Ensure the surfacing of the path network does not degrade and vegetation does not block paths through an annual path clearance
3. Repair and block boundary fencing to prevent illegal vehicle access, to be undertaken in 2019 and 2020 (reviewing the effectiveness of any changes made)
4. Look at the opportunity to bring the small carpark off the B6310 under WT management - this will be left with the legal department and progressed within the current plan period.

5.2 Planted Ancient Woodland Site

Description

Areas of Pontburn Woods are recorded as Planted Ancient Woodland Sites (PAWS) on English Nature's Ancient Woodland Inventory (though considerable errors exist with the information recorded on the inventory). Much of compartment 4 where the PAWS areas occur were planted with mixed conifers in 1968 and are now predominantly conifer woodland but ground flora typical of ancient woodland, such as blue bells, wood sorrel, wood anemone, dog's mercury and ramson still survive in parts of the woods. Some of the PAWS areas in compartments 1 and 2 were planted even earlier than this, perhaps as early as the 1940s and 50s.

Significance

Ancient Semi-natural Woodland, a nationally rare habitat type whose preservation is both a local and national target within biodiversity action plans. Where ancient woodland sites have been planted with conifers, it is a stated aim of both the Government and the Woodland Trust that these should be restored back to native woodland. Restoration back to predominantly native broadleaves will increase the biodiversity of the woods and help save valuable elements of the former ancient woodland that may still be present among the understorey and field layers or among the seed bank preserved in the soil. Pontburn Woods, along with Chopwell Woods and the adjacent woodlands form the largest concentration of PAWS and ASNW in the North East of England, making its restoration both a regional and national priority.

Opportunities & Constraints

Opportunities - The conifers to be removed from areas of PAWS contain a substantial amount of timber that has commercial value, which should help achieve its removal and conversion of these areas back to broadleaf woodland.

Constraints - Long extraction distances are however, likely to make this timber less attractive to potential buyers.
Lack of management rights to get timber out of the woodland to the public highways.
The dominance of sycamore and beech among the broadleaf element of these woods makes their eradication from the areas of PAWS not a viable option. Consequently, these species will be accepted as part of the woodland structure.
High numbers of deer in the woodland.

Factors Causing Change

Heavy shade suppressing ground flora,
Sycamore domination among understorey in places,
Tree diseases - especially ash but also being aware of the possible implications of larch phytopthora
Mammal damage from browsing on the natural reneneration of native trees.

Long term Objective (50 years+)

To establish across the wood a predominantly broadleaved high forest woodland.
Create stands of diverse age and structure above a floristically rich ground layer.

Short term management Objectives for the plan period (5 years)

During this plan period the short term objective is to:
- continue with the restoration programme in the conifer-dominated PAWS compartments,
- secure managment access for extraction of timber to public highway.

This will include the following operational works:
1. Thinning of conifer-dominated woodland. Sub-compartments and dates given in the harvesting schedule.
2. Control of the deer populations will be undertaken throughout the current plan period. The impact of deer on the wood will be re-assessed every 2 years and results of this will be fed into the level of deer control.

5.3 Ancient Semi Natural Woodland

Description

At the end of 2012, the ASNW areas of Pontburn Woods account for approximately 39% of the woodland cover. These areas are dominated by broadleaves (usually with oak as the main canopy species) and generally have a more developed understorey and field layer than the PAWS areas. The main areas include sub-cpts: 1b, 2a, 2b, 2g, 2h, 3e, 4a, 4d and 4e.

Significance

Ancient Semi-Natural Woodland (ASNW) is a nationally rare habitat type whose preservation and restoration is both a local and national target within biodiversity action plans. Being ASNW, these areas have well-established ecosystems with good biodiversity. Most of the areas contain mature and over-mature trees among their canopies and contain the ancient woodland flora and fauna that will eventually spread and colonise the adjacent PAWS areas as these are restored. The bulk of the woodland in compartments 2 and 3 is classed as a Site of Nature Conservation Importance (SNCI) and these areas are also prominent landscape features, integral to the character of the area.

Opportunities & Constraints

Opportunities - The main opportunity the ASNW areas provide for Pontburn Woods is that they preserve most of the ancient woodland flora and fauna on site and will act as islands from where these species can migrate into adjacent PAWS woodland as this is restored.

Constraints - Some of the ASNW areas are situated close to housing and roads which put them under greater pressure than other parts of the woods, particularly in terms of tree safety that could result in the loss of trees.

Factors Causing Change

Natural regeneration of non-native species.
Tree diseases - especially ash disease and larch phytopthora
Non-native and invasive species
Mammal damage - predominantly roe deer

Long term Objective (50 years+)

To maintain the health and vigour of all existing ASNW areas within the woods and to protect these from any loss of biodiversity or any other degradation in habitat quality. Over the long-term (50-100 years), the area occupied by ASNW will also be increased through restoring adjacent areas of PAWS woodland.

Short term management Objectives for the plan period (5 years)

During this plan period the short term objective is to:
- Monitor the condition of the wood,
- Carry out tree safety,

This will include the following operational works:
1. Condition Assessment
2. Timber harvesting work (see harvesting section)
3. Within the site are areas of open ground, wide rides, ponds and wetland areas which will be managed to ensure a diverse range of habitat types exist on site
4. Control of the deer and grey squirrel populations will be undertaken throughout the plan period

5.4 Secondary Woodland

Description

Approximately 8700 native trees and shrubs were planted in November and December 2005 over a gross area of 6.77 hectares in order to create new a native broadleaved wood on two former semi-improved grassland meadows.

Significance

Native broadleaved woodland is a vital habitat for many plants and animals found in the UK. Over the centuries, our countryside has lost most of its natural tree cover, with a consequent loss of biodiversity. By planting new native woodland we are helping to reverse this depletion and fragmentation of the countryside. Planting on former farmland provides a net gain in biodiversity that will increase as the wood develops. The creation of new woodland next to Pontburn, Steelclose and Fogoesburn Woods will also help protect these PAWS by buffering them against potentially damaging activities such as farming or development and by ultimately increasing their core area, which is so important for wildlife. Consequently, the creation of Ajax Wood helps both to increase the area of new native woodland and protect planted ancient woodlands that are under restoration from further loss or damage and so, contributes to two of the Trust's four key corporate objectives.

Opportunities & Constraints

Opportunities - Future thinnings and pruning could be carried out in this part of the woodland, to reduce the future hazard potential from poor form in the trees in these zones

Constraints - Deer grazing appears to be preventing natural regeneration and coppice growth establishment.

Factors Causing Change

Tree disease - especially ash disease, and larch phytopthora implications on the surrounding compartments
Mammal damage

Long term Objective (50 years+)

To maintain a vigorous and healthy forest of native broadleaved woodland with graduated margins of shrubs alongside rides and open spaces.
The break up the even age structure of the woodland, the wood becomes self-perpetuating through natural regeneration, ensuring its existence in perpetuity.

Short term management Objectives for the plan period (5 years)

During this plan period the short term objective is to:
- Monitor the condition of the wood,
- Start thinning programme,

This will include the following operational works:
1. Condition Assessment
2. Timber harvesting work (see harvesting section)
3. Within the site are areas of open ground, wide rides will be managed to ensure a diverse range of habitat types exist on site
4. Control of the deer and grey squirrel populations will be undertaken throughout the plan period

6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By

APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	4.83	Japanese larch	1947	PAWS restoration	Management factors (eg grazing etc), No/poor vehicular access to the site	Informal Public Access	Planted Ancient Woodland Site
Sub-cpt 1a (Galleyburn Wood) covers an area of 4.83 ha located on the River Derwent's southern bank, opposite the large expanse of woodland known as Chopwell Woods owned by the Forestry Commission. The wood occupies a northwest-facing slope between 70m and 45m above sea level cut by a number of gullies running down to the river, where areas of vertical rock face occur. An old access track run along the top of the slope and down to the southern boundary from where the Trust has a right of management access across the neighbouring fields.The canopy consists of mixed high forest dominated by larch (p47) and Norway spruce (p.57) with sycamore, oak, beech and ash regenerating where suitable gaps occur. Adjacent to the river, mature broadleaved (mainly oak, beech and sycamore) high forest has been retained. The understorey is generally poorly developed consisting of some hazel coppice and a scattering of holly, elder, beech and sycamore. The field layer contains patches of heather and bilberry surviving in drier areas with other species such as dog's mercury, wood sorrel, wood anemone, greater stitchwort and wood rush occurring here and there along with coarser vegetation such as bramble and bracken. Ground conditions are variable with shallow rocky soils in some places and softer ground in others. A national grid overhead power line crosses the southwest end of 1a and the area underneath this is subject to periodic line clearance.							
1b	1.23	Oak (pedunculate)	1900	High forest	Management factors (eg grazing etc), No/poor vehicular access to the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	Ancient Semi Natural Woodland

Sub-cpt 1b accounts for 1.23 ha of Craghead Wood forming of a band of predominantly broadleaved high forest woodland alongside the River Derwent containing mature and semi-mature oak, beech, sycamore and Scots pine. Regeneration forms the understorey and the ground flora includes heather and bilberry. The southwest end of 1b consists of good acid oak woodland with an understorey of beech, holly and yew occupying an extremely steep slope falling down to the river and containing a field layer dominated by wood rush with bilberry, heather and polypody. In places the ground is loose and liable to erosion and displays evidence of past quarrying activities. Access to 1b is taken from the A694 by passing through sub-cpts 1g and 1d.							
1c	1.09	Sitka spruce	1956	PAWS restoration	No/poor vehicular access to the site, Site structure, location, natural features & vegetation	Informal Public Access	Planted Ancient Woodland Site
Sub-cpt 1c covers 1.09 ha and makes up the remainder of Graghead Wood. Planted with Sitka spruce and Scots pine that was thinned in 90's leaving the upper slopes dominated by spruce and the lower slopes by Scots pine. Holly, beech, sycamore rowan and birch form a thinly scattered understorey with bramble, ferns, wood sorrel and wood rush making up the field layer. The ground along the bottom of the slope near the river has been quarried during the past, creating some prominent hillocks and hollows. The rest of 1c occupies moderately steep north to northeast-facing slopes between 70 and 55 metres elevation where some limited wind blow and snap has occurred allowing birch and elder to regenerate vigorously. Management access to 1c is taken from the A694 by passing through sub-cpts 1g and 1d, a distance of about 800m, making timber extraction non-economic.							
1d	2.29	Oak (peduncculate)	1996	High forest	Site structure, location, natural features & vegetation, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	Planted Ancient Woodland Site
Sub-cpt 1d occupies 2.29 ha on a steep east to northeast-facing slope between 70 and 45 metres elevation forming the northern arm of Ponthaugh Wood. After being clear felled in 1995, it was re-stocked in January 1996 with the following species: oak (40%), ash (35%), cherry (15%), hazel (5%) and rowan (5%) at 3m centres to give a total stocking density of 2310 trees/shrubs. All tree shelters were removed in 2006. An intermittent fringe of semi-mature Scots pine remains along the top of the slope. Bracken dominates the field layer throughout. Access to 1d is obtained by following the track through sub-cpts 1g from the entrance off the A694.							

1e	1.56	Scots pine	1956	PAWS restoration	Mostly wet ground/exposed site, No/poor vehicular access to the site, Site structure, location, natural features & vegetation	Informal Public Access	Planted Ancient Woodland Site
Sub-cpt 1e forms part of Ponthaugh Wood and covers 1.56 ha occupying a small stream valley projecting south-westwards from the southern end of sub-cpt 1d. At its northeast end a building once stood and the slopes here are quite steep and the shade heavy, due to the narrowness of the valley; whilst at the southwest end the ground occupies more gentle slopes. Scots pine forms the canopy along the upper slopes and at the southwest end where the tree cover is more open. A scattered understorey of elder, blackthorn, hawthorn, wild cherry and rose exists underneath the pine and the field layer though dominated by bracken and bramble, also contains wood sorrel and the odd bluebell. On the middle and lower slopes by the stream, a mix of ash, birch, sycamore and poplar make up the canopy with a frequent understorey of hazel, birch, holly and sycamore. A more developed field layer exists here made up of wood sorrel, wood anemone, lesser celandine, dog's mercury, opposite-leaved golden saxifrage, ramson, greater stitchwort, polypody and ferns.							
1f	0.39	Oak (pedunculate)	1950	High forest	Mostly wet ground/exposed site, No/poor vehicular access to the site, Site structure, location, natural features & vegetation	Informal Public Access	Planted Ancient Woodland Site
This small sub-cpt (0.39 ha) extends south-westwards from the end of sub-cpt 1e and occupies the gentle slopes to each side of the small watercourse that arises within this area. A pond situated outside its southwest boundary occupies what was once the clay pit of the Hagg Tile Works, which was in production during the nineteenth century. In 2004, the neighbouring land owner encroached onto this land and cut down a number of the old hawthorns, burnt the arising on site and planted conifers. The pond was also extended into the sub-cpt. The encroachment was successfully challenged and the land reinstated, although the reinstated ground is full of rubble and brick. Consequently, the canopy is much more open now and consists of semi-mature oak, hawthorn and birch with an understorey of oak, holly, Scots pine, hawthorn and spruce arising from coppice regrowth, natural regeneration and planted species. Considerable amounts of primrose, dog's mercury, dog's violet, ramson and wood sorrel occur in the field layer but disturbed ground species, such as common nettle, garlic mustard and bramble are also present which, with the abrupt opening of the canopy, may well spread to the detriment of other species.							

1g	1.68	Scots pine	1956	PAWS restoration	Housing/infrastructure, structures & water features on or adjacent to site	Informal Public Access	Planted Ancient Woodland Site
Sub-cpt 1g makes up the remaining 1.68 ha of Ponthaugh Wood south of sub-cpt 1e and alongside the A694. Occupying slopes between 45m and 65m elevation, the sub-cpt is made up of a number of quite distinct stands. The northeast-facing slopes immediately south of sub-cpt 1e consist of pure Scots pine. Norway spruce, which previously grew here, has been removed during successive thinnings and only a few now survive along the edge of the northeast boundary. A very sparse understorey of birch, oak, elder and holly grows beneath the pines and the field layer is dominated by bracken, though wood sorrel flowers quite abundantly before the fronds emerge. The quality of the Scots pine in this part of Pontburn Woods is high with good form and height. Thinning has removed a substantial amount of timber from this area and the remaining trees have yet to fully utilise the canopy space available. Consequently, plenty of light reaches the woodland floor, encouraging bracken to spread.Next to the management entrance off the A694, a small stand of semi-mature beech high forest occurs with a very sparse understorey of naturally regenerating beech, holly, elder and rowan. Areas of wipe-out occur across much of the field layer but patches of wood sorrel still occur here and there, as does the odd bluebell. Alongside the A694 the canopy becomes much more mixed and contains semi-mature Scots pine, poplar, sycamore, ash, alder, willow, larch and birch. A well formed understorey covers most of the area made up of the regeneration of canopy species along with elder, holly, hazel, beech, rhododendron and yew. Disturbed ground species such as common cleavers, rosebay willowherb, nettle, bramble and bracken dominate across much of the area but wood sorrel, bluebell, ramson and red campion all occasionally occur, whilst along the roadside verge, dog's mercury becomes abundant.							
2a	2.17	Oak (pedunculate)	1850	High forest	Housing/infrastructure, structures & water features on or adjacent to site, People issues (+tve & -tve)	Informal Public Access	Ancient Semi Natural Woodland, County Wildlife Site (includes SNCI, SINC etc), Other
Sub-cpt 2a extends along the southeast-facing slopes between the A694 and Steelclose Mill southwards between the Pont Burn and Mill Farm Road and covers 2.17 ha, making up the northern half of Mill Wood. Small water courses flow through the northern and southern halves of the wood eastwards to join the Pont Burn. This part of Mill Wood consists of mature broadleaved woodland dominated by oaks. Ash also occurs frequently along with the odd birch and cherry. Hazel dominates the understorey but holly, elder and willows are also present on occasion. Ivy occurs frequently among the ground flora, along with honeysuckle and occasional patches of dog's mercury, wood sorrel, nettles and ferns. A sewage pumping station is located in the middle of 2a, to which Northumbrian Water have a right of access via a short tarmac track leading off Mill Farm Road. Heading southwards from this is a sewer pipe that runs through the wood which is above ground in places.							

2b	2.87	other oak spp	1910	High forest	Housing/infrastructure, structures & water features on or adjacent to site, Mostly wet ground/exposed site, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Informal Public Access	Ancient Semi Natural Woodland, County Wildlife Site (includes SNCI, SINC etc), Other
Sub-cpt 2b consists of that part of Pontburn Wood to the north of the viaduct growing on boulder clay, creating heavy textured brown earths and gleyed brown earths around the mid-slope flushes. The Pont Burn forms its western boundary and the old track leading down to Steelclose Mill its northern one with sub-cpt 2e to the east. It occupies west-facing slopes between 50 and 75m elevation dropping down to the Pont Burn and consists of mature mixed high forest woodland dominated by hybrid oak (Quercus petraea x robur) and ash but including lesser amounts of birch (generally moribund with much polypore infestation), grey poplar, sycamore, beech, Scots pine and alder. It has a good naturally regenerating understorey of holly, hazel, common hawthorn and wild cherry with a field layer dominated by creeping soft-grass with broad buckler fern and honeysuckle but also containing in places yellow pimpernel, ramson, greater stitchwort, bugle, herb Robert, bluebell, wood sorrel, dog's mercury and ferns. The old mill race that once supplied power for grinding corn at Steelclose Mill runs along the northwest side of 2b. Management access to this sub-cpt is taken from the B6310 up the track along the west side of sub-cpt 2f, under the bridge through the embankment and onto the old track that once led down to Steelclose Mill.							
2c	1.03	Oak (pedunculate)	1910	High forest	Housing/infrastructure, structures & water features on or adjacent to site, People issues (+tve & -tve), Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Informal Public Access	County Wildlife Site (includes SNCI, SINC etc), Other, Planted Ancient Woodland Site

Sub-cpt 2c covers 1.03 ha and forms the southern half of Mill Wood south of Mill House on the west bank of the Pont Burn. It consists of three blocks of mature broadleaved woodland, one to the north of the viaduct and two to the south. The blocks to the south are divided from each other by the public footpath (whose land is not within Trust ownership) and have their southern boundary adjoining the B6310. To the north of the viaduct, mature oak dominates the canopy but ash and sycamore also occur frequently. A frequent understorey of naturally regenerating hazel, ash and holly stands above a rather poor field layer containing abundant ivy and frequent bramble. However, woodrush, dog's mercury and ferns occur here and there along with the odd wild arum. To the east of the public footpath south of the viaduct, sycamore dominates with oak, beech and ash only minor elements among the canopy. Here steep slopes and some exposed rock faces drop down to the Pont Burn. Hazel and holly both occur frequently in the understorey with beech and elder also occurring occasionally. Dog's mercury is abundant in the field layer, though again ivy is also frequent along with nettles and brambles. Wild arum, herb Robert and teasel also occur. To the west of the public footpath, the woodland is quite different with beech and sycamore being the most frequent trees and oak, ash and Scots pine only rarely occurring. Some mature lime trees are also present along the bottom of the old railway embankment. A permissive path runs through the trees and under the viaduct form a metal gate alongside the B6310 which has a beech hedge running alongside it. The understorey contains frequent rhododendron and also some laurel, as well as ash, beech, rowan, holly, hawthorn and hazel. The field layer is generally poor containing lots of ivy and bramble, though some dog's mercury occurs near the public footpath.							
2d	1.45	Norway spruce	1950	PAWS restoration	Diseases, Housing/infrastructure, structures & water features on or adjacent to site, Mostly wet ground/exposed site, No/poor vehicular access to the site, Sensitive habitats/species on or adjacent to site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	County Wildlife Site (includes SNCI, SINC etc), Planted Ancient Woodland Site

Sub-cpt 2d covers 1.45 ha of north and northwest-facing slopes situated immediately south of Steelclose Mill occupying elevations of between 45 and 65m. It forms the northwest end of Steelclose Wood in which the canopy is dominated by Norway spruce (infected with Heterobasidion annosum) but some Scots pine, sycamore, oak and birch are also present. The trees were thinned between July and October 1997 and since then considerable wind blow and snap have occurred, particularly on the slopes above Steelclose Mill, leading to a zone behind this house being clear felled in 2002 in the interests of safety. A patchy understorey of sycamore, ash, elder and broom occurs here and there, particularly where wind blow has created openings in the canopy. Where a field layer occurs, bramble is generally dominant, except at the northeast end where bracken is abundant. Some ancient woodland species do occur in limited numbers, such as primrose, ramson and wood sorrel but most other species are non-specialists like stinging nettle, rosebay willowherb and raspberry. Management access to 2d is taken off the old track along its southern boundary that can be reached from the B6310 by following the track through sub-cpts 2f and 2e.							
2e	4.11	Oak (pedunculate)	2005	High forest	People issues (+tve & -tve)	Informal Public Access	Other
Sub-cpt 2e lies to the north of the old railway embankment and extends to 4.11 ha. It was purchased along with sub-cpt 2f by the Trust in 2004 in order to create a new native broadleaved wood over these two improved grassland meadows in order to buffer and extend the existing woods that surround them. The new wood is named Ajax Wood after the ship HMS Ajax that fought in Nelson's column at the Battle of Trafalgar and is one of 33 woods created across the UK to celebrate the ships and crews that fought at the Battle of Trafalgar in 1805. The meadow is covered in extensive post-medieval field banks and ridge and furrow remains that were surveyed and recorded by Archaeological Services University of Durham prior to planting the wood in November/December 2005. In total, 5550 trees and shrubs were planted in 1.2m Tubex tree shelters consisting of oak (2600), ash (1700), wych elm (250), aspen (50), small-leaved lime (50), common alder (150), wild cherry (150), downy birch (150), hazel (400), holly (25) and dog rose (25). All species are of local or British provenance, with the oaks having being grown from acorns collected in Pontburn Woods. Access to 2e is taken off the B6310 along the track through sub-cpt 2f and under the viaduct.							
2f	2.77	Oak (pedunculate)	2005	High forest	People issues (+tve & -tve)	Informal Public Access	Other

Sub-cpt 2f lies to the south of the old railway embankment and extends to 2.66 ha. It was purchased along with sub-cpt 2e by the Trust in 2004 in order to create a new native broadleaved wood over these two improved grassland meadows in order to buffer and extend the existing woods that surround them. The new wood is named Ajax Wood after the ship HMS Ajax that fought in Nelson's column at the Battle of Trafalgar and is one of 33 woods created across the UK to celebrate the ships and crews that fought at the Battle of Trafalgar in 1805. The meadow is covered in extensive medieval/post-medieval field banks and ridge and furrow remains that were surveyed and recorded by Archaeological Services University of Durham prior to planting the wood in November/December 2005. In total, 3150 trees and shrubs were planted in1.2m Tubex tree shelters consisting of oak (1200), ash (600), wych elm (150), aspen (50), small-leaved lime (50), common alder (150), wild cherry (50), downy birch (250), hazel (300), holly (75), common hawthorn (200) and dog rose (75). All species are of local or British provenance, with the oaks having being grown from acorns collected in Pontburn Woods. Between the 28 November and 2 December 2005 a schools Tree for All event was held on site at which pupils planted many of the trees in planting block H. This was followed on the 3 December with a public planting event at which invited guests and members of the public planted further trees in this area. Part of sub-cpt 2f at its northeast side believed to contain medieval ridge and furrow has been left unplanted as an open glade, whilst the area of unimproved acid grassland at the southern end of 2f also remains unplanted because of its existing habitat value. Running through this area and between planting blocks H and J is an underground water main, whilst along the western boundary runs the access track leading into the wood off the B6310.

2g	1.17	Beech	1850	High forest	Housing/infrastructure, structures & water features on or adjacent to site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	County Wildlife Site (includes SNCI, SINC etc), Local Nature Reserve, Other, Planted Ancient Woodland Site

Sub-cpt 2g makes up the southern end of Pontburn Wood south of the viaduct and covers 1.17 ha. The Pont Burn and the B6310 form its southern and western boundaries with sub-cpt 2f on its eastern side. A small public car park (not on Trust land) is located next to Pontburn Bridge just to the east of which an underground water main crosses the southeast end of 2g. The slopes above the car park are quite steep but become gentler as you move westwards, occupying elevations between 65 and 75m with a southwest aspect. Above the car park, the drift-free sandstone slopes are covered in mature beech. A scattering of oak, ash, sycamore, Scots pine and larch are also present but not in great numbers. The field layer is patchy with areas of wipe-out under the beech but where ground vegetation does occurs, it tends to be poor, dominated by wavy hair-grass, bramble, ivy, bracken and other ferns with the ground layer dominated by the mosses Mnium hornum and Isopterygium elegans.

2h	7.24	Oak (pedunculate)	1850	High forest	Housing/infrastructure, structures & water features on or adjacent to site, No/poor vehicular access to the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	Ancient Semi Natural Woodland, Conservation Area, County Wildlife Site (includes SNCI, SINC etc)
Sub-cpt 2h includes all of Fogoesburn Wood north of the viaduct and extends round to the northeast to include Sliding Braes and covers an area of 7.24 ha located on level ground and slopes of varying steepness with southwest, western and northern aspects at elevations of between 40 to 75m. Fogoes Burn separates 2h from sub-cpts 2i and 2j to the west and the Pont Burn and the River Derwent form most of the northern boundary, whilst to the east is a pasture field. The southern end of 2h is covered in fine mature oak woodland with an abundant understorey of holly, hazel and honeysuckle beneath which is a field layer dominated by grasses but also including dog's mercury, bluebell, wood sorrel, wood anemone, ramson, primrose, opposite-leaved golden saxifrage, bilberry and hard fern, as well as other ferns and the ubiquitous bramble. Further north, the canopy becomes more open and varied and is made up of oak, ash and sycamore in roughly equal amounts. A frequent understorey of holly, hazel and sycamore exists under which a less varied field layer grows, dominated by grasses and buckler ferns but also frequently including bluebells and ramsons, as well as the occasional woodruff and patches of dog's mercury. A legal right of access for management purposes exists across the pasture field to the east from Lintz Green Lane but most of sub-cpt 2h is not suitable for vehicles. However, a flight of steps down the embankment provides access on foot into the southern end of 2h from the Derwent Valley Walk. Along the northern boundary with the river there is a large area of Himalayan Balsam.							
2i	1.81	European larch	1957	PAWS restoration	Housing/infrastructure, structures & water features on or adjacent to site, Mostly wet ground/exposed site	Informal Public Access	County Wildlife Site (includes SNCI, SINC etc), Planted Ancient Woodland Site
Sub-cpt 2i occupies 1.81 ha of land on the gentle slopes to the west of Fogoes Burn between sub-cpts 2d and 2j at an elevation of 45 to 70m. European larch dominates the canopy but some oak, sycamore and Norway spruce are also present here and there. An occasional understorey of holly, sycamore, birch, broom, oak, elder and rowan occurs across the sub-cpt under which a rather poor field layer dominated by bracken, grasses and bramble grows, though some bluebell and wood sorrel occurs here and there. Access for management purposes is taken off the B6310 via the track through sub-cpt 2f and into sub-cpt 2e, from where the sub-cpt's western boundary can be reached.							

2j	0.52	Scots pine	1900	PAWS restoration	Housing/infrastructure, structures & water features on or adjacent to site, Mostly wet ground/exposed site, No/poor vehicular access to the site, Site structure, location, natural features & vegetation	Informal Public Access	Ancient Semi Natural Woodland, County Wildlife Site (includes SNCI, SINC etc)
Sub-cpt 2j covers 0.52 ha directly north of the viaduct and occupies a gentle northeast-facing slope down to Fogoes Burn, which forms its northeast boundary. The canopy across its southern end next to the viaduct consists of mixed high forest dominated by Scots pine but including some European larch and ash, whilst the canopy in the northern half consists of sycamore and oak. The understorey consists of hazel coppice with a field layer dominated by bracken and grasses but also including some greater stitchwort, bluebell and herb Robert. Wet flushes occur on the slope, therefore ground conditions are wet/damp and soft. Access to the sub-cpt is taken off the B6310 through sub-cpt 2f and across sub-cpt 2e.							
2k	2.51	Birch (downy/silver)	1990	High forest	Housing/infrastructure, structures & water features on or adjacent to site, Mostly wet ground/exposed site	Informal Public Access	Ancient Semi Natural Woodland, County Wildlife Site (includes SNCI, SINC etc)

Sub-cpt 2k forms the southern end of Fogoesburn Wood south of the viaduct and covers 2.51 ha along the valley side to the east of Fogoes Burn at an elevation of between 65 and 80m. Frequent wet flushes create significant areas of boggy ground along the middle and lower slopes towards the burn but the ground becomes drier as you move northwards and up onto the higher ground along the east side of 2k, where the soil is very sandy. Much of the woodland in 2k was clear felled, probably sometime during the early 1990s and restocked with trees in 1.2m Tubex tree shelters, most of which failed to grow. The area is now regenerating naturally with birch and alder with some of the surviving planted oak and rowan creating an occasional thinly scattered understorey. In 2005, a light selective halo thin was carried out by volunteers using hand tools to release the surviving planted broadleaves in the understorey from competition and over-topping by the naturally regenerated canopy trees. The tree shelters were also gathered up and removed from site. On the drier ground along the short abrupt slopes to east side of 2k, a canopy of mature beech, oak and Norway spruce exists, whilst at the northern end of the sub-cpt an area of mature oak-birch high forest woodland still survives. A frequent understorey occurs across both these areas and includes a range of naturally regenerating species such as birch, holly, oak, larch, hazel, beech, sycamore and rowan. Open ground in the form of a small patch of rough grassland forms the extreme northeast corner of 2k. The richest field layer occurs across the boggy clear felled area which has dog's mercury, wood anemone, primrose, opposite-leaved golden saxifrage, woodruff, ramson, bluebell and greater celandine, as well as more general species. In other parts of 2k the field layer is much poorer, containing largely just grasses and ferns. Access to sub-cpt 2k can be obtained off the B6310 by crossing the western end of sub-cpt 2m.

2l	0.75	European larch	1957	PAWS restoration	Housing/infrastructure, structures & water features on or adjacent to site, Mostly wet ground/exposed site, No/poor vehicular access to the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	Planted Ancient Woodland Site

Sub-cpt 2l extends to 0.75 ha and occupies a steep east-facing slope on the west side of Fogoes Burn at an elevation of between 65m and 70m. The canopy in the middle and southern parts of 2l are dominated by European larch with a scattering of Scots pine, Norway spruce, oak, ash and sycamore over a very sparse understorey containing the odd ash, sycamore and elder. Bramble dominates the field layer with wood sorrel occurring quite frequently beneath this and the occasional fern species here and there. This stand was thinned as a cost operation between July and October 1997 but the timber not extracted due to the difficult access. The canopy at the northern end of the sub-cpt near the viaduct is more mixed and consists of Norway spruce, Scots pine, birch, sycamore, oak and popular. A more developed understorey exists here containing coppice hazel, sycamore, oak, holly and elder along with a better understorey that includes wood sorrel, bluebell, wood rush, ramson and dog's mercury, as well as more weedy species such as bramble, common cleavers and stinging nettle. Access to sub-cpt 2l is taken off the B6310 by crossing sub-cpt 2f.

2m	0.87	Scots pine	1957	PAWS restoration	Archaeological features, Housing/infrastructure, structures & water features on or adjacent to site, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Informal Public Access	Planted Ancient Woodland Site
Sub-cpt 2m is situated at the southern end of Fogoesburn Wood adjoining sub-cpt 2k at its western end and forming a finger of woodland running eastwards alongside the B6310. It covers an area of 0.87 ha on very steep south-facing slopes between 65 and 85m elevation over which is growing semi-mature mixed high forest woodland dominated by Scots pine but also including larch, beech, birch and sycamore. Naturally regenerating sycamore, holly, beech, broom, elder, oak, hawthorn and hazel form a varied understorey beneath which a variety of plants are growing, such as wild strawberry, wood speedwell, wood sorrel, dog's mercury, ramson, bluebell and opposite-leaved golden saxifrage, as well as a number of other more generalist species. A deeply eroded holloway runs through the sub-cpt and two other old tracks run into it at its western end, one of which appears to lead to a depression in the ground that could be an old mine shaft. During 2005, a small number of Scots pine and sycamore canopy trees were felled to waste in order to release the oaks they were overtopping. Many young Scots pine and sycamore trees were also cleared from the slopes on each side of the old holloway, along with a number of old tree shelters, to open up this feature and allow more light into the sub-cpt.							
3a	0.69	European larch	1850	PAWS restoration	Mostly wet ground/exposed site, No/poor vehicular access to the site, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Informal Public Access	County Wildlife Site (includes SNCI, SINC etc), Local Nature Site, Other, Planted Ancient Woodland Site

Sub-cpt 3a (Oldmill Wood) covers 0.69 ha of land between 60 and 70 m elevation, running alongside the Pont Burn immediately south of the B6310 and Pontburn Bridge. Its northern end consists of mature broadleaved woodland of oak, ash and sycamore with the odd beech and alder growing along the top of the slope above the rocky outcrops next to the burn. The middle part of 3a occupying more level ground is dominated by European larch with the occasional beech and sycamore, whilst south of this in the bend of the river, young broadleaved woodland consisting of birch, hazel coppice, sycamore, beech, elder, hawthorn and rowan has regenerated above failed plantings, of which only the odd oak now survives. The southern end of 3a is again covered in mature oak, beech and sycamore on slopes above rocky outcrops on the burn's edge. An occasional understorey of hazel, beech, holly, alder, elder, hawthorn, birch, rowan, oak and sycamore exists under the mature broadleaved stands, becoming more frequent under the larch. A reasonably diverse field layer grows over most of the sub-cpt which, besides grasses, bramble and bracken, also includes: ramson, wood rush, polypody, bluebell, wood anemone, wood stitchwort, greater stitchwort, dog's mercury, dog violet, herb Robert, opposite-leaved golden saxifrage, wood sorrel, hart's tongue and hard ferns. The stands of European larch were selectively thinned in 1990 and under-planted in March and April 1995 with pedunculate oak (49%), ash (41%) and hazel (10%), most of which has failed to grow. In May 2006, the remaining tree shelters within the understorey were removed and taken off site. Access to sub-cpt 3a is difficult, even on foot, but can be gained by entering sub-cpt 3e from the B6310 opposite the public car park then crossing the burn into 3a where the shallowness of the water allows.

3b	0.70	European larch	1945	PAWS restoration	Mostly wet ground/exposed site, No/poor vehicular access to the site	Informal Public Access	County Wildlife Site (includes SNCI, SINC etc), Local Nature Site, Other, Planted Ancient Woodland Site

Sub-cpt 3b covers 0.70 ha on the east bank of the Pont Burn on relatively level ground between 65 and 75 m elevation. The canopy consists of pure European larch that was selectively thinned in 1990 and under-planted in March and April 1995 with pedunculate oak (49%), ash (41%) and hazel (10%), most of which has failed to grow. Some wind blow has occurred lifting a number of root plates. In May 2006, the remaining tree shelters within the understorey were removed and taken off site. Alongside the burn an occasional understorey exists, consisting of rowan, elder, coppice hazel, beech, birch and sycamore scattered among planted species that have failed to survive. Further east, the understorey becomes more frequent and includes European larch saplings, as well as holly and rhododendron. The field layer near to the burn is dominated by soft grasses but also includes a number of herbs such as greater stitchwort, wood stitchwort, bluebell, ramson and wood sorrel. Beneath a single mature beech tree next to the burn a large patch of wood anemone is also thriving. Away from the burn side the flora becomes more impoverished and is dominated by honey suckle and bracken, with just the occasional greater stitchwort, bluebell, bilberry and odd bit of wood sorrel. Like sub-cpt 2a, reaching 2b is also difficult and is best approached from the south by leaving the path near the stepping stones below Handley Cross Bridge and following the desire line path that winds its way north through the understorey of sub-cpt 3e.

3c	2.95	Oak (sessile)	2001	High forest	Archaeological features, Gullies/Deep Valleys/Uneven/ Rocky ground, Housing/infrastructure, structures & water features on or adjacent to site, Mostly wet ground/exposed site	Informal Public Access	Planted Ancient Woodland Site
Sub-cpt 3c (Lofthouse Wood) occupies 2.95 ha on a gentle north-facing slope between 70 and 85m elevation. A chapel once stood in the southeast corner of the wood (though nothing of this now remains) above the deep gully created by Fogoes Burn that follows through the eastern end of Lofthouse Wood. Spruce and larch that once covered the wood was thinned in 1997 and this led to the onset of considerable wind throw, making the trees a hazard for traffic using the B6310. Consequently, these stands were clear felled in 2001 and restocked with 1660 native trees and shrubs at 3m centres and protected with 1.2m Tubex tree shelters. Species planted include: 150 alder, 150 silver birch, 50 hazel, 50 hawthorn, 300 ash, 10 holly, 900 sessile oak & 50 dog rose. To the south of the burn, an area of mature broadleaves still survives, dominated by beech and sycamore but also containing some oak and cherry as well as a small amount of alder and ash. Along the eastern and northern boundaries of the wood grows mature oak, beech, wild cherry, horse chestnut, lime and sycamore. Across the western half of 3c, mature and semi-mature beech forms an open canopy along with ash, oak, sycamore, birch and cherry. Under the trees south of the burn a scattered understorey dominated by naturally regenerated holly and hazel grows, whilst to the north and west, the plantings form an understorey where broadleaved canopy trees remain, though in the western half of 3c, this is added to by significant natural regeneration, particularly of ash and hazel. Bramble and raspberry dominate much of the field layer, particularly in those areas that were clear felled, but a reasonable variety of other plants are also present such as: dog's mercury, opposite-leaved golden saxifrage, lesser celandine, wood speedwell, dog violet, bluebell, primrose and woodruff. Access to the wood is taken directly off the B6310 through a field gate and over a culvert. Further access to the wood is now available off the track that runs along the eastern edge of the wood, following the Trust's purchase of the eastern end of Lofthouse Wood in 2002.							
3d	4.74	European larch	1943	PAWS restoration	Mostly wet ground/exposed site, No/poor vehicular access to the site, Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Informal Public Access	Planted Ancient Woodland Site

Sub-cpt 3d (Redburn Wood) occupies 4.74 ha in a small valley through which the watercourse Red Burn flows. The planted slopes are generally steep (65 to 90m elevation) and are dominated by semi-mature high forest plantations of Douglas fir to the west of the burn and European larch to the east. Interspersed throughout and along the edges of the wood are birch and sycamore with other broadleaves (oak, ash, beech) and conifers (Scots pine, spruce) only rarely present. Under the stands of Douglas fir a sparse understorey survives consisting of the occasional birch and the odd Douglas fir, elder, beech and sycamore. To the east of the burn, the understorey is better developed and hazel becomes quite frequent at its northern end. Further south, among the stands of larch that were not thinned in 1997, it again becomes more sparse and birch the main understorey species, though in both areas a scatter of other naturally regenerating species occur, such as sycamore, holly, rowan, beech, elder and broom, along with regeneration of the canopy species. Frequent patches of wipe-out occur within the field layer under the Douglas fir but a scattering of ancient woodland species such as wood anemone, opposite-leaved golden saxifrage, wood sorrel, bluebell and dog's mercury also survive here. Bluebell becomes quite abundant at the southern end of the east bank with dog's mercury and ramson also frequent, whilst to the north the field later is dominated by grasses but includes occasional, primroses, dog's mercury, wood anemone and wood speedwell, along with several other species. The access track that runs through sub-cpt 3c from the B6310 also continues southwards through 3d along the east side of Red Burn. However, in 3d this is wet and boggy in places and rutted from timber extraction.							
3e	7.16	Oak (pedunculate)	1850	High forest	Archaeological features, Mostly wet ground/exposed site, People issues (+tve & -tve), Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	Ancient Semi Natural Woodland, County Wildlife Site (includes SNCI, SINC etc), Local Nature Site, Other

Sub-cpt 3e covers 7.16 ha occupying steep to moderately steep west-facing slopes between 60 and 90m elevation, along with level ground and the deep, narrow valley formed by the watercourse flowing along the eastern side of 3e out of the adjacent Bonner's Wood to join the Pont Burn, which forms the western boundary of the sub-cpt. The northern end of 3e consists of mature high forest oak woodland that gradually includes more beech and birch in the canopy as you move southwards. Some larch, spruce and Scots pine is also present, as is wild cherry and sycamore, though none in any significant amounts. Some Scots pines at the southern end of 3e next to the burn are of substantial girth, suggesting they are of considerable age. A frequent understorey dominated by beech, holly and oak occurs across most of 3e with hazel, rowan and alder also common in places. Some rhododendron bushes also exist on the slopes above sub-cpt 3b. Common cow wheat, bilberry, heather and wood rush are common among the field layer at the northern end of the sub-cpt, whilst grasses and bracken become more frequent further south, particularly in more open areas, with wood sorrel, greater stitchwort and herb Bennet also frequently occurring throughout. This part of Pontburn Woods is probably most used by the public and has several permissive and public footpaths running through it. Where the public footpath enters 3e from the B6310 and where another runs down the slope to join the main track at its southern end, holloways form interesting historical features. Management access to this part of the woods is taken off the B6310 by following the Byway Open to All Traffic (BOAT) leading to Hamsterley Hall. After crossing the historic Handley Cross Bridge bare left and enter the wood through the field gate, crossing the ford and following the semi-metalled track (the old coach road) southwards.

4a	1.83	Oak (pedunculate)	1900	High forest	Mostly wet ground/exposed site, No/poor vehicular access to the site, People issues (+tve & -tve)	Informal Public Access	Ancient Semi Natural Woodland

Sub-cpt 4a occupies 1.83 ha of level ground on top of the slope between 90 and 110m elevation adjoining the northwest end of sub-cpt 4b to the west of Pont Burn. A small watercourse flows through a narrow, steep-sided dene along the northwest side of 4a and across its northern end to join the Pont Burn. The area consists of mature and semi-mature deciduous broadleaved high forest woodland dominated by oak, ash and beech with some sycamore and a small amount of Scots pine. Big mature beeches are mainly concentrated along the northern and northwest edges of 4a with semi-mature to mature ash and oak making up the rest of the canopy. An occasional understorey of holly, sycamore and hazel coppice exists under which a field layer of wood sorrel, woodruff, dog's mercury, herb Robert, bugle, creeping Jenny and ferns thrive. Entry to 4a is gained by either walking up through sub-cpt 4b from the main access track between sub-cpts 4b and 4c, or from the BOAT that runs along the outside of the sub-compartment's northwest boundary, though no entrance exists here and a fence separates it from the public right of way.

4b	19.32	Japanese larch	1968	PAWS restoration	Mostly wet ground/exposed site, No/poor vehicular access to the site, People issues (+tve & -tve), Services & wayleaves	Informal Public Access	Planted Ancient Woodland Site
Sub-cpt 4b (Struthers Wood) covers 19.32 ha on the west side of the valley through which the Pont Burn flows. Its slopes are generally gentle to moderate, situated between 80 and 135m elevation, becoming steeper towards the southern end. Three open drains flow westwards through the middle of the sub-cpt and springs issue at two points at its northern end then combine to flow down to the burn. The lower and middle slopes between the springs and the drain north of the public footpath which is now covered with Scots pine was formally open ground and appears to have been first planted with trees sometime during the second half of the nineteenth century. Ground conditions are generally soft with several wet flushes occurring along the valley side. Sub-cpt 4b is dominated by Japanese larch (p.68) Scots pine (p.68) and Norway spruce (p.68). Norway spruce is mainly concentrated along the side of the burn to the east of the main forest road and as small isolated stands to the west of the road within the main body of the wood. Larch dominates the canopy in the southern half of 4b where its form and size is generally good. Scots pine dominates the middle and lower slopes in the northern half of 4b and is also growing well. though its form is generally not as good as the larch, it is still of a reasonable quality. A scattering of broadleaves, mainly sycamore, oak, birch and the odd beech occur, mostly concentrated towards the western side of 4b along the woodland edge. Wind blow/snap has occurred, mainly at the southern end of 4b towards the top of the slope, where it has created quite a large gap in the canopy in which vigorous regenerated is occurring. Within the understorey, occasional fragments of hazel coppice survive, along with holly, whilst birch regeneration in the northern part of the wood is quite thick in places. Other species regenerating include rowan, oak, ash and beech. Coarse grasses, brambles and ferns are dominant among the field layer but honeysuckle is also common in places as is wood sorrel. Dog's mercury is also present, along with hard fern, wood rush, etc, in wetter places. An overhead power line crosses the northern end of 4b (northeast-southwest) under which thick birch regeneration occurs that is periodically cut down by Northern Electric to keep the lines clear of encroaching vegetation. A public footpath runs east-west through the middle of 4b.							
4c	13.08	Japanese larch	1968	PAWS restoration	Mostly wet ground/exposed site, No/poor vehicular access to the site, People issues (+tve & -tve), Services & wayleaves	Informal Public Access	Planted Ancient Woodland Site

Sub-compartment 4c (Collierley Wood) covering 13.08 ha is located on the east side of the Pont Burn valley on mostly gentle west-facing slopes. Towards the eastern side of 4c, a short steep slope running north-south introduces an abrupt change of gradient, which then levels off onto a flat area at the top of the slope, alongside the public footpath that runs along the inside of the eastern boundary. A second public footpath crosses the southern end of the wood, running east to west. The first series Ordnance Survey map of 1865 shows most of this area as open fields except for a strip of woodland occurring alongside the Pont Burn called Briarlemore Wood. By the time of the second series map (1894), all 4c is shown as woodland and therefore it must have been planted sometime during the second half of the nineteenth century. A small glade (0.2ha) exists in the southeast quarter of the wood but otherwise the sub-compartment is covered by a canopy dominated by Scots pine (p.68), with lesser amounts of Norway spruce (p.68) and Japanese larch (p.68). A scattering of broadleaves is present, particularly sycamore on the short steep slope at the southeast end of the wood, some of which is growing as coppice. The larch is mainly concentrated at the northern end of the wood just south of the overhead powerline that crosses the wood at this point. Its timber quality is good. Most of the Scots pine that dominates the sub-compartment is of reasonable quality however, that growing on the top of the slope alongside the eastern boundary is much smaller. Most of the Norway spruce is concentrated on the lower slopes along the burn, particularly in the southern half of the sub-compartment but also occurs as small isolated stands among the Scots pine. Some of the streamside conifers were felled to waste between 2008-10 but prior to this most of the spruce on the lower slopes appears to have remained untouched and probably has never been thinned since planted. Consequently, in these areas of 4c little understorey or field layer exists, though plenty of broadleaves grow among the spruce. Under the more open canopy of larch and pine, some hazel, rowan, elder and sycamore grows along with a scattering of spruce regeneration. Among the field layer, bramble, grasses and ferns dominate but wood sorrel is also abundant in places. The odd primrose and patches of dog's mercury, bugle and bluebell also survive in places and under the sycamore at the southeast end of the wood, ramson is also abundant.							
4d	13.99	Birch (downy/silver)	1900	High forest	Mostly wet ground/exposed site, No/poor vehicular access to the site, People issues (+tve & -tve), Site structure, location, natural features & vegetation	Informal Public Access	Ancient Semi Natural Woodland

Sub-cpt 4d covers an area of 13.99 ha and is separated from 4b to the northwest by the Pont Burn and 4c to the northeast Pickwell Burn. Its southeast side contains remains associated with a drift mine that formed part of the South Medomsley Colliery (also known as Pontop Hall Colliery) much of which is now under a pool of water. The main forest track (the old coach road leading to Hamsterley Hall) that passes through the sub-compartment north-south is designated a public footpath and links into the path passing through sub-cpts 4b & c. The bulk of the 4d lies to the west of this track on a gentle northwest-facing slope, down which another watercourse issuing at the southern end of 4d flows to join the Pont Burn. Several small glades, covering a total area of about 1.1ha and covered by bracken provides some open space within the sub-compartment. The northern part of 4d is dominated by thick stands of birch, but oak, sycamore, beech, hazel, rowan and holly are all present. The hazel, rowan and sycamore mostly exist as old coppice and the oaks as standards, whilst some of the holly is growing as mature trees and has lost its spiked leaves. Coarse grasses and ferns dominated the field layer but wood sorrel and greater stitchwort also occurs frequently. Dog's mercury, honeysuckle, ivy, herb Robert, foxglove and red nettle also occur. Ground conditions vary from soft near watercourses to firm.

4e	2.99	Oak (pedunculate)	1900	High forest	Mostly wet ground/exposed site, No/poor vehicular access to the site, People issues (+tve & -tve), Services & wayleaves, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	Ancient Semi Natural Woodland

Sub-compartment 4e (Oakey Bank) is located on a south-facing slope at the northwest end of Pontburn and extends over 2.99 ha. A flat area exists on top of the slope but the gradient becomes steeper down towards Pont Burn with a drop of several metres occurring in places next to the burn. A small watercourse flows through the sub-compartment down into the burn creating a deep, narrow channel on the lower slope. Ground conditions around the watercourse and on the slope are damp and soft, whilst on top of the slope conditions are much firmer. A national grid power line crosses north-south above 4e and a pylon stands within the wood. A public footpath runs along the western and southern boundaries.As the name suggests, the canopy is dominated by oak but other species present include birch, beech, hazel sycamore and the odd Scots pine. Hazel and particularly birch dominates under the powerline and in the past these have been periodically cut by a local coppice worker. Some of the beech, particularly near the entrance, forms veteran trees of considerable size, whilst a small amount of sycamore near the burn is growing as coppice. Holly dominates the understorey, though rowan and hazel coppice also occur. Among the field layer, coarse grasses and ferns dominate along the top of the slope with woodrush becoming dominant on the slope. Patches of bilberry occur here and there, along with honeysuckle, herb Robert, wood sorrel, creeping Jenny, common cow wheat, bugle, greater stitchwort and hard fern.

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2020	4b	Thin	14.00	40	560
2020	4b	Thin	5.34	40	213
2020	4c	Thin	10.00	40	400
2020	4c	Thin	3.03	40	121
2021	2c	Thin	1.02	20	20
2021	2d	Thin	1.46	41	60
2021	2e	Thin	4.10	7	30
2021	2f	Thin	2.79	7	20
2021	2g	Thin	1.16	17	20
2021	2m	Thin	0.87	46	40
2021	3a	Thin	0.69	39	27
2021	3b	Thin	0.70	39	27
2021	3c	Thin	2.96	27	80
2021	3d	Thin	4.74	32	150
2022	1a	Thin	4.86	25	120
2022	1b	Thin	1.23	16	20
2022	1c	Thin	1.11	23	25
2022	1d	Thin	2.27	22	50
2022	1e	Thin	1.59	38	60
2022	1g	Thin	1.75	34	60
2026	1d	Thin	2.27	20	45
2026	1e	Thin	1.59	31	50
2026	4b	Thin	14.00	40	560
2026	4c	Thin	13.03	38	500
2026	4c	Thin	3.03	40	121
2027	2c	Thin	1.02	20	20
2027	2d	Thin	1.46	34	50
2027	2e	Thin	4.10	12	50
2027	2f	Thin	2.79	14	40
2027	2g	Thin	1.16	26	30
2027	2i	Thin	1.81	22	40

2027	2j	Thin	0.52	29	15
2027	2l	Thin	0.75	33	25
2027	3d	Thin	4.74	32	150
2027	4b	Thin	19.34	26	500
2027	4b	Thin	5.34	40	213
2027	4c	Thin	10.00	40	400
2028	2c	Thin	1.02	20	20
2028	2d	Thin	1.46	41	60
2028	2e	Thin	4.10	7	30
2028	2f	Thin	2.79	7	20
2028	2g	Thin	1.16	17	20
2028	2m	Thin	0.87	46	40
2028	3a	Thin	0.69	39	27
2028	3b	Thin	0.70	39	27
2028	3c	Thin	2.96	27	80
2028	3d	Thin	4.74	32	150
2029	1a	Thin	4.86	25	120
2029	1c	Thin	1.11	23	25
2029	1d	Thin	2.27	22	50
2029	1e	Thin	1.59	38	60
2029	1g	Thin	1.75	34	60
2034	2e	Thin	4.10	17	70
2034	2f	Thin	2.79	14	40
2034	4b	Thin	19.34	26	500
2034	4c	Thin	13.03	31	400

GLOSSARY

Ancient Woodland

Ancient woods are defined as those where there has been continuous woodland cover since at least 1600 AD. In Scotland ancient woods are defined strictly as sites shown as semi-natural woodland on the 'Roy' maps (a military survey carried out in 1750 AD, which is the best source of historical map evidence) and as woodland all subsequent maps. However, they have been combined with long-established woods of semi-natural origin (originating from between 1750 and 1860) into a single category of Ancient Semi-Natural Woodland to take account of uncertainties in their identification. Ancient woods include Ancient Semi-Natural Woodland and plantations on Ancient Woodland Sites (see below). May support many species that are only found in ancient woodland.

Ancient Semi - Natural Woodland

Stands in ancient woods defined as those consisting predominantly of native trees and shrubs that have not obviously been planted, which have arisen from natural regeneration or coppice regrowth.

Ancient Woodland Site

Stands in ancient woods that have been converted to plantations, of coniferous, broadleaved or mixed species, usually for timber production, including plantations of native species planted so closely together that any semi-natural elements of the understorey have been suppressed.

Beating Up

Replacing any newly planted trees that have died in the first few years after planting.

Broadleaf

A tree having broad leaves (such as oak) rather than needles found on conifers (such as Scots pine).

Canopy

The uppermost layer of vegetation in a woodland, or the upper foliage and branches of an individual tree.

Clearfell

Felling of all trees within a defined area.

Compartment

Permanent management division of a woodland, usually defined on site by permanent features such as roads. See Sub-compartments.

Conifer

A tree having needles, rather than broadleaves, and typically bearing cones.

Continuous Cover forestry

A term used for managing woods to ensure that there are groups or individual trees of different ages scattered over the whole wood and that some mature tree cover is always maintained. Management is by repeated thinning and no large areas are ever completely felled all at once.

Coppice

Trees which are cut back to ground levels at regular intervals (3-25 years).

Exotic (non-native) Species

Species originating from other countries (or other parts of the UK) that have been introduced by humans, deliberately or accidentally.

Field Layer

Layer of small, non-woody herbaceous plants such as bluebells.

Group Fell

The felling of a small group of trees, often to promote natural regeneration or allow planting.

Long Term Retention

Discrete groups of trees (or in some cases single trees) that are retained significantly past their economic felling age. Operations may still be carried out within them and thinning is often necessary to maintain stability.

Minimum Intervention

Areas where no operations (such as thinning) will take place other than to protect public safety or possibly to control invasive exotic species.

Mixed Woodland

Woodland made up of broadleaved and coniferous trees.

National vegetation classification (NVC)

A classification scheme that allows an area of vegetation to be assigned to the standardised type that best matches the combination of plant species that it contains. All woodlands in the UK can be described as being one of 18 main woodland types (W1 - W18), which principally reflect soil and climatic conditions. For example, Upland Oakwoods are type W11, and normally occur on well drained infertile soils in the cooler and wetter north and west of Britain. Each main type can be subdivided into numerous subtypes. Most real woods contain more than one type or sub-type and inevitably some woods are intermediate in character and can't be properly described by any sub type.

Native Species

Species that arrived in Britain without human assistance.

Natural Regeneration

Naturally grown trees from seeds falling from mature trees. Also regeneration from coppicing and suckering.

Origin & Provenance

The provenance of a tree or seed is the place where seed was collected to grow the tree or plant. The origin is the geographical location within the natural range of a species from where seeds/tree originally derives. Thus an acorn collected from a Turkey oak in Edinburgh would have an Edinburgh provenance and a southern European origin.

Re-Stocking

Re-planting an area of woodland, after it has been felled.

Shrub Layer

Formed by woody plants 1-10m tall.

Silviculture

The growing and care of trees in woodlands.

Stand

Trees of one type or species, grouped together within a woodland.

Sub-Compartment

Temporary management division of a compartment, which may change between management plan periods.

Thinning

The felling of a proportion of individual trees within a given area. The remaining trees grow to fill in the space created.

Tubex or Grow or Tuley Tubes

Tubes placed over newly planted trees or natural regeneration that promote growth and provide protection from animals such as rabbits and deer.

Weeding

The control of vegetation immediately around newly planted trees or natural regeneration to promote tree growth until they become established. Either by hand cutting or with carefully selected weed killers such as glyphosate.

Windblow/Windthrow

Trees or groups of trees blown over (usually uprooted) by strong winds and gales.