

Nunsbrough Wood

Management Plan 2017-2022

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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.
- 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: Nunsbrough Wood

Location: Ordley

Grid reference: NY950595, OS 1:50,000 Sheet No. 87

Area: 16.13 hectares (39.86 acres)

Designations: Ancient Semi Natural Woodland, Local Wildlife Site

2.0 SITE DESCRIPTION

2.1 Summary Description

The twists and turns of Devil's Water, south of Hexham, adds drama to Nunsbrough's secluded woodland, dominated by mature oak and ash. A large riverside meadow is home to wildflowers including scented meadow sweet, lady's smock and lady's mantle.

2.2 Extended Description

Nunsborough Wood is situated in the deep winding gorge of Devil's Water (a river) near to the small hamlet of Ordley, 4 miles south of Hexham. The river winds dramatically through the valley giving much character to the wood, which predominantly lines the steep southern slopes directly above the river. Intrinsic to the wood is a large 5.6ha unimproved meadow adjacent to the river in the centre of the woodland.

The 10.67ha woodland is dominated by mature oak, ash of planting year 1920 and demonstrates similar characteristics to that of upland oak-birch woodland W11 with small areas of alderwood in wetter more fertile soils at the base of slopes. Sycamore, lime, horse chestnut and elm are also quite prevalent. Two areas planted by the Woodland Trust lie to the north and Joan's Wood to the south of the meadow. Additionally to the south of the wood is an area of naturally regenerated birch, with sycamore, willow, ash and alder. The under storey of the woodland is dominated by hazel with holly and hawthorn and is generally quite dense. The ground vegetation is rich with ancient woodland species such as dog's mercury (Mercurialis perennis), pignut (Conopodium majus), wood sorrel (Oxalis acetosella), snowdrop (Galanthus nivalis) and germander speedwell (Veronica chamaedrys). Ferns include wood-rush (Luzula spp), male fern (Dryopteris filix-mas), broad buckler fern (Dryopteris dilatata) and bracken (Pteridium aquilinum).

The woodland, although secluded, is traversed almost north to south by a way marked public footpath, which also branches off to Ordley. This track also serves Nunsborough House, a private dwelling, which is surrounded by the woodland to the north of the site. Further, a permissive path leads down to the meadow and out through the south of the woodland. The meadow is on older maps, referred to as a 'haugh' which commonly refers to low lying land in a river valley. The woodland is well used by local people and visitors. There is an extensive network of public footpaths linking the woodland to adjacent land, affording good walks and views. Some of the walking is over steep ground.

Nunsborough Woodland borders the Devil's Water to the east and north and beyond this there is mixed ancient woodland. The mature trees at Ordley Scars are visible from the nearby highway. When in the wood widespread views can be seen and the woodland is in an attractive setting with neighbouring ancient woodland, farm and pasture land.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Nunsbrough Wood is south of the town of Hexham, in Hexamshire, Northumberland by approximately 4 miles; just south of Newbiggin Bridge at a small hamlet called Ordley (see route description below).

There are three public entrances to the wood: the main entrance from Ordley which is a stone surfaced, wide track and provides access for management vehicles too. This has a cattle grid half way along with an adjacent gate that pedestrians can go through. The access from the south on the public footpath number 12 comes in across a wooden footbridge and leads up through the wood, across the main track; exiting the wood at the northern end at Linnelswood Bridge which crosses the river. Some of this route is very steep and there are steps leading to Linnelswood Bridge. Additionally permissive routes lead through the meadow and adjacent to the Devil's Water there are four step stiles along these routes. There is an extensive network of public footpaths linking the woodland to adjacent land, affording good walks and views.

Parking is difficult. Ordley hamlet is a residential area and a small cul-de-sac. There is a pull in at the nearby Woodland Trust property Letah Wood, Newbiggin Bridge with a 1 mile walk along the road south to Ordley village. Turn left in to the cul-de-sac and follow the road round to the end and there is a public right of way sign pointing down the track to the wood on your right hand side after the last house on the right.

For visitors using public transport to get to the wood Hexham is on the main Carlisle to Newcastle railway line and there is a station in the middle of the town. The walking distance to the wood from the train station is about 3.5 miles. Head heading south west onto the main high street Priestpopple, follow this west turning left at Eastgate B6306. Keep to the right when the B6306 goes left and then take the next left to Newbiggin and Ordley. Carry straight on at the crossroads and over the small bridge passing Hill Road and Letah Wood to your right. Heading down the hill Ordley Village is on the left. Bus route 869 from Hexham to Slaley passes the eastern side of the woodland and it may be possible to get close to the wood from this route. However it runs infrequently. For further information on local routes please contact Tourist Information Centre, Hexham on 01434 652220 or for co-ordinated public transport information throughout the region, call Traveline on 0871 200 2233, web site info@travelinenortheast.info.

There are public toilets at St Mary's Wynd in the middle of Hexham open from May to September open 6:30am to 9:00pm

October to April open 6:30am to 6:00pm with disabled facilities. There are no public toilets near the wood. For more information on local services please try Tynedale District Council at www.tynedale.gov.uk of Northumberland County Council at www.northumberland.gov.uk.

3.2 Access / Walks

4.0 LONG TERM POLICY

Prior to the Woodland Trust's ownership (acquired 1985) Nunsbrough Wood was part managed commercially predominantly for hardwood timber in the more accessible areas and the flat area known as Daniel's Wood was clear felled and planted with conifers in the early 1980's. The conifers failed and were quickly taken over by natural regeneration mostly of birch. On acquisition the wood was almost entirely broadleaf, with oak dominant, plus ash, beech, sycamore, lime and horse chestnut. Part of the woodland is designated Ancient Semi-Natural Woodland (ASNW) and much of the neighbouring woodland is designated plantations on ancient woodland site (PAWS); so it is likely that much of the inaccessible steeper slopes have always been wooded. The central flat area has been grazed for a long time and was traditionally referred to as a 'haugh'; low lying land in a river valley. This mosaic of ancient woodland and unimproved pasture land along a river valley increases the biodiversity of the whole landscape. Nunsbrough Wood also lies with the Slaley and Dukesfield Red Squirrel Reserve part of the Single Species Action Plan for the red squirrel.

It is the Trust's objective to maintain and enhance the typical ancient characteristics of this habitat mosaic of upland oak woodland with alder flushes and low lying pasture land with a naturally braiding river and to maintain and improve the biodiversity of the whole ecosystem, as well as increase people's awareness and enjoyment of this ancient habitat. This is in line with the outcomes in the Trust's Action Plan 'Keeping Woodland Alive' and will be done through the management of key features.

It is anticipated that managing these features will safeguard and enhance the existing environmental value of the wood and maintain and enhance the level of public access in the woodland.

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

There are three public entrances to the wood, the main entrance from Ordley Village, one from the south on public footpath number 12 that leads up through the wood and then exits out across Linnelswood Bridge. Other permissive footpath routes lead through the meadow and adjacent to the Devil's Water. There is an extensive network of public footpaths linking the woodland to adjacent land, affording good walks and views. Some of the walking is over steep, uneven ground.

Significance

Nunsborough Wood is adjacent to the small hamlet of Ordley, and close to Newbiggin and Juniper offering local people a place to walk and picnic. Public access has been a key component of the woods recent history. Increasing enjoyment of woodland is one of the Trust key outcomes. Encouraging safe and enlightened access Nunsborough Wood is particularly important given the rich and varied habitats and features within the woodland, meadow and river and the importance of its habitat on both a local and national scale. The woods intrinsic qualities make it an important local resource to the surrounding villages and towns and an educational resource for visitors and organised groups. Public appreciation of ancient woodlands is good for the well being of those visiting the wood and ultimately, good for the wood itself through increased public understanding of the plight of ancient woodlands and the associated habitats.

Opportunities & Constraints

Opportunities - There is an opportunity to inform the public of management practices and the history, geology and botanical interest in the wood, meadow and river through the woods web site, as well as occasional site posters and information boards.

Improving the path surface within the area of Woodland Trust management and showing how it links in with other path networks of the area

Contraints - Much of Nunsborough woodland adjacent to the Devil's Water is steep and inaccessible to most walkers. However the footpath routes are well used by locals and visitors alike. The footpath network enables good circular walk to be done and offers links to more extensive routes to Dipton Wood and south along the Devil's Water and to Slaley Forest but the walking can be steep in places with step stile to cross.

Factors Causing Change

None

Long term Objective (50 years+)

To enhance public access to Nunsbrough by improving the condition of the permissive path to allow a wider range of people to enjoy the wood.

The Trust will continue to promote the woodland amongst people in the region and members nationally so long as the primary objective of 'no further loss of ancient woodland' (in terms of both quality and quantity) is compromised.

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.

This will include the following operational works:

- 1. Renew entrances and signage,
- 2. Install steps on the steeper ground and some drainage and/or boardwalk in wet areas along the path network.
- 3. Ensure the surfacing of the path network does not degrade and vegetaion does not block paths.

5.2 Ancient Semi Natural Woodland

Description

Nunsborough Wood lies at an altitude of 100-150m and follows the curve of the highly active river the Devil's Water. The site is underlain by hard sandstone, the soil being rocky with sand; exposed rocks in the gorge of the river consist of thick beds of sandstone. The sides of the river are mostly wooded and are excellent example of upland mixed broadleaved woodland. Nunsborough Woodland is dominated by mature oak, ash of planting year 1920 and demonstrates similar characteristics to that of upland oak woodland W11. Sycamore, lime, horse chestnut and elm are also guite prevalent. Two areas planted by the Woodland Trust lie to the north and Joan's Wood to the south of the meadow. Additionally to the south of the wood is and area of naturally regenerated birch, with sycamore, willow, ash and alder. In more low lying areas the wood is indicative of wet ash-alder woodland NVC W7. The understorey of the woodland is dominated by hazel with holly and hawthorn and is generally quite dense. There is much fallen dead wood and some standing deadwood. The ground vegetation is rich with ancient woodland species such as dog's mercury (Mercurialis perennis), pignut (Conopodium majus), wood sorrel (Oxalis acetosella), snowdrop (Galanthus nivalis) and germander speedwell (Veronica chamaedrys). Ferns include wood-rush (Luzula spp), male fern (Dryopteris filix-mas), broad buckler fern (Dryopteris dilatata) and bracken (Pteridium aquilinum).

Significance

Nunsborough Wood is an important landscape feature internally and externally and is a key seminatural habitat adjacent to the Devil's Water, grassland and neighbouring woodland, forming a complex of habitats important for many species. Along the Devil's Water river valley there is an extensive mosaic of ancient woodland (both semi-natural and replanted) and other semi-natural habitats. It is anticipated that this ancient woodland will have provided a continuous habitat for our native species. Many of these species can live nowhere else. Some plants and animals have very specialised requirements and spread very slowly, if at all, into new woods. Upland oak woodland, often in association with ash, elm and alder woods, is specified in the Northumberland Biodiversity Action Plan as requiring to be protected and enhanced to limit fragmentation and isolation and to promote regeneration.

Opportunities & Constraints

Opportunities - There is an opportunity to reduce the interventions of the past and retain older trees for there complete life span including lime, horse chestnut, sycamore and beech a living heritage of the woodland and retain standing and fallen deadwood.

There is a opportunity to carry out some thinning and coppice work on some areas, this improve the age structure of these areas.

Expanding the current tree cover to buffer the ASNW will be looked at on neighbouring land and within the meadow.

Constraints - Throughout much of the wood the steep working conditions and the activity of the river (which is eroding the banks causing slumping) may prevent pro-active management. Himalayan balsam has colonised the riverbank and threatened to spread into the lower parts of the woodland but has been successfully controlled to manageable levels so far. The woodland boundaries are long and complex making the management of a stock proof boundary challenging.

Factors Causing Change

Uncontrolled grazing by domestic and wild mammals.

Tree diseases

Long term Objective (50 years+)

The long term aim is to further improve and extend the diversity and richness of this ancient woodland and maintain the uneven aged structure throughout the woodland with a well developed shrub layer, successive regeneration and a good ground flora. The condition aspired to determines the continuation of high forest mature woodland, retention of old growth, standing and fallen deadwood and encouragement of a diverse regeneration of species.

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,
- Some light thinning will be carried out,
- Restore a coppice structure to a small proportion of the wood,
- Buffer the existing woodland where possible

This will include the following operational works:

- 1. Condition Assessment
- 2. In areas that are made up mostly of single species of even ages, thinning with be carried out to promote a more diverse age and species mix.
- 3. Restoring traditional coppice management to the wood. Small coupes will be progressively coppiced over the 5 year plan period.
- 4. Stock fences will be inspected and repaired as required.
- 5. Planting in areas that will improve the diversity of habitats.
- 6. Control of the deer and grey squirrel populations will be undertaken. 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 Semi Natural Open Ground Habitat

Description

Compartment 2 is a 5.6 hectare hay meadow, which includes common bent (Agrostis capillaris), creeping bent (A.stolonifera), sheeps fescue (Festuca ovina), meadow sweet (Filipendula ulmaria), lady's smock (Cardamine pratensis), lady's mantle (Alchemilla officinalis agg.) and many other species. It is very good for invertebrates including butterflies. The meadow sits to the east of Nunsborough Wood in the curve of the Devil's Water river, which forms the eastern boundary; with the woodland forming all other boundaries. Management access is to the north west. Step stiles have been installed for visitors to enter the meadow from the west and south and to the water on the east. The meadow is stocked fenced with water gates to the river. There is an old stone bank to the south of the meadow; possibly old river defences.

Significance

Nunsborough meadow has been a low intensity grazed field for some time and as such supports a varied and interesting plant community, including the lady's mantle (Alchemilla vulgaris) a notable plant in the Northumberland Biodiversity Action Plan for Upland Hay Meadows. The importance of the grassland increases with the association and interaction with the adjacent semi-natural habitats and other traditional 'haugh' land in the area. The meadow is a central feature to the wood for visitors to enjoy.

Opportunities & Constraints

The meadow is an important habitat however it seems likely that there will be further loss to river erosion from the action of the Devil's Water. This reach of the Devils Water is highly active. The river has dumped a pile of course gravel about 150 m long, 20m wide and up to 2m high in what was previously the main channel. This coupled with an abundance of woody debris and the steep gradient of the catchments has destabilized the channel and caused it to braid, eroding the bank of the meadow. There is a risk of loss of water gates and stock fencing. This has occurred in the past. It is unlikely with such an active and unstable situation that erosion control measures would be successful so it is anticipated that this has to be accepted into the current management. The grazed area has therefore been reduced as the stock fencing has been moved further into the field. The field is quite remote and organising continued grazing may be difficult. The number of flies around the woodland and river has proved a constraint to sheep grazing. The number of stock that can be accomodated on the field is low to prevent negative grazing impacts; however this may constrain the feasibility of getting any stock at all. The thistle population in the meadow requires control with herbicides. It is hoped that eventually the population will be so low that it can be controlled manually.

Factors Causing Change

Bank erosion,

Stock poaching the ground

Long term Objective (50 years+)

The long term objective is to sustain and enhance the diversity of grassland species

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 meadow,
- Have the meadow grazed in a regime that maintains and enhances its botanical value,

This will include the following operational works:

- 1. Controlled grazing and monitoring.
- 2. Maintenance and renewal of stock fencing and water gates as required,
- 3. Management of noxious weeds.
- 4. Near the end of five year period undertake a survey of species populations within the grassland.

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	0.40	Oak (sessile)	1993	High forest		Informal Public Access	Ancient Semi Natural Woodland, Local Wildlife Site

This sub-cpt. lies at the southern tip of Nunsbrough Wood, and is a flat area next to the river. The eastern side of the cpt. is prone to flooding after heavy rainfall. A footpath runs through the centre of the compartment from the meadow (via a stile) to the public footpath entering the woodland at its southern tip. The sub-cpt known as Joan's Wood was planted, in groups at 3m spacing in 1993, with ash 20% and oak 40%, wild cherry 20% and willow 10% with hazel 10% planted at the boundary of the sub-cpt. with the meadow. Common grasses dominate the ground vegetation.

1b	1.50	Birch (downy/s	1980	High forest		Informal Public Access	Ancient Semi Natural
		ilver)			on or adjacent to		Woodland, Local
					site, Very steep slope/cliff/quarry/		Wildlife Site
					mine shafts/sink		

Sub-cpt. 1b, known as Daniel's Wood, lies at the southeastern corner of the wood. There are wet flushes throughout and steep drops down towards the river that forms the southern boundary of the site. The northern boundary of this sub-cpt. follows the line of an old post and wire fence with a stone gate post next to the path and abuts sub-cpt1c. The public footpath runs almost north to south and is quite steep in places.

The canopy is predominantly made up of naturally regenerated birch 60% (1980) with varying proportions of ash 10%, sycamore 20%, oak 10%, and in the wetter flushes alder. In the main the sycamore is concentrated more around the edges of the sub-cpt. Abundant hazel makes up the majority of the understorey (quite dense in patches) and holly is also present in places. Regeneration of sycamore, ash, oak and willow occur throughout and there is a large amount of elm regeneration particularly along the western side of the sub-cpt. There is a large lime coppice towards the north west of the sub-cpt. Generally, ground vegetation is sparse throughout the sub-cpt. Where it does occur, it consists of rare clumps of ferns, bramble, grasses and wood rushes depending on the location within the sub-cpt.flat along the eastern side but steeply slopes upwards towards the houses on the western side.

1c	3.70	Oak	1920	High forest	Sensitive	Informal Public	Ancient Semi
		(sessile)		_	habitats/species	Access	Natural
					on or adjacent to		Woodland, Local
					site		Wildlife Site

This sub-cpt. borders the vehicular track (on both sides) running to Nunsbrough House and follows the PROW down to Linnelswood Bridge. The vehicular track is cut into the bank and the ground along the western side of the track is approx. 1-2m higher than the track. The eastern side slopes gently down towards the meadow, and traverses the top of the meadow. The section to the west side of the PROW, in the north of the sub-cpt, slopes steeply west and abuts Devil's Water. To the east this section is adjacent to the land at Nunsborough House.

Mature oaks (P1920) line the track running north south through this sub-cpt, on both sides. Elsewhere, sycamore becomes more frequent and in the eastern area (below the junction of the public footpath and the track), the canopy is made up of an even mixture of oak, birch, alder and large cherry trees. Generally, the canopy between the meadow and the track is made up entirely of birch with an occasional oak and ash. About halfway along the vehicular track to the east, there is a magnificent veteran beech that casts a deep shade beneath it. The area either side of the track few canopy trees, instead it is entirely hazel. An area of the wood to the east suffered heavily from Dutch elm disease and was restocked in 1994 with oak, ash, hazel and wild cherry, there is few remaining ash standards in the canopy and additionally natural regeneration of sycamore and elm.

Sycamore regeneration is common in most places within the understorey of this sub-cpt., particularly at the northwest corner; ash and elm are also found. Hazel makes up the greatest area in the understorey, holly occurs frequently, particularly along the path and tracksides, hawthorn, guelder rose and elder occur rarely. The ground vegetation, similar to that in sub-cpt1b, consists of ferns, bramble, grasses, wood rush and dog's mercury. Bracken and bramble exist in more open areas.

1d	3.10	Ash	1920	High forest		Informal Public	
					vehicular access	Access	Natural Woodland, Local
					to the site, No/poor		Wildlife Site
					vehicular access		Wilding Site
					within the site,		
					Very steep		
					slope/cliff/quarry/		
					mine shafts/sink		
					holes etc		

Sub-cpt1d, known as Ordley Scars, slopes steeply north to meet Devil's Water. The top of the Scar is a plateau at 100m in places and abuts fields to the south and west of the sub-cpt. To the northwest the sub-cpt connects to neighbouring mixed woodland and a young coniferous plantation. A river makes up some of the northern boundary and flows down to meet the Devil's Water. To the east the sub-cpt abuts 1c. The Scars are affected by land slippage and slumping which is slowly ongoign. The canopy is mixed broadleaves (P1920) and includes ash - dominant, oak, beech, sycamore and cherry. Alder is abundant in the wet areas to the west and can be found on the slopes with ash and birch. Large mature limes sit on the southern boundary with beech, sycamore and ash. thee species on the slope tend to be younger and even aged. The understorey is generally dense and multi-aged and includes hazel, holly with ash, beech, birch and sycamore regeneration. Ground vegetation is very varied with rushes, horsetail and ferns in the wet flushes along issues in the west of the sub-cpt and bramble, grasses and wood rushes elsewhere. A small patch of Japanese Knotweed was found in the south east of the sub-cpt but appears to have been successfully eradicated. No formal paths exist through the compartment and any type of access is very difficult.

This sub-cpt lies at the northern most part of Nunsborough Wood in the curve of Devil's Water, with the neighbouring land to Nunsborough House to the south and sub-cpt 1c to the. For the most part, the land slopes steeply down to Devil's Water, levelling where the land juts into the neighbouring field to the south and to the east. A power line cuts the sub-cpt almost north to south. The canopy P1920, similar to 1c, is made up of 60% oak with ash, beech and sycamore. In the narrow strip to the east alder and birch are occassional, with cherry and spruce rare in the canopy. The understorey is predominantly hazel and holly with beech, sycamore, ash and elm and is mostly quite dense and multi-age, becoming sparse to the middle of the sub-cpt. The ground vegetation includes grasses, woodrush, ferns, localised bracken, occasional bramble and dog's mercury. To the east of the compartment a management ride from the land at Nunsborough House leads down to an open area adjacent to Devils Water, likely to have been grazed haughland since the 1800's now dominated by bracken (90%), with a row of semi-mature trees along the bank of the river these include elm, alder, beech sycamore and pine.

2a	5.60	Other	Non-wood	Informal Public	Local Wildlife
			habitat	Access	Site

Compartment 2a - The meadow sits to the east of Nunsborough Wood in the curve of the Devil's Water, which forms the eastern boundary. This reach of the Devils Water is highly active. The river has dumped a pile of course gravel about 150 m long, 20m wide and up to 2m high in what was previously the main channel. This coupled with an abundance of woody debris and the steep gradient of the catchments has destabilized the channel and caused it to braid, eroding the bank of the meadow. It is unlikely with such an active and unstable situation that erosion control measures would be successful. Additionally a near- natural braided channel is a truly rare habitat and the creation of this increases the diversity of the combination of habitats as a whole.

The eastern fence has been moved to take up approximately 20m wide strip of the meadow, in from the river bank, to create a buffer.

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2018	1a	Selective Fell	0.50	4	2
2021	1b	Thin	1.30	8	10
2021	1c	Coppice	3.60	1	5
2021	1d	Selective Fell	3.10	2	5

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.