WOODLAND TRUST

Old Wood, Skellingthorpe

Management Plan

2017-2022

MANAGEMENT PLAN - CONTENTS PAGE

ITEM **Page No.**

Introduction
Plan review and updating
Woodland Management Approach
Summary
1.0 Site details
2.0 Site description
2.1 Summary Description
2.2 Extended Description
3.0 Public access information
3.1 Getting there
3.2 Access / Walks
4.0 Long term policy
5.0 Key Features
5.1 Ancient Semi Natural Woodland
5.2 Connecting People with woods & trees
6.0 Work Programme

Appendix 1: Compartment descriptions
Appendix 2: Harvesting operations (20 years)
Glossary

MAPS

Access
Conservation Features
Management

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Old Wood, Skellingthorpe
Location:	Skellingthorpe
Grid reference:	SK903721, OS 1:50,000 Sheet No. 121
Area:	93.09 hectares (230.03 acres)
Designations:	Ancient Semi Natural Woodland, Ancient Woodland Site, Planted Ancient Woodland Site

2.0 SITE DESCRIPTION

2.1 Summary Description

This beautiful ancient woodland is rich in native oak, lime and hazel and in spring the woodland floor is carpeted with wildflowers including bluebell, orchid and lily-of-the-valley. It also has a fascinating history, having once been a haunt of the Vikings. A circular cycle track within the wood links to the SUSTRANS National Cycle Network, Route 64, making this a great destination for cyclists.

2.2 Extended Description

Old Wood is 93 hectares in size, and situated 5km from the outskirts of Lincoln and 1km from the village of Skellingthorpe. It is designated as a 'planted ancient woodland site' (PAWS). Hence it is wood that still has a lot of ancient woodland characteristics but one that has been modified in the past, especially by the planting of conifers. Through restoration work, Old Wood is approximately 75% broadleaved woodland, with the major species being ash, oak, lime, field maple and birch. Both large leaved lime and small leaved lime can be found, together with their hybrids, and other trees of conservation importance including wild pear. Approximately 25% of the site still contains varying proportions of conifer species, which include Scots pine, Douglas fir and Norway spruce. Western hemlock is still present in some areas, regenerating from the previos compartments which have been cleared.

The site is regularly used by local people for walking and horse riding, although visitor numbers are

low. There is an extensive network of permissive and public paths and bridleways through the wood, and approximately 3.5km of these are surfaced. The bridleway on the southern boundary forms part of the Sustrans National Cycle Network route 64, and a cycle route called the 'Odin trail' has been created in Old Wood, as a spur off this.

Being ancient woodland, Old Wood has a long history. There is a mention of a wood at Skellingthorpe in the Domesday survey of 1086, and it seems very likely this refers to the present wood. Manorial documents from the 13th & 14th centuries provide further supporting evidence. Some of the old wood names, still listed on current maps, give a clue to its former management. For instance 'Old Hag Wood' forms the southern quadrant of Old Wood, and the 'hag' is an old English word for cutting or coppice management. The Forestry Commission managed the wood between the 1st and 2nd World Wars and for a period of time after, and Old Wood's close proximity to Lincoln would have made it strategically important as a supplier to the national timber reserve. During this period there was much felling, particularly of oak, and re-planting with conifers. Also after the 1st World War, areas of the former wood to the east were given as small holdings to ex-soldiers as part of the Homes For Heroes initiative, shrinking the overall size of the wood by a third. A more thorough account on some of the history of Old Wood is given by Dominic Johnson in 'Skellingthorpe Old Wood – A short historical narrative' (see references). After a period of neglect The Woodland Trust purchased Old Wood in 1995.

The display of wildflowers in spring at Old Wood is very impressive. A total of 271 plants have been recorded to date within the wood including over 30 specialist species strongly associated with ancient woodland. Drifts of bluebells and wood anemone are commonly found, together with less common plants of conservation importance such as wood barley, and orchid species such as the greater butterfly orchid.

The wood was renowned for its butterfly populations but this interest waned, especially due to the contracting ranges of the rarer species such as marsh fritillary and chequered skipper in recent decades. The wood used to be a Site of Special Scientific Interest (SSSI) due to the presence of these rare butterflies, but in 1986 it was de-listed due in part to their loss at the site. However in recent years over 20 species of butterfly and 8 species of dragonfly have still been recorded, amongst them white admiral and a healthy population of purple hairstreak. A wide range of birds make use of the wood throughout the year, and 38 species were recorded in the summer of 1998. Those of particular note include buzzard, goshawk, lesser spotted woodpecker, song thrush, siskin and bullfinch. Nightjar and nightingale have both been recorded at the wood in the past, but before 2000.

Common mammals can be found at the wood including roe and muntjac deer, and red deer have been seen in the immediate vicinity. Grey squirrels are very common.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

There is an extensive network of public and permissive paths and bridleways through the wood, and approximately 3.5km of these were surfaced in 2001, making the wood much more accessible during the winter. A public footpath runs through the centre of the wood from east-west. There are also public bridleways running along the eastern and southern boundaries, plus one running through the wood (east-west) in the southern half of the wood. The bridleway on the southern boundary forms part of the Sustrans National Cycle Network route 64.

Getting there:
The nearest bus stop is approximately 1.6km (1 mile) away on the High Street in Skellingthorpe, opposite the Co-op store.
If you are coming by car from the A46 Lincoln ring road, you need to exit on the Skellingthorpe roundabout onto Lincoln Road. Continue for 1.5km (1 mile) to reach Skellingthorpe village. Old Wood is 1.5km (1 mile) west of the village. There is no on-site car park, but parking is available in the village community centre and other places in the village. To reach the wood head along a road called 'Woodbank'. You will pass a number of houses and smallholdings and eventually reach of the wood, with a number of entrances available.
Old Wood can be accessed easily by bike via the Sustrans National Cycle Network route 64, which runs through the south of the wood. Bikes can be rented from the Skellingthorpe Community Centre car park, which also adjoins the Sustrans cycle route. For more information visit www.hirebikelincoln.co.uk

For further information on all public transport, contact Traveline on 0871 200 2233 or visit traveline.org.uk

3.2 Access / Walks

Internally the wood provides a 3km (2 miles) network of sandy surfaced tracks, suitable for all-weather use, together with a number of more natural unmodified pathways and permissive bridle routes. These are well defined within the wood and are dry enough to allow access throughout the site for most of the year. The land is fairly flat and easily accessible for wheelchair users on the better surfaced routes.

Entrances into Old Wood are via bridle gates - which are suitable for wheelchair users - and stiles, although at some points of entry access may be limited. The eastern side of the wood is accessed via two public by-ways which join up with a bridleway and footpath running along the eastern edge of the site. Two more footpaths enter the woodland from the west over adjacent farmland via a stile.

The site can also be directly accessed from the SUSTRANS National Cycle Network Route 64 which links to a cycle track from the car park at Skellingthorpe Community Centre. There is a spur off this track directly into the woodland where it joins the Odin Trail - a family-friendly surfaced way-marked cycle loop of around 1.6km (1 mile).

4.0 LONG TERM POLICY

Old Wood is a planted ancient woodland site (PAWS) and the long term intention is to restore the wood to a largely broadleaved habitat to address the threats to the semi-natural components (in particular the specialist woodland flora) posed by dense groups of conifers. A gradual thinning of the conifers will take place to remove the threat of their shade. Restoration will be complete when conifers occupy no more than 10% of the tree species mix within all the former blocks of planted conifers. However the woodland is likely to continue to be a source of timber production, with broadeaved species starting to make up a larger proportion of output. Broadleaved trees will develop within the stands via natural regeneration. After restoration some of the remaining conifers will be retained,growing to over-maturity to become large specimen trees, for example Douglas fir and Scots pines.

The wood will continue to be composed of largely native broadleaves such as lime, birch, oak, ash, field maple and hazel. Although the percentage of ash is likely to decrease substantially over the next 10 years through ash dieback. Despite this ash will continue to be encouraged within the species mix, in the hope that some trees will exhibit a degree of natural resilience. The broadleaved component of the wood will be managed so that it is diverse in structure and species, which will ensure the it is as resilient as possible to future changes imposed on it (eg tree diseases). Hence if large parts of the wood become single aged or dominated by one or two species then silvicultural management will be carried out to counter this. Traditional management techniques such as coppice-with-standards will also be used to vary the woodland structure in appropriate areas. Minimum intervention will be used as a management tool for areas of broadleaved woodland that have an acceptable diversity of tree species and woodland structure.

The wood will contain an element of open habitat in the form of rides and ponds. Management works will be undertaken routinely to ensure that many of the rides remain wide and sunny with good woodland edge habitat. Management works will also ensure that ponds remain open and not closed over by tree growth. Old Wood has always been important for butterfly species and, although some of the rarer species are no longer present, there is still a good diversity of species that will benefit from this work together with many other flora and fauna.

Threats to the woodland habitat will be monitored and managed if possible. Hence, the population of deer using the wood will be managed to a level where their impact on the natural regeneration of trees and native woodland flora is minimal. The woodland will be monitored for the presence of tree diseases, in particular ash dieback as it becomes more prevalent in the wood.

Open access will be retained at the wood in perpetuity and there will be a well-managed network of paths. Well used paths will be made open and sunny in parts. The wood will be made as safe as practicable through regular safety inspections, and corresponding remedial work. Good information will be made available on the site to enable visitors to explore and navigate around the wood and to appreciate its inherent qualities. High quality and prominent signage will greet visitors on their arrival to the wood. Cycling and horse-riding will be available at the wood, but only on specific routes such as the Sustrans route in the south of the wood. The use of non-designated routes for cycling and horse-riding will be actively discouraged to minimise the environmental impact on this ancient woodland. The access routes around the wood which are used for management access and timber harvesting/ restoration work will be maintained at a good standard and extended where

required to ensure there is the capability to continue with timber production in the wood and to maintain a high standard of multi-user access.

The Trust will continue to work in partnership with Hill Holt Wood (a community enterprise organisation) in the management of Old Wood. This partnership will enable Hill Holt to use Old Wood in order to provide training opportunities in forestry and wood products for young people. An ongoing programme of silvicultural works will be agreed with Hill Holt, which will be a proportion of the works described in this plan.

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 Ancient Semi Natural Woodland

Description

Old Wood is ancient woodland with an official classification of 'PAWS' (planted ancient woodland site), within the national ancient woodland inventory. Small areas of the site are designated as 'ASNW' (ancient semi-natural woodland) in the inventory, but this is known to be inaccurate. It is also currently designated a Site of Nature Conservation Importance (SINC) by Lincolnshire Wildlife Trust and North Kesteven District Council, although this is not a statutory designation.

Old Wood is a varied mixture of 2 woodland types, as defined under the National Vegetation Classification (NVC): W8 (ash-maple-dog's mercury) and W10 (oak-bracken-bramble) and this reflects a variation in the soil type across the wood. The planting of conifers over the wood adds to the complexity of assigning these woodland types. The most common woodland type is W8 which is found on the heavier clay and base-rich soils which dominate Old Wood. The tree canopy is very varied with the main tree species being ash, large-leaved lime, field maple, aspen and hazel in the understorey. Oak, small-leaved lime, birch and alder can also be found as minor tree species. There is also hybridisation of the 2 lime species. Honeysuckle, bramble, sallow, crab apple, hawthorn, blackthorn, Rosa spp., wild privet, guelder rose, dogwood and occasionally spindle can all be found within the understorey as well. The W8 areas are floristically rich with a strong vernal display of flora, most notably wood anenome, lesser celandine and bluebell. There are many other flowering plants present, which are strongly associated with old or ancient woodland, and these include enchanter's nightshade, yellow archangel, dog's mercury, primrose, woodruff, cow-wheat, Lily-of-the-valley and occasional orchid species, such as greater butterfly orchid. A total of 271 plants have been recorded to date within the wood, with 30 of these being specialist woodland species which are strongly associated with ancient woodland.

There is scattering of W10 type woodland over the site on the drier, sandier and more acidic spots, most notably towards the west of the wood. The diversity of tree and floral species is much less in these areas. The most common broadleaved trees are oak and silver birch with hazel, hawthorn and occasional holly in the understorey. Rowan is also present in the southwest corner. The ground is often dominated by bracken and bramble, although there are large patches of male fern and broad buckler fern present. Honeysuckle is also common and occasional drifts of bluebell can be found in spring.

Historically, the majority of the wood has been planted with conifers, but today distinct blocks of conifer can now only be found over approximately 25% of the wood area. Areas of Old Wood have probably been felled and replanted a number of times over the last few centuries, however this activity would have gathered pace after the First World War when The Forestry Commission managed the wood, with Scots pine being the preferred species. Coniferisation proceeded into the post war years with the favoured species being switched to Norway spruce and Western hemlock, as these became fashionable in the 1960's. Some of the plantations did not survive on the wet calcareous soils but those that did remain have now been clear felled (especially Western Hemlock) or thinned in recent years. Scots pine is now the main conifer species remaining, with minor components of Norway spruce, Corsican pine, Western Hemlock and Douglas fir. The northwest

corner of Old Wood is not ancient woodland but is a pine plantation created by The Forestry Commission to extend the wood in the 1940's.
Historically areas of broadleaved woodland would have been managed through traditional coppicing and remnant old coppice stools can still be found particularly in the eastern and southern parts of Old Wood. The southern section of Old Wood is known on maps as 'Old Hag Wood' and the hag is a reference to cutting or coppicing.
The majority of the woodland edge to the north, south and west is surrounded by an irregular pre-enclosure ditched boundary. An old woodbank, presumed to be of medieval origin runs east west and through to Skellingthorpe. The purpose of the woodbank is not clear although it would have fulfilled some sort of strategic boundary.
There are 3 main ponds in the wood together with smaller depressions and seasonally wet spots. The pond in compartment 12b in the south of the wood is thought to be derived from a bomb dropped by a Zeppelin in World War 1 and later used as a fire pond by The Forestry Commission. The wood also has a number of ditch and stream systems bisecting it. Two rare 'red data book' species of water snail were recorded in one of the ponds in 1998.
The site was formerly designated as a 'site of special scientific interest' (SSSI) for nationally rare butterflies, but was de-notified in 1987 since its importance for these species (notably the chequered skipper and marsh fritillary) declined; this species decline was mirrored nationally. However over 20 species of butterfly and 8 species of dragonfly have been recorded in recent years, amongst them white admiral and a healthy population of purple hairstreak.
A wide range of birds make use of the wood throughout the year, and 38 species were recorded in the summer of 1998. Those of interest include buzzard, goshawk, lesser spotted woodpecker, song thrush, siskin and bullfinch. Nightjar has been recorded in the past and nightingale as recently as 1999.
In October 2018, an area of Small leaved lime was designated as a registered seed stand - a location where approved seed and reproductive material can be collected for growing on of native, local provenance lime.

Significance

Around 6,300ha of ancient semi-natural woodland (ASNW) remains in Lincolnshire of which Old Wood makes up almost 2%, when added together with the neighbouring ASNW areas outside the Trust's ownership. Lincolnshire is well known for its very low woodland cover, and this makes Old Wood important as one of the largest contiguous blocks of ASNW in the County. In October 2018, an area of Small leaved lime was designated as a registered seed stand - a location where approved seed and reproductive material can be collected for growing on of native, local provenance lime.

Opportunities & Constraints

Opportunities: The restoration of PAWS woodland is the only possible way of increasing the area of ancient semi-natural woodland (ASNW) in the UK. The opportunity therefore exists at Old Wood to gradually restore a further 23ha of conifer-dominated PAWS woodland, to increase the area of ASNW. The first sections of surfaced track system (installed in 2001), and the stacking area at the eastern entrance, have now created the opportunity for larger scale timber extraction, however creation of a complete circular route through the woodland utilising the route to the south currently occupied by a path and permissive bridleway will greatly aid restoration and vehicle movements around the wood, minimising environmental damage. The relatively flat site with good access for timber harvesting machinery means there is potential for operations to be run on a commercial basis, even after the 10% restoration marker is reached.
Old Wood is renowned for its diversity of flora and butterfly species. The opportunity exists to improve the habitat further by managing and widening rides through the site, which will also benefit visitors by creating much drier paths. Ash dominated ride edges would also benefit from thinning/coppicing to lower the tree safety risk once ash dieback becomes more established.
Compartment 7 retains a traditional coppice-with-standards structure and the opportunity exists to bring this part of the site back into traditional management.
There are greater opportunities going forward through the continued partnership with Hill Holt Wood. These include exploring the production of a greater range of wood products derived from the management works, and to extend participation and learning into additional areas of woodland management at Old Wood.

Constraints: Silvicultural operations need careful planning to avoid damage to the wet clay soils over much of the wood during the winter months, and improvements to the management access routes would reduce the distances required for extraction and stacking.

Factors Causing Change

Animal damage (Grey squirrels and deer). The impact of future tree diseases, especially ash dieback. Regeneration of conifer species following thinning/felling, especially Western hemlock.

Long term Objective (50 years+)

In approximately 30 years (2040) Old Wood will be restored to a largely broadleaved woodland habitat. At this point the threat of over-bearing shade from non-native conifers will have been arrested, and semi-natural components (in particular the specialist woodland flora) will be secure. The process of restoration will be gradual, through light thinning operations, and this will create space for the natural regeneration of broadleaves to occur. Restoration will be complete when conifers occupy 15% of the tree species mix within all the former blocks of planted conifers. After restoration some of the remaining conifers will grow to over-maturity to become large specimen trees, for example Douglas fir and Scots pines. Beyond this, timber production will continue to be part of the ancient woodland management.

The wood will continue to be composed of largely native broadleaves such as lime, birch, oak, ash, field maple and hazel. Although the percentage of ash is likely to decrease substantially over the next 10 years through ash dieback. Despite this ash will continue to be encouraged within the species mix, in the hope that some trees will exhibit a degree of natural resilience. The broadleaved component of the wood will be managed so that it is diverse in structure and species, which will ensure it is as resilient as possible to future changes imposed on it (eg tree diseases). Hence if large parts of the wood become single aged or dominated by one or two species then silvicultural management will be carried out to counter this. Traditional management techniques such as coppice-with-standards will also be used to vary the woodland structure in appropriate areas, in particular on the eastern side of the wood. Minimum intervention will be used as a management tool for areas of broadleaved woodland that have an acceptable diversity of tree species and woodland structure.

The wood will contain an element of open habitat in the form of rides and ponds. Management works will be undertaken routinely to ensure that many of the rides remain wide and sunny with good woodland edge habitat. Management works will also ensure that ponds remain open and not closed over by tree growth, so they are optimal in terms of their biodiversity value.

Threats to the woodland habitat will be monitored and managed if possible. Hence, the population of deer using the wood will be managed to a level where their impact on the natural regeneration of trees and native woodland flora is minimal. The woodland will be monitored for the presence of tree diseases, in particular ash dieback as it becomes more prevalent in the wood.

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,
- improve the habitat condition along a number of the major rides including regular vegitation cuts.
- restore a coppice structure to a small proportion of the wood,
- increase the diversity of tree species in parts of the wood which are currently dominated by birch or ash.

This will include the following operational works:

1. Thinning of 18.5ha of conifer-dominated woodland. No more than 25% of the trees will be removed in any given area. The following compartments will be thinned during this 5 year plan period: 1a, 12a, 10b, 3c, 6a, 4c, 3b, 10c, 10d according to the dates given in the harvesting schedule. Western hemlock will be eradicated from the wood during this plan period by removing all remnant trees and young saplings.
2. Opening up of 1000m of ride through coppicing and thinning will be carried out progressively over the next 5 years. The ride width will be opened up so it varies from 10 to 15m, and there will be 'cross-over' trees for arboreal wildlife at least every 30m. The following compartments/rides will be worked during this plan period: 2d, 6c & 9c.
3. Coppicing and felling bankside trees around each of the 3 major ponds by 2021 to open them up and improve their value for wildlife. The work will concentrate on the south side of each pond.
4. Restoring traditional coppice management to approximately 5ha of the wood. Compartments 3d, 7a and 7c will be progressively coppiced over the 5 year plan period.
5. Thinning 4.5ha of ash dominated woodland, to create greater species diversity within the stands. This work will be carried out progressively over the 5 year period and to the dates given in the harvesting schedule.
6. Thinning of 3.7ha of young birch dominated woodland, to create greater species diversity within the stands. The thinning will favour the development of other broadleaves such as oak and hazel, and seek to create a tree spacing of 2.5m in dense birch thickets. This work will be completed in 2017.
7. Control of the deer population will be undertaken and a trial will be carried out at the wood to control grey squirrels during 2016/17 to try out new techniques. 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.
8. As part of the seed stand registration we would look to improve the quality and the management within the seed stand area over time.
9. Continue to up grade the main rides and tracks to benefit timber extraction by haulage lorries, this will reduce the need for multiple forwarder trips to a singular staking area.

5.2 Connecting People with woods & trees

Description

Old Wood is a large site with a good complex of paths across the whole area, totalling approximately 10km, and is used by visitors for walking, cycling and horse-riding. The wood also benefits from 3.5km of the path network being surfaced, providing all year round dry access. The majority of internal paths through the wood are permissive, but there is one public footpath and one public bridleway running east-west through the wood. There are also bridleways running along the eastern and southern boundaries of the wood. The bridleway along the southern boundary is also part of the National cycleway network - Sustrans route No 64 which goes from Lincoln to Newark. A spur off the national cycleway (The Odin trail), which takes cyclists through part of the wood, has been created and this is approximately 3km in length. A large timber arch marks the start of this. Public information about the wood is provided on a board at the southern entrance (next to the national cycleway). In total there are 7 entrances into the wood with some form of welcome signage installed. Car parking is not generally possible next to the wood, and is instead best achieved by parking in Skellingthorpe and then cycling or walking to the wood. A timber stacking area on the eastern side of the wood provides scope for car parking during organised events. Due to the clay soils over much of the site, many of the un-surfaced paths can become waterlogged during the wetter winter months. A community enterprise organisation called Hill Holt regularly make use of the wood to lead forestry training events for young people living locally. The Trust has given Old Wood an access category A designation which is the highest level, and this equates to a wood which is 'regularly used at all times of year, with more than 15 - 20 people using one entrance every day'.

Significance

Increasing enjoyment of woodland is one of the Woodland Trust's key outcomes. Encouraging access to Old Wood is particularly important given the paucity of woodland sites open to the public in Lincolnshire, in a largely intensively farmed landscape.

Opportunities & Constraints

Constraints: A lack of car parking provision at the site will always limit the amount of visitors to the site. The main visitors to the site are likely to be locals who can walk or cycle to the wood. The waterlogged ground, on many of the un-surfaced paths during winter, is likely to limit the visitor experience over large parts of the wood, at that time of year. Horse-riding and cycling on unauthorised routes has caused ruts and damage to ground flora in parts of the wood.
Opportunities: Enhanced promotion of the cycle routes through Old Wood could increase the visitor numbers to the site, taking advantage of the cycle traffic already using the Sustrans cycleway route 64.

Factors Causing Change

The level of horse-riding/cycling increasing in the future and leading to increased use of unauthorised paths. An enhanced risk along parts of the path network resulting from large numbers of ash trees dying from ash dieback disease.

Long term Objective (50 years+)

Old Wood should offer a high quality visitor experience in line with a category A Access designation. Access will be retained at the wood in perpetuity. There will be a well-managed network of paths around the wood which are easy and obvious to follow. Many of the trees along the edges of the main surfaced paths and the 'Odin trail' cycle route will be managed to provide wide sunny rides for visitors to enjoy, as well as benefitting woodland edge wildlife and flora. Prominent signage and information will be made available at the main entrances to enable visitors to explore the site and to appreciate its inherent qualities and wildlife; the objective is that visitors should leave with some understanding of the value of ancient woodland and this site, and a clear knowledge of The Woodland Trust. The main entrances will be the southern entrance off the Sustrans cycleway and the entrances from the eastern edge of the wood, closest to the village. Good 'off-site' information will be available locally to promote the wood, especially to cyclists.
The wood will be made as safe as practicable through regular safety inspections of trees in high risk zones and inspections of access furniture.

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

During this plan period the main short term objectives are to provide a high quality visitor experience, which is safe and enjoyable, and to enhance the cycling facilities and welcome information at the wood. Any threats to the ancient wood arising from public access will also be monitored and managed. The partnership work with Hill Holt wood will continue so that young local people are able to benefit from professional training at Old Wood.

These objectives will be achieved by:
1. Installing 2 additional information boards at eastern entrances to the wood in 2017, as well as more prominent welcome signage
2. Improving the waymarking on the Odin Trial in 2017 making it easier to follow and more appropriate for family cycling. Off-site information, in particular the leaflet, will reviewed and reprinted, as well as exploring other avenues of promotion with partners.
3. Carrying out the annual management of approximately 8km of paths and all 7 entrances to ensure they are kept open for use. All signage and information boards will remain clean and visible, and replaced if they deteriorate.
4. Agreeing a five year programme of works with Hill Holt wood, incorporating a proportion of the silvicultural works programmed for this plan period.
5. Conducting annual safety inspections of trees in high risk zones (eg. the edges of the roads and main paths), to ensure the wood is as safe as possible for visitors, neighbours and road users.
6. Carrying out monitoring at least once during this plan period to assess whether the access provision is adequate and to determine the severity of any threats to the wood from public access. Measures to lessen any recorded threats will be undertaken.

Opportunities for further public engagement will be sought when possible. Achieved by:
5. Encouraging schools to use the site more for educational purposes, by contacting very local schools to promote the area for outdoor learning – sharing WT outdoor learning pack, free trees for schools and communities, nature detectives and other outdoor learning resources (every 3 years).
6. Holding public events (at least one community / school event every 2 years). The most likely event with the community will be a family cycling event which is an activity being promoted at the wood.
7. Ensuring the site is visited regularly by local volunteers/community projects (eg Hill Holt) who act as our eyes and ears, reporting back anything that needs attention, and carrying out minor tasks.

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	6.28	Scots pine	1948	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Plantation of Scots pine on former pasture land. A thin scattering of broadleaved regeneration is present, mainly oak and hazel.							
2a	4.29	Ash	1965	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Area of broadleaved woodland that has developed from a failed conifer plantation. The stand is dominated by ash, but also contains oak, silver birch, hazel, field maple goat willow occasional scattered crab apple. The remaining conifer component (Western Hemlock) was felled in 2002.							
2b	3.57	Silver birch	1968	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Young broadleaved woodland derived through natural regeneration, following the clear felling of conifers in 2005 (mainly Western Hemlock). The stand is dominated by birch, but also contains hazel and some goat willow. Occasional regeneration of Western Hemlock and Scots pine is present.							
2c	0.68	Scots pine	1942	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Small remnant plantation of Scots pine, mixed with oak and hazel. Pond at southern end.							

2d	1.68	Ash	1900	Coppice		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Edge strip of broadleaved woodland of mainly ash, with a hazel understorey. Oak and birch also present. Pond at the West end.							
3a	2.12	Oak (pedunculate)	1930	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	Planted Ancient Woodland Site
Broadleaved woodland with a diversity of species and age class, derived from former conifer plantation. Species include silver birch, oak, aspen, ash, and occasional rowan. There is a well formed hazel understorey plus a component of holly.							
3b	0.51	Douglas fir	1952	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	Planted Ancient Woodland Site
Douglas fir plantation, with a scattering of broadleaves including oak, silver birch, hazel and aspen. The Douglas fir has been regularly thinned							
3c	1.88	Scots pine	1942	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	Planted Ancient Woodland Site
Scots pine plantation with occasional broadleaves present (oak, rowan and silver birch). The conifer stand has been thinned a number of times, with the last time being in 2011.							
3d	0.88	Ash	1942	Coppice		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Edge strip of broadleaved woodland of mainly ash and oak, with a hazel understorey.							

4a	0.64	Silver birch	1998	High forest	Mostly wet ground/exposed site	Ancient Semi Natural Woodland, Connecting People with woods & trees	
Young broadleaved woodland derived through natural regeneration, following the clear felling of conifers in 1998. The stand is dominated by birch and goat willow. The ground conditions are very wet and there is a pond present.							
4b	2.18	Silver birch	1998	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Young broadleaved woodland derived through natural regeneration, following the clear felling of conifers in 1998. The stand is dominated by birch, with goat willow, aspen and some oak. There is a small ephemeral pond in the northwest corner.							
4c	1.87	Scots pine	1948	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	
A plantation of Scots pine with a heavy understory of bramble, and some broadleaved regeneration. The scattered broadleaves include ash, oak, silver birch, field maple, and hawthorn. The conifers were last thinned in 2015.mi							
4d	1.80	Mixed conifers	1959	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Plantation of Norway spruce, Western hemlock and Grand fir, with in a line mixture of oak and ash. Natural regeneration within the stand is also well established of lime, aspen, silver birch, goat willow, hazel and hawthorn, together with scattered blackthorn, dogwood, wild privet, spindle and holly.							

4e	0.50	Ash	1960	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Former conifer plantation which has been severely affected by windblow. Conifers include Norway spruce and Western hemlock. Natural regenerating broadleaves present including ash and oak.							
5a	0.59	Silver birch	1998	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Young broadleaved woodland derived through natural regeneration, following the clear felling of conifers in 1998. The stand is dominated by birch, with some goat willow and oak.							
5b	4.90	Ash	1960	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	Planted Ancient Woodland Site
Mainly mixed broadleaved woodland, derived from the partial establishment of conifer plantations of Western red cedar, Lawson Cypress and Norway spruce. Most of the remaining conifers were removed in 2002 but there is a small element of Scots pine present to the north. The mixed broadleaves consist of ash, aspen, field maple and silver birch.							
6a	0.49	Scots pine	1942	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Scots pine plantation with occasional oak, and hawthorn and Hazel understorey. The stand was last thinned in 2012.							
6b	8.38	Silver birch	2005	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	

Young broadleaved woodland, derived from a former Western hemlock plantation, which was clear felled in 2005. Now dominated by silver birch. Other species include ash, oak, hazel, field maple and some regeneration of Western hemlock.mix							
6c	1.21	Ash	1960	Coppice		Ancient Semi Natural Woodland, Connecting People with woods & trees	
A woodland ride dominated by ash. Other species include lime and oak.							
7a	2.27	Ash	1900	Coppice		Ancient Semi Natural Woodland, Connecting People with woods & trees	
A mixed broadleaved woodland of ash, birch, oak, lime and aspen with a very well developed hazel understorey, which has been worked as coppice in the past. Also includes wild privet, hawthorn and blackthorn.							
7b	2.91	Ash	1900	Coppice		Ancient Semi Natural Woodland, Connecting People with woods & trees	
A mixed broadleaved woodland of ash, birch, oak, lime and aspen with a very well developed hazel understorey, which has been worked as coppice in the past. Also includes wild privet, hawthorn and blackthorn. Occasional scattered conifers are present including Norway spruce and Douglas fir.							
7c	2.17	Ash	1900	Coppice		Ancient Semi Natural Woodland, Connecting People with woods & trees	
A mixed broadleaved woodland of ash, birch, oak, lime and aspen with a very well developed hazel understorey, which has been worked as coppice in the past. Also includes wild privet, hawthorn and blackthorn. Occasional scattered conifers are present including Norway spruce and Douglas fir.							

8a	2.01	Ash	1960	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Broadleaved woodland derived from a largely failed conifer plantation. The remaining conifers were felled to waste in 2002. The stand is now dominated by lime and ash, together with oak, field maple, silver birch, aspen, goat willow and sallow.							
8b	0.94	Silver birch	2005	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Young broadleaved woodland, derived from a former Western hemlock plantation, which was clear felled in 2005. Now dominated by silver birch. Other species include ash, willow, hazel and some regeneration of Western hemlock.							
8c	2.60	Ash	1960	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Similar in age and composition to that of 8a, with a slightly higher percentage of lime species.							
9a	2.21	Lime species	1960	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	
A mature stand of broadleaves dominated by lime (mainly large-leaved). The area was historically managed as coppice with standards, but it is likely to have been replanted since this time. Other species present include oak, ash and willow species.							
9b	2.41	Scots pine	1942	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	

Scots pine plantation last thinned in 2010, which includes a broadleaved element of lime, ash and oak. Also contains a well-developed understorey of hazel, dogwood, hawthorn, field maple and spindle.							
9c	1.01	Lime species	1960	Coppice		Ancient Semi Natural Woodland, Connecting People with woods & trees	
A woodland ride dominated by ash and lime, with some oak, willow and hazel. There is ancient woodbank on the south side of the ride. Many of the trees on the woodbank have been managed by coppicing in the past.							
10a	5.84	Silver birch	1959	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	
A very diverse stand of broadleaves which consists of ash with silver birch, oak, large leaved lime, hawthorn, and hazel. The northern end is extremely wet and consists of mainly goat willow, downy birch and alder. There was an attempt to establish stands of conifers in 1959, including Norway spruce and Western Hemlock. This largely failed and most of the remaining conifers were ring-barked.							
10b	2.59	Scots pine	1969	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	Planted Ancient Woodland Site
A Scots pine plantation with an element of broadleaves including oak, birch, ash, hazel and hawthorn. This compartment is separated from 10a by a private strip of woodland.							
10c	0.24	Norway spruce	1959	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	
A small remnant plantation of Norway spruce and Douglas fir, mixed with broadleaves including oak, ash and hazel.							

10d	0.25	Corsican pine	1959	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	
A small remnant plantation of Corsican pine which would have been planted at the same time as the Scots pine in 10b. Also contains a mixture of broadleaves including oak, birch, ash and hazel.							
11a	8.78	Oak (pedunculate)	1951	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	Ancient Semi Natural Woodland
Part of the area known historically as 'Old Hag Wood', which would have been managed by a coppice with standards regime. It was eventually replanted by The Forestry Commission, mainly with oak, and some Norway spruce. Most of the remaining conifers were ring-barked in 2002, some still are present along with regeneration. Along with the oak, the stand now contains a mixture of other broadleaves including ash, silver birch, aspen, large leaved lime and rowan.							
12a	5.53	Scots pine	1951	PAWS restoration		Ancient Semi Natural Woodland, Connecting People with woods & trees	
Also part of 'Old Hag Wood' (see description for 11a). Now a Scots pine plantation with a mixture of broadleaves including oak, ash, hazel and hawthorn. The eastern edge of the compartment was last thinned in 2016.							
12b	6.91	Oak (pedunculate)	1951	High forest		Ancient Semi Natural Woodland, Connecting People with woods & trees	
A stand of mixed broadleaves derived from a plantation of oak, beech and Norway spruce. The beech (which largely failed) and the spruce has since been felled and the stand has evolved through natural regeneration and now contains oak, ash, field maple, silver birch, downy birch, goat willow and Lime spp. The understorey is also very mixed and well-developed with hazel, hawthorn, elder, dog rose and blackthorn towards the edges. A large pond is present (derived from a Zeppelin bomb crater in WW1).							

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2017	2b	Thin	3.50	1	5
2017	6b	Thin	8.38	1	5
2017	9c	Coppice	1.00	70	70
2017	12a	Thin	5.53	11	60
2018	2a	Thin	4.29	53	228
2018	2b	Thin	1.00	39	39
2018	2c	Thin	0.77	27	21
2018	3a	Thin	2.12	40	85
2018	3c	Thin	1.88	37	69
2018	6a	Thin	0.49	98	48.2
2018	7a	Coppice	2.27	2	5
2018	9c	Coppice	1.00	8	8
2020	2d	Ride edge Coppice	1.68	89	150
2020	3d	Ride edge Coppice	0.88	34	30
2020	5b	Thin	4.90	40	195
2020	6b	Thin	4.19	24	100
2020	6c	Thin	1.21	66	80
2020	7c	Coppice	2.17	92	200
2020	8a	Thin	2.00	90	180
2020	8b	Thin	2.60	81	210
2020	8c	Thin	0.94	16	15
2020	10a	Ride edge Coppice	1.00	80	80
2020	10b	Thin	2.59	54	140
2020	10c	Thin	0.24	50	12
2020	11a	Thin	3.20	50	160
2020	12a	Thin	5.00	40	200
2021	1a	Thin	6.28	32	200
2021	4b	Thin	2.18	14	30
2021	4c	Thin	0.30	50	15
2021	10a	Thin	4.19	24	100
2021	11a	Thin	3.20	50	160

2022	7b	Thin	2.91	31	90
2022	9a	Thin	2.21	45	100
2022	9b	Thin	2.41	79	190

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.