

# North Wood

(Plan period – 2021 to 2026)



WOODLAND  
TRUST

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## Introduction to the Woodland Trust Estate

The Woodland Trust owns and cares for well over 1,250 sites covering almost 30,000 hectares (ha) across the UK. This includes more than 4,000ha of ancient semi-natural woodland and almost 4,000ha of non-native plantations on ancient woodland sites and we have created over 5,000ha of new native woodland. We also manage other valuable habitats such as flower-rich grasslands, heaths, ponds/lakes and moorland.

Our Vision is:

“A UK rich in native woods and trees for people and wildlife.”

To realise all the environmental, social and economic benefits woods and trees bring to society, we:

- **Create Woodland** – championing the need to hugely increase the UK’s native woodland and trees.
- **Protect Woodland** – fighting to defend native woodland, especially irreplaceable ancient woodland and veteran trees; there should be no loss of ancient woodland
- **Restore Woodland** – ensuring the sensitive restoration of all damaged ancient woodland and the re-creation of native wooded landscapes.

# Management of the Woodland Trust Estate

All our sites have a management plan which is freely accessible via our website

[www.woodlandtrust.org.uk](http://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.

The following principles provide an overarching framework to guide the management of all our sites but we recognise that all woods are different and that their management also needs to reflect their local landscape, history and where appropriate support local projects and initiatives.

1. Our woods are managed to maintain their intrinsic key features of value and to reflect those of the surrounding landscape. We intervene in our woods when there is evidence that it is necessary to maintain or improve biodiversity, safety and to further the development of more resilient woods and landscapes.
2. We establish new native woodland for all the positive reasons set out in our Conservation Principles, preferably using natural regeneration but often by planting trees, 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. Where possible, we pro-actively engage with people to help them appreciate the value of woods and trees.
4. The long term vision for all our 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 natural and cultural heritage value of sites is taken into account in our management and in particular, our ancient trees are retained for as long as possible.
7. Land and woods can generate income both from the sustainable harvesting of wood products and the delivery of other services. We therefore consider the appropriateness of opportunities 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 encourage our woods to be used for 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. We maintain a network of sites for long-term monitoring and trials leading to reductions in plastics and pesticides.
10. Any activities we undertake are in line with our wider Conservation Principles, conform to sustainable forest management practices, are appropriate for the site and balanced with our primary objectives of enhancing the biodiversity and recreational value of our woods and the wider landscapes.

## The Public Management Plan

This public management plan describes the site and sets out the long term aims for our management and lists the Key Features which drive our management actions. The Key Features are specific to this site – their significance is outlined together with our long, 50 years and beyond, and our short, the next 5 years, term objectives for the management and enhancement of these features. The short term objectives are complemented by an outline Work Programme for the period of this management plan aimed at delivering our management aims.

Detailed compartment descriptions are listed in the appendices which include any major management constraints and designations. Any legally confidential or sensitive species information about this site is not included in this version of the plan.

There is a formal review of this plan every 5 years and we continually monitor our sites to assess the success of our management, therefore this printed version may quickly become out of date, particularly in relation to the planned work programme.

Please either consult The Woodland Trust website

[www.woodlandtrust.org.uk](http://www.woodlandtrust.org.uk)

or contact the Woodland Trust

[operations@woodlandtrust.org.uk](mailto:operations@woodlandtrust.org.uk)

to confirm details of the current management programme.

A short glossary of technical terms can be found at the end of the plan.

## Location and Access

Location maps and directions for how to find and access our woods, including this site, can be found by using the following link to the Woodland Trust web-site which contains information on accessible woodlands across the UK

<https://www.woodlandtrust.org.uk/visiting-woods/find-woods/>

In Scotland access to our sites is in accordance with the Land Reform Act (of Scotland) 2003 and the Scottish Outdoor Access Code.

In England, Wales and NI, with the exception of designated Public Rights of Ways, all routes across our sites are permissive in nature and where we have specific access provision for horse riders and/or cyclists this will be noted in the management plan.

# The Management Plan

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## 1. SITE DETAILS

### North Wood

Location:	Livingston Grid reference: NT030702 OS 1:50,000 Sheet No. 65
Area:	35.23 hectares (87.06 acres)
External Designations:	Area of Landscape Value
Internal Designations:	Tree For All Site, Welcoming Sites Programme

## 2. SITE DESCRIPTION

Situated between the Dechmont, the A89 to the north and the M8 to the south, North Wood is an important part of the boundary infrastructure of Livingston. The western woodland block provides separation and screening between Livingston and Dechmont village as well as absorbing sound from the surrounding transport routes.

Altitude around the site varies between 135m above sea level in the east, to 180m a.s.l. in the south-west and the aspect generally faces north. The MLURI climate map identifies the area as fairly warm moist lowland and foothill, being moderately exposed with moderate winters. The geology of the area is sedimentary sandstones/ limestones/ shale of the Carboniferous-Dinarian period, and a fault line runs through the eastern corner of the wood. The soils are derived from a glacial till of carboniferous sedimentary sandstones and shale and are generally Rowanhill association brown forest soils with gleying, some gleys are non-calcareous or humic. Rowanhill association soils are characterised by slowly permeable clayey horizons at varying depths between 40 and 80cm.

North Wood was once part of the former Dechmont estate, at which time woodland only existed at the extreme western end of the site as part of the shelterbelt system that extends into the Deans area of Livingston. This part of the wood was associated with the North Lodge of Dechmont House (since demolished). Little is known about the specific history of North Wood yet physical remains of drystone dykes and hedgebanks suggest an agricultural past.

Approximately 33ha of the 35.23ha site is currently (2021) woodland, largely due to the Livingston Development Corporation (LDC) which owned and planted the site from 1962-1996. During this time, the woodland was expanded over to the east of the site and thus much of the trees in this area are a maximum of 60 years old (as of 2021). Throughout the wood, planting has been mainly of single species blocks, most of around 1-2 ha, with very few areas of mixed species. Since acquisition in 1996, the Woodland Trust has been gradually working towards transitioning the woodland to a native broadleaf majority throughout the woodland. Thinning has been carried out throughout to promote stronger growing trees and improve diversity within the single species blocks. Some areas of conifer planting have suffered badly from windblow, these were replanted in 2001 with a mix of native broadleaves and Scots pine. As a result, the current (2021) woodland composition contains approximately equal proportions of broadleaves and conifers. The main species include; Sitka and Norway spruce, Scots and lodgepole pine, sycamore, grey alder, sessile oak, ash, and beech.

Areas with dense conifer stands lack both a shrub layer and understorey. Similarly, to the west of the site there are also areas of *Rhododendron Ponticum* and Japanese Knotweed that are suppressing native ground flora. Following thinning operations, light levels reaching the woodland floor has encouraged some natural regeneration to appear, rowan and ash becoming particularly well established in the understorey. In clear felled areas vegetation is dominated by brambles, rosebay willow herb, bracken and ferns.

North Wood is quite representative of the lowland plateaux region of the Lothians with the combination of improved pasture ground, and remnants of hedgerows and boundary walls within a mixed woodland of a shelter belt formation.

In addition to the woodland cover, the site encompasses an area of semi-improved grassland of over 2ha. There are several rides throughout the site and two cleared wayleaves beneath power lines running through the wood. Gorse is present in these areas providing essential habitat for birds and nectar sources for invertebrates. A small redundant

fire pond is also present within the eastern part of the wood, with a narrow border of emergent vegetation. Other small areas hold water and much of the remaining open grassland is often very marshy.

North Wood offers excellent opportunities for recreation either on foot or by bike. There are approximately 3.8km of maintained footpaths throughout the site, consisting of both mown grass paths and areas that have a firm surface. Although the main path is a linear route through the center of the site, there are opportunities to use mown paths for small loops within the site boundary. Whilst the central linear route from east to west is flat, the site gradually slopes from south to north. Thus, the small circular routes available on site do include some areas where the gradient becomes steeper.

The tarmac tracks that dissect the site north-south at either end of the woodland link to wider networks through Livingstons adjacent woodlands, including Deans Wood to the southwest. This connectivity increases the overall recreational value of the site as well as providing essential wildlife corridors in an urban setting.

Despite its urban location, wildlife can be spotted throughout North Wood including buzzards, song thrush, chaffinches, heron, grey squirrels, roe deer and hare which all travel through the wood. Although the latter the species are known to be present, browsing levels are low due to disturbance from visitors and the surrounding busy roads. The wood is of importance for local biodiversity due to its size and the variety of woodland habitats that are now present, as different stages of the wood develop from open ground to scrub, pole stage and mature woodland.

Amenity value is at times reduced by accumulation of litter and fly-tipping as well as occasional fires. The car park area was closed in 2005 due to constant problems with fly tipping. Although there is currently relatively little deliberate vandalism, illegal access by motorbikes continues.

Towards the centre of the site there is a disused quarry which is fenced off for public safety. The woodland in this area has regenerated over time and is now well established above and below the quarry line. To the south of the quarry there is the water treatment plant which lies outside the Woodland Trust boundary and is managed by Scottish Water.

Management access to the site can be obtained from a number of gates along the northern boundary off the A89. Internally, routes have historically followed rides however, during thinning operations in 2014, additional routes have been created for shorter loops.

### 3. LONG TERM POLICY

North Wood will be managed in line with the Woodland Trust's corporate objectives of improving and enhancing biodiversity, encouraging public access and enhancing people's enjoyment of woodlands. It will be managed as a sustainable natural resource to safeguard its public amenity and biodiversity value.

The long-term vision is to maintain and enhance the woodland areas using continuous cover silviculture, where possible. The woodland will consist of predominantly mixed broadleaves of a mainly native character, with a proportion of Scots pine throughout.

Non-native conifers and heavily shading broadleaves such as beech and sycamore, will be accepted although the intention will be to increase the proportion of mixed native species. Existing mature feature trees will be retained where safe to do so.

Large scale felling intervention will be utilised where windblow or the potential for windblow makes this unavoidable. Elsewhere small-scale thinning and group felling will be undertaken to diversify the canopy's age structure. This will also help to promote natural regeneration and improve light levels for ground flora. Where natural regeneration is not establishing or the species diversity is poor, additional planting of native species will be undertaken. Standing and fallen dead wood will be retained where it is safe to do so.

Improving and enhancing biodiversity within this site will also be achieved by control and removal of invasive non-native species, where it is realistic and practical to do so. For this site the focus will be on eradicating Japanese knotweed and Rhododendron, reviewing the effectiveness of control measures and impact on the recovery of native flora.

The site will also continue to encompass small areas of open ground habitat with the majority of semi-improved grassland in sub-compartment 1h being retained for this purpose (sub compartment map on page 19 of this management plan for reference).

The path network and access facilities will be maintained and upgraded to suit local demand (WT Grade A - high usage) with consideration to the development of West Lothian's Core Path network and further development around Livingston that is likely to impact on levels of use on all paths throughout the site.

Due to the woods location within the central belt and close proximity to large populations, the intention is to use the woods to improve and raise awareness, through education, of the biodiversity, recreation and health benefits woodlands provide.



## 4. KEY FEATURES

### 4.1 f1 Connecting People with woods & trees

#### Description

North Wood is a very well-used woodland located to the north of Livingston. With a population of over 57,000 (according to 2018 census), the woodland is a significant asset for Livingston, providing a valuable outdoor resource for the thriving local population in a highly urbanised area. The level of public use is defined as WT Access Category A (High usage) as it is estimated that a minimum of 20 people use the wood daily. This is a popular woodland walk especially for dog walkers and runners.

Located between the A89 and the M8 and within walking distance of two local train stations, North Wood is easily accessible for visitors. There are nine main public access points around the wood identified with ladder boards, wooden signs or newly installed welcome posts (2020).

Internally, there is a network of approximately 3.8km of maintained paths running the length of the wood, roughly half of which are surfaced with either stone or red blaes material. All paths are mown and 3km of the paths can be very muddy in sections when wet. The main path is linear running through the center of the site from east to west. This path is largely flat and along this route there are 5 benches, two of which are picnic sized, to allow for rest stops and quiet reflection. The terrain gradients undulate and become steeper following mown paths to the north that allow for small loops throughout the woodland which provide more variety. One of these looped sections of the path towards the northern boundary includes an entrance with approximately 8 steps and crosses a deep drainage ditch with a wide bridge that was recently replaced in 2020.

To the west and east of the site the paths of North Wood meet tarmac tracks that lead visitors from the A89 over the M8. These routes link directly onto the Greenway Network within Livingston giving access to long distance routes throughout the region. This includes Dechmont Law which is one of the largest green spaces in Livingston. To the southwest the Nell path links North Wood to another Woodland Trust site known as Deans Wood that is located south of the M8 providing more opportunity for an extended woodland walk.

The only area of the site that is not open for public access is the disused quarry in compartment 1f which has been fenced off for public safety.

Since the Woodland Trust's acquisition of North Wood, replanting efforts have included volunteer groups, community tree planting sessions and planting with corporate partners such as Nationwide and Premier Paper in 2015-2016.

Other previous community engagement has included the Branching Out West Lothian (BOWL) project which ran from 2007-2009. Collaboration with NatureScot, Forward Scotland and West Lothian Council, this project, funded by the National Lottery Heritage fund, enabled children and teachers from local schools to learn about woodlands, biodiversity and improve access in West Lothian sites. The project involved 46 schools across the county and enabled over 1,000 children to plant trees. During this project, the schools created a replica of the 'Hollywood' sign - which spelt out North Wood in large wooden letters. This was located in compartment 1g and was visible from A89. Due to natural regeneration and the planting conducted during the project the letters are no longer visible.

There are currently two Volunteer Woodland Wardens that cover the site, conducting regular patrols, litter picking and providing reports of any issues in the area. A Woodland Working Group (WWG) was also set up for the Woodland Trust sites in Livingston during late 2019. The aim of this group is to conduct practical conservation tasks across the 13 Woodland Trust sites in the area, including North Wood. The ability to run the group was impacted significantly by the governmental restrictions enforced in response to Covid19 during 2020 and 2021. Nevertheless, North Wood provides various opportunities for future volunteer tasks across the site.

Locally a group known as 'West Lothian Litter Pickers' has been created by enthusiastic volunteers. Although this is an independently managed group, the members do cover many of the Woodland Trust sites in Livingston, including North Wood, and elsewhere in West Lothian. Their work helps to keep the sites clear of rubbish as well as encouraging community engagement for the sites and reporting any issues of concern.

There is no on-site car park, though on-street parking is available in the nearby resident area of Dechmont. Parking for events can be available through request from West Lothian Council for approximately 15 cars on a tarmac surface to the east of the site. Access through a padlocked vehicle barrier from the northern side of the site just off the A89 is required to access this area.

### **Significance**

Woodland of this size and composition is a rare feature in the urban landscape around Livingston and therefore the site provides a chance to promote access to a safe, natural environment close to where people live.

North Wood is a popular local wood accessible to a large demographic of people and easily reached with or without transport.

It is walked regularly by local dog walkers and commuters and forms an essential part of the local access network, providing varied and alternative routes to pavements, as well as linking to longer distance routes.

The local community value the trees as a noise and sight barrier to the M8 and the wood provides a much-needed natural space for relaxation and recreation in an urban area.

A reported sighting of a UFO in 1979 in Dechmont law is of local cultural significance.

### **Opportunities & Constraints**

#### **Constraints**

Anti-social behavior such as fires and motor-bike use are damaging infrastructure such as benches, paths and the natural environment as well as presenting a safety hazard to visitors. Additionally, fly tipping and litter are also regular occurrences on site and are detrimental to the natural beauty of this woodland and can be hazardous to visitors and wildlife.

Linear nature of site constrains potential for large circular routes within the site.

No formal car parking can cause problems with neighbours due to visitors parking on the local

roads. This can be difficult for public events on the site.

The noise from the M8 and A89 can detract from the wood's tranquility.

A main cycle route runs on a tarmac surface parallel to A89, thus promoting people to walk/cycle along this route rather than through the woodland.

#### Opportunities

To further develop access facilities within the site such as benches, responding reactively to user demand.

Multiple areas of the path are suffering from poor drainage and other areas have become narrow over time.

Opportunity to upgrade the paths to provide a consistent surface and width across the whole site to improve access for buggy/wheelchair-friendly use.

Tree planting opportunities with local community and partners following felling operations.

Small scale events with local schools (such as Dechmont infant school) and community groups to further promote and use the woodland as an educational resource.

Opportunity to improve infrastructure within woodland by promotion to TCV green gyms, Park Run and Paths for All to use the area.

Opportunity to develop the volunteer group to become more self-led.

Proximity to other Woodland Trust sites close by allows for potential to group works (such as footpath upgrades) together to be more efficient and cost effective.

#### **Factors Causing Change**

Continuous litter and fly tipping detract from the natural beauty of this site and fires could cause long-term environmental damage.

New housing development underway at Bangour Village will increase use of the site, resulting in greater pressure on paths and consequently additional maintenance requirements. The installation of a new roundabout is also likely to alter the usage of some entrances on the northern boundary.

New cycleway running along the A89 may increase bike usage on site.

Lack of appropriate maintenance has allowed for grasses to grow over the edges of surfaced path causing them to narrow over time.

### **Long term Objective (50 years+)**

There will be a well-maintained network of paths and rides with a variety of aspects allowing safe access across the site. The site should be accessible, safe and welcoming with management of infrastructure and signage. It will also act as a sound barrier to the busy M8 and A89.

Litter and fly-tipping will be removed as far as resources allow, to maintain the natural appearance of the wood and discouraging further abuse of the woodland.

The site should be well used, appreciated and respected by the local community. It should be known for its wildlife interest, varied landscape and habitats.

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

During this plan period, the short term objective is to continue to provide public access at North Wood which is safe and enjoyable. Access provision for this site will be in keeping with WT access category A (high usage). This will be achieved by:

1) The site will be kept in a safe and welcoming condition through site maintenance:

- a) Path cuts and entrance maintenance (twice annually)
- b) Vegetation cutbacks from path to allow lines of sight where possible and appropriate (as required)
- c) Litter and fly tip uplift (as required)
- d) Regular site safety inspections (tree safety, footbridges, steps, benches, fencing) (as per site risk assessment)
- e) Estate furniture to be repaired as required (2021-2026)
- f) Periodically put up temporary signage regarding fly tipping (2021 onwards)

2) Improving visitor access by upgrading infrastructure:

- a) Benches- Six new benches to replace those put in by the Livingston Development Corporation and additional one for the Bangour hospital viewpoint (2022/2023)
- b) Steps- Resurface steps located in northeastern entrance to compartment 1g (2021/2022)
- c) Paths- Scrape back and resurface the linear route through the site- approximately 3km of path covering sub-compartments c, d, e, g, i, j, k including appropriate drainage (2023)
- d) Consider the installation of site welcome boards with maps once the path upgrades are completed onsite and in the wider path network (2024/2025)

3) Providing and developing more opportunities for community engagement:

- a) Liaise with the local community council to support events and volunteering (2021 onwards)
- b) Events
  - i) Community day - to explore and educate the public regarding tree management on site (2022/2023)
  - ii) Run third party practical task days on site annually (2022 onwards)
- c) Develop and recruit new volunteering roles to support ongoing management, encourage wider use and deeper knowledge of the site and its visitors:
  - i) woodland working group leader volunteer to enable the Livingston group to run more efficiently and frequently (2022)

## 4.2 f2 Secondary Woodland

### Description

Covering approximately 33ha, the woodland at North Wood appears to increase in age from east to west. The most mature specimens were part of the former Dechmont estate and are thought to date back to the mid-19th century. The majority of the canopy cover was planted in the 1960s as part of the LDC's land management for sheltering neighboring residential areas. It continues to function as a significant feature in the local landscape providing screening between the motorway and Livingston and Dechmont village.

Throughout the wood, planting has been mainly in single species blocks of around 1-2ha with very few areas of intimately mixed species. The overall mix of species contains approximately equal proportions of broadleaves and conifers, though this is changing as conifers are gradually replaced with native broadleaves. There is a significant variety of species present including; Sessile oak, pedunculate oak, ash, wild cherry, rowan, silver birch, downy birch, hazel, hawthorn, blackthorn, crab apple, holly, elder, willow, dog rose, dogwood, alder, aspen, sycamore, beech, hornbeam, lime, elm, Sitka spruce, Norway spruce, larch, lodgepole pine and Scots pine. This suggests that the soils and landscape of North Wood can support each of these species which provides more flexibility when considering suitable species for restocking following felling works. However, areas of dense conifers, beech, sycamore and *Rhododendron ponticum* restrict light levels and suppress natural regeneration.

Restructuring of the monoculture woodland composition has been gradual since the acquisition of this site in 1996. Areas of sub-compartments a, i and k were clear felled in 1999-2000 and replanted with mix native species, now well established.

Thinning operations occurred in 2014 including, compartment 1b which was replanted in 2015. More restocking occurred in the east of the site with compartments 1a and 1e also replanted in 2015. Currently (2021) the majority of these area remain quite open but the planting is gradually becoming more well established.

Hazel planted within compartment 1e has become well established to the point where it requires coppicing along the path edges. Last cut in 2020, this may become a suitable regular volunteer task for the WWG in future years to maintain access through coppicing.

Largely mono-species blocks remain in sub compartments 1e and 1j which still require significant restructuring to allow for a more species rich woodland. Likewise, other sub compartments such as c, k and i are not necessarily dominated by native conifers but they still lack variety in species and age structure and would benefit from thinning works.

Compartment 1d is a perfect example of the need for variety as this 50 year-old stand of ash has been impacted by significantly from Ash Die Back (ADB), also referred to as Chalara. The fungus has become so extensive at such a rapid rate that whilst this area was formerly scheduled for a 10% thinning now (2021) requires a clear fell. This area will then be restocked with mixed native broadleaves after the clearing of ash. This will provide a diversity within this area to support the natural regeneration that is currently dominated by ash and beech here.

Other pest and diseases have also been identified within the site vicinity included *Phytophthora ramorum* which was confirmed on the M8 slip road woodland block managed by Amey. A Scottish Health Protection Network (SHPN) notice was served, meaning that the infected larch had to be felled by February 2018. North Wood was within the 2500m

buffer zone but did not have to undertake any felling as no larch was present within the buffer zone.

Invasive species of *Rhododendron ponticum* and Japanese knotweed were also identified in the western side of North Wood and mapped in 2020. The former is particularly dense within compartment 1l with a couple of isolated pockets also found in compartment 1k. This species is casting shade under areas of oak woodland compromising the ability for ground flora to grow and for oak to naturally regenerate. Japanese knotweed has been found in the northwestern tip of the site and also present and spreading outside of the Woodland Trust boundary on neighbouring land.

Whilst there are still large areas of North Wood requiring significant restructuring, an approach of minimum intervention will be used for compartment 1f. As a now disused quarry, the woodland in this area is mostly natural regeneration rather than former plantation. Considering this and its lack of access, it likely to be left undisturbed for the foreseeable future other than for health and safety work.

Dead wood habitat is minimal with only a few standing trees and large fallen trunks typically of mature relic beech to the west or windblow conifers. Where felled material is left on site to decay for wildlife, timber is left in large sections to avoid fire lighting on site.

As of 2021 the current open space across the whole site stands at approximately 9.64ha equivalent to 27.4% of the site's full size. This includes areas that have been previously felled and areas that have been left open for wayleaves and footpaths. Due to restocking, particularly to the east of the site, this figure will reduce as these trees become established. Nevertheless, over half of all open space is located towards the center of the site (16%). As part of the Woodland Trust 'Trees For All' campaign, during 2005-2009, compartment 1g was planted with a mix of native species. These trees have become partly well established to the east of this compartment. Nevertheless, the west has been left more open to accommodate the clearance space required for the power lines above. Whilst the percentage of the open space to the east of the site may fluctuate due to felling and restocking, this is likely to be retained as open semi-improved grassland due to numerous wayleaves present in this area. Planned felling and restocking operations will cause the percentage of open space on site to fluctuate over time.

Areas previously clear fell have been opened quickly and often result in coarse vegetation such as bracken and brambles becoming dominant. Although the presence of this coarse vegetation helps to protect new trees from browsing, the high density of these species also restricts floral diversity. Consequently, the dominant floral species across the woodland include brambles, rosebay willow herb, ferns such as buckler, nettles and occasional tormentil, honeysuckle and wild raspberry. The open grassland of compartments 1g and 1h have more variety with thistles, gorse and broom present as well as juncus in the more marshland areas. There are multiple small areas of water present on site including drainage ditches and a small redundant fire pond in compartment 1d. These small pockets of wetland habitat allow for floral diversity.

As part of reinstatement works following emergency gas operations in early 2021, wildflower seeds were sown in compartment 1b next to the tarmac track towards the east of the site.

There are minimal species records for this site. Nevertheless, buzzards, chaffinches, grey squirrels, roe deer, hare, and song thrush have been seen in the area.

## Significance

The wood is a significant feature of the local landscape and provides screening between the M8 motorway to the south and housing developments to the north. It forms the northern edge of Livingston, separating Dechmont village from the larger town.

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The woodland is important for local biodiversity as a refuge from the built-up urban area and surrounding infrastructure.

This is the largest Woodland Trust site in Livingston and has potential for significant improvement through restructuring.

North Wood is important locally providing variety within the wider landscape and is included within the Area of Landscape Value.

## Opportunities & Constraints

### Opportunities

To further increase biodiversity through continued thinning operations to establish a mixed aged, mixed species, predominantly native broadleaved woodland, more resilient to exposure and climate change.

It is a great opportunity to see the change from conifers to native broadleaves through felling and re-stocking within the site. Furthermore, due to the easy access for vehicles to and throughout the majority of North Wood, significant felling and extraction works would be realistic and efficient for this site.

Proximity to other Woodland Trust sites close by allows for potential to group works (such as felling) together to be more efficient and cost effective.

Opportunity to train volunteers in hazel coppicing for compartments 1a and 1e in particular- this will to boost resilience of the species, extend the lifespan and contribute to biodiversity as well as maintaining access throughout these compartments.

Once rhododendron is removed from compartment 1l, significant ground will be opened up- opportunity to enrichment plant this with local oak acorns from the site to help the native species outcompete the heavily shading beech present.

Considering the presence of ADB and planning felling, there is the opportunity to retain deadwood in some areas to increase this habitat across the site.

There is the opportunity to trial techniques on this site for enrichment planting of additional native ancient woodland species of ground flora that have minimal chance of arriving naturally.

## Constraints

The presence of multiple footpaths as well as proximity to roads and pavements restricts scope for retaining windblow and standing deadwood in some areas.

Presence of way leaves across the site restricts suitable planting areas for large species such as oak. However, the presence of these services also ensures areas are left open to allow for more of a mixed habitat on site, supporting more biodiversity.

Squirrel damage and deer browsing are threats to young regeneration and planting on site. Whilst the urban location causes disturbance for these species and helps to limit impact in some areas, the urban locale also restricts the suitability and efficiency of possible control methods. With this in mind, no management of these species will be undertaken for the foreseeable future and further investment will be required to replace browsed or damaged trees.

Due to the urban location of North Wood, within close proximity to multiple small woodland areas in Livingston, invasive species and diseases present elsewhere in Livingston are likely to be aided by people, spreading seeds or spores in soil on their footwear.

Proximity to the M8 requires a buffer zone to be maintained particularly towards the southeast where planting of larger species such as oak should not be planted close to the boundary in order to avoid future conflict as species develop.

## Factors Causing Change

Deer browsing, squirrel and rabbit damage all present and may contribute to potentially suppressing natural regeneration and continued healthy growth of established trees.

The continued development of the A89, M8 and surrounding housing will encourage an increased use of the area and subsequently impact on local air quality and tree health.

Whilst the SHPN covered an area of North Wood without larch present in 2018, *Phytophthora ramorum* is likely to continue to spread. This could impact other areas of the site that do contain larch such as compartment 1e.

*Phytophthora cambivora* has also been recorded on another Woodland Trust Livingston site (Dedridge Wood, compartment 42a). This disease could also spread to North Wood and would be a particular concern for the mature beech and oak.

The large mature beech trees which are such a feature in the West Lothian landscape tend to be of a similar age and are now subject to ongoing senescence. They are becoming increasingly vulnerable to storm damage and disease which is becoming a challenge to deal with in terms of tree safety and also maintenance of the treed landscape. This is expected to become even worse in coming years which would particularly impact on compartment 1l as this area encompasses the majority of mature beech at North Wood.

Ash die back (ADB) is present on site and throughout Livingston. Due to the high proportion of ash at North Wood, this disease will have a significant impact on the composition of this woodland. This will increase the volume of standing deadwood in areas where it is suitable to retain declining individuals (i.e. away from roads and footpaths). Some areas



will require active restructuring for safety such as compartment 1i. The open space following felling could be utilised by sycamore and beech or native species. This should be monitored to determine if enrichment planting may be required in certain areas in the short term or halo thinning in the medium to long term. Due to the prevalence of ADB, Ash will also not be included within restocking. Therefore, its density on the site overall is likely to decline in the long term.

Any significant felling, such as safety works for ADB, will result in exposure for remaining woodland blocks and could result in a loss of canopy cover in some areas if numerous trees become uprooted. Furthermore, most of the spruce and larch planted as part of LDC landscaping is reaching its terminal height at which it is vulnerable to windblow. Any felling works should be planned with a conscious consideration of mitigating this issue where possible.

Rhododendron ponticum and Japanese Knotweed have been mapped on site in 2020 and are also present on neighbouring land outside of the Woodland Trust boundary. If this is not removed this invasive species could continue to spread at the detriment to natural regeneration, woodland specialist flora and overall biodiversity across the site. Leaving any amount of the species within proximity to the site could result in re-infestation of this invasive species in the long-term.

Wind throw is common on this site due to the exposure from open transport links located to the north and the south. It is also exacerbated by the presence of highly susceptible young trees and low-rooted species such as lodge pole pine which lack the stability of mature broadleaves. This issue reduces the ability for trees to reach maturity as well as causing a health and safety risk.

#### **Long term Objective (50 years+)**

To create and maintain a diverse, mixed age and mixed species woodland habitat in perpetuity. As the historical management of monoculture planting has resulted in a lack of age diversity across the site, thinning and planting regimes must be conscious to not further exacerbate this problem. Mature specimens should be left to decline and operations should be gradual where possible and appropriate to allow for more age complexity throughout the woodland. Species composition will be mostly native though a proportion of conifers will be accepted. Improvements to the canopy should help towards supporting a variety of ground flora communities.

Whilst woodland cover is expected to gradually expand in the long term through natural regeneration, at least 10% of the site is to be retained as open ground.

The woodland composition will be dominated by native species across all compartments and biodiversity will be safeguarded by controlling the spread of invasive non-native invasive species where practical.

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

The focus of the STOs for North Wood will be to improve biodiversity and resilience on the site through the following objectives:

1) Improve light conditions to enable recovery of regeneration and ground flora currently under dense conifer/beech canopy. This will be achieved by thinning and selectively felled in the following compartments, subject to obtaining felling licenses:

a) Fell ash in compartment 1d (approximately 266 trees) and 1k (approximately 80 trees) due to extensive decline from ADB and selective fell of Norway spruce in compartment 1k (approximately 110 trees) at the same time as ash removal

to restructure compartment (2022)

b) Thinning of beech and conifers (Sitka spruce, Norway spruce, lodge pole pine and larch) in (2025/2026):

i) compartment 1d (approximately 30% thin of total of the named species present in an area of 3.40ha)

ii) compartment 1e (approximately 30% thin of total of the named species in an area of 1.58ha)

c) Consider thinning operations for compartments 1j, 1k and 1l for the next planning period (2026 onwards)

d) Leave standing deadwood as an important wildlife habitat where possible and appropriate

2) Increase species diversity by enrichment planting to supplement natural regeneration will be facilitated by restocking and enrichment planting:

a) Enrichment planting

I) Northeastern area of compartment 1g to help stabilise the bank and provide diversity other than ash (approximately 100 trees) (2022-2023)

II) Compartment 1l where *Rhododendron ponticum* has been removed to ensure a mix of native species dominants in the area over excessive beech and conifers (2023/2024)

b) Restocking

I) Compartments 1d (approximately 1,400 trees) and 1k (approximately 1,000 trees) following ash felling- assess suitable areas for planting considering shading density of sycamore and beech.

II) weed all planted areas annually

III) monitor success and organize for beat up as required

3) Annually assess natural tree regeneration and planting areas, observing browsing impact and identifying need for additional protection in 2015 planting 1a, 1b and 1e annually and if occurrence of browsing threatens successful establishment then consider alternative protection to virgin-plastic tubes such as:

I) Removing and reusing redundant tree tubes in compartment 1a, 1b, 1i and 1j with volunteers (2022-2023)

II) Creating corral structures with volunteers using felled ash and coppiced hazel to discourage deer browsing and allow for monitoring plots (2021-2023)

4) Work towards the eradication of Japanese Knotweed and *Rhododendron Ponticum* during this plan period:

a) *Rhododendron* removal in compartments 1l and 1k (1.3ha) by cutting and treating stumps with herbicide during winter (2021)

b) Japanese knotweed in 1l through stem injection where possible and spot treatment for smaller regrowth from July-September (2021)

c) annual assessment of the areas and organise follow-up treatment for regrowth as required (2022-2026)

d) Establish partnership working to eradicate invasive species from neighbouring land. Areas that present a possible source of reinfestation in compartment 1l should be scheduled for removal by the end of the plan period (2026).

5) Maintain and develop floral diversity by:

a) Retaining open ground in compartments 1g and 1h- exclude from any replanting operations during this planning period (ongoing)

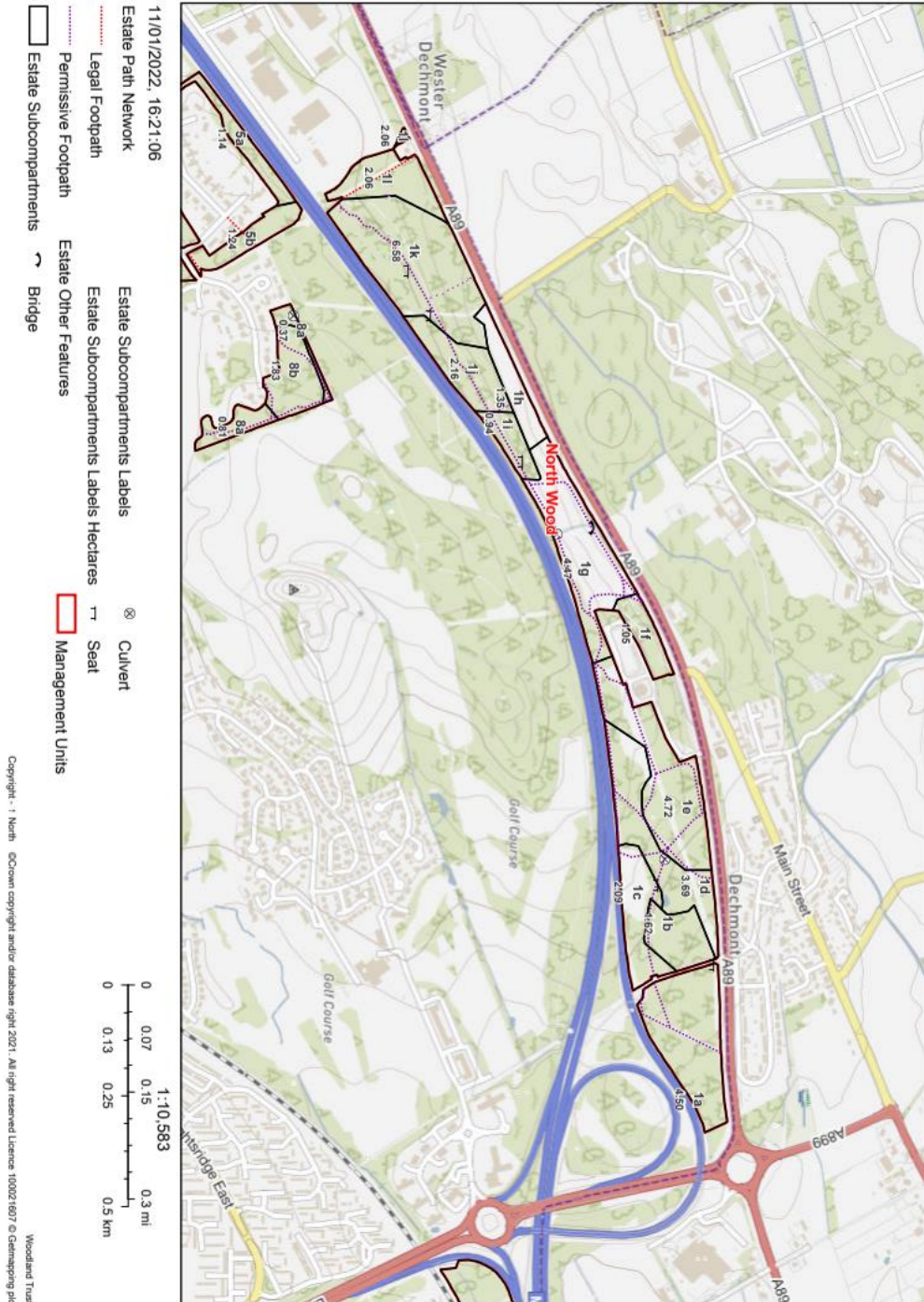
I) Assess the condition of open ground at the end of the plan period to ensure tree cover does not establish on more than 10% of the current open ground (2026)

b) Assess current ground flora across the site in spring/early summer- identifying areas of biodiversity and sections that could benefit from enrichment planting (2022-2023)

i) Monitor compartment 1b next to tarmac track to see progress of wildflower seeding (2022 onwards)

# 5.SUBCOMPARTMENT MAP

North Wood sub compartment Map



## APPENDIX 1 : COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
1a	4.52	Mixed native broadleaves	1970	Wood establishment	Services & wayleaves	
<p>The south west of this compartment was clear felled in 1999/2000, and replanted with mixed broadleaves and Scots pine in 2001. This area is now well-established with species including; sessile oak, ash, silver birch, Scots pine, wild cherry, hazel and hawthorn. The western boundary of this compartment includes multiple mature beech trees and a stand of mature, thinned Scots pine.</p> <p>The northern boundary of this compartment borders the A89. Previously this area was dominated by Sitka spruce, Norway spruce and sycamore. Felling works in 2015/2016 opened up this woodland from the north side and were planted with mixed native broadleaf species in 2015/2016. Strips of mature Sitka and Norway spruce remain bordering main roads to the east and south with woodland to the west. Sycamore remains the dominant species naturally regenerating with hawthorn, beech, elder, ash and rowan also present. A band of semi mature sycamore with occasional beech to the west of path as well as to the south with the narrow strip along the southern boundary of compartment one with the slip road off the M8.</p> <p>Ground flora of soft grasses, broad buckler fern, brambles and rosebay willowherb were light allows. Honeysuckle is also present in some areas. Deadwood levels are adequate throughout made up of branch wood from previous felling works and occasional deadwood in the crowns of older trees and windblown sycamore.</p> <p>There is approximately 1km of soft mown footpath running through this compartment with an open entrance to the south west and a fenced entrance with a squeeze gap to the north.</p>						
1b	1.6	Mixed native broadleaves	2016	Wood establishment	Services & wayleaves	
<p>New native broadleaf planting occurred 2015/2016 following clear fell operation. This replaced 3 stands of Sitka and Norway spruce, with occasional lodgepole and Scots pine. Both stands had tall drawn stems with small crowns following a prolonged period before being thinned.</p> <p>Ground flora consists mainly of brambles, rose bay willow herb and broad buckler fern. Occasional deadwood throughout following previous thinnings.</p> <p>A gas pipeline runs underground along the eastern edge of this compartment. This area was dug up during emergency works in early 2021 and reseeded with mixed grass and native wildflowers.</p>						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
1c	1.78	Scots pine	1970	High forest		
<p>The east of this compartment is dominated by stands of mature thinned Scots pine. Moving west, Norway spruce becomes more dominant with occasional lodgepole pine, Sitka spruce, sycamore and hornbeam. Understorey in most of these stands in good with occasional rowan, birch, sycamore and hawthorn. Ground flora includes, ferns and rosebay willow herb with abundant bramble throughout. There are some fire damaged trees, especially in the eastern most stand. The start of the linear footpath route begins in this compartment and there is a bench present within this compartment.</p>						
1d	4.66	Ash	1970	High forest		
<p>Three single species blocks of planting containing sycamore, ash and alder. Understorey of occasional ash and sycamore regeneration and elder. Ash die back is a significant problem in this area- with at least 60% in significant decline by the summer of 2020. To the south towards the M8 there is a border of mature conifers and moving north there is beech regenerating around the declining ash. Ground flora includes bramble, soft grasses, dog rose and rosebay willow herb. Occasional small deadwood. There is a small pond within the sub-compartment, towards the eastern end of the main block located away from the path. A picnic bench also located beside the path within this sub compartment. This includes an area of open ground due to a wayleave running east/west occupied by a Scottish Power overhead lines.</p>						
1e	4.07	Mixed conifers	1970	Wood establishment	Services & wayleaves	
<p>Mixed stands of Lodgepole pine, larch, Sitka spruce and Scots pine. Mixed broadleaves planted in 2002 comprising of ash, sessile oak, Scots pine, rowan, aspen, hawthorn and hazel to replace a stand of larch and lodgepole pine windblow cleared in 2001 - a few of these remain along the northern boundary.</p> <p>Whilst areas under dense Sitka spruce remain bare, elsewhere ground flora consists of abundant bramble, elder and honeysuckle and occasional hawthorn, holly, alder and regeneration of ash and sycamore. Soft grasses, with ferns and rosebay willow herb. Deadwood is present throughout the compartment from previous felling operations as well as windblow.</p>						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
<p>The water treatment facility is situated to the northwest of this compartment outside of the Woodland Trust boundary.</p>						
1f	0.99	Mixed native broadleaves	1970	High forest	Services & wayleaves	
<p>This compartment includes the disused quarry that is fenced off to the east and the west for public safety. There are no footpaths or entrances to this compartment. The water treatment facility is situated immediately to the south of this compartment outside of the Woodland Trust boundary. Species present include Scots pine, beech, hazel, elm, birch, ash, hawthorn, larch, holly, sycamore, with gorse present in the understorey. Good levels of standing and fallen deadwood throughout.</p>						
1g	4.25	Mixed native broadleaves	2009	High forest		
<p>Originally part of the semi improved grazing field, 3ha has now been planted between 2005-2009 under the Tree for All campaign with a mix of Sessile oak, ash, wild cherry, rowan downy birch, hazel, hawthorn, blackthorn, crab apple, holly, elder, willow, dogwood and Scots pine. Ground flora dominated by grasses with thistles, rushes and nettles. Gorse also abundant and spreading at the east end by the water treatment works.</p> <p>Wayleaves for two water pipes and two overhead powerlines also run through the compartment. The footpaths within this compartment are unsurfaced and uneven in some places and include a wide bridge and steps to the north. The former 'North Wood' letters were previously located within the west of this compartment.</p>						
1h	1.54	Open ground	1970	Non-wood habitat	Services & wayleaves	
<p>Semi improved grassland with juncus, thistles and nettles with marshland pockets particularly to the west. There are two wayleaves for water pipeline and overhead power lines that run through the compartment restricting the options for additional planting in this area. This is the only large area of open ground habitat in this woodland site. There are no footpaths through this compartment.</p>						
1i	1.25	Sycamore	1970	High forest		

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
<p>Good levels of deadwood throughout made up of partially mulched material following clear fell in 1999/2000. Occasional windblow is also present. The current composition is dominated by Sycamore with high densities of beech to the south. Mixed broadleaves (sessile oak, ash, silver birch, wild cherry, hazel and hawthorn) and Scots pine were planted in 2001. However, these species are confined to the northern western edge bordering compartment 1h and have not become established throughout the rest of 1i. Due to threat of rabbit browsing, trees were planted in tubes which now (2021) require removal. The regeneration is dominated by sycamore with occasional Sitka spruce, elder and holly and individual conifers present in the understorey.</p> <p>Ground flora of soft grasses, dominated by brambles, ferns and mosses. There is also small pool of water just north of the path towards the centre of this compartment which may be fed from drain water off the motorway.</p> <p>The path throughout this compartment is a hard surface that would benefit from the installation of cross drains in some areas. There is also a bench positioned on the higher ground to the south which is located towards the east of the compartment.</p>						
1j	1.99	Mixed conifers	2016	Wood establishment	Services & wayleaves	
<p>To the south of this compartment there are stands of semi-mature Scots pine and poor semi mature lodgepole pine, thinned in 2006. Moving northwards, the canopy composition is dominated by mature Norway and Sitka spruce, thinned in 2004. Native species can be found following along the northern boundary of this compartment with a mature hedgerow of hawthorn located to the east of the drystone dyke. Additional mixed broadleaves including sessile oak, ash, silver birch, hazel and Scots pine were also planted in this area during 2001. The tubes for these trees now require removal (2021). Regeneration includes beech, sycamore, elder, rowan and ash.</p> <p>Heavy shading caused by dense spruce canopies has resulted in limited ground flora of mosses and ferns. Deadwood includes standing and fallen deadwood as well as windblow and branchwood left following previous thinning.</p>						
1k	6.86	Beech	1970	High forest	Services & wayleaves	
<p>There is access to this compartment from the A89 with an entrance to the north including timber fencing and ladder board. There is a wide soft surface track that mown and leads from this entrance uphill to meet with the main linear path. There is room for two parked cars between this fencing and the pavement.</p> <p>The number of different species present within this compartment is deceptive as the planting from the 1970s has</p>						



Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
<p>resulted in multiple mono-species blocks rather than a significant mix. To the north there are some remnants of the mature hawthorn hedgerow in front of a strip of Sitka spruce followed by groups of ash, beech, Scots pine and sycamore moving to the south. The southern boundary next to the M8 was replanted in 2001 with native mixed broadleaves; ash, sessile oak, rowan, aspen, hawthorn, hazel Scots pine. This was to replace the stand of mature Sitka and Norway spruce that was felled in 2000 to allow for restructuring.</p> <p>Dominant regenerating species are beech, sycamore and ash with occasional elder, holly, elm, rowan and goat willow also present in the understorey. Rhododendron ponticum present in small pockets to the south. Ground flora of raspberry, patchy soft grasses, ferns and tormentil with mosses and lichen also present. Good levels of fallen deadwood, mainly remnants from early thinnings with some recent windblow and occasional standing deadwood.</p> <p>To the east of this compartment a drystone dyke runs north from the path down to meet the boundary with compartments 1h and 1j. Beech is the dominant species east of the dyke with minimal understorey beneath and instances of wind blow present. A strip of open ground runs from the south west corner of compartment 1h continuing south west to the west edge of 1j. A picnic bench is located beside the path within this open corridor.</p>						
1l	1.73	Mixed broadleaves		High forest		
<p>There are two entrances to this compartment identified with ladder boards either side of a tarmac track with streetlights that runs through the centre of this compartment from north to south following the Nell path network into Deans wood south of the M8.</p> <p>Stand of mature broadleaves, dominated by sycamore, beech, ash, pedunculate oak, particularly to the west with occasional lime and horse chestnut to the northeast. Other species present include such as holly, hazel, rowan, ash, birch, Scots pine and hawthorn.</p> <p>The understorey includes frequent rhododendron ponticum either side of the tarmac track and Japanese knotweed was also identified in the far northwest of this compartment. Ground flora of soft grasses, nettles and ferns as well as ivy present in the southwestern corner. Good level of fallen deadwood with occasional dead wood in the canopy.</p>						



### **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.

**Windblow/Windthrow**

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

**Registered Office:**

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