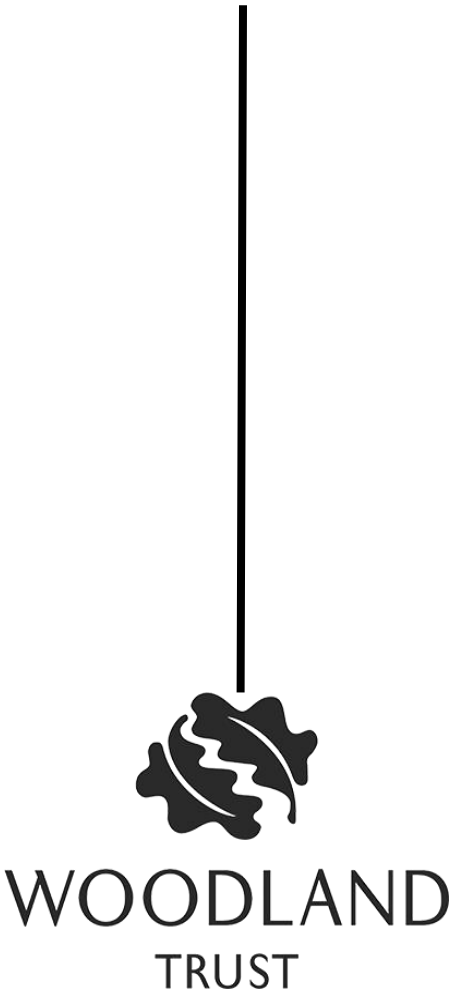
Loch Arkaig Pine Forest

(Plan period – 2025 to 2030)



Management Plan Content Page

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

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

or contact the Woodland Trust

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

1. SITE DETAILS

Loch Arkaig Pine Forest

Location:	Spean Bridge Grid reference: NN147877 OS 1:50,000 Sheet No. N/A
Area:	1027.31 hectares (2538.54 acres)
External Designations:	Ancient Semi Natural Woodland, Planted Ancient Woodland Site
Internal Designations:	Demonstration Site - Gold

2. SITE DESCRIPTION

The Loch Arkaig Pine Forest consist of two separate woodland areas known as Glen Mallie & the Gusach, extending to over 1000 ha, which lie on the South side of Loch Arkaig to the west of the small communities of Achnacarry, Bunarkaig and Clunes in Lochaber. They are part of a larger area of remnant Caledonian Pinewood Inventory woodlands centred on Glen Arkaig, covering a total of approximately 4900Ha (including the buffer zone). Loch Arkaig Pine Forest is central to the collaborative vision to recover and reconnect these fragmented ancient woodlands through Glen Arkaig with the Beò Airceig - Living Arkaig - partnership between their owners; Woodland Trust, Arkaig Community Forest, Achnacarry Estate and Forestry and Land Scotland. The woodlands consist of remnant stands of Caledonian Pine, upland birch woodland, upland oak woodland, wet woodland and significant areas of PAWS.

The Loch Arkaig Pine Forest was acquired in partnership with Arkaig Community Forest SCIO (ACF) who have ownership of two specific areas of woodland - totalling around 53 hectares. The ACF ground comprises a lovely area of restored native pinewood at the western end of the Glen Mallie forest block, as well as an area of partially-restored pine and birch woodland around a long-abandoned settlement known as Ard Nois in the Gusach. Both ACF areas are contiguous to Woodland Trust ownership. There is close collaboration over the management of the whole site between the two organisations, which is underpinned by a Memorandum of Understanding and overseen by an Advisory Board.

The Loch Arkaig Pinewood site is one of 35 native pinewood sites first identified by Steven and Carlisle in their book The Native Pinewoods of Scotland (1959) which described in great detail the history, vegetation, silviculture and ecology of the most genuinely native and semi-natural pinewood sites in Scotland. Further work by Tuely (1995) identified 84 Caledonian Pinewood Inventory (CPI) sited in Scotland – subdividing some of the larger sites, such as Loch Arkaig into multiple sites/stands – and covering 18000 Ha in total. There are a total of eight mapped units linked by the CPI buffer zone covering the entire south side of Loch Arkaig, stretching to Loch Lochy at Bunarkaig, the upper reaches of Glen Mallie, including Puiteachean pinewood (SSSI) in neighbouring Glen Loy as well as Allt Dubh on the North shore of Loch Arkaig and the dark mile.

Loch Arkaig lay at the heart of the 1745 Jacobite rebellion and Bonnie Prince Charlie is thought to have hidden in the forest after defeat at the Battle of Culloden. In 1746 gold sent from Spain to support the rebellion was said to have been hidden in the forest and, still undiscovered, has become known as the treasure of Loch Arkaig or the Jacobite gold.

Between 1942-1946, due to its isolation, the forest, along with Achnacarry Castle, (the ancestral home of the chiefs of Clan Cameron), was used as the training ground for Churchill's Allied commando units in World War II, recognized by the nearby Commando memorial. The Clan Cameron Museum near Achnacarry House is a place of pilgrimage for Clan Cameron members around the world, and traces the Clan's history for 27 generations, back to the 14th Century. The current Chief of Clan Cameron continues to live at Achnacarry Castle.

The ancient pine woods of the Scottish west coast, such as those found at Loch Arkaig, are part of the vast boreal forests which encircle the northern hemisphere and, due to their very high rainfall, are part of what's known as temperate rainforest.

The forest is home to a large number of iconic veteran Scots pine trees as well as some of Scotland's most high

profile species, including nesting sea eagles, ospreys, otters, pine martens, red squirrels, red deer and black grouse. Pinewood plant life is often dominated by acid tolerant plants like bell heather, blaeberry and cowberry, amongst which grow more delicate flowers such as coralroot orchid.

Anthropogenic impacts on this ancient landscape have been significant. A fire started in the glen by commando training operations during World War II, severely damaged large swathes of forest, leaving behind hundreds of charred pine skeletons that still dominate the landscape. The historic exploitation of timber, planting of non-native trees, and overgrazing by deer and sheep, have all left Loch Arkaig pine forest degraded and the remaining fragments in decline.

The main population centre of Fort William – 'the outdoor capital of the UK' is situated 15 miles to the south at the end of the Caledonian Canal. It is a major destination for tourists as well as the area's major employer with an Aluminium smelter and BSW's sawmill. There is a small Forestry and Land Scotland car park at Cia-Aig falls which facilitates visitor access to the site. There are currently no formal paths within the forest other than a forest track which runs from the White Bridge into Glen Mallie.

3. LONG TERM POLICY

Loch Arkaig Pinewoods will be fully restored native Caledonian Pine woodland standing as a beacon of good practice in nature conservation, and bringing social and economic benefits to the local community.

Towards that vision, management interventions will create the conditions where natural ecological processes can return – lessening the need over time for further management interventions. Removal of non-native conifer plantation and invasive plants in conjunction with management of the deer population to a natural level will allow the recovery of natural habitats.

Ultimately we would like to see a thriving mosaic of diverse woodland ages and stages naturally regenerating alongside peatland and partially wooded habitats. These would support a wide range of appropriate native flora and fauna.
The restoration of Loch Arkaig Pine Forest to a resilient, dynamic mosaic of habitats would be a catalyst for landscape restoration across neighbouring land, and across the highlands.

Our partners Arkaig Community Forest will act as an integral part of the forest's management. Local people and others of all ages will be engaging with the forest in meaningful way as volunteers, using it as an educational resource and for informal recreation. There will be a network of low impact path routes that will make the forest more accessible. However, it is not anticipated that there will be large numbers of visitors. The forest will be well known and valued by many people across the UK who will not necessarily visit in person.

4. KEY FEATURES

4.1 F1 Planted Ancient Woodland Site

Description
The PAWS survey carried out by Upland Ecology in 2015 used a range of references including the Ancient Woodland Inventory, 1st Edition 1860 OS, Roy Maps and the Native Woodland Survey of Scotland to identify nearly 700 Hectares of PAWS woodland made up of 395 Ha of PAWS and 297 Ha of restored PAWS. Following the devastating fire in 1942 the two forest areas were purchased by the Forestry Commission in 1966 and afforested with Sitka spruce, lodgepole pine and small areas of larch. The two areas were deer fenced and shallow ploughed where access permitted, remnant stands of Scots pine along with small groups and individual veteran trees were retained throughout these areas. Influenced by the work of Steven and Carlisle (1959) the Forestry Commission policies on Caledonian Pinewoods changed dramatically in the decades following the acquisition from one of afforestation with non-natives to restoration and in 1997 a major restoration programme was undertaken. This involved fell to waste of the young conifer crops; the forester who planned and carried out this work still lives in Clunes and was consulted about the rationale for which areas were felled and which left. The objective was to restore the areas with the best remnant features and focus on areas with good populations of native trees present. The restoration was concentrated in areas where the non-native trees were growing less well. Areas where trees had potential to produce timber were left to grow on. In Glen Mallie this policy resulted in a patchwork effect of large contiguous areas being felled, smaller groups of native trees opened up and individual veteran trees being halo thinned in plantations. Shortly after the fell to waste was carried out the woodlands were fenced and deer management undertaken. This work resulted in a massive pulse of predominantly birch regeneration which is now around 25 years old. This is complemented by smaller amounts of pine regeneration along with some pine regeneration which originates from the initial fencing of the site and contemporaneous deer control. In much of the PAWS areas where plantation was removed in the 1990's, it is difficult to find evidence of the original planting, and often only after some close inspection is it possible to find signs of ploughing or debris from the fell to waste. The overall impression is very pleasing with different age ranges present across large areas, although birch dominates due to it's unpalatability to deer which were at too high a population density over much of the site for the more palatable tree species to establish in the early 2000's. One aspect of the restoration work that was less successful was halo thinning of veteran Scots pine, many of these have suffered in recent years largely in competition from light as the surrounding plantation trees have grown very tall around them. There has been a programme removing regenerated non-native trees throughout the site since acquisition in 2016 with the final areas to be treated being adjacent to the last plantation areas planned for removal in 2025/26. In Glenmallie, the plantation consisted of mainly well grown Sitka spruce on the lower slopes with substantial areas of

low yield lodgepole pine at higher elevations and more peat dominated soils. Plantation removal was undertaken between 2020 and 2024 in all Glenmallie compartments, now finished in all but compartment 4 which is due for completion by spring 2026. The approach ensured most brash and some timber was used in the main brash mat which avoided the need for internal forest roads.

In the Gusach there has been less regeneration of birch and some evidence that deer browsing impacts were higher in the post 1990's period, along with fewer examples of halo thinning. However some very attractive woodland has resulted from the restoration work, with irregularly spaced mature and pole stage Scots pine and occasional veteran Scots pine and large standing deadwood scattered throughout.

The previously unrestored PAWS areas in the Gusach were very different consisting mainly of lodgepole pine. There was very little Sitka spruce and some areas of larch. The lower timber value and access restrictions in the Gusach were overcome by use of freshwater timber barging which began in 2022. The plantation removal is due for completion in spring 2026.

Significance

Loch Arkaig Pine Forest forms part of a group of Caledonian Pinewood Inventory sites on the South side of Loch Arkaig and are of particular significance because they are an example of pinewood western temperate rainforest. Glen Mallie in particular has a high level of deadwood largely as a result of the fire in 1942, which may prove to be significant for specialist invertebrates and lichens.

Restoration of PAWS represents the only opportunity to increase the area of ancient woodland with semi-natural characteristics.
A healthy restored PAWS resource at Loch Arkaig will connect the fragments of ancient woodland components, and ensure the whole site operates as a functional ecosystem.

The Woodland Trust is committed to restoring all non-native PAWS type woodland in its ownership and to ensure the continuing survival and where possible enhancement of the ancient woodland components.

Opportunities & Constraints

Opportunities:

The areas of PAWS restored in the 1990's demonstrate the opportunity to continue the process in the remaining plantation areas. The 'ideal' conditions will support the fullest range of pinewood specialist flora and fauna is a diverse structure, density and age range, including open areas. This will require the deer browsing impacts to be reduced relative to the last natural regeneration phase in the early 2000's which resulted in predominantly unpalatable birch establishment.

Where they are unlikely to colonize the site without intervention, translocations will be made of key site-native species that have been lost or constrained in location due to past management. Wood ants are a key species due to their influence on seed dispersal and invertebrate assemblages, particularly those that affect Scots pine trees. Small cow-wheat is a species associated with ants that is constrained to a single nearby location and at risk of local extinction. Having partnered with Royal Botanic Gardens Edinburgh for the small cow-wheat translocations, Loch Arkaig Pine Forest will be used as part of their Scottish Plant Recovery Project for other species that are locally extinct.

There is an opportunity for the larch to be retained during the initial large scale plantation removal phase, for removed gradually through low impact and continuous cover forestry approaches. Opportunities to retain some of the Larch will be taken for several reasons: firstly, unlike the Sitka spruce and Lodgepole pine; larch seldom regenerates in this environment so this species can be retained without threatening non-native regeneration on adjacent felled ground awaiting establishment of native woodland; secondly larch is deciduous and has allowed a more significant set of ancient woodland features to persist under it's canopy; thirdly, opening up the canopy by felling adjacent Sitka spruce and Lodgepole pine will result in ongoing windblow of the larch; fourthly, this will result in gradual change in light and humidity regimes to allow ancient woodland features such as specialist lichen and bryophyte species persist more effectively and indeed migrate from these 'Arks' to adjacent felled areas as the new young native woodland establishes in these adjacent areas; fifthly, opportunities for new deadwood will be very limited for the next few decades and gradually blowing larch will provided a diversity of deadwood habitats; sixthly to retain a canopy over ancient woodland features where in small sheltered areas with the potential to retain future timber resource for a small scale mobile mill operation, and seventhly to precipitate wind throw to provide opportunities for native trees in particular Scots Pine to regenerate on upturned stumps, a common occurrence in Western pinewoods. Important remnants of ancient woodland that could be damaged by future larch windblow, such as veteran trees, will be halo-thinned to safeguard them. Phytophthora remains a risk if it is found in the larch.

The site provides an opportunity to demonstrate the benefits of restoration to other landowners, partnership working with the local community & collaboration with a traditional estate. Restoration benefits underpinned by research and monitoring of a range of habitats demonstrating change over time can also be demonstrated by setting up long term surveys to monitor changes.

Constraints:

The major constraint on the management of these woodlands has until very recently been the limited access to each of the sites. Glen Mallie was until 2021 serviced by a 4x4 track which is accessed via the White bridge which had a weight limit of 7.5 tonnes. The route has now been upgraded to allow timber haulage with works including several new bridges.

There is no vehicle access to the Gusach which is only accessible via boat. This restricted access presents a serious constraint on the management of the woodlands. Slipways were constructed in 2023 to allow removal of non-native trees by barge.

There are also access issues on the site itself with steep slopes and fragile soils alongside which, the previous restoration work has left areas of PAWS isolated which have required very careful planning of harvesting operations. Access for deer extraction and other operations will remain limited with little incentive for economic or nature protection reasons to install tracks. This is an opportunity for leaving a proportion of deer carcasses in the environment to support predators such as golden eagles and wider nutrient cycling.

Deer pressure has been high across the site for a protracted period as indicated by herbivore impact assessments carried out annually from 2017, and browsing will remain a major constraint on successful tree regeneration as well as the development of ground flora.

A programme of fence repairs and replacement has carried out annually since 2018 in Glen Mallie and 2020 in the

Gusach. The programme will need to be continued long term. The resident population will also need to be managed long term, with culling levels to be determined by continued monitoring of impacts and thermal imaging by drone.

Controlling deer numbers to a level where natural regeneration of native trees is successful will also result in significant quantities of non-native regeneration which will need to be managed until there is no longer a seed source.

The remaining plantation is at, or past, normal age for felling and extraction, normal works having been limited by lack of access. The size of the crop in combination to exposed slopes on shallow soils is resulting in increasing windblow of the plantation trees. Plantation removal is now limited to large clearfells back to stable plantation edges against open ground rather than removing shelter from adjacent plantation and risking widespread catastrophic windblow. A more gradual approach to plantation removal such as thinning would result in a level of windblow damaging to ancient woodland features.

The Long Term Forest Plan constitutes statutory approval for removing all plantation area over the next 2 years with felling and extraction in both forest blocks each year. The average timber volume to be extracted in each operation is in the region of 10,000T which represents an achievable amount to fell and extract in a season using conventional forestry machinery with protocols for working on steep slopes, sensitive soils and ecologically sensitive areas.

Ecologically important bird species sensitive to disturbance nest in the forest, and indeed the Woodland Trust approach is to avoid tree felling during the bird nesting season where possible. In specific instances, tree felling in the bird breeding season will be required to avoid significant risk to soils and water pollution, by working some of the wettest areas during the dryer Summer season. Detailed assessment and procedures will be in place for these occasions supported by specific Environmental assessments to ensure breeding birds are protected.

The predominance of lodgeple pine in the forest is a continuing threat to the Scots pine as Lodgepole pine hosts dothistroma, which infects Scots pine. Best practice requires all Lodgepole pine to be removed as a priority from within the pinewood. The felling and extraction of the Gusach, being predominantly lodgepole, has been expediated to account for the delay with felling to 2023 during the development of the barging programme, to complete in 2027.

Sitka spruce and Lodgepole pine regenerate prolifically on recently felled areas in this environment. Site based evidence indicates that a gradual conversion of plantation on ancient woodland sites here would result in further extensive and dense non-native regeneration on felled areas due to a retained mature seed source adjacent and the clear success of the resulting natural regeneration. Removing ongoing non-native tree regeneration would not only be costly but reduce the success of native tree regeneration and survival of native ground flora through aggressive competition and dense shading. The most effective management method is therefore deemed to be the removal the entirety of the invasive non-native mature plantation expeditiously.

In Glenmallie, felling and extraction commenced in the winter of 2021/22. The felling areas in Glenmallie for 2022 and 2023 were felled and extracted together over winter 2022/23. This allowed a single access point to be used for both coupes and saved the need to construct a second timber harvesting facility and stone forwarder track as proposed in the Long Term Forest Plan, reducing impacts to PAWS.

Other non-native invasive species present a threat to the forest. Rhododendron is present within the woodland areas with a particular concentration at the eastern end of Glen Mallie. Lever & mulch work carried out annually since 2018 has made a significant impression on this with more minor follow-up work to be carried out in the next 10 years with a

view to eradicating the species from the site.

Gaultheria shallon is present as a dense thicket in the Clan Cameron graveyard at the entrance to the site and a few small clumps have been removed in Glen Mallie during 2021. Vigilance will be required to ensure this species is not allowed to spread uncontrolled and continued partnership working with Achnacarry Estate to support their eradication efforts.

Japanese knotweed is present in small quantities on the neighbouring estate land near the entrance to the forest on the shore of the loch, some control has been carried out in recent years and it will be monitored to ensure there is no risk of it spreading on to WT/ACF areas with ongoing development of the partnership working with neighbours no collaborative landscape scale invasive non-native species management.

Beech is also freely regenerating from the veteran trees planted at the eastern end of the Glen Mallie track, the veterans themselves are providing interesting lichen hosts as well as rot holes for decay fungi and invertebrates so these will be retained but the regeneration will be removed gradually as it reaches pole stage as firewood or sooner where this is threatening remnant ancient woodland features.

Similarly pests and diseases are a risk. Currently Dothistroma needle blight (DNB) has been detected at low levels in Lodgepole pine in the Gusach, there is potential for this to infect the native Scots pine but current advice is that this risk is minimal. There is potential for this to increase and for new plant health issues to arise. Phytophthora in the retained larch is a risk and, if infected, larch stands would require a combination of felling to recycle, felling and low-impact extraction, and ring-barking. These interventions would still result in most of the objectives for retaining larch to have been met.

The current policy is reverting to site native species largely through natural regeneration, which is also current advise for climate change mitigation in native woodlands.

Landscape impacts of the restoration are significant, particularly the timber extraction from The Gusach block, but significant public consultation has taken place and there is understanding and support for the longer term benefits that will accrue.

The presence of wild boar on the site can be seen as both an opportunity and a constraint. The disturbance of the soil will aid tree regeneration, but will it also have negative impacts. There is a need to develop monitoring protocols to monitor these impacts. Wild boar push under fences which can allow ingress of deer if gaps are left unmanaged.

Careful felling and extraction of the timber will be required around the numerous veteran Scots Pine and standing deadwood present in the non-native plantations.

Factors Causing Change

Natural Succession, grazing & browsing by deer, boar disturbance, invasive non-native tree species, wind damage.

Long term Objective (50 years+)

Ancient Woodland components in PAWS areas will be secure within a woodland habitat which will develop strong semi natural characteristics, including a predominance of native tree species, a varied structure, a diverse ground flora, frequent standing and fallen deadwood and the absence of any significant threats from invasive species.

The removal of all of the mature non-native trees and control of non-native tree regeneration within within the site in the next 10 years combined with a reduction in herbivore impacts will allow the native woodland to expand internally and result in a 'pulse' of predominantly native species which will compliment the existing age and species diversity on the site.

Woodland establishment will have been reliant on natural processes with monitoring of natural regeneration to be undertaken for 5 years post-plantation removal/deer reduction. Only then will widespread direct seeding or planting be undertaken for purposes of meeting statutory density targets of tree establishment.

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

1. Removal of all Lodgepole pine and Sitka spruce plantation will be completed by end of 2025/26.

2. Maintain strategic deer fence through a programme of monitoring and repairs including boar gates and deer jumps.

3. Main brash extraction routes will be mulched to provide temporary ATV access for deer extraction in the key woodland establishment phase following plantation removal. Condition monitoring will be required with plan development for longer term access requirements, if needed, by end of plan period.

4. Fell to recycle will be completed by the end of 2025/26 throughout both forests of non-native conifers that regenerated prior to acquisition.

5. Removal of non-native conifers that regenerate post clearfell, will be completed within 3 years post felling with a second pass 6 years post felling. Works will be undertaken with volunteers, supported by additional contractor resource where necessary.

6. Following completion of rhododendron ponticum removal through lever and mulch (mostly in cpt 1a) in 2021, follow up treatment of regeneration will be achieved with an annual volunteer programme.

7. Annual herbivore impact surveys and thermal imaging drone surveys with additional regeneration density survey at 2-3 year intervals will be carried out in both forest blocks to provide evidence to support deer cull levels to achieve appropriate levels of natural regeneration and woodland flora recovery.

8. Monitoring protocol based on Wild Trees Survey with additional metrics to be developed in collaboration with Trees for Life by end of 26/27, as agreed in collaborative review with Arkaig Community Forest and Advisory Board members.

9. Identify in collaboration with partners by end of 26/27, a series of measures of success/ thresholds for conservation objectives in the Glen Arkaig landscape with associated collaborative monitoring programme based on data already being collected in the landscape (such as ancient woodland ground flora, natural regeneration, freshwater invertebrates, keystone species etc) based on the baseline habitats and species survey data being collected at the moment.

10. Establishment of young native trees on felled areas will be achieved predominantly by natural regeneration with an expectation that initially this will consist of birch as the most common species with variable densities ranging from 5000 stems per ha on lower slopes to 900 stems per ha in areas further from a viable seed source. Direct seeding will be used

where seed sources are insufficient in total or particular species. Establishment will be achieved within 5 years of plantation removal, as per Long Term Forest Plan prescriptions. Enrichment planting will only be undertaken after 5 years post plantation removal except for specific missing tree species such as juniper and aspen. Disease-resistant Wych elm planting in limited numbers and areas (to prevent the risk of increased connectivity for disease vectors) will also be considered with advice from Royal Botanic Gardens Edinburgh.

11. Surface with crushed rock imported by barge, slipway 4 in The Gusach during 25/26 ahead of plantation removal using this access point.

12. Monitor temporary slipways 1, 2 and 3 to assess the rate of natural reclamation and inform whether further remediation is required in the next plan period following that action of natural processes in the current plan period.

4.2 F2 Community Woodland Group

Description

Loch Arkaig Pine Forest was acquired in partnership with community group and charitable organisation Arkaig Community Forest (ACF). The aims and objectives of both the Woodland Trust and Arkaig Community Forest match very closely and a memorandum of understanding which outlines the basis of the partnership between the two organisations has been agreed.

The MOU includes the following key statements:

The Community Group and the Trust will work together to restore native woodland habitats and to secure multiple benefits in terms of sustainable rural development from the site.

Both parties are agreed that the Forest shall be restored to native woodland, native Caledonian pinewood and associated habitats, in accordance with the Trust's Woodland Management Approach and Ancient Woodland Restoration Guide.

Both parties are committed to creating tangible community benefit and developing social enterprise within appropriate parts of the Forest, and will ensure that this is allowed to develop as deemed appropriate by both parties under the management planning process and structure.

This close collaboration with a community group is a unique situation for the Woodland Trust and there is a determination to see it succeed. It has attracted a lot of attention from community organisations such as the Community Woodland Association (CWA) who actively support the project.

Research is being carried out by the University of the Highlands & Islands to capture the socio-economic benefits the project may deliver over the next 20 years, with baseline surveys having being carried out in 2018.

Further to the above, ACF and WTS are collecting a focused dataset to define socio-economic benefits gained as a direct result of the restoration project at Loch Arkaig Pune Forest.

Arkaig Community Forest directly own around 50 ha of forest including an area of restored PAWS in Glen Mallie and in

the Gusach, an area surrounding the old settlement of Ard Nois. The two groups communicate formally via regular ACF board meetings, monthly ACF / WTS collaboration days and through an Advisory Board.

Significance

This unique collaboration between an NGO and Community group is very significant in terms of demonstrating a different approach to delivering environmental benefits whilst working with and supporting the aspirations of local people.

Opportunities & Constraints

Opportunities:

Loch Arkaig Pine Forest offers an interesting opportunity to demonstrate both the environmental and socio-economic benefits of a forest restoration project. By working with ACF to develop a community managed tree nursery, community deer larder and venison processing unit, and community owned mobile welfare unit, the community are geuinintly invested in the forest restoration and 4 part time jobs have been created within the community. Through including community benefits in tender scoring, local contractors deliver much of the work and the hope is that this inward investment will positively impact the local economy and support the viability of remote rural communities. The primary driver under pinning any such works will however be the restoration of native pine woodland and the resultant conservation benefits/values.

There are opportunities to develop further innovative ways for local people to benefit from various aspects of the forest from initiatives such as wood lots, access to firewood, venison, Non Timber Forest Products as well as health and wellbeing benefits associated with spending time outdoors.

Constraints:

There are many challenges of partnership working and working with local communities. We appreciate there is an imbalance in scale and resources available to each of the organisations; a large NGO with a sizable project team and administration to support is not comparable with a small group of local volunteers working in their own time with very limited resources.

The Woodland Trust has a very clear set of aims and objectives and systems to ensure these are delivered and measured. The Woodland Trust recognises the need to work closely with the ACF and at timescales and timetables that match with the MOU and partnership working approach.

Access issues associated with steep ground, a limited number of tracks and the perimeter fence are also physical barriers to developing some types of community based initiatives in the forest

Factors Causing Change

The delivery of large scale restoration involved major infrastructure work between 2019 - 2023 and significant timber harvesting from 2021 onwards, with associated timber haulage on local roads. Maintaining a strong partnership communication will be key to working collaboratively in delivering a large programme successfully, to achieve shared objectives.

Long term Objective (50 years+)
To sustain a strong and stable partnership approach to the management of the Loch Arkaig Pine Forest that delivers the environmental and sustainable development aspirations of both partners.
Short term management Objectives for the plan period (5 years)
1. To develop an agreement for suitable areas of the forest to be used by community members for wood lots to build on the trials undertaken from 2020. 2. To include community engagement workshops as part of the survey and monitoring programme. 3. With Arkaig Forestry Cooperative no longer active, work in partnership with ACF to develop alternate mechanisms to delivering local employment and other benefits, including greater partnership working and applying a localness scoring in WTS tenders. 4. Ensure regular collaboration and dialogue with ACF through attendance at ACF / WTS monthly collaboration days, ACF Board Meetings and Loch Arkaig Pine Forest Advisory Board Meetings. 5. Continue to integrate programmes between the two organisations including plant supply from the ACF nursery for the wider Beò Airceig landscape scale partnership planting requirements, community deer management capacity and venison production from the ACF deer larder, and hire by WT of the ACF owned mobile welfare unit.

4.3 F3 Ancient Semi Natural Woodland

Description
The Ancient Woodland Inventory identifies significant areas of ASNW within the Loch Arkaig Pinewoods. There is map based evidence from the 1654 Blaeu Atlas, Roy c1750 the OS 1st Edition c1860 and the Annexation survey carried out by William Morison in 1772. The last of these describes Glen Mallie having “A thick cover of Birch intermixed with Hazel, Alder and Fir” the western area is described as having “A thick cover of Stately Firs intermixed with Birch at the east end” – fir being old Scots for pine. The PAWS survey carried out by upland Ecology in 2015 identified only 41 ha of the site as Ancient Semi-natural Woodland with an additional 297 Ha of restored PAWS. The majority of the ASNW areas are found in Glen Mallie on the lower slopes of compartments 1c, 2c & 3d with the dominant woodland type being upland birch woodland comprising NVC classification W4, W11 & W17 woodland. These consist mainly of pole stage downy birch which probably coincided with the fencing of the site in the early 1970’s, along with oak, ash, hazel, rowan, alder, wych elm, bird cherry, hawthorn, holly, Scots pine, eared and grey willow. There are scattered veteran holly, oak and birch present throughout and a number of mature beech trees near the

track with a range of regenerated beech at the Eastern end of Cpt 1c.

Within Cpt 2c there is a small (1.8 Ha) stand of mature and veteran Scots pine, situated on a prominent knoll which seems to escaped the worst effects of the 1942 fire and earlier felling. The vegetation is typical of W18 and is dominated by rank heather, there is limited regeneration of birch and Sitka present along with Scot's pine regeneration in adjacent open land.

In the Gusach the PAWS survey identifies two small adjacent areas in cmpt7 j&k comprising a mixture of open habitats and wet woodland W4/W7 on the edge of Loch Arkaig consisting predominantly of riparian alder woodland.

As well as the ASNW areas described above there are significant ancient woodland features and remnants across the majority of the site such as mature and veteran trees which have been included in the PAWS section, particularly within restored PAWS areas.

Significance

Loch Arkaig Pine Forest forms part of a group of Caledonian Pinewood Inventory (CPI) sites on the South side of Loch Arkaig and are of particular significance because not only are they are an example of pinewood western temperate rainforest, collectively they also represent one of the largest contiguous areas of Caledonian pinewood remnants in the southwest regions, which is the most critically threatened of the seven pinewood regions identified in the CPI.

Glen Mallie in particular has a high level of deadwood largely as a result of the fire in 1942, which may prove to be significant for specialist invertebrates and lichens.
The relatively small areas of ASNW combined with the large amount of ASNW features present on the site as a whole, means there are robust areas of native woodland habitat and high potential for future continuity of habitats on this site.

Management and maintenance of the ASNW component of the site contributes to meeting the Woodland Trust objective of "No further loss of ancient woodland".

Opportunities & Constraints

Despite the existing ASNW fragments despite being dominated by pole stage birch they have a wide range of mature tree species present providing seed sources for regeneration.

The main constraint has until now been the high level of browsing pressure affecting recruitment of seedling regeneration. The presence of adjacent stands of non-native trees have also presented a threat of non-native regeneration within the ASNW.

Factors Causing Change

Natural Succession, grazing & browsing by deer, boar disturbance, invasive tree species, wind damage, climate change and tree disease.

Long term Objective (50 years+)

The total area of ancient woodland will not diminish. The processes of natural selection will remain dynamic within the woodland, resulting in evolving structures and densities of cover.

A permanently irregular age structure will develop within the woodland creating opportunities for the recruitment of future veteran trees, and the on-going retention of associated ancient woodland species and assemblages.

Frequent standing and fallen dead and decaying wood is present and will continue to be recruited on the site, such that the amount of dead and decaying wood continues to increase.

There will be no significant threats from invasive non-native species.

While it is envisaged that natural processes will ensure the delivery of the above where necessary management interventions such as removal of non-natives and continuing deer control will take place.

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

1. Removal of all Lodgepole pine and Sitka spruce plantation will be completed by end of 2025/26.

2. Maintain strategic deer fence through a programme of monitoring and repairs including boar gates and deer jumps.

3. Main brash extraction routes will be mulched to provide temporary ATV access for deer extraction in the key woodland establishment phase following plantation removal. Condition monitoring will be required with plan development for longer term access requirements, if needed, by end of plan period.

4. Fell to recycle will be completed by the end of 2025/26 throughout both forests of non-native conifers that regenerated prior to acquisition.

5. Removal of non-native conifers that regenerate post clearfell, will be completed within 3 years post felling with a second pass 6 years post felling. Works will be undertaken with volunteers, supported by additional contractor resource where necessary.

6. Following completion of rhododendron ponitcum removal through lever and mulch (mostly in cpt 1a) in 2021, follow up treatment of regeneration will be achieved with an annual volunteer programme.

7. Monitoring protocol developed as a PAWS objective to also be utilised in ASNW.

4.4 F4 Connecting People with woods & trees

Description

The site currently has little in the way of visitor facilities or infrastructure. The closest car park to the site is approx. 900m from the Glen Mallie entrance at the Chia-aig waterfall. An interactive art trail was installed during the previous plan period, with an aim being to draw existing visitors further into the forest to experience some of the better examples of restored Caledonian pine forest that exists further to the west of the property. A short section of informal

access to the proposed roundhouse site was upgraded to a pitched stone path, which provides visitor with a short additional loop and scenic viewpoint down the Loch.

The car park is owned and managed by Forestry and Land Scotland and has space for approx. 12 vehicles. The site has a single ladderboard welcoming visitors to the forest. Small numbers of bikers and walkers use the unsurfaced track to the bothy at Inver Mallie.

The hamlets of Achnacarry, Bunarkaig and Clunes are all close by and include around 40 residents. The nearest town is Fort William, a 40 minute drive. It markets itself as the 'Outdoor Capital of the UK' and has a population of around 10,000 people - though this increases significantly with tourist traffic over summer. The 79 mile long Great Glen Way, one of Scotland's Great Trails, passes through the hamlet of Clunes, approx. 2 miles east of the forest entrance. It is estimated 2000 people complete the walk each year.

Whilst there is much spectacular scenery and iconic wildlife to appreciate at Arkaig, the remote nature of the site and a lack of infrastructure mean it is inappropriate to develop as a large scale visitor destination. Instead the Woodland Trust is focussing on using digital technology to engage members and supporters with the site and our restoration work. In 2017 we installed a camera on the nest of a breeding osprey pair at Arkaig and relayed the live coverage to the Trust website 24 hours a day. This rare insight into the private lives of a raptor pair proved to be a hit and we aim to continue bringing Arkaig wildlife into the homes of supporters across the UK using innovative digital technology.

Events at Loch Arkaig have so far been focussed on getting to know the local community and introducing the site to project stakeholders and funders. Pivotal to our work at Arkaig is the support of community group and project partner Arkaig Community Forest (ACF). ACF kindly share their use of a local forest school hut for private meetings and gatherings.

Neighbouring Achnacarry Estate shares the access road to the Glen Mallie end of the forest. Their business interest Achnacarry Sporting, regularly transports paying guests to the hill behind the pine forest for stalking and tours.

The nearest primary school is in Spean Bridge, approx. 10 miles away. The nearest secondary school is Lochaber High. Spean Bridge and Roy Bridge primary schools have previously been involved in funded outdoor learning projects at the Forest School in Clunes.

The nearest Trust owned woodland to Loch Arkaig is Balmacaan Wood on the shore of Loch Ness.

Significance

Loch Arkaig Pine Forest is one of Scotland's few remaining ancient Caledonian pinewood remnants. It is of high conservation value and it offers significant opportunity not only to restore a large area of ancient woodland but also to demonstrate restoration practice to landowners across Lochaber and beyond.

The forest is home to a large number of ionic veteran Scots pine trees as well as some of Scotland's most iconic wildlife including ospreys, sea eagles, red squirrels and pine martens. In addition, ecological surveys have shown a diverse range of rare invertebrates are also present across the site, as well as a wide range of rare and specialist species of plants, fungi, bryophytes and lichens.

The Loch Arkaig area is steeped in history: a consignment of Jacobite gold is said to be buried on the loch shore; generations of Clan Cameron have lived in the area since the 14th century; the loch is rumoured to have its very own water horse or kelpie and it features in the memorable opening scene of Harry Potter and the Deathly Hallows Part 2.

The forest was the training ground for the country's first commandos from 1942 to 1945. A serious fire started by a commando training operation in 1942 destroyed many of the pine trees over an area of around 3000 acres and the silver silhouettes of standing dead trees are a visible reminder of man's impact on the landscape today.

Opportunities & Constraints

To develop access facilities in line with harvesting plans and community demand in Glenmallie, the more accessible forest. To avoid construction of infrastructure in The Gusach. Due to previous community consultation providing a strong view on the imporatnce of maintaining the wild nature of the forest. And because increased access here would create a high risk of human disturbance of sensitive wildlife that includes nesting Sea eagles, golden eagles and ospreys.

By the end of March 2026, the programme of harvesting across the site will be complete, allowing greater opportunity for public involvement and recreational access.

ATV tracks will be not be constructed due to the damage to ancient woodland and peatland through construction. However, the brash mats created as a necessary element of the plantation removal works prevent an opportunity. These can be mulched to create temporary ATV access tracks that could also provide informal access to new areas of the forest for more adventurous visitors.

Long term, a way marked trail could be installed in the Glen Mallie block within walking distance of the Achnacarry Museum. This would ideally lead to a viewpoint highlighting the extent of the forest and the stunning lochside scenery. There is an opportunity to use the route main brash extraction route as a longer-term way marked trail in Glenmallie to link to the existing track network. Futhermore, collaboration with ACF and Achnacarry Estate is creating a linked circular walk through the pinewoods in Glen Mallie with scope to include information on this route in the visitor information to be developed at the main Chia-aig waterfall car park, Cameron Museum and ACF hub at Clunes.

The Cia-Aig waterfall and car park is a popular visitor attraction. Plans are underway to design and install an orientation panel here that promotes forest restoration and encourages informal access to the bothy via the forest. Complementary information panels could be installed at other strategic locations including the Clunes Forest School on the Great Glen Way, and the Butterfly reserve which overlooks a view of the forest.

Arkaig Community Forest took on ownership of Forest School buildings and oakwood at Clunes from the state in 2021. In the future this could be a good venue for hosting school and community groups visiting the area for learning / recreation. It might also provide an ideal location for showcasing the live osprey cam and encouraging walkers passing by on the Great Glen Way to become members and supporters.

Plans to develop a rainforest roundhouse in Glen Mallie will provide improved opportunities to host volunteers and other groups who wish to contribute to the restoration works or connect with with nature.

There is a long term opportunity to replicate a similar volunteer facility in the Gusach, providing a base to coordinate volunteer activity in this section of inaccessible woodland.

ACF's recruitment of a Volunteer Coordinator in 2024 provides an opportunity to develop a structured volunteer programme in Loch Arkaig Pine Forest. In addition, the newly recruited post may provide an opportunity to establish new links with other community groups seeking opportunities to contribute to the restoration work and connect with nature.

We will continue to tour stakeholders and supporters around the site as required.

Translocations of wood ants and small cow-wheat have been developed to upskill and utilise volunteer input as key components of the project.

Constraints

Until harvesting operations are completed by the end of March 2026, opportunities for access to the site for recreation and learning purposes will be limited to those areas not directly affected by these operations.

Car parking is restricted to the capacity permitted by the Forestry Commission car park.

Our live osprey cam depends on the provision of rural broadband courtesy of local provider Lochielnet. The stability of this service is subject to weather conditions.

Lack of shelter on site or any facilities for increasing the scope of volunteer capacity in the forest.

Rough terrain and steep slopes may limit the ability of some volunteers to contribute to certain key aspects of the restoration work.

Factors Causing Change

Recruitment of a Loch Arkaig Pine Forest volunteer coordinator will help with the establishment of a local woodland working group, which will contribute to the long term delivery of conservation activities across the site.

The rainforest roundhouse project, once complete will provide facilities to support volunteer activities in Glen Mallie and attract a great range of community groups to access the forest for education and wellbeing purposes.

Long term Objective (50 years+)

The local community will value the forest for the environmental, social and economic benefits it delivers.

Local people and others of all ages will be engaging with the forest in meaningful way as volunteers, using it as an educational resource and for informal recreation.

There will be a network of low impact path routes that will make the Glenmallie forest more accessible and which will be planned and designed to link and complement existing local visitor infrastructure and attractions . However, it is not anticipated that there will be large numbers of visitors or significant visitor infrastructure - and the Gusach will remain largely inaccessible and wild in nature.

The forest will be well known and valued by many people across the UK who will not necessarily visit in person but will

engage virtually via a series of innovative digital communications.

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

In 2025, establish a structured volunteer programme across Loch Arkaig Pine Forest

Beyond 2025, building on momentum gained as part of the structured volunteer programme, work towards establishing and building capacity of a Woodland Working Group (WWG) so they continue to deliver practical and valuable conservation activities in the forest.

Over the course of the plan period, complete construction of the rainforest roundhouse, providing a facility to base volunteer activities from and engage community groups wishing to contribute to the restoration works or connect with nature through education and wellbeing awareness.

Continue to bring Arkaig wildlife into the homes of supporters across the UK using digital technology. Ensure continued training of local contractors following initial Spring 2019 training, to ensure they are able to carry out maintenance to osprey camera equipment.

Carry out maintenance of the Glen Mallie community art trail as required

Work with Forestry and Land Scotland to produce new interpretation panel in the Cia-aig carpark in 2025.

4.5 F5 Open Ground Habitat

Description

As well as including open ground as part of the mosaic within woodland areas there are parts of the site which consist of wet heath with peat depths greater then 50cm. Some of these deep peat areas have been afforested and will be restored to peatland. Peat depth and NVC survey in the Western end of the Gusach (Cmpts 7 & 8) has identified significant areas suitable for restoration to peat along with low density peatland edge woodland, with smaller but still substantial areas of degraded peatland throughout both forests.

Significance

These are UK priority habitats and the restoration of important semi-natural open ground habitats within forests is part of the Trusts management approach.

Opportunities & Constraints

Opportunities:

Funding through the Peatland Action Fund provides an opportunity to undertake restoration works to peatland hydrology, following removal of the plantation trees from the degraded peatland areas. Habitat and peat depth surveys have been carried out over the these areas and the associated report provides recommendations to restore both open bog habitat and peatland edge woodland.

Constraints:

As with much of the rest of the site access is a major constraint with the areas suitable for restoration to peatland habitats having a greater depth of peat combined with the presence of smaller trees and locations at the highest elevations furthest from access approaches at the loch shore, making these areas the most logistically challenging part of the restoration project. Plantation removal has been achieved over the majority of the peatland areas but due to the cost it has not been possible to for Peatland Action Fund to contribute to this phase of the works.

Factors Causing Change

Changes to the water table caused by drainage ditches and ploughing. Windthrow and regeneration of non-native tree species. Impacts of deer trampling.

Long term Objective (50 years+)

To clear significant areas of mature non-native conifers and control natural regeneration on accessible from areas of deep peat and create adjacent mosaic of habitats with areas of open ground along with low density native woodland. Post plantation removal drain blocking and ground smoothing to restore site hydrology and re-wetting of peatland.

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

1. Remove plantation from all peatland areas by end of 2025/26.

2. Undertake post plantation removal works to restore peatland hydrological function by end of 2026/27, dependant on Peatland Action Funding being successful in this time period.

3. Remove regenerating non-native tree seedings from all peatland areas by end of 2030.

4.6 f6 Mixed Habitat Mosaic

Description

Peatland Edge Woodland and Mountain Transition Woodland - development of low density native tree cover through natural regeneration on very shallow peats or at high elevation. Not all of the forest that is currently open ground or conifer plantation suits either establishment of native woodland or conversion to open peatland. These areas are either typically shallow peats under 30cm depth, of high exposed elevations on shallow soils. Both these conditions would naturally support a low density of native woodland with a significant proportion of open space. The areas suitable for these habitats have been mapped based on peat depth survey, PAWS survey and current tree cover.

Significance

The ecological value of these areas is currently typically low relative to the site as a whole, having experienced a long period of high grazing pressure on ground vegetation and holding less remnant features of ancient woodland, although some isolated remnants do exist within the Mountain Transition Woodland area.

Opportunities & Constraints

Creation of low density woodland here gradually through natural processes experienced under a low browsing pressure will increase the resilience of the whole forest through increasing the linkages between the difference woodland and

open habitats on site, allowing flora and fauna greater mobility through the site in responses to change such as climate change.
Factors Causing Change
Climate, browsing pressure, invasive non- native species
Long term Objective (50 years+)
A low density of woodland cover and more diverse ground-flora will have developed under a sustained period of low browsing pressure.
Short term management Objectives for the plan period (5 years)
Removal of non-native invasive conifers from the area by 2027. Reduction in browsing pressure to 'low' as defined by the Woodland Grazing Toolbox, by end of 2024. New fence erection on eastern boundary of Glen Mallie by end of 2025.

4.7 f7 Archaeological Feature

Description
20 individual charcoal platforms have been identified on the lower slopes in the Eastern half of Glen Mallie, all located within 200m of the shore. The Woodland Trust commission an archaeological excavation for the platform located at NN 16161 88429. Prior to the widening of a pre-existing track for the transportation of felled woodland and in order to protect an old oak tree from damage from these widening works, an excavation was undertaken of a charcoal platform located on the other side of the track to the oak tree. The aims of the project were to determine: the function of the platform, how it was constructed, the duration of its use and what damage had been caused by later tree growth. The work took place from November 2017 to May 2019. The archaeological works comprised a three-dimensional survey and the excavation of the platform. The excavation revealed: the revetment platform was simply built from both stone and sediment which had been excavated out of the hillside as well as locally sourced fluvial glacial boulders; it had been utilised for the production of charcoal, one firing of which was dominated by birch; it had been severely damaged by slumping which resulted from the construction of a later probably early 19th century track; and more recent tree colonisation had caused some disturbance to the surviving stone revetment. Although the platform remains undated, a reference to the construction of an iron mill on the River Arkaig in Lochaber made by Sir Robert Sibbald, and dating to around 1688, would suggest that the platform was used to produce fuel for this new venture.
Significance
Charcoal platforms are widespread in ancient woodland and PAWS through Lochaber. However, archaeological investigation has shown in at least one instance within Lochaber, earlier use of a charcoal platform and hence greater significance that would not have been visibly evident without excavation and carbon dating. The charcoal platforms here are a cultural feature indicating how the woodland has been used in a certain historical period. It is possible that

one or more platforms may have been used for a purpose other than charcoal production before the industrial revolution and would therefore have greater importance.

Opportunities & Constraints

A number of the platforms remained under plantation conifer with removal during 2021-23. Contract conditions and supervision protected the platforms from damage during operations. Native trees will be allowed to regenerate on the platforms as the risks of windblow and damage to the structures is much lower from native trees within a native woodland context than the preceding over-mature plantation.

One accessible platform has been incorporated into a community art feature as part of the art trail installed in 2022. The artwork subtly prompts visitors to consider charcoal burning in the context of how people have managed the forest in the past, and how management my people is shaping the forest's future. The art work was specifically designed to avoid any preparatory excavation on the site. There is a risk that increased footfall could cause erosion to the feature and this is to be monitored annually.

Factors Causing Change

Erosion, windblow.

Long term Objective (50 years+)

Charcoal platforms will be secure from threats allowing the potential for future archaeological investigation should it ever by undertaken. Visitors to the site will have an opportunity to see a charcoal platform and understand it's significance in the forest's cultural history.

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

Annual monitoring of charcoal platform incorporated into art trail.

4.8 f8 Veteran Trees

Description

Ancient and veteran trees are widespread over the site. An ancient tree inventory survey has been undertaken over 10% of the forest area with 157 ancient and veteran trees recorded. Scots pine are the most prevalent ancient trees through the forest with majority of Scots pines here being ancient because of the lack of pine regeneration due to high browsing level from deer and sheep over the past 250 years. The key extent of these ancient Scots Pines are recorded on the Caledonian Pinewood Inventory and are considered in the The PAWS survey carried out by Upland Ecology in 2015. Many of the ancient Scots pine trees demonstarte not only veteran festures due to their age but further features from the 1942 fire and earlier phases of historical felling in the pinewood, such as extensive burn scars, deadwood and ancient felling gob cuts.

Ancient and veteran holly trees are also prevalent though the forest, predominantly on the lower slopes. There is some evidence these may have had a cultural with winter pollarding for animal fodder in previous centuries. Very few younger holly exist in the forests.

A scatter of ancient and veteran oak trees exist through the forest at the lowest altitudes. The extent of charcoal platforms to the North East of the forest indicates that oak were at one time extensive in this localised area but few

now remain.

Halo-thinning was undertaken by the Forestry Commission in the 1990's to remove planted non-native conifers from around mature native trees to reduce competition. This work has undoubtled allowed many veteran trees to survive despite having been under-panted, although a proportion of halo-thinned veteran trees still did not survive to the current time.

Non-native beech trees were planted approximately 250 years ago on adjacent ground with widespread regeneration at the North East of the forest. At least two of the trees within the forest appear to date form this time with various younger age classes due to the unpalatability of beech to browsing herbivores and the high shade tolerance of the species. Due to the age of these two specific mature trees they will be retained; however younger beech trees will be removed, killed to create standing decaying wood, or veteranised; and natural regeneration of this non-site native tree will be controlled. Ongoing removal will be needed of beech regeneration seeded from the adjacent stand of beech trees along the shore on ground owned and managed by Achnacarry Estate.

Significance

The number, extent and high ecological value of the ancient Scots pine trees represents a highly significant feature of the forest. The extent of the veteran holly trees through the forest is also notable. Ancient oaks are individually significant features but less widespread than the Scots pine or hollies. The ancient beech trees are less significant in the context of so many veteran trees of native species. the beech trees do hold a cultural significant in being related to the end of a beech avenue being planted in the 1740's related to the seat of Clan Cameron - that was never completed due to the battle of Culloden and subsequent forfeit with Clan Cameron's land reverted to the government. The two ancient beech trees will therefore be retained while other beech trees will be removed unless individually assessed to be of particular ecological or cultural value.

Opportunities & Constraints

Removal of all non-native conifer trees is urgently required through the planned felling and extraction plan as the second phase in securing the ancient trees on site. This follows from the first phase of halo-thinning undertaken in the 1990's. The first phase secured the ancient tress from competition with plantation trees and allowed trees to physiologically adapted to more open conditions. The plantation is now mature and over-mature and starting to blow, risking physical damage to ancient trees. Further halo-thinning would increased risk of plantation wind-blow and create conditions for non-native invasive conifer regeneration from an abundant adjacent seed source. Removal of the surrounding plantation expeditiously will remove this threat and provide an opportunity for new native tree regeneration. This is urgently required given the lack of younger trees on site, particularly Scots pine and other tree species palatable to deer such as holly and oak. Protection of veteran and ancient trees during operations to remove non-native plantation, is carefully managed through contract conditions, toolbox talks and crib-sheets for operators, and regular monitoring throughout the operation.

Birch did regenerate prolifically on the lower portion of Glen Mallie following the more extensive 1990's removal of young plantation on the lower slopes , probably because at the at that time the deer density was managed at a level that allow establishment of this relatively unpalatable species. Many of the ancient holly trees, being a shorter species and often open-grown, are being over-topped by birch and threated by shade despite being a relatively shade-tolerant

species. Halo-thinning through removal of birch is being undertaken gradually to secure these ancient holly trees while minimising change in ecological conditions, particularly given the necessary scale of tree removal elsewhere in the forest.

One veteran oak tree has in 2022 had features of the community art trail installed nearby. This provides subtle interpretation on themes of PAWS restoration and the value of veteran trees. While there is a risk of encouraging increased footfall near the tree in causing physical damage to the tree, this has been discussed on site with the Woodland Trust Ancient Woodland Restoration Working Group with the consensus being that risk is low due to the low footfall on site and that impact can be monitored given footfall can easily be managed here.

While younger beech trees are being removed due to the threat presented to the rainforest habitats, the mature beech represent an opportunity for creation of veteran features and an education resource given their accessibility.

Factors Causing Change

Grazing & browsing by deer preventing establishment of future veterans, competition with invasive tree species or younger trees, wind damage

Long term Objective (50 years+)

Ancient and veteran trees will be secure within a woodland habitat which through continuous cover management will develop strong semi natural characteristics, including a predominance of native tree species, a varied structure, a diverse ground flora, frequent standing and fallen deadwood and the absence of any significant threats from invasive species.

The removal of all of the remaining non-native plantation trees from the site in the next 2 years combined with a reduction in herbivore impacts will allow the native woodland to expand internally and result in a 'pulse' of regeneration which will compliment the existing age and species diversity on the site and allow the development of future veteran trees.

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

1. Remove all invasive non-native plantation conifers from the forest by end of 2026.

2. Remove all beech trees from site with the exception of any notable trees that are veteranised, or any younger beech that are killed standing to create decaying wood; by 2030

3. Use contract management and supervision processes to protect ancient and veteran trees from damage during operations.

4. Manage deer density at a level that results in a 'low' browsing impact as assessed annually using the Woodland Grazing Toolbox, as this allows for regeneration of palatable tree species to secure the future of ancient trees in the forest.

5. Continue programme to halo-thin around veteran holly and Scots pine trees, including removal or retained larch and pole stage birch that could threaten veteran tree features including rare lichens and bryophytes.

6. Monitor veteran oak tree near sculptural path art installation annually as part of dangerous tree survey, for evidence of any negative effects from foot-fall.

7. Monitor 'veteranised' beech trees annually as part of dangerous tree survey for development of veteran features and consider extending this work.

8. Complete a phase of beech regeneration removal through the entire beech area at the East end of Glenmallie in the lower section of compartment 1, by end of 2030.

5. WORK PROGRAMME

Year	Type Of Work	Description	Due Date
2024	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	March
2024	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	March
2025	CS - General Consultancy	Use of external consultant to support Woodland Trust site management	March
2024	WMM - NR Management	Work associated with the ongoing maintenance / protection of areas of Natural Regeneration – such as fence and shelter maintenance	March
2024	AW - Management Access Capital	Works associated with installing new or replacement management access infrastructure. Such as management access gates, vehicle bridges, fencing and surfacing works.	March
2024	AW - Management Access Capital	Works associated with installing new or replacement management access infrastructure. Such as management access gates, vehicle bridges, fencing and surfacing works.	March
2024	AW - Management Access Capital	Works associated with installing new or replacement management access infrastructure. Such as management access gates, vehicle bridges, fencing and surfacing works.	March
2025	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	March
2025	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	March
2024	AW - Management Access Capital	Works associated with installing new or replacement management access infrastructure. Such as management access gates, vehicle bridges, fencing and surfacing works.	March
2024	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	March
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2025	CS - General Consultancy	Use of external consultant to support Woodland Trust site management	March
2025	PC - Deer Control - Shooting	Works associated with deer management by shooting – such as stalker costs, high seats, signage, maintenance of tracks and open ground provided specifically for deer management etc	March
2024	AW - Management Access Capital	Works associated with installing new or replacement management access infrastructure. Such as management access gates, vehicle bridges, fencing and surfacing works.	March
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2024	AW - Management Access Capital	Works associated with installing new or replacement management access infrastructure. Such as management access gates, vehicle bridges, fencing and surfacing works.	March
2024	WMM - NR Management	Work associated with the ongoing maintenance / protection of areas of Natural Regeneration – such as fence and shelter maintenance	March
2025	CS - General Consultancy	Use of external consultant to support Woodland Trust site management	March
2025	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	March
2025	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	March
2024	WMM - NR Management	Work associated with the ongoing maintenance / protection of areas of Natural Regeneration – such as fence and shelter maintenance	March
2025	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	March
2025	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	March
2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	April
2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	April
2025	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	April
2024	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	April

Year	Type Of Work	Description	Due Date
2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	April
2025	CS - General Consultancy	Use of external consultant to support Woodland Trust site management	May
2025	CS - General Consultancy	Use of external consultant to support Woodland Trust site management	May
2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	May
2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	May
2025	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	May
2024	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	May
2024	PE - Volunteer on site activity	Support for activities at the site of visiting volunteer groups, such as corporate partners, local groups. Support could include tools, external trainers or materials for work parties	May
2024	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	May
2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	June
2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	July

Year	Type Of Work	Description	Due Date
2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	July
2025	Building - Repairs & Maintenance		September
2025	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	September
2025	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	September
2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	October
2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	December
2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	December
2025	WMM - NR Management	Work associated with the ongoing maintenance / protection of areas of Natural Regeneration – such as fence and shelter maintenance	December
2025	CS - Planning Permissions / Designs	Use of external consultants to undertake planning permission designs, supporting documents, oversee planning application process and presentation to planning committees	December
2025	CS - General Consultancy	Use of external consultant to support Woodland Trust site management	March
2025	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	March

Year	Type Of Work	Description	Due Date
2025	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	March
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2025	AW - Management Access Capital	Works associated with installing new or replacement management access infrastructure. Such as management access gates, vehicle bridges, fencing and surfacing works.	March
2025	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	March
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2025	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	May
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2025	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	May
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Year	Type Of Work	Description	Due Date
2025	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	May
2026	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	September
2026	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	September
2026	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	December
2026	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	December
2026	WMM - NR Management	Work associated with the ongoing maintenance / protection of areas of Natural Regeneration – such as fence and shelter maintenance	December
2026	CS - Planning Permissions / Designs	Use of external consultants to undertake planning permission designs, supporting documents, oversee planning application process and presentation to planning committees	December
2026	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	March
2026	CS - General Consultancy	Use of external consultant to support Woodland Trust site management	May
2026	CS - General Consultancy	Use of external consultant to support Woodland Trust site management	May
2026	CS - General Consultancy	Use of external consultant to support Woodland Trust site management	May
2027	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	December
2027	WMM - General Site Management	Works associated with maintaining conservation and physical features within the sites such as boundary ditches, fences and walls, hedges,	December

Year	Type Of Work	Description	Due Date
2027	WMM - NR Management	Work associated with the ongoing maintenance / protection of areas of Natural Regeneration – such as fence and shelter maintenance	December
2027	CS - Planning Permissions / Designs	Use of external consultants to undertake planning permission designs, supporting documents, oversee planning application process and presentation to planning committees	December
2027	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	March
2027	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	May
2028	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	March

APPENDIX 1 : COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
1a	50.8	Scots pine	1700	Min-intervention	Gullies/Deep Valleys/Uneven/Rocky ground	
A large and diverse sub-compartment of very uneven terrain, mostly north facing with some very steep slopes and a deep gully on the Western boundary. There is a mixture of veteran Scots pine and younger downy birch present at very variable spacing from individual veteran pine trees, small stands of older pine, a lot of standing deadwood from the 1942 fire and scattered regeneration of downy birch dating from the enclosure of the woodland in the 1970's. Other native tree species present include silver birch, rowan, alder, eared & grey willow and two stands of aspen. The lower portion of the site was ploughed and planted with Sitka spruce in the 70's and subsequently felled to waste on the 90's. Large rhododendron bushes and patches of Gaultheria shallon, concentrated in the Eastern part of the compartment, have been removed manually along with smaller rhododendron seedlings throughout. Rhododendron ponticum and Gaultheria shallon regrowth removal is ongoing. There is also Sitka regeneration present although the majority has been removed through fell to recycle works. It is notable for the presence of an osprey nest in a mature Scots pine tree & Allt na h'Eiridh raised bog area – significant and distinctive (and relatively accessible) open habitat degraded by ploughing, planting, rhododendron, Sitka spruce regen and herbivore impacts – undergoing restoration.						
1b	7.48	NULL	2022	PAWS restoration	Gullies/Deep Valleys/Uneven/Rocky ground	Planted Ancient Woodland Site
Steep sloping, north facing site with mineral soil, consisting mainly of ground from which the dense unthinned 1971 planted Sitka spruce was removed over the winter of 2021/22. It is a PAWS site and there a few veteran oak and holly present as well as some more recently regenerated birch from the 1990's. There is a steep, narrow ATV track providing access. New native woodland is beginning to regenerate.						
1c	12.52	Downy birch	1973	High forest	Gullies/Deep Valleys/Uneven/Rocky ground	
Steep sloping, north facing site with mineral soil, with native broadleaved trees - birch oak and holly, there are scattered veteran trees present notably holly which may have been pollarded to provide fodder for livestock. The majority of trees are relatively young pole stage downy birch which probably regenerated when the site was fenced to establish conifer crops in the 1970's. There are also a number of mature/veteran beech trees present at the eastern end near to the track along with a small amount of regenerating beech from seedling to semi-mature. The eastern end of the compartment also includes a number of small crags rich in bryophytes and liverworts, with Wilson's Filmy Fern Hymenophyllum wilsonii recorded. A limited amount of fell to waste has also taken place. Presence of charcoal platforms, and veteran Scots Pine and Oak inc culturally modified tree/s. Some Silver Birch						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
(Betula pendula) also present. Good mineral soils (although wet!) – brown earths/cambsiols on the lower slopes above the track amidst the birch regen. Elsewhere (SCPTS 1a, 1c,1d) mainly peaty podzols, peats and peaty gleys.						
1d	26.93	Open ground		Non-wood habitat		
Significant rocky outcrops, boulders as well as blanket bog, wet and dry heath and areas of bracken. Includes ancient woodland - low density native pinewood, including dead snags and veteran trees on lower slopes, included within new boundary fence erected in January 2025 A small portion of the Northern corner overlaps with a native pinewood planting scheme from c. 2015 with Scots pine and birch planted on mounds. Rhododendron ponticum and Gaultheria shallon have both been removed manually from this compartment with regrowth removal ongoing.						
2a	21.33	Scots pine	1700	Min-intervention	Gullies/Deep Valleys/Uneven/Rocky ground	
Uneven terrain, mostly north facing with some very steep slopes and a deep gully on the eastern boundary. There is a mixture of veteran Scots pine and younger downy birch present at very variable spacing (and a significant amount of open space) from individual veteran pine trees, small stands of older pine, a lot of standing deadwood from the 1942 fire, scattered regeneration of downy birch and a significant stand of mature Scots pine on a prominent knoll. Rhododendron and Sitka spruce regeneration present.						
2b	29.82	Open ground		Non-wood habitat		
Significant rocky outcrops, boulders as well as blanket bog, wet and dry heath and areas of bracken. At the upper margins of the forest there are a few stunted trees present and no planting of non-natives was carried out.						
2c	12.52	Downy birch	1700	High forest	Gullies/Deep Valleys/Uneven/Rocky ground	
North facing slope rising steeply from the loch side track, native broadleaved trees on mineral soils, predominantly mature and pole stage downy birch long with a wide range of other species including rowan, ash, hazel, wych elm, bird cherry, holly, eared willow, grey willow and Scots pine. Presence of charcoal platforms, and veteran Holly and Oak inc culturally modified tree/s. Some Silver Birch (Betula pendula) also present. Good mineral soils (although wet) – brown earths/cambsiols on the lower slopes above the track amidst the birch regen.						
2d	13.33	Open ground	2023	PAWS restoration	Gullies/Deep Valleys/Uneven/Rocky ground	Planted Ancient Woodland Site
Gently sloping with a northerly aspect bounded by a small watercourse on the western side, this compartment consists of a open ground awaiting regeneration following 2022/23 removal of a stand of Sitka spruce and Lodgepole						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
pine established in the early 1970's which had good growth at the bottom of the slope gradually reducing in size higher up the hill.						
2e	2.88	Open ground	2022	High forest	Mostly wet ground/exposed site, No/poor vehicular access within the site	
Felled ground awaiting natural regeneration. Two isolated stands of mature 1971 planted Sitka spruce adjacent to the main access track were felled in winter 2021/22. The area is surrounded by native woodland, growing on good mineral soil. Within the Eastern stand there is a narrow riparian strip of native woodland as well as a number of veteran holly trees on the edge of both conifer areas. The western stand was extracted by cableway to minimise ground disturbance on the steep slope.						
2f	10.06	Open ground	2023	High forest	Mostly wet ground/exposed site, No/poor vehicular access within the site	
Open ground awaiting low density tree regeneration on peaty soils, classified as peatland edge woodland in the Long Term Forest Plan. Formerly Sitka spruce & Lodgepole pine planted on peaty soils that were felled in 2022/23.						
3a	32.94	Open ground	2023	PAWS restoration		Planted Ancient Woodland Site
Open ground awaiting natural regeneration following 2022/23 felling and extraction of non-native plantation. Formerly mixed Lodgepole pine and Sitka spruce with occasional veteran Scots pine trees - and frequent birch that had regenerated at the time of plantation establishment. The Scots pine and birch trees have been retained through careful working during the plantation removal. An ATV track passes through the middle of the area.						
3c	1.95	Scots pine	1870	High forest	Mostly wet ground/exposed site	
Stand of mature and veteran Scots pine pre-dating plantation of the now felled surrounding lodgepole pine.						
3d	16.19	Downy birch	1700	High forest	Gullies/Deep Valleys/Uneven/Rocky ground	
North facing slope rising steeply from the loch side track, native broadleaved trees on mineral soils, predominantly mature and pole stage downy birch long with a wide range of other species including rowan, ash, hazel, wych elm, bird cherry, holly, eared willow, grey willow and Scots pine. Presence of charcoal platforms, and veteran Holly and Oak inc culturally modified tree/s. Some Silver Birch (Betula pendula) also present. Good mineral soils (although wet!) – brown earths/cambsiols on the lower slopes above the track amidst the birch regen.						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
3e	1.31	Open ground	2023	PAWS restoration	Gullies/Deep Valleys/Uneven/Rocky ground, No/poor vehicular access within the site	Planted Ancient Woodland Site
Open ground awaiting natural regeneration following 2022/23 motor-manual felling and extraction of non-native plantation. Formerly a group of isolated 'islands' of Sitka spruce surrounded by native broadleaved woodland located near the bottom of the steep north facing slope an relatively good mineral soils. The four stands were extracted by winch from below (the eastern two) winch from above (the largest stand) and horse (the western-most stand). These approaches ensured protection of the surrounding native woodland that would not have been possible if accessing these sites with forestry machines.						
3f	15.95	Open ground	2023	High forest	Mostly wet ground/exposed site, No/poor vehicular access within the site	
Open ground awaiting peatland restoration following 2022/23 felling and extraction of non-native plantation. Formerly a Sitka spruce & Lodgepole pine planted on peaty soils which were in check.						
3g	9.15	Open ground		Non-wood habitat	Mostly wet ground/exposed site	
Open ground either within planted non-native plantation or at the top of the slope above the plantation, in both cases the soils consist of peat of varying depth and should be retained as open ground						
3h	12.83	Open ground	2023	PAWS restoration		
Open ground awaiting low density natural regeneration following 2022/23 felling and extraction of non-native plantation. Classified as peatland edge woodland in the Long Term Forest Plan. Formerly lodgepole pine on peaty soils.						
3i	2.24	Open ground		Non-wood habitat		
Riparian area with mature Scots pine and birch present in low numbers						
3j	0.92	Downy birch	1971	PAWS restoration		
Riparian area with mature Scots pine and birch present in low numbers						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
3l	2.24	NULL	2023	PAWS restoration		
Native woodland including veteran trees, associated with a main watercourse. Includes open ground awaiting natural regeneration following 2022/23 felling and extraction of non-native plantation.						
4a	34.81	Sitka spruce	1971	PAWS restoration	No/poor vehicular access within the site	Planted Ancient Woodland Site
A large contiguous area of PAWS consisting of a solid area of Sitka spruce on the mid slope and a component of lodgepole pine on the upper slope. The non-native plantation removal is being undertaken through the 2025 winters. The felled areas area awaiting natural regeneration, with careful monitoring. Direct seeding of Scots pine seed collected on site at a rate of 5,978 seeds/Ha and high elevation local 'crooked wood' provenance downy birch at a rate of 30,000 seeds/Ha was undertaken by drone in March 2025 over 2Ha as a field-scale trial of this approach. No ground scarification was undertaken, to avoid unnecessary soil impacts, so establishment may be lower than the 1-5% typical from direct seeding.						
4b	8.19	Sitka spruce	1971	PAWS restoration	No/poor vehicular access within the site	Planted Ancient Woodland Site
Smaller groups of Sitka amongst larch and native broadleaved woodland, timber quality is generally quite good but localised areas of wet ground combined with the adjacent woodland types might present some harvesting challenges, there is also a significant area of windblow in the north end of this sub-compartment. Some of this sub-compartment is being felled in 2025 for access to the adjacent plantation removal, with the remainder of this sub-compartment scheduled for plantation removal in 25/26. Remnant veteran and mature Scots pine, birch and other native species form a good seed source for natural regeneration post plantation removal.						
4c	8.45	Sitka spruce	1971	PAWS restoration		Planted Ancient Woodland Site
A mixed stand of Lodgepole and Sitka located at the bottom of the slope with plantation removal through the winters of 2025. PAWS with remnant veteran Scots pine trees and mixed ages of birch, including adjacent restored woodland to the West; well established seed source for natural regeneration post plantation removal.						
4e	17.06	Lodgepole pine	1971	PAWS restoration	No/poor vehicular access within the site	
Lodgepole pine stands growing at the top of the plantation undergoing felling and extraction during the winters of 2025. These shallow peats are to regenerate as low density woodland classified as peatland edge woodland in the Long Term Forest Plan and providing good habitat for black grouse.						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
4f	11.76	Hybrid larch	1971	PAWS restoration	No/poor vehicular access within the site	Planted Ancient Woodland Site
There are considerable areas of Larch present on the lower slopes Scattered veteran Scots pine and birch amidst mixed conifers on lower slopes. Patch of W9 type field layer vegetation noted under larch in one area (Dog's Mercury indicative of rich soils and future Ash-Elm type woodland)						
4g	8.53	Downy birch	1700	High forest	Gullies/Deep Valleys/Uneven/Rocky ground, No/poor vehicular access within the site, Sensitive habitats/species on or adjacent to site	
This is part of a very large area of restored PAWS which is contiguous with most of Cpt 5a, it consists mostly of regenerated pole stage birch with occasional mature Scots pine along with standing deadwood from the 1942 fire the western edge is formed by a steep gully running N-S which is rich in bryophytes and has significant amounts of mature pine and birch present.						
4h	20.28	Open ground		Non-wood habitat		
Mostly wet heath with some important remnant groups of mature and veteran Scots pine and other native tree species mainly isolated to gullies.						
4k	4.25	Downy birch	1700	Min-intervention	Gullies/Deep Valleys/Uneven/Rocky ground	
Steep riparian area on western side of Allta Bhathaich with mature Birch and Scots pine trees						
4l	2.69	Downy birch	1900	PAWS restoration	No/poor vehicular access within the site	
A small area in the centre of cmpt 4 mostly made up of mature birch trees but with large open grown Sitka also present on relatively wet ground						
4m	1.7	Sitka spruce	1971	PAWS restoration	No/poor vehicular access within the site	
Patch of windblown Sitka mostly surrounded by Larch						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
4n	3.71	Downy birch	1971	Min-intervention	Mostly wet ground/exposed site	
Area of restored PAWS dominated by mature birch trees some Sitka regeneration present.						
4o	4.73	Lodgepole pine	1971	High forest	Landscape factors, No/poor vehicular access within the site	
Small areas on the upper margins of the plantation dominated by very poor quality Lodgepole pine planted outside of the PAWS zone. Felling through 2025 winters. Natural regeneration is likely to be low in these areas and the Long Term Forest Plan demarks the future habitat as open.						
4p	1.33	Lodgepole pine	1971	Non-wood habitat		
Scattered poorly grown Lodgepole pine growing on deep peat with plantation removal in the winters of 2025. The area is suitable for restoration to peatland post-felling.						
4q	0.05	Downy birch	1700	High forest		
This is a small part of a wider area of restored PAWS Cpt 4g, it consists mostly of regenerated pole stage birch with occasional mature Scots pine along with standing deadwood from the 1942 fire the western edge is formed by a steep gully running N-S which is rich in bryophytes and has significant amounts of mature pine and birch present.						
4r	4.33	Sitka spruce	1971	PAWS restoration		
Smaller groups of Sitka amongst larch and native broadleaved woodland, timber quality is generally quite good but localised areas of wet ground combined with the adjacent woodland types will require careful delivery of plantation removal.						
4s	0.28	Lodgepole pine	1971	Non-wood habitat		
Scattered poorly grown Lodgepole pine growing on deep peat, it is unlikely any timber product could be produced from the small trees and fell to waste may be the only option. The area is suitable for restoration to peatland.						
4t	0.75	NULL	1971	Non-wood habitat		
Mostly degraded open upland habitats. Some small stands of birch that regenerated during a period of low herbivore browsing associated with historical plantation forestry.						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
5a	73.89	Downy birch	1700	High forest		
This sub compartment consists of entirely native woodland and contains evidence of a complex picture of management over the last two or three centuries. The South West corner high up the hill contains significant remnants of Caledonian pine. The effects of the 1942 are still evident in places with many charred snags along with evidence of harvesting using axes and crosscut saws which may have taken place after the fire damage. The remainder of the sub cpt is dominated by a dense cover of young pole stage birch with the occasional large veteran Scots pine towering above them, two of which were chosen as sites for new osprey platforms in 2018. occasional veteran birch are present as well as pole stage scots pine and regenerating Sitka. a well constructed ATV track provides partial access through this area but would benefit from being extended to provide access for deer control and informal public access.						
5b	10.23	NULL	2022	PAWS restoration		
A felled area awating regeneration. Relatively flat and located on the Northern edge of the woodland, it benefits from reasonable access having an ATV track running through it whicih was upgraded in 2022. The area was dominated by well grown Sitka Spruce planted in 1971, which was suffering from windblow in a number of places. A spur road providing timber wagon access was constructed in 2021 to enable this area to be harvested in winter 2021/22. A significant feature of this cpt is the presence of numerous veteran scots pine along with many fire scorched snags, despite halo thinning carried out in the 90's the high growth rates of the surrounding Sitka have resulted in most of these suffering from light competition, many have died in recent years and most of the remainder are in very poor condition. A small amount of remedial extension to some of the halo thinning was carried out in 2017. The area was felled and extracted using conventional harvesters/forwarders with great care to avoid remnant features of the ASNW such as the root zones of native trees and ancient pine stumps/snags.						
5c	10.66	Hybrid larch	1970	PAWS restoration		
A group of hybrid larch between the Sitka plantation and the restored PAWS higher up the slope. the larch is variable quality and is also suffering from the effects of wind throw, despite this it would be interesting to try and retain some of these mature trees for different reasons. Firstly as a potential resource for small scale milling but also for experimental thing to create wind throw in the future, the reason being to produce exposed soil and raised positions for trees to regenerate in. There is much evidence of previous examples od upturned root plates providing opportunity for tree regeneration throughout the Western end of Glen Mallie and in numerous other Western pinewoods where ground conditions are often too wet to promote regeneration particularly of Scots pine. there are numerous scorched snags as well as mature Scots pine with large spreading crowns which as would be expected are doing much better in the Larch stands than the adjacent Sitka.						
5d	14	NULL	2022	PAWS restoration		

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
The dence sitka spruce in this area was felled to recycle in winter 2020/21. This large area of what was dense, stunted multi stem Sitka spruce is now ground awaiting native tree regeneration with a scatter of birch of varying size and a scattering of mature Scots pine.						
5e	2.09	Downy birch	1700	Min-intervention	Mostly wet ground/exposed site	
This is a small area of flat wet ground in the North west corner of the site consisting of scattered mature and veteran Scots pine and pole stage birch with evidence of fell to waste activity						
5f	0.65	NULL	2022	PAWS restoration		
A felled area awating regeneration. Relatively flat and located on the Northern edge of the woodland, it benefits from reasonable access having an ATV track running through it whicih was upgraded in 2022. The area was dominated by well grown Sitka Spruce planted in 1971, which was suffering from windblow in a number of places. A spur road providing timber wagon access was constructed in 2021 to enable this area to be harvested in winter 2021/22. A significant feature of this cpt is the presence of numerous veteran scots pine along with many fire scorched snags, despite halo thinning carried out in the 90's the high growth rates of the surrounding Sitka have resulted in most of these suffering from light competition, many have died in recent years and most of the remainder are in very poor condition. A small amount of remedial extension to some of the halo thinning was carried out in 2017. The area was felled and extracted using conventional harvesters/forwarders with great care to avoid remnant features of the ASNW such as the root zones of native trees and ancient pine stumps/snags.						
5g	1.61	Scots pine	1700	Min-intervention		
Small stands of mature/veteran scots pine within an area awaiting natural regeneration following plantation removal.						
5h	0.69	NULL	2022	PAWS restoration		
Felled area with remnant mature Scots pine, awaiting natural regeneration. This was sparse 1971 planted Lodgepole pine clearfelled with adjacent Sitka in winter 2021/22.						
5i	19.68	Open ground	1700	Non-wood habitat		
Mostly heather moorland between the planted trees and the deer fence						
6a	42.93	Scots pine	1700	High forest		

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
A large area of restored PAWS stretching for over 1 Km along the south shore of Loch Arkaig and continuing almost to the upper margins of the forest to the west of the Allt na Briobaig. The woodland consists predominantly of irregularly spaced mature and pole stage scots pine with occasional veteran Scots pine and large standing deadwood scattered throughout. Broadleaved trees are common throughout with veteran oak present and patches of dense alder wet woodland (W7) occurring at the mouths of the burns. the understorey is generally typical blueberry and heather W18 although with a high presence of bracken.						
6b	44.1	Lodgepole pine	1974	PAWS restoration		Planted Ancient Woodland Site
Mature Lodgepole pine with endemic windthrow effecting up to 50% of the compartment, the canopy includes some broadleaves - downy birch, eared willow, grey willow, rowan and bird cherry as well as a few veteran Scots pine. Halo thinning around the pine has been carried out and seedlings of Scots pine and rowan are present but heavily browsed.						
6c	24.72	Lodgepole pine	1974	Non-wood habitat		
Monoculture of Lodgepole pine on the upper reaches of the forest outside of the PAWS area, field layer dominated by molinia						
6d	28.85	Open ground		Non-wood habitat		
6e	6.75	Hybrid larch	1974	PAWS restoration		Planted Ancient Woodland Site
A stand of hybrid larch on the mid slope with slightly better soils present, approx. 50% is windblown, there are a lot of old stumps present which are supporting populations of lower plants.						
6f	2.17	Sitka spruce	1974	PAWS restoration		Planted Ancient Woodland Site
North east corner of the forest with large Sitka spruce, suffering from windthrow dominating, veteran holy and oak present						
6g	3.18	Hybrid larch	1974	PAWS restoration		Planted Ancient Woodland Site

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
Small area of hybrid larch and lodgepole pine						
6h	1.79	Hybrid larch	1974	PAWS restoration		Planted Ancient Woodland Site
Small area of hybrid larch near the shore						
6i	2.09	Sitka spruce	1974	PAWS restoration		Planted Ancient Woodland Site
4 small isolated blocks of Sitka						
6j	3.7	Lodgepole pine	1974	PAWS restoration		Planted Ancient Woodland Site
Stand of Sitka spruce/lodgepole pine contiguous with another area of lodgepole pine to the south						
7a	55.65	Scots pine	1700	High forest		
A large area of restored PAWS consisting of groups of irregularly spaced veteran and mature Scots pine with occasional pole stage and regenerating Scots pine with frequent large standing deadwood throughout. birch, alder, holly and rowan are also scattered throughout the area. There is evidence of extensive fell to waste carried out in the late 90's. Wood ants present.						
7b	35.24	Lodgepole pine	1974	PAWS restoration		
Extensive area of 2024/25 felled and extracted plantation Lodgepole pine on the upper margins of the forest with relatively poor growth with occasional mature Scots pine present. Predominantly open ground with shallow peaty soils awaiting low density natural regeneration as classified as peatland edge woodland in the Long Term Forest Plan.						
7c	10.02	Open ground	2024	High forest		
Open ground awaiting peatland restoration following 2024/24 felling and extraction of non-native plantation. Formerly Lodgepole pine of very poor growth growing on peat of varying depth, survey carried out by Upland						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
Ecology in March 2018 recommends reverting most of this area to open peatland habitat with some areas of peatland edge woodland to the north.						
7d	32.75	Lodgepole pine	1974	PAWS restoration		Planted Ancient Woodland Site
Open ground awaiting peatland restoration following 2023/24 felling and extraction of non-native plantation.						
7e	15.65	Lodgepole pine	1974	PAWS restoration		Planted Ancient Woodland Site
Sub-compartments d, e, f & h from a large contiguous area of Lodgepole pine across most of the lower slopes of compartment 7, there is a lot of variation in the quality of the timber and Sitka spruce makes up a small component in places						
7f	11.22	Open ground	2024	PAWS restoration		Planted Ancient Woodland Site
Open ground awaiting peatland restoration following 2023/24 felling and extraction of non-native plantation. Formerly consisted of a contiguous area of Lodgepole pine.						
7g	5.56	Hybrid larch	1974	PAWS restoration		Planted Ancient Woodland Site
Stand of reasonable quality hybrid larch on slightly drier ground. A very small number of larch trees were felled in winter 2023/24 as part of the wider plantation removal of the surrounding Lodgepole pine and Sitka spruce, where access was required to these other plantation species. The larch has been retained where possible to provide gradual input of decaying wood to the ecosystem and to provide woodland structure during the period of low woodland cover during this phase of PAWS restoration.						
7h	8.54	Open ground	2024	PAWS restoration		Planted Ancient Woodland Site
Open ground awaiting peatland restoration following 2023/24 felling and extraction of non-native plantation. Sub-compartments b&c formed alternating 'strips' of poorly grown lodgepole pine at the far western end of The Gusach with tree growth dependant upon peat depth/wetness. Some Sitka spruce was also present in this compartment on the small area of better soils. Wood ants present.						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
7i	9.51	Scots pine	1700	Min-intervention		
Small groups of mature Scots pine and scattered birch within the extensive area of Lodgepole pine						
7j	22.78	Open ground		Non-wood habitat		
Unplanted areas within and above areas of lodgepole pine, dominated by calluna and mollina						
7k	5.3	Downy birch		Min-intervention	Mostly wet ground/exposed site	
Area of alder dominated woodland along the south shore of the loch extending inland either side of a small watercourse						
7m	2.07	Hybrid larch	1974	PAWS restoration		
Small stands of hybrid larch on the lower slope with slightly better soils present.						
8a	21.94	NULL	2024	PAWS restoration		
Open ground awaiting low density natural regeneration following 2023/24 felling and extraction of non-native plantation. This is a significant area that was made up of predominantly Lodgepole pine, growth rates were very variable throughout cpt8, this sub-compartment had relatively healthy trees of good form albeit relatively small and slow grown with some windblow. Peatland restoration works through the sub-compartments a and c will identify the best peats for restoration with the remained shallowest peats being allowed to regenerate with low density peatland edge woodland as classified in the Long term Forest Plan.						
8b	17.4	Open ground		Non-wood habitat		
Open ground awaiting woodland establishment through natural regeneration following 2023/24 felling and extraction of non-native plantation. Some of the better soils within compartment 8. Dominated by rank molinia grass - and regeneration is being monitored carefully. Direct seeding of Scots pine seed collected on site at a rate of 5,978 seeds/Ha and high elevation local 'crooked wood' provenance downy birch at a rate of 30,000 seeds/Ha was undertaken by drone in March 2025 over 8Ha as a field-scale trial of this approach. No ground scarification was undertaken, to avoid unnecessary soil impacts, so establishment may be lower than the 1-5% typical from direct seeding.						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
8c	14.21	Open ground		Non-wood habitat		
Open ground awaiting peatland restoration following 2023/24 felling and extraction of non-native plantation. Sub-compartments a&c formed alternating 'strips' of poorly grown lodgepole pine at the far western end of The Gusach with tree growth dependant upon peat depth/wetness.						
8d	1.19	Open ground		Non-wood habitat		
Significant areas of open habitat both within and outside planted areas consisting of varying depths of peat. All non-native plantation trees were removed from this area in winter 2023/24 as the first phase of peatland/peatland edge woodland restoration.						
8e	5.45	Scots pine		Min-intervention		
A riparian strip adjacent to Allt a choire ghlais consisting of veteran & mature Scots pine, holly, birch and alder trees, includes the main population of Juniper bushes on the site (some 10-20 bushes in total). Will require careful targeted management of herbivore impacts to allow this population to thrive and expand.						
8f	1.27	Open ground	2024	Non-wood habitat		
Open habitat between the loch and the original plantation area. Some small plantation trees were still present in 2023. Mainly deep peats. All non-native plantation trees were removed from this area in winter 2023/24 as the first phase of peatland/peatland edge woodland restoration.						
8g	22.05	Open ground	2024	Non-wood habitat		
Open habitat originally planted with lodgepole pine in 1974 on deep peat. Plantation trees had not established but small plantation trees were still present in 2023. Mainly deep peats. All non-native plantation trees were removed from this area in winter 2023/24 as the first phase of peatland/peatland edge woodland restoration.						

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.

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