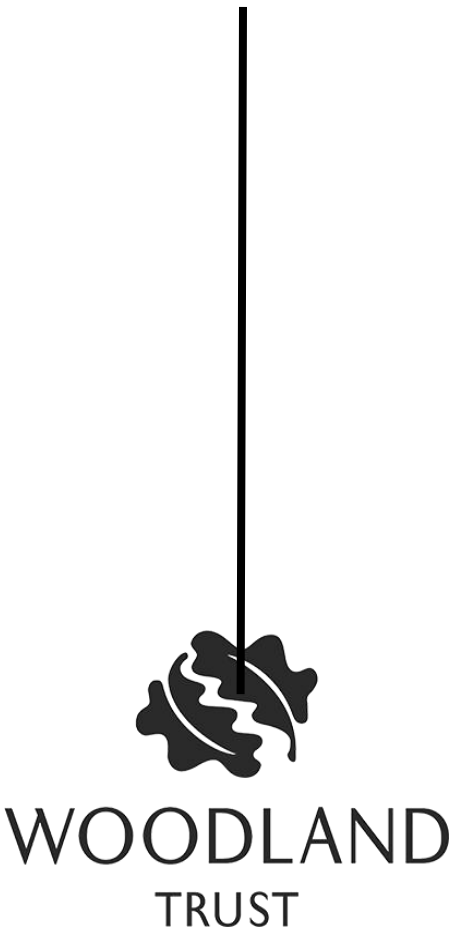
Gleann Shìldeag

(Plan period – 2026 to 2031)



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

Gleann Shìldeag

Location:	Strathcarron Grid reference: NG844543 OS 1:50,000 Sheet No. N/A
Area:	3660.26 hectares (9044.70 acres)
External Designations:	National Scenic Area, Site of Special Scientific Interest, Special Area of Conservation
Internal Designations:	N/A

2. SITE DESCRIPTION

Introduction:

Gleann Shìldeag is a 3,388 hectare (8,368 acre) property set in a unique and dramatic landscape perched on the very fringes of Scotland's west coast in the Wester Ross National Scenic Area. It is partly designated as a Site of Special Scientific Interest (SSSI): Shieldaig Woods includes an area of ancient semi-natural birch woodland as well as a significant remnant of ancient Caledonian pinewood.

Ben Shieldaig estate (1,539 ha) was acquired by the Woodland Trust in April 2019 and was covered by a management plan published in 2022. In November 2021, the Woodland Trust acquired Couldoran Estate (1,849 ha), which borders Ben Shieldaig to the south and west. This extended the area of ownership to 3,388 hectares, and the whole estate was renamed Gleann Shìldeag. This plan has now been updated to incorporate the area not covered in the previous plan. Note, where 'Glen Shieldaig' (English) is noted, this is the name of the Glen which runs between Ben Shieldaig and An Staonach mountains, and which the estate is named after, 'Gleann Shìldeag'.

Description:
The Gleann Shìldeag estate is a largely mountainous landscape in Wester Ross, centred on Ben Shieldaig (534 m) and An Staonach (513 m). Ben Shieldaig forms a steep, distinctive massif overlooking Beinn Damh to the east and Glen Shieldaig to the west, while An Staonach slopes southwards toward the former Couldoran Estate and the River Kishorn.

The estate sits between the communities of Kishorn in the south and Shieldaig immediately adjacent to the north. To the west is the Applecross peninsula, Lochcarron further to the south and Torridon to the north. The north end of the estate is on the popular tourist route, the North Coast 500 (NC500), one of the largest attractions in the Highlands.

Gleann Shìldeag lies within a nationally and internationally important conservation landscape. It forms part of the Loch Maree Complex Special Area of Conservation, neighbouring to Beinn Eighe National Nature Reserve, Doire Damh SSSI, Rassal Ashwood, and Kinloch Woodlands. The estate contains two exceptional woodland areas: the ancient Caledonian pinewood Coille Creag-loch (67 ha) on the west face above Loch Dughaill - one of the most westerly, lowest-elevation and genetically distinct native pinewoods in Europe - and the extensive oceanic birch woodland Doire a' Ghriam above Shieldaig village. Together these form the Shieldaig Woods SSSI and represent some of Scotland's finest temperate rainforest habitat, rich in mosses, liverworts and rare bryophytes; nearly 20% of Scotland's bryophyte species occur here.

Beyond these woods, most of the estate is open heathland, interspersed with mire and blanket bog habitat and punctuated by lochans and rocky outcrops. Scattered native trees have been reduced to crags and ravines. The geology is striking: Torridonian sandstone over Lewisian gneiss—some of the oldest exposed rock in Europe—and large sandstone outcrops.

The area supports diverse and charismatic wildlife. Golden eagles, upland waders, pine martens, red squirrels, otters and white-tailed eagles are present, along with black-throated divers, a range of dragonflies (including the vulnerable azure hawker), rare insects such as the hoverfly Callicera rufa, and characteristic rainforest and pinewood

plants including sundew, butterwort and “witches’ hair” lichen.

Despite its ecological importance, the estate faces significant pressures: deer browsing, invasive Rhododendron, habitat fragmentation, tree disease and climate change. Restoration potential is high, including opportunities to expand woodland, reconnect fragmented habitats and develop montane woodland. Through its membership of the Glen Torridon Partnership, a landscape-scale restoration project over 30,000 hectares, the estate is a key part of “Saving Scotland’s Rainforest” programme coordinated by the Alliance for Scotland’s Rainforest.
Gleann Shìldeag contains the former estate grounds of Couldoran Estate which includes three tenanted cottages and several outbuildings. The estate grounds sit within 41 ha with a range of habitats, including grassland, large, overgrown woodland, with non-native conifers and exotic species, and a large amount of invasive non-native species The site also gives access to Couldoran House and the Bakkafrost Couldoran Hatchery, both under private ownership.

Overall, Gleann Shìldeag is a landscape of exceptional natural heritage, combining ancient geology, rare rainforest habitat, nationally significant pinewoods, and high biodiversity within a dramatic west-coast mountain setting.

History:

Gleann Shìldeag was historically part of the larger Lochcarron Estate, later divided into Ben Shieldaig Estate and Couldoran Estate, sold to private owners in the early 1990s and 2005 respectively. Although Shieldaig long benefitted from sea access, land routes were limited until the 1960s, when a road was established to the east side of Ben Shieldaig and the Balgy River. Before this, the only connection between Shieldaig and Torridon was a track skirting the southern shore of Loch Torridon through Annat and Balgy.

The area’s geography is shaped by Loch Kishorn, a northern arm of Loch Carron fed by several rivers and bordered by the Applecross peninsula to the west and a separating headland to the east. Its mouth is marked by the Garra Islands, including Kishorn Island.

Shieldaig village was founded during the Napoleonic Wars to supply trained sailors to the Royal Navy, but by the time it was fully settled the threat had passed. The village nonetheless prospered, supported by government incentives for boatbuilding, guaranteed fish prices, land allocation, and new road access to Kishorn and Lochcarron. Duty-free salt further strengthened the local fishing economy by enabling curing of catches for southern markets.

The Highland Clearances had a profound impact. Originally part of the Applecross Estate under the MacKenzies, the area was transformed when ownership passed to the Duke of Leeds, who removed crofters’ grazing rights and converted land to large-scale sheep farming. The estate was then partitioned, and Shieldaig and surrounding lands sold to Sir John Stewart. Deerstalking interests in the ‘Glenshieldaig forest’ displaced many tenants, and much of the land was leased to incoming sheep farmers.

Historical accounts reveal long-standing woodland presence. The first Statistical Account (for Scotland (late 18th century) reported natural Scots pine, birch and hazel woodlands under the MacKenzies. The second Account later described a productive “fir wood at Shieldaig” used for building and boat timber. Around 1870 the woodlands were fenced to protect them from deer and livestock. In 1932, owner C.W. Murray sold mature pine to a timber merchant, who established a sawmill south of Shieldaig. Purchased in 1945 by A.C. Greg, the pinewood became part of the Lochcarron Estate and saw little subsequent felling.

The woodland has experienced several fires, notably two in the 1930s that damaged young regeneration, and a 1974 fire that destroyed about 15 hectares of mature pine. Recognising its importance, the Nature Conservancy Council designated the pinewood an SSSI, later re-notified in 1985, incorporated into a Special Area of Conservation in 2005, and included within the Wester Ross National Scenic Area.

3. LONG TERM POLICY

Gleann Shildeag will be an exemplar of habitat restoration in a degraded upland setting, valued locally and nationally for its outstanding landscape and rich biodiversity.

Whilst a mixed habitat mosaic of woodland and open ground will be preserved, woodland will be expanded to cover 35% of the estate, through natural regeneration and new native planting. This will help conserve and buffer the ancient woodland on the site, enhancing connectivity with other ancient woodland and rainforest fragments in Wester Ross. It will also lock away carbon and reduce soil erosion.

The ecological communities supported by the woodlands, particularly indicator lichen and lower plant species, will be thriving. Populations of flagship species, such as red squirrels and golden eagles, will have grown in numbers and spread to other woodlands in the area. Rare rainforest habitats, such as liverwort heath, will be in healthy condition and montane species, such as dwarf juniper, will be widespread.

Local communities will have benefitted from our work and have a greater role in the stewardship of the land and its resources. The estate will be used as an outstanding learning and recreational resource by local communities, interest groups and visitors, and a network of paths and trails will connect Gleann Shildeag throughout the landscape.

The project will act as a catalyst and demonstration site for encouraging landscape-scale restoration across neighbouring land, with partnerships of landowners, organisations and communities working together to support landscape-scale regeneration across the west coast of Scotland.

4. KEY FEATURES

4.1 Ancient Semi Natural Woodland

Description

Ben Shieldaig contains two extensive areas of ancient native woodland. To the north are 25 ha of upland birch woodland (Compartment 1 on map, Doire a' Griam: downy birch, including some sessile oak, hazel, rowan and scattered pines) on the slopes of Sròn an Fhithich behind and to the east of the Shieldaig township. On the west face of the massif above Loch Dughaill there are 67.5 ha of Caledonian pine (Compartment 3 on map, Coille Creag-loch), considered to be the most Westerly area of Caledonian Pine in Europe.

Both woods are designated within a single Site of Special Scientific Interest (SSSI), known as Shieldaig Woods. The SSSI is protected for native pinewood (in 'favourable maintained' condition in 2006), upland birchwood ('unfavourable declining' 2013), beetles ('favourable maintained' 2010), flies ('favourable maintained' 2015) and its bryophyte assemblage ('favourable maintained' 2022). The SSSI is part of the much larger Loch Maree Complex Special Area of Conservation (SAC), designated for a range of features of which Caledonian Forest is most relevant to Shieldaig ('unfavourable no change' condition in 2010).

Both woodlands are recognised on Scotland's Ancient Woodland Inventory and appear on historic maps, including the Roy Highlands map (1747–52), which indicates the pinewood was once more extensive. The 1st Ordnance Survey map shows woodland cover broadly similar to today, though some expansion has occurred on northern slopes and upper margins. The Native Woodland Survey of Scotland records 60.13 ha of native pinewood on Ben Shieldaig, plus 14.9 ha on adjacent common grazings, and 24.99 ha of birchwood, with an additional 4.38 ha on grazings.

Within the Caledonian Pinewood Inventory framework, Coille Creag-loch includes a "Core" pinewood and a surrounding "Regeneration" zone; both sit within Compartment 3. Around these areas is a much larger 'Buffer' area, which takes in the birchwood in Compartment 1, but also the surrounding open hill in a section of Compartment 6.

Past land use significantly shaped these woods: until 1993 the site was intensively grazed by sheep, and the western boundary was later fenced to exclude livestock, although the fence is now in poor condition. Fire has also played a major role. Two fires in the 1930s and a major 1974 wildfire created extensive damage yet also stimulated pine regeneration, particularly on drier, heather-dominated ground.

As a result, the pinewood today has an open canopy, uneven shrub layer, and altered ground flora. Canopy structure varies from dense Scots pine on cliff-edge platforms to mixed pine–birch stands elsewhere. Browsing suppresses palatable species such as rowan and oak. Deadwood is abundant and diverse, including standing "pine bones," stumps, and windblown trunks, reflecting past fires and adding ecological value.

The birchwood contains predominantly downy birch with scattered sessile oak, willow, rowan and Scots pine on upper crags. It is exceptionally important for its oceanic bryophytes and forms part of Scotland's temperate rainforest. The 2013 SSSI assessment found the birchwood in "unfavourable" condition due to limited regeneration at higher altitudes, caused by exposure and heavy browsing.

Both woods host rich lower-plant assemblages. Coille Creag-loch supports notable lichens such as Platismatia norvegica and Arthothelium lirellans. Doire a' Griam contains around 20% of Scotland's bryophyte species (199 species). The nationally rare moss Daltonia splachnoides occurs here at one of its two most northerly European sites. Twelve nationally scarce species are present overall, with Glyphomitrium daviesii restricted to the pinewood.

Herbivore Impact Assessments in 2021 and 2024 reveal persistently high browsing pressure despite increased culls since 2019. Seedling numbers nearly doubled between surveys, and large saplings increased, but fewer small saplings were recorded, indicating continued recruitment challenges.

Ground vegetation is dominated by common heather, with purple moor grass locally abundant, especially in denser woodland and southern pinewood areas. Bracken is scattered but has expanded following past wildfires. Species such as blaeberry, hard fern, bell heather, and cross-leaved heath occur widely at low cover, while bramble, dog rose, honeysuckle and ivy remain suppressed by browsing. Feather-mosses, including ostrich-plume feather-moss, are frequent, and flushed stony areas support hooked scorpion-moss.
Although the Native Woodland Survey reports 0% invasive species cover within the estate, small pockets of Rhododendron ponticum occur, likely seeded from neighbouring properties and Shieldaig village.

Shieldaig Woods SSSI lies within the Plantlife Important Plant Area for Western Atlantic Woodland—Scotland's Rainforest—with both core rainforest and potential expansion zones. The pinewood acts as a vital seed source for restoration; seeds from Ben Shieldaig have already been used to establish native woodland in nearby Kinloch Woodland. Crucially, the genetic composition of this pinewood is unique, representing a distinct postglacial lineage. For this reason, it has been registered as a Gene Conservation Unit (GCU) with EUFORGEN, ensuring management focuses on maintaining evolutionary processes and enabling natural regeneration through ongoing seedling and sapling development.

Together, the woodlands of Ben Shieldaig are of extraordinary ecological, genetic and conservation significance, representing some of Scotland's rarest and most valuable native habitats.

Significance

Ben Shieldaig pinewood is one of the most significant Caledonian Pinewood Inventory (CPI) sites; most westerly, closest to sea level, in good stage of regeneration and, along with a handful of other sites in Wester Ross, is genetically distinct from pinewoods throughout the rest of the country. The woodland at Gleann Shìldeag is of particular significance as an example of temperate rainforest, and one of the most important sites for oceanic bryophytes in the north-west of Scotland.

Management and maintenance of the Ancient Semi Natural Woodland component on the site contributes to meeting the Woodland Trust objective of 'No further loss of ancient woodland'.

Opportunities & Constraints

Opportunities:

Whilst some species in the woodlands have been regenerating well, browsing impact, especially at the northern end of the pinewood and in the birchwood has been sufficient to stunt the growth of species such as rowan, and partly prevent the regeneration of Scots pine from progressing to maturity. As a consequence, there is an opportunity to improve regeneration and mobility by increasing cull targets and reducing the level of browsing to achieve low impact.

The pinewood has existing connectivity with other core areas of the CPI, such as on Kinloch. It may have existing connectivity with the pinewood on Shieldaig Island and old pinewoods between Rhuroin and along the Shieldaig coastline. There is an opportunity to safeguard existing connectivity through allowing diverse regeneration to take place and allowing deadwood to accumulate.

The site should be home to a wide range of specialist rainforest species particularly ferns, lichens, bryophytes and invertebrates, surveys of which have recently begun. There is an opportunity to improve our knowledge of these rainforest species and ensure the management of the site is aligned with their protection. This will require careful balancing of the grazing and browsing levels to achieve both the light levels required by lower plants and the tree regeneration required.

The opportunity to collect seed from native tree species to be used for the estate nursery, research, or use by Woodland Trust and partners. These collections would aim to create suitable saplings to be planted to aid future woodland creation programmes on the estate and in the wider provenance zone.

There is the opportunity to limit the impact of deer incursions into Shieldaig village, working with neighbouring stakeholders on collaborative management. There is a also an opportunity to work with our neighbours to collaborate on wider land management, and share knowledge and resources to help achieve our conservation objectives for our estates and across the wider landscape.

Constraints:

Access:
Whilst the A896 circuits the estate, there are no management tracks or trails, and few parking areas.
There are also access issues on the site itself with much of Ben Shieldaig consisting of steep slopes, crags, boulders and uneven, boggy ground.

Herbivore Impact:
Herbivore impact from deer is still generally high throughout the woodlands and is impeding their ability to regenerate. The stock fence separating the woodlands from the Shieldaig Common Grazings is in a poor state. Currently, the sheep do not cross the fenceline still, primarily due to the difficult terrain around the fence, however this may change in the future

Invasive and non-native species:
Rhododendron ponticum is scattered modestly throughout the woodlands and can be controlled relatively easily, though there are still existing seed sources, such as in Shieldaig village, which could cause continuing issues.

Wildfires:
Future accidental wildfires could be started by people wild camping in the area; there is evidence of fire pits at a number of sites around the estate. Ground fire fuel loads are mostly high so Shieldaig is considered to be at a very high risk of a wildfire spreading should one start.

Existing Services:
An 11 Kv power line runs down the estate, and through the pinewood in Compartment 3. A buffer zone of 10m is in

place to ensure that any natural regeneration does not impact the overhead lines.

Climate change:
Shieldaig may be at risk from climate change, which may make the site more suitable for oak than Scots pine (and oak is already a component of the site). The best way to mitigate this risk is to further enhance mobility so that Scots pine can establish at higher altitudes. This can be achieved by reducing browsing pressure, as Scots pine regeneration is already present widely along the upper margins of the pinewood.

Factors Causing Change

Natural succession
Grazing, browsing, and ground damage by deer, or changes in behaviour as a result of deer management activities
Invasive non-native shrubs

Long term Objective (50 years+)

The woodland and its features on Glean Shìldeag are in favourable ecological condition, with varying ages and stages throughout the structure, balancing the needs of all the characteristic species and assemblages (e.g. lower plants). Canopy cover has increased throughout both existing sections of woodland, linking them together, as Scots pine and birch regeneration progresses to maturity, and palatable species like oak and possibly aspen are now better represented. Understorey is well developed and diverse, including regenerating canopy trees. Hazel is also abundant locally. Ground vegetation is now dominated by blaeberry, which has enhanced the quality of habitat for a wide range of invertebrates, birds and mammals. Dog rose, bramble, angelica and other palatable species are also much more abundant. Deadwood remains widespread and mostly made up of Scots pine, but will become more diverse in future. Rainforest communities of lichens and lower plants are maintained and enhanced.

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

Woodland Management:
1) Deliver 60 ha of new native woodland through natural regeneration at a density of 400 stems/hectare in the regeneration zone around Shieldaig Woods in compartment 3 by 2030. This will be achieved by increased culls to reduce the current browsing impact. The 11 transects put in place in 2023 in this zone will be monitored annually (2-4 each year) and fixed-point photography, particularly using drones, undertaken annually.
2) Improve species diversity within the woodland of both trees, particularly rowan, hazel and oak, and ground flora/shrubs, particularly honeysuckle, bramble and dog rose within 5 years. This will be monitored annually through Woodland Condition Assessments.
3) All ancient trees identified and recorded on the Ancient Tree Inventory by 2030.

Fencing:
4) Monitor the condition of the current stock fence bordering the Shieldaig Common Grazings annually and record any instances of incursion by sheep. Liaise with the Common Grazings committee/crofter, where possible, to repair and halt such incursions.

Deer Management:
5) Undertake culls to reduce the impact of deer browsing to ‘low’ within at least 75% of the ancient woodlands, with the remainder of the site being no higher than ‘medium’, by 2030 using the Herbivore Impact Assessment (HIA) Woodland Grazing toolkit. This will be delivered by:

- Undertaking an effective annual cull through the estate Wildlife Manager, informed by HIA results and drone monitoring. No vehicles will be used for extraction within the SSSI.
- Utilising authorisations to maximise effectiveness and manage localised issues, reviewing this annually with Nature Scot.
- Undertaking woodland Herbivore Impact Assessment lite (HIA) surveys annually and a full HIA in 2029
- Undertaking biannual thermal imagery survey to be undertaken to provide information on species, density and distribution within the ancient woodland, to inform cull and target areas.

Invasive Species:
6) Using mechanical or chemical treatment to remove all Rhododendron ponticum from the ancient woodland, compartments 1 & 3, by 2028. Monitor both compartments for signs of regrowth and remove as required.

Seed Collection:
7) In suitable locations within the Shieldaig Woods SSSI, to collect tree seed as available following guidance established through Trees for Life collecting no more than 20% of the seed from any one tree.

Safeguarding rainforest species:
8) Ensure the bryophyte feature of the SSSI remains in 'favourable condition' by 2030. The bryophyte assemblages will be monitored annually using the bespoke methodology developed with the Alliance for Scotland's Rainforest

Invertebrates:
10) Undertake baseline invertebrate survey in Shieldaig Woods SSSI in 2026. A further survey will be undertaken in 2031 to monitor change.

Protect from diseases:
11) Ensure, as far as is practically possible, the woodlands on Gleann Shìldeag remain free from disease throughout the life of this plan. This will be monitored through annual Woodland Condition Assessments, and especially the non-native species around Couldoran policies, to assess any possible disease.
12) Create a Disease Mitigation Plan for the estate outlining possible risks, and which mitigations, including biosecurity measures, can be put in place by 2028. As part of ongoing Environmental Assessment for all contracts and machinery coming on to the site, biosecurity measures will be agreed contractors.

Wildfire management:
13) Fire Management Plan to be updated annually, which will include helicopter assistance should it be required. This will be coordinated with neighbouring estates and shared with volunteers.

4.2 Mixed Habitat Mosaic

Description
The habitat mosaic of Gleann Shìldeag consists of a complex pattern of woodland, heath, bog, wetlands and freshwater features set within Torridon's characteristic sandstone mountains and intervening glens. Around 96 ha is woodland—mostly Ancient Semi-Natural Woodland supporting high biodiversity—while the rest is predominantly open heathland and wetland interspersed with lochans.

Wet heath is the most extensive habitat, occurring on shallow peat or waterlogged peaty soils, dominated by deergrass, ling heather, cross-leaved heath and purple moor-grass. Browsing has kept ling heather low, allowing Cladonia lichens to thrive. This wet heath largely reflects long-term human influence through burning and grazing. With livestock removed since 2019, natural regeneration has begun, especially along the Abhainn nan Lùb and beside the A896, where birch seedlings benefit from better drainage and disturbance to deer from passing traffic.

Dry heath occurs on the steepest slopes and cliffs of Ben Shieldaig and An Staonach. On shaded, north-facing boulder slopes it forms rare liverwort heath, an internationally important Annex 1 habitat of the Loch Maree Complex SAC. This community features colourful cushions of oceanic liverworts with Sphagnum capillifolium, pleurocarpous mosses, ling heather and scattered blaeberry, with eleven of the sixteen key liverwort species having a northern Atlantic distribution.

The summit areas of Ben Shieldaig and An Staonach contain extensive rock exposures and wind-shorn wet heath supporting abundant dwarf juniper. Hollows host patches of blanket bog with hare's-tail cotton-grass, ling heather and sphagnum, along with numerous oligotrophic lochans.

Along the length of Glen Shieldaig, flanking the meandering Abhainn nan Lùb, vegetation is dominated by mire—wet heath and blanket bog—with purple moor-grass and locally frequent bog myrtle. Additional blanket bog occurs near Loch Damh and Loch Coultrie. In the western part of the glen, a network of small rivers and burns descend from An Staonach and Beinn Bhan.

Scattered through the wet heath are small marshy grassland patches and areas dominated by bracken. Semi-improved acid grassland forms narrow strips along the roadside embankment—likely the result of past re-seeding—and occurs in former livestock gathering areas such as Rèidh-nan-uaig, which also contains a small acid flush with abundant rushes and sphagnum.

To the far south around the former Couldoran policy grounds, agricultural improvement has heavily influenced the landscape, producing mosaics of marshy and acid grassland interwoven with modified bog.
Invasive species are a significant issue in the southern end of Gleann Shìldeag. Rhododendron ponticum is widespread in the Allt Meallhan Gobhar gorge, the estate policy grounds, and even covers a small island in Loch Coultrie. Cotoneaster and Gaultheria mucronata are also spreading from the policy plantings, though less extensively.

The grounds around Couldoran House and cottages (c. 8.7 ha) are largely wooded, containing remnants of designed landscape planting and later plantation woodland used for screening or small-scale commercial purposes. Most trees are in good condition, though a large block of lodgepole pine shows poor growth due to marginal soils. The estate grounds are enclosed by a 3.2 km deer-height fence, repaired in 2023, now excluding deer from 42 ha.

A small pond of around 0.5 ha, originally created for duck shooting, lies south of Couldoran House. Although the southern banks have collapsed, the pond persists and now supports amphibians, while surrounding bog habitats favour northern emerald dragonfly, other odonata, and the vulnerable lesser butterfly orchid. Adjacent to this pond is a former cattle-grazing field that supports a range of diverse wildflowers in summer.

Significance

The mosaic of woodland with open ground habitats in an intimate mix has created diverse habitats.

The development of native woodland through establishment and natural regeneration will extend and buffer existing semi-natural woodland across site, forming a significantly larger core habitat area. This will increase connectivity with other ancient woodland sites across the area. This large, contiguous area of semi-natural woodland is important in the context of climate change, as it likely to be more stable and resilient than the more fragmented woodland typical of the Highlands.

The mixed habitat mosaic supports a range of species regarded as wholly reliant on the habitat provided by the site. For example the proximity, of the bog to ancient woodland provides an important niche for the northern emerald dragonfly.

Management of the mixed habitat mosaic contributes to the Woodland Trust objectives to protect, restore and create native woodland.

Opportunities & Constraints

Opportunities:

There is an opportunity to develop more montane scrub as part of the mosaic of habitats, as a result of fencing being installed and through reduced deer densities at higher elevations on Ben Shieldaig. Montane species such as Salix myrsinites (whortle-leaved willow) and Betula nana have been recorded near to the site. Seed could be collected, grown in the nursery and then planted both within and outwith the existing fence areas. Existing dwarf juniper which is scattered along the summits of Ben Shieldaig and An Staonach, could be monitored to record their condition and assess the impact of our management.

Creeping willow and eared willow also occur in the wet heath and are often heavily browsed. These willow species may provide an opportunity to aid woodland establishment through their mycorrhizal associations, particularly of birch or pine seeds which may germinate.
All invasive non-native species should be eradicated from the estate, particularly Rhododendron ponticum. Where invasive non-native species are threatening niche habitats, such as Cotoneaster in the gorges of compartment 9, to use the management interventions as demonstration opportunities, and interest users, land managers and the local media to assist in reducing the spread of these species.

There is an opportunity to restructure the woodland areas in compartment 10, in the area around the old Couldoran estate grounds. There are many mature non-native species, grown together in tight stands, which will face increasing risk of wind-blow as they age. Some species, such as the parch present, also carry the risk of diseases and pathogens such as Phytophthora ramorum.

Improvements to the existing pond and surrounding bog near Couldoran House could be explored in order to create better habitat for a range of species, particularly dragonflies and amphibians.

Conservation grazing and wildflower seed sowing could be undertaken in the meadows to the north-west of the pond to improve habitat for a range of invertebrates.

There is the opportunity to investigate further use of the drone for monitoring including but not limited to fixed point

photography and invasive species surveys. The site is within the Wester Ross National Scenic Area. The Shieldaig Woods are SSSI & SAC designated. Whilst the visual impact of any proposed fence lines will need to be carefully considered, there is an opportunity to improve the character and scenery of the landscape through extended tree cover. Potential fence lines could be designed to divert fencing away from the roadside and reduce visibility wherever practical and possible. There could also be the opportunity to link in fencing plans with neighbouring estates to have more of a strategic approach, meaning less fencing overall in the landscape.

Constraints:

Deer:
Deer densities in the area, at 5-6 per square km, are currently too high to enable regeneration of the existing woodlands. Any signs of regeneration are currently heavily browsed.

Disease:
The existing pinewood is a Caledonian Pinewood Inventory site, guidance on the risk of Dothistroma needle blight (DNB) infection recommends that no planting of Scots pine which hasn't been grown on site is undertaken within the buffer zone.

Invasive Non-Native Species:
Existing INNS are crowding out possible native species regeneration, particularly in Allt Meallan Gobhar, and having a negative impact on the soil. If left untreated, these will continue to spread. Challenging terrain means removal of invasive species along the gorges requires specialist rope access services.

Woodland Management:
For any restructuring and harvesting plans in compartment 10, consideration will need to be given for trees and stands which hold ecological or amenity value, or provide valuable shelter.

Existing Services:
An 11 Kv power line runs down the estate, on the Ben Shieldaig side of the Glen. A buffer zone of 10m will be in place to ensure that any planting does not impact the overhead lines. A further power line comes in to supply the properties in the old Couldoran estate grounds
There are two telecommunications masts at NG851484 and a third mast at NG 850449. A 50m buffer zone will be created around these masts where no planting will take place.

Access:
Access to the western part of the property is available by foot (and in places by ATV) directly from the A896. There is an existing ATV track which runs from the middle of Glen Shieldaig to Loch Lundie, where there was previously a fish farm operation. This is still usable in parts however it has overgrown in a number of places. However, the beginning of the track, which comes off the A896, is no longer visible. When the Abhiann an Lub is high, it is difficult to safely cross on foot and ATV into Compartment 4, and the newly planted area of Glen Shieldaig.

The new 4x4 access track which runs from the A896 at the Balgy to the northern edge of Loch Damh has greatly improved access to the north-east of the estate. The eastern parts of the property along the shores of Loch Damh are still less readily accessible however and a boat must be used. Access for fishing on Loch Damh will need to be maintained. Public access for recreation, particularly hill walking, will also need to be maintained.

Soil Conditions:
The soils are predominantly peaty podzols and peaty gleys. There are areas of deep peat associated with priority mire habitat present. These are excluded from planting. All areas of deep peat (50cm plus) have been excluded from any planting plans through extensive soil and peat depth surveys, in line with UK Forestry Standard guidance. In addition, a precautionary approach has been undertaken, all substantial areas where the peat depth is greater than 30cm have been excluded from planting in order to reduce any potential disturbance of carbon in these organic soils.

Archaeology:
There are significant archaeological remains which could be adversely impacted by planting plans. A buffer zone of 10m has been placed around any archaeology highlighted during the walkover survey and no trees will be planted within these areas.

Wildfire Management:
Future accidental wildfires could be started by people wild camping in the area and there is evidence at a number of sites around the estate of fire pits. Ground fire fuel loads are mostly high so Shieldaig should be considered to be at a very high risk of a wildfire spreading should one start. This risk will be minimised through fire planning, careful monitoring, and through the planting of native broadleaves, which are less susceptible to fire, to act as natural fire breaks.

Factors Causing Change

Natural succession
Grazing, browsing, and ground damage by deer, or changes in behaviour as a result of deer management activities.
Invasive non-native shrubs
Regeneration of non-native trees
Encroachment of bracken
Climate change

Long term Objective (50 years+)

The mixed habitat mosaic will be maintained in the long-term, with woodland cover substantially extended across the property where appropriate, through natural regeneration where possible and through planting where believed to be necessary. This has contributed to nature recovery, increasing the area of core woodland, whilst reducing fragmentation of the habitat network of woods and trees in the area. Connectivity from Shieldaig Woods SSSI to woodland on adjoining ownerships, and to small, isolated remnants in gullies and crags across the property, will have improved. Montane scrub will be present throughout higher elevations and regenerating naturally.

Open ground habitats, such as oceanic heath, will be maintained and allowed to expand and species such as prostrate juniper more widely spread. Bog and mire habitats will also be maintained and improved. The estate will be clear of all invasive non-native species.

The increase in the condition and diversity of habitats present on the property will maximise ecological integrity, allowing a valuable mosaic of open habitat, scrub and woodland to develop. This will offer opportunities and benefits to key species such as red squirrel and Azure Hawker dragonfly whilst supporting the ecological restoration of natural

processes.

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

Woodland establishment:
1) Develop a plan to plant and establish montane species within the upper edges of the fenceline within compartment 4 and in suitable areas of compartment 6 by 2026. Establish a montane planting zone within compartments 4 & 6 by 2028
2) Develop a plan to plant and establish native tree species in a riparian zone within 10m of the Kishorn river in compartment 10 by 2027
3) Set up direct seeding trial, using seed collected locally, in compartments 5 & 6 by 2027.

Access:
4) Undertake local stakeholder consultation for improving access to woodland creation area in compartment 4. If acceptable, install a new lay-by as a safe access point from the A896. This would lead to a small bridge, capable of carrying an ATV, over the Abhainn nan Lub. No upgrading of the existing ATV track will take place.

Habitat Restoration:
5) Reconstruct the large pond and improve the surrounding bog within Compartment 10, in the Couldoran estate grounds, by 2030 to improve habitat for a range of species, including amphibians and dragonflies.
6) Develop a management and harvesting plan for removal of non-native species throughout the Couldoran estate grounds by 2026, available for consultation in 2027.
7) Remove non-native species, particularly the stands of larch, Sitka spruce and lodgepole pine, by 2029, as outlined in the above management and harvesting plan, excluding any trees deemed to have ecological, amenity or shelter value. Monitor for evidence of disease annually.
8) Investigate the feasibility of using cattle with no-fence collars for controlled grazing within compartment 10 by 2028.

Deer Management:
9) Undertake annual culls throughout compartments 5,7, 8 and 9 with a target of 'low' impact on the open hill and within the regeneration zone of the ancient woodland, using the MacDonald upland Herbivore Impact Assessment (HIA) This will be delivered by:
- Undertaking an effective annual cull through the estate Wildlife Manager, informed by HIA results and drone monitoring
- Utilising authorisations to maximise effectiveness and manage localised issues, reviewing this annually with Nature Scot.
- undertaking a Herbivore Impact Assessment (HIA) surveys in 2026 and again in 2029 to assess overall browsing impact on open habitats
- Undertaking Biannual thermal imagery survey to be undertaken to provide information on species, density and distribution within the ancient woodland.

Surveying & Monitoring:
10) Record and map out all areas of prostrate juniper in compartments 7 and 8 by 2026 and increase cover by 10% by 2030. This will be achieved by undertaking culls to reach a 'low' impact on the open hill
11) Ensure red squirrel populations are maintained throughout the estate, monitored in biennial distribution surveys. If 2 or more quadrats stop showing population presence, this will be considered a significant decline. Causes would be investigates and expert advice sought to decide on what action to take.

Invasive Species:
12) Survey and map out existing all invasive species on Gleann Shìldeag, species including but not limited to Rhododendron ponticum, Lysichiton americanus, Reynoutria japonica, Cotoneaster and Gaultheria mucronata by 2027.
13) Using mechanical or chemical treatment to remove all Rhododendron ponticum from the estate by 2028
14) Using mechanical or chemical treatment to remove all other invasive species from the estate by 2030
15) Inspect annually specific areas of infestation, as well as the estate generally, for signs of regrowth and remove as required.

4.3 Connecting People with woods & trees

Description

The mountain of Ben Shieldaig is a majestic presence over the small but vibrant coastal village of Shieldaig. Although there are remnants of older settlements all around the area, including a large settlement at Balgy, the village of Shieldaig itself dates back to the early 1800s. With such a presence, it is inevitable that the history of the mountain is entwined with that of the people around it. Around 100 residents live permanently at Shieldaig and the local primary school is currently expanding. To the south of the estate the villages of Kishorn have a population of around 80, many of whom have enjoyed visiting the old Couldoran Estate and working with previous owners.

Gaelic was the dominant language of the region, and this is evident on the maps of the area. Gaelic place names give insight into the historical relationship between people, culture, nature and landscape. The estate has plenty of examples; Sròn an Fhithich (the hill end / nose of the raven), where ravens still nest today, and Loch nan Eun (the loch of the birds). Although interestingly the name Shieldaig is derived from Old Norse Síld-vík which means Herring Bay. The renaming of the estate, after comprehensive consultation with local communities, to Gleann Shìldeag reflects this cultural heritage.

The area has a thriving tourism industry; according to a recentreport commissioned by Wester Ross Biosphere, around 450,000 visitors come to the Wester Ross area each year. Tourism has increased in recent years with the popularity of the NC500, the feeling within local communities is that visitors are now more transitory, not necessarily stopping to make use of local facilities. A survey conducted by Wester Ross Biosphere suggested around 54% of visitors stay in the region for 3 nights or less.

The nearest facilities to the estate are in Shieldaig where there is a public toilet run by the community, a village shop, hotel and café. There is also a café at Tornapress, just south of the estate.

Nearby, the Torridon Estate (National Trust for Scotland) and Beinn Eighe National Nature Reserve have active ranger services and provide guided walks and interpretive events.

The unique ancient rainforest remnants and their associated lower plant communities, along with the spectacular panoramic views, the wild landscape and the diverse wildlife on the estate, all draw people to the site.

Since purchasing Ben Shieldaig in 2019 and Couldoran Estate in 2021, staff have worked closely with the communities of Shieldaig, Kishorn and Lochcarron as well as local landowners and organisations and will continue to do so. A diverse array of visiting guests have come to experience the estate and participate in activities, including donors, corporate

partners, volunteers, students, researchers, partner organisations and internal staff.

Included with the acquisition of Couldoran Estate in 2021 were a number of properties including a Couldoran House; three cottages – East Lodge, West Lodge and Garden Cottage, and several outbuildings. Some of these latter were in a serious state of disrepair and have since been dismantled. Couldoran House was sold to new owners in May 2025. There is a further bothy, known as the Stables, on the A896, directly opposite the single track private road which descends to the southern end of Loch Damh.

The estate also contains a salmon hatchery in an area of 1.68ha, which is owned by Bakkafrost. This is surrounded by a deer fence. This hatchery is fed by a reservoir 350 metres uphill and to the west of the hatchery, which is filled by the waters of Allt Loch Geanamhach. This reservoir was installed in the 1930s to provide hydro-electric power to the estate house and surrounding buildings.

Finally, Gleann Shìldeag is one of the founding members of the Glen Torridon Partnership (GTP), a landscape-scale habitat restoration project over 30,000 hectares. The GTP aims to work with local stakeholders to restore the diverse habitats within and around Glen Torridon, and bringing a range of benefits to the area and surrounding communities.

Access:
Gleann Shìldeag is not visited frequently due to lack of paths and infrastructure. In the 2019, a community survey found only 27% of respondents said they visited the site weekly (or more regularly). Anecdotal feedback from the community is that the only visitors from outside the area are a limited number of hardy hillwalkers. Even then, this number is low as the site is not home to hills walkers seek to 'bag' (i.e. Corbetts or Munros). The visitors who do come are frequenting the site to walk, enjoy the peace and tranquility and spot wildlife.

There are limited maintained paths for walking in Gleann Shìldeag. The addition of the new 4 x 4 access track in the north of the estate has opened a fabulous circular walk around the Balgy area, linking in with a path through neighbouring land.

Other paths and tracks across the estate include a historic core path just to the north of the phase 1 planting area and two historic ATV tracks. The lines of these tracks are indistinct and hard to follow. On neighbouring land there is a track that leads to the north shore of Loch Damh from Balgy, a track that leads to the pinewood from the village through the common grazings, a number of waymarked trails in the Kinloch community woods and a good footpath just over the western boundary, on the Applecross Estate, which runs from Tornapress up to Loch Gaineamhach.

There is a network of unmaintained paths throughout compartment 10, which provided access through some of the garden areas with exotic species in the old Couldoran estate grounds. These paths are mostly overgrown and waterlogged with old and outdated infrastructure.
A single-track private road in compartment 10 runs 540 metres from the A896 through the estate to the hatchery. The Woodland Trust has an access right over the bridge which crosses the Allt Meallan Gobhar from where the road ends to the entrance to the hatchery. Shortly before the hatchery, there is a gate which provides access to the open hill behind the hatchery. It is the only track where an ATV can access without crossing directly over the riverbed. From here there is a rough track of 934 metres which then ends in the middle of the open hill. There is an old weir on Loch Gaineamhach, a further 3km up the hill where there were presumably plans to take the track to.

There is an existing ATV track which runs from the A896 in the middle of Glen Shieldaig to Loch Lundie, where there was

previously a fish farm operation. This is still usable though is overgrown in several places, and the first 200m no longer exists. There is also no accessible crossing over the Abhainn nan Luib.

There are two areas of rough parking on the estate, a small gravel parking area at the south end of Loch Dughaill (NG 829 513) with space for up to 6 cars and a layby at the south end of Ben Shieldaig (NG 846 485) with space for 4 cars. There is further parking in compartment 10, the Couldoran Estate grounds, at a hardstanding area in front of the hatchery.

Welcome signs are in place along the roadside at the north and south boundaries of the estate and at the entrance to Couldoran House.

Interpretation and Education:
Currently there is limited physical on-site interpretation; digital interpretation is via the Woodland Trust website at https://www.woodlandtrust.org.uk/visiting-woods/woods/gleann-Shìldeag-estate

Following a workshop with stakeholders from the community, an interpretation plan was drafted in 2020. Since 2021 numerous activities and educational events have taken place including guided walks, a bioblitz, training on dragonflies, bryophytes and lichens. Most recently, in 2024 and 2025, extensive tree planting events were hosted for a variety of visitors, both local audience and from further afield.

Local school groups and younger audiences have been engaged in seed collecting, a red squirrel event, rainforest workshops, a COP 26 activity trail and eight local schools and nurseries (Applecross Nursery and Primary, Gairloch High School, Lochcarron Primary, Plockton Primary and High, Shieldaig Nursery and Primary) attended the first tree planting week in 2024.

Bespoke seating featuring some of the key species at Gleann Shìldeag has been developed and installed in the Shieldaig village playpark.

In 2021 the site became part of the Wester Ross Biosphere Sustainability Trail. A signpost has been erected at the south end of Loch Dughaill to highlight this. New wildfire signage was added at key stopping points during 2022.

A small-scale tree nursery has been developed in compartment 10, replacing an old polytunnel and growing area which existed previously. This currently produces around 20,000 seedlings annually with a focus on species that are harder to source commercially from correct provenance zones, such as aspen and juniper, as well as a focus on montane species. It is also focussing on trialling a variety of growing techniques and mediums.

Volunteering:
A growing number of volunteers have been involved in the project, with over 30 having participated so far.

Squirrel monitors have been undertaking work to see how the reintroduced squirrel population are faring since 2019.

A seed collecting project began in 2021. Over 20 volunteers signed up for this and various events collecting birch, hazel, oak, rowan, alder, holly and Scots pine have taken place in the years since. Most of the trees grown for tree planting have come from seed collected as part of this project.

2023 saw the first tree regeneration surveys undertaken by staff and volunteers alongside the launch of the printed community newsletter, written by a volunteer. In 2024 we had our first volunteers working in the tree nursery. Volunteers have also participated in monitoring dragonfly populations, assisting with invasive species control and building gorse corrals to protect existing and newly planted trees in unfenced areas.

Communications:
Gleann Shìldeag is a high-profile Woodland Trust property so site-based activity is promoted widely to members and supporters across the UK via our magazine Broadleaf and national social media channels. Gleann Shìldeag has its own established Facebook page to connect with local communities https://www.facebook.com/WTGleannShìldeag.

Biannual newsletters are produced by the site team and distributed via local shops and cafes. They are also shared on the Shieldaig Community website. Posters promoting events are regularly displayed in the local shops and are also publicised through the Visit Torridon mailing list and local social media groups.

Significance

Gleann Shìldeag is uniquely positioned to work with neighbouring estates and local stakeholders to approach habitat restoration at catchment and landscape-scale. This will improve the resilience of the land and its ecosystems in the area whilst benefitting the communities that live in and around it.

Improving access to the estate will give many people the opportunity to explore a landscape which has previously been perceived as inaccessible.

By engaging with and enthusing the communities surrounding the estate we can nurture future generations of custodians of the habitats and wildlife it supports.

Working with and supporting a valued network of volunteers will make the ambitious plans for the site possible.

Tapping into the significant volume of tourist activity could help bring more value to the community. Encouraging slow tourism helps increase the length of visitors' stays; providing an exceptional experience that helps develop their understanding of local heritage and support for landscape-scale habitat restoration within Scotland's rainforest zone.

Opportunities & Constraints

Access:
Opportunities:
As the only Woodland Trust Scotland site in Wester Ross there is a great opportunity to engage both with local communities and visitors to the area about the work of the organisation and the Glen Torridon Partnership, and to raise awareness of Scotland's rainforest.

The new name of Gleann Shìldeag, chosen after comprehensive consultation, reflects the opportunity to interpret the importance of Gaelic to the cultural and natural heritage of the area.

68% of respondents in the 2019 survey in the Shieldaig are believe the mountain should be made more accessible; also 84% of visitors to the area are over 35 and have interest in landscapes and wildlife. There is an opportunity to providing

trails and improved path infrastructure (gates, etc.) as well as interpretation to allow more people to experience and connect with our habitat restoration work on the estate. This could include linking up with existing trails in the Balgy area and Kinloch Woodlands. The existing network of trails throughout the old Couldoran estate grounds could also be redeveloped and expanded, providing accessible trails.

To facilitate and manage sustainable visitor access, there is the opportunity to improve but not expand informal parking areas such as in Glen Shieldaig. This could help reduce the risk of wildfires in the area by reducing the number of campervans who view the site as wild with no restrictions, especially with suitable signage.

The Woodland Trust is acutely aware of the need for affordable housing to support the sustainability of the Shieldaig and Kishorn communities. There is potentially the opportunity to develop a small mixed community within the poor-quality woodland area, dominated by Lodgepole Pine, towards the northeast boundary of the estate grounds. This area is naturally screened by landforms. A feasibility study assessing this site in 2023 reported high development costs, despite the existing access to services, making it unaffordable for development at the time. There may however be an opportunity to revisit this proposal in the future.

There is also an opportunity to develop housing for estate staff. Whilst current estate staff have accommodation nearby, this was difficult to sercure. Staff housing would provide security for future staff positions in the event of turnover. If these houses are not occupied at any time, they could be used for short-term accommodation lets for those in the area requiring property.

Tied to this, there could be an opportunity to reinstate a hydro scheme in the existing reservoir above the hatchery which could generate a revenue stream for the estate whilst reducing the electricity bills and carbon footprint of the estate properties. This would be designed to ensure no interference with the hatchery's current operations.

With the increased size and activity of the estate, a site office is required. There is an opportunity to develop this within the Couldoran Estate grounds, alongside storage facilities.

Constraints:
The main barriers to access on the site are the lack of paths and infrastructure, parking is also limited. The steep and rocky nature of the terrain is also a barrier to many people. Our aim, however, is not to attract more visitors by improving access (in the community survey an increase in visitors was not viewed favourably) but to encourage existing visitors to spend more time in the area.

There is a need to balance the provision of trails with protection of ancient woodland and wildlife as increased visitors could have a detrimental impact on the site, both from an ecological perspective but also impacting the characteristics that give Gleann Shìldeag its feeling of untamed wilderness. Increased visitors could lead to an increase in the incidents of wildfires and littering in the area.

The site is designated and so any work on path or trail development will need to be agreed with NatureScot and align with internal Woodland Trust policy on protection of ancient woodland.

Any developments such as parking spaces have the potential to increase the risk of wildfires and encourage overnight stays if not properly designed, monitored and managed. Such spaces will require extensive engagement with local stakeholders and neighbouring landowners and will require planning permission.

The nature of the terrain makes providing all abilities access trails at Gleann Shìldeag challenging, consideration needs to be given to Equalities Act (2010). There is also limited public transport to access many parts of the estate.

Interpretation & Education:
Opportunities:

Unique opportunity to contribute to sustainable community development, providing opportunities for education, connection with nature and employment.

To work with local schools, other education providers and organisations to inspire children to connect with and value nature.

To build an annual events programme that includes a wide range of interpretive and educational experiences for visitors of all ages. Harnessing the wealth of expertise in local communities could support us to provide an enjoyable and stimulating schedule.

Providing effective and creative on-site and digital interpretation will inspire audiences to consider the threats facing Scotland’s rainforest and encourage them to contribute towards its protection and expansion.

By engaging with local communities, we can help bring to life the significant archaeological remains on the site and the aural histories of the area to highlight its unique heritage and document the community's evolving relationship with the estate.

Constraints:
There is limited transport available from Shieldaig Primary School to site.

Due to the remote nature of the area, the site is a significant drive-time from many communities in Wester Ross.

Sites for on-site interpretation are dependent on the pace that access infrastructure (i.e. parking, trails, etc) can be installed.

Mobile signal on site is limited which may constrain digital engagement i.e. live streaming, use of QR codes, etc.

Due to the wild nature of the site, any interpretation needs to be undertaken sensitively.

Volunteering:
Opportunities:

To grow the skills base within the local community, helping people to gain valuable practical conservation experience, including invasive species control, tree planting, infrastructure maintenance, ecological survey and horticultural skills whilst helping deliver management objectives for the estate.

By offering a wide range of volunteering opportunities for all ages and abilities we can help people to connect with nature in a sociable way, with the associated health benefits this brings.

Volunteering can help us to connect to, and learn from, a diverse group of people with a wide range of experience that can be valuable to the project.

Developing citizen science programs like the Ancient Tree Inventory and biological recording in the local area provides an excellent opportunity for engagement and socialising whilst making a valuable contribution to scientific data sets.

Constraints:
The terrain across the estate means many volunteering activities are unsuitable for those with limited mobility.

The remote nature of the site and limited public transport means long travel distances and cost can be off putting for some volunteers.

Communications:
Opportunities:
Raise awareness of the work at Gleann Shìldeag within the community, amongst our members and the general public.

Leverage local and national media outlets to tell our story and secure support for our workShare unique content both through local, national and UK-wide social media channels

Constraints:
The current website used to provide community updates is hosted by the Shieldaig Community Association and may struggle to reach the wider community.

Audiences use a variety of media, not always digital, social media has multiple channels, very hard to make sure all interested parties find out about relevant events, etc.

Factors Causing Change

Staff changes would have an impact on the relationships built up within the local communities, likewise, should significant changes occur in the community and partner groups we work with.

An increase in footfall could cause damage to the environment and infrastructure on the estate and increase antisocial behaviour such as inappropriate parking and irresponsible access. The risk of wildfires could also increase.

Changes to local tourism initiatives, for example the NC500 route and its popularity, could change the dynamics of the type of visitor in the area and consequently the number of visitors that would frequent the site.

Long term Objective (50 years+)

Gleann Shìldeag is viewed with pride by the surrounding communities who value it for its wildlife, peace and tranquillity and people from around the world talk about the ground-breaking habitat restoration that has taken place here, helping to ensure the long-term survival of Scotland's rainforest and flagship species such as red squirrel.

The site is a destination with both residents and visitors. Infrastructure and interpretation are sufficient to support

visitors each year; enough to enthuse a wide audience about Scotland's rainforest without detrimentally impacting its unique wild character. Responsible visitor access is encouraged and managed so that threats of anti-social behaviour and increased wildfire risks are reduced. A network of tracks winds through the estate allowing visitors to enjoy both the ancient and growing woodlands and the thriving mosaic of habitats. Key parking areas allow visitors to easily stop and access the site or enjoy a leisurely picnic in fantastic surroundings.

The estate grounds have become a central focal point for our work in the area, including a demonstration tree nursery site.

An established program of educational and interpretive events is inspiring residents and visitors alike to advocate for Scotland's rainforest. Regular engagement with the local schools and younger residents has ensured new generations grow up caring for and protecting the unique woodlands.

A passionate network of volunteers help us with a diverse range of tasks supporting the development and maintenance of the estate.

Regular updates ensure local communities know the latest development sand upcoming events and activities. We are using advances in technology effectively to enable us to connect with and inspire global audiences.

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

Access:
1) Investigate suitable locations for installing ladderboards at strategic points on the estate by 2027.
2) Undertake consultation in 2026 with neighbours, local communities and other stakeholders to explore opportunities for improving and formalising parking areas at Loch Dughaill and in Glen Shieldaig.
3) Consult with partner organisations (Highland Council / Paths for all / NatureScot) and neighbouring landowners to develop a plan for development of formal and informal paths and associated infrastructure on the estate by 2028, including how to monitor usage and impact.
4) Inspect annually the vehicular access track to the north of Loch Damh to ensure access is maintained for walking, tree planting and wildlife management.
5) New estate office, larder, storage and welfare facilities in operation by 2028.
6) Draft proposal for staff accommodation in place by 2026.

Interpretation / Education:
7) Design, promote and deliver an annual programme of interpretive and educational events in association with partners and harnessing the wealth of expertise in the local communities
8) Revisit and update the 2019 Shieldaig interpretation plan to include Couldoran estate and the tree nursery in line with planned infrastructure improvements by 2026.
9) Develop a programme of annual school workshops by 2026. Continue to offer local schools opportunities to engage in tree planting at Gleann Shìldeag, including making transport bursaries available to subsidise transport costs where budget permits.

Volunteering:
10) Expand the range of volunteering opportunities available on the estate through:
a. Setting up a Gleann Shìldeag Woodland Working Group to deliver practical conservation tasks on the estate, if and when there is sufficient local interest.

b. Develop opportunities for volunteers to contribute to the tree nursery project
11) Recruit new volunteers from around the area for new and existing roles.
12) Continue to support monitoring activities such as red squirrel and tree regeneration surveys on the estate where appropriate
13) Ensure that volunteers feel valued, consulted and rewarded by providing networking and training opportunities and facilitate at least one opportunity per annum for citizen science volunteers to record on the estate

Communications:
14) Attend local events such as the Shieldaig fete as an opportunity to talk to people about the project.
15) Post regularly to the Facebook page and share content with the wider Woodland Trust and Alliance for Scotland's Rainforest social media channels.

4.4 New Native Woodland

Description

The existing ancient woodland to the north of the site, Shieldaig Woods, provides a valuable seed source for the establishment of new native woodland through regeneration. For this to take place, there must be a sufficiently low browsing impact by red deer present in the area.

The prevailing wind to carry the airborne seed mostly comes from a south-westerly direction, which is suitable for regeneration on the eastern and northern edges of the existing pinewood and the northern edges of the birchwood. Regeneration to the south of the current pinewood, along Glen Shieldaig, only occurs when the prevailing wind comes more directly from the west or north.

In Spring 2024, an area of 82.36 ha of new native woodland, with 125,000 trees was planted around the Coire nan Fhionn-ullt in compartment 2, at the northern end of Loch Damh. This includes areas planted at 1,600 stems/ha, where the conditions were better and 1,100 stems/ha where they were more marginal over a larger area. The species breakdown was: Downy Birch (60%); silver birch (2%); aspen (2%); eared willow (16%); goat willow (2%); alder (2%); sessile oak (4%); hazel (3%); juniper (1%); Scots pine (9%).

This new planting area took place on National Vegetation Classification M15 (wet heath) on soils with less than 30cm peat depth. All sensitive mire habitats present, such as M17/M19, were excluded from any planting areas.

The planting area is surrounded by 6km of deer-height fencing to protect the new trees. Inverted mounding was used to plant 70,000 trees with the remainder planted in positions of 30 x 30cm screefed by hand. Nitrogen (N), Phosphorus (P) and Potassium (K) fertiliser, at a ratio of 1-2-1, was used to aid establishment. Vole guards were used on 15,000 trees, primarily in the planting area nearest to the birchwood on the north-west edge of the exclosure.

10,000 downy birch and 2,000 Scots pine, in an area to the north of the woodland creation area, were planted with mycorrhizal inoculum to trial the impact on establishment rates.

In Spring 2025, 315,000 trees were planted over an area of 228.96 ha along both sides of Glen Shieldaig in compartment 4. Again, density varied, with some areas planted at 1,600 stems/ha, where the conditions were suitable to 500 stems/ha where conditions were more marginal. Species breakdown was: downy birch (48%); silver birch (1%);

aspen (2%); eared willow (12%); goat willow (2%); alder (2%); sessile oak (3%); hazel (3%); juniper (1%); Scots pine (26%).

This new planting area took place on National Vegetation Classification M15 (wet heath) on soils with less than 30cm peat depth. All sensitive mire habitats present, such as M17/M19, were excluded from any proposed planting areas.

This area is surrounded by 13km of deer-height fencing, including 2 deer grids along the A896, to protect the new trees. Inverted mounding was used to plant 210,000 trees with the remainder planted in positions of 30 x 30cm screefed by hand or strimmer. Nitrogen (N), Phosphorus (P) and Potassium (K) fertiliser, at a ratio of 1-2-1, was used to aid establishment.

A further 20,000 downy birch and 4,000 Scots pine, in an area to the south of the pinewood, was planted with mycorrhizal inoculum to trial the impact on establishment rates.

No new planting took place within 100m of the pinewood to allow regeneration. No planting of Scots pine took place within the Caledonian Pinewood Buffer Zone (within 600m of the edge of the pinewood)

For both of these new areas of new native woodland, most of the trees were grown using seed collected from or nearby the site, from seed sources already adapted to conditions and planted as cell-grown stock.

Beat-up to replace unsuccessful establishment will take place in the 2nd and 3rd years after planting of each area. For Phase 1, this took place in 2025 and will occur again in 2026. For Phase 2, beat up will take place in 2026 and 2027. This will be accompanied by hand weeding where required.

New native woodland will be established throughout compartment 9, in the southern section of the estate. Up to 225 ha of woodland creation will be explored using both regeneration and planting, with a focus on downy birch and willow particularly. Deer fencing installed will reduce browsing pressure and enable the existing woodland within the gorge at Allt Meallan Gobhar to expand out onto the open hill.

New native woodland will also be established within compartment 10, in the area around Couldoran House. This will take place after the clearing of the non-native woodland in this area, particularly the areas of lodgepole pine to the north-east of the compartment. Where possible, felling will be phased to ensure a degree of cover remains and stands or individual trees which have a higher ecological or amenity value will be left.

Significance

The inclusion of new native woodland will contribute to the mixed mosaic of habitats on the estate. In particular, the new woodland will expand upon the existing ancient woodland on site and help to connect up with other woodland fragments within the wider area. In time, natural regeneration will improve this further.

Biodiversity will also improve on the site, with a range of species benefitting from increased woodland cover and connectivity, in line with existing SSSI and SAC designations.

The new woodland is important in the context of climate change, as it likely to increase the stability and resilience of the existing fragmented woodland typical of the Highlands. In the longer-term it will help sequester carbon. It also

contributes to the Woodland Trust objectives to protect, restore and create native woodland.

Opportunities & Constraints

Opportunities:

Connectivity with existing ancient woodland on the site could be improved more widely in the area to other significant ancient woodlands such as the Doire Damh on Ben Damph and Rassal Ashwood on Lochcarron Estate. Connectivity with other CPI sites in particular could be improved, to Taodail and Attadale, 15km and 16km to the south-east respectively, followed by Loch Clair around 16km to the east.

With a significant number of mature native tree species there is a natural abundant seed source on site that can continue to be harnessed for enrichment planting efforts. A new tree nursery has been developed on at Gleann Shìldeag, in the estate grounds around Couldoran. This is an opportunity to gather seeds from, or nearby, the site to produce seedlings for woodland creation schemes, particularly for species where it is more challenging to source small numbers commercially from the correct provenance zone. This includes aspen and juniper.

There is the opportunity to monitor the impact of the proposed woodland creation on soils and carbon and trial and monitor experimental techniques for woodland creation, including direct seeding and alternatives to fertiliser, such as biochar created from the dead rhododendron ponticum on site.

Monitor the impact of new native woodland along riparian zones, collaborating with local fisheries trusts where possible.

Increased tree cover and leaf litter will begin to alter the acidity and composition of the soil, which has been degraded over centuries and lost much of its nutrients.

Direct seeding of species such as downy birch and willow could be trialled on less accessible areas, particularly in compartment 5, along the shores of Loch Damh.

Regeneration of Gleann Shìldeag involving planting of seedlings could be greatly facilitated by coordinating planting into areas supporting existing appropriate mycorrhizal inoculum.

There is the opportunity to transform woodland cover within compartment 10. Non-native species could be replaced with native species over time, with some of the areas of lodgepole pine removed more quickly. Some of the larger non-native trees with higher amenity or ecological value could be left for a longer time to provide cover and retain some of the ascetic value of the grounds.

Access to the existing ATV track in Glen Shieldaig could be improved to ensure safety for estate staff when accessing the new woodland for management purposes. There is currently nowhere to stop and reverse a trailer with an ATV, or to cross the Abhainn nan Luib. An expanded layby and bellmouth, with a wooden ATV bridge would provide a solution.

Constraints:
Soil Conditions:
The soils are predominantly peaty podzols and peaty gleys. There are areas of deep peat associated with priority mire

habitat present. These are excluded from planting. All areas of deep peat (50cm plus) have been excluded from any planting plans through extensive soil and peat depth surveys, in line with UK Forestry Standard guidance. In addition, a precautionary approach has been undertaken, all substantial areas where the peat depth is greater than 30cm have been excluded from planting in order to reduce any potential disturbance of carbon in these organic soils.

Archaeology:
There are significant archaeological remains which could be adversely impacted by planting plans. A buffer zone of 10m has been placed around any archaeology highlighted during the walkover survey and no trees will be planted within these areas.

Scenic Impact:
The estate sits within a National Scenic Area and so any fencing will need to be designed so as to mitigate any potential visual impact.

Factors Causing Change

Climatic variations (climate change) whereby tree species selected become susceptible to extended periods of dry or wet weather.
Tree disease, although all species planted aren't currently listed as vulnerable to tree disease such as Ash Dieback, it is conceivable that future pests and diseases could impact upon the site causing loss of canopy and/or habitat.
Fire - risk of grassland and coarse vegetation during establishment whilst canopy closure takes place.
Herbivore impacts, especially deer and voles during establishment, having a negative impact on tree mortality rates.
Coarse vegetation colonisation such as dominance of bramble or bracken over-topping and shading of newly planted trees or natural succession.

Long term Objective (50 years+)

The new woodland areas will be a structurally diverse providing exemplary ecological connectivity and transitions between wider habitats (from riparian and aquatic habitats through peatland and upland blanket bog) and within habitats, (eg through woodland densities, and wider habitat restoration), and will be part of wider ecological landscape scale change.

A range of species will have benefitted from the new woodland, including red squirrels and a number of breeding birds.

Reintroduced montane and submontane woodland will be established throughout the woodland matrix, providing diversity but also a source of material for new woodland projects.

The majority of identified historic features remaining in an undisturbed state, through sensitive woodland design and low intensity grazing/ agricultural activity. The estate will be used as a case study and demonstration site for habitat improvement and connectivity.

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

Deer Management:
1) Ensure there is zero herbivore impact in compartments 2, 4 and 10 by 2030
Monitoring:

2) Annual monitoring of newly planted woodlands in compartments 2 & 4 to record establishment and growth rates
3) Annual thermal drone surveys and inspections of fence lines in compartments 2 & 4 to ensure fences remain intact with no incursions from red deer

Establishment:
4) Plant and enable the regeneration of up to 220 ha of new native woodland within compartment 9 by 2028, exploring the opportunity to link up fencing with neighbours.
a. Up to 200 ha of this will be planted using a mix of native species, predominantly downy birch and eared willow, though with a variety of oak, hazel, Scots pine, alder, juniper, aspen and any other species deemed acceptable from the site design stage. All trees will be sourced from provenance zone 105 where possible, from seed collected locally.
b. Planting will be undertaken using a combination of hand and mechanized screefing, and inverted mounding, where appropriate. Fertiliser will be used to aid establishment
c. The use of mycorrhizae pellets will be trialled to assess their role in aiding establishment
d. Planting density will be up to 1600 stems per hectare where appropriate, or at lower densities of 500 – 1,100 if required. Beating-up of the planted areas will take place in 2029 and 2030.
e. Up to 20 ha of this will occur through natural regeneration from existing seed sources throughout compartment 9.
5) Establish further woodland creation through new planting and establishment, in compartment 5, of up to 80 ha. This will be dependent on fences erected on neighbouring land restricting the migration of deer into this compartment. Other deterrents, such as Trico, may be trialled for trees planted without the protection of fencing

Tree Nursery:
6) Up to 30,000 seedlings will be grown in the estate tree nursery in compartment 10 annually by 2027. This will be a range of species with a focus on juniper, aspen, montane species and Scots pine.
a. The majority of these trees will be used for the new native woodland creation on the estate however a Nursery Development Plan will be completed by 2026 which may propose external sales. The development plan will also outline any trials designed for the purpose of aiding establishment. This will include the use of biochar, mycorrhizae innoculants, different growing mediums, and any fertilisers.
b. the tree nursery will be accredited under the Woodland Trust's UK Independently Sourced and Grown (UKISG) scheme and registered as an Forest Reproductive Materials (FRM) supplier by 2026.
7) Tree seed stands of juniper, aspen and montane species will be created in compartment 10 by 2027. These will be used to aid future collection of seed
8) A biosecurity shelter will be installed in 2026.

Restructuring:
9) Develop a native woodland design for compartment 10 by 2027 with the aim of restocking this compartment primarily with native species by 2030. This will follow on from the development of the Management and Harvesting Plan for the woodland areas within compartment 10, around the estate buildings outlined under the 'Mixed Habitat Mosaic' objectives.

Access:
10) Reinstate all temporary access tracks installed within compartments 2 & 4 as part of the woodland creation scheme by 2028, planting trees and appropriate vegetation to blend in with surrounding environment. This includes the access tracks in Coire an Fhionn Ullt, Glen Shieldaig and the south-eastern edge of Ben Shieldaig, adjacent to Loch Damh
11) Confirm any temporary access routes proposed for the woodland creation currently being developed in compartment 9 by 2027. These routes will be reinstated once all beat-up and maintenance have been completed.

Tree Guards:
12) Remove any vole guards using within compartments 1 & 4 by 2030, if no longer required.

4.5 Carbon

Description
346.18 hectares of new native woodland is in Woodland Carbon Code commitment. The precise area under commitment is shown on the UK Land Carbon Registry, and the Carbon data layer in GIS.
Significance
The Woodland Carbon Code (WCC) is the quality assurance standard for woodland creation projects in the UK, and generates high integrity, independently verified carbon units, backed by the Government. High quality carbon projects drive the Woodland Trust to achieve its 'create' goal via creating woodlands that benefit nature, climate and people into the future.
Opportunities & Constraints
Constraints: Commitment to ensuring the Woodland Carbon Code area meets its carbon unit delivery projections
Factors Causing Change
Slow growth of trees in areas of marginal soil nutrient availability and at higher altitudes. Absence of trees in some of the WCC areas leading to a significant reduction in the area currently being validated.
Long term Objective (50 years+)
To ensure, at minimum, the woodland delivers the quantity of carbon units as specified for the project in the UK Land Carbon Registry. This will be monitored every subsequent 10 years, via independent verifications undertaken by the carbon team.
Short term management Objectives for the plan period (5 years)
1) General inspection of all carbon compartments (see Carbon Layer in Arc GIS online), ensuring any significant changes to the composition, stocking, or area, are reported to the carbon team. 2) Explore replanting to achieve the full 346.18 hectares proposed.

5. WORK PROGRAMME

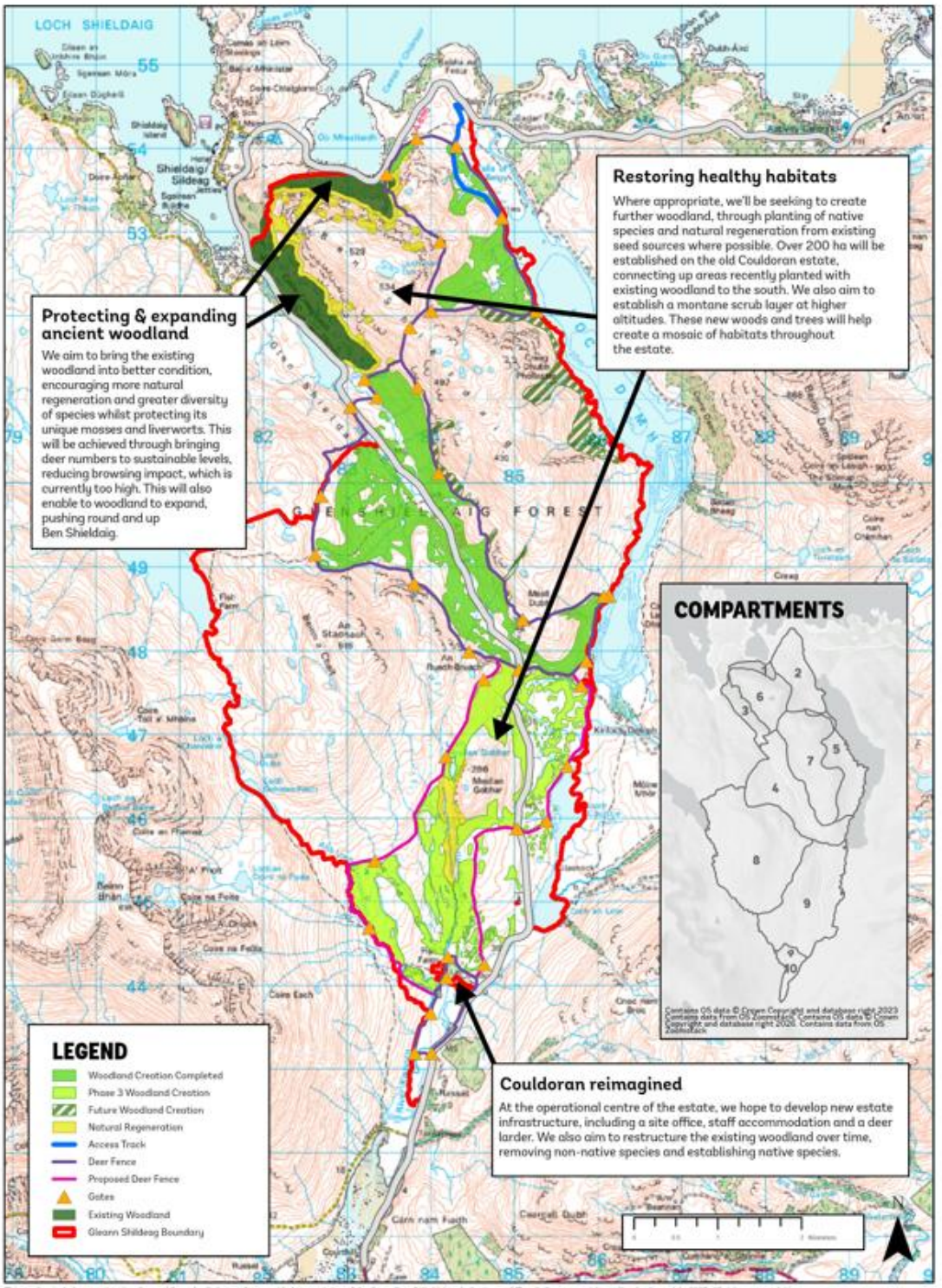
Year	Type Of Work	Description	Due Date
2026	PC - Deer Control - Shooting	Works associated with deer management by shooting – such as stalker costs, high seats, signage, maintenance of tracks and open ground provided specifically for deer management etc	February
2025	PE - Volunteer on site activity	Support 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	February
2026	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.	February
2026	PE - Events - General	Provision of materials needed to support a WT event / guided walk such as refreshments / shelters / mobile toilets	March
2026	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
2026	NWH - Invasive Plant Control	Works associated with the control of invasive plants within non-woodland habitats to maintain their conservation value and/or the necessary control of noxious weeds	March
2026	WC - Tree / Seed Supply	The supply of trees/seeds for woodland creation sites	March
2026	WC - Tree Planting / Seeding	Works associated with tree planting / tree seeding for woodland creation sites	May
2026	CS - General Consultancy	Use of external consultant to support Woodland Trust site management	May
2026	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	May
2026	Ops Equipment Repairs & Maintenance	Equipment servicing and repairs	May
2026	CS - General Consultancy	Use of external consultant to support Woodland Trust site management	May
2026	CS - Ecological Survey & Assessment	Use of external consultants to support the provision of ecological surveys, assessment and biodiversity / species monitoring	May

Year	Type Of Work	Description	Due Date
2026	PE - Events - General	Provision of materials needed to support a WT event / guided walk such as refreshments / shelters / mobile toilets	May
2026	PE - Interpretation & Signage	Works associated with the provision of visitor signage, waymarking, interpretation features and leaflets	May
2026	PE - Events - Schools	Provision of materials needed to support a schools / young people's events and activities such as refreshments / shelters / materials for activities etc	October
2026	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.	November
2026	WC - Fencing	Works associated with fencing to protect planting areas	December
2026	NWH - Invasive Plant Control	Works associated with the control of invasive plants within non-woodland habitats to maintain their conservation value and/or the necessary control of noxious weeds	December
2027	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.	February
2027	WC - Tree Planting / Seeding	Works associated with tree planting / tree seeding for woodland creation sites	May
2027	WMM - Invasive Plant Control	Works associated with the on-going management of invasive plants– such a repeat cutting and control treatments	May
2026	NWH - Maintenance Work	Works associated with the maintenance of non-woodland habitats – mechanical management, hay cutting, fence and wall maintenance etc	May
2026	NWH - Invasive Plant Control	Works associated with the control of invasive plants within non-woodland habitats to maintain their conservation value and/or the necessary control of noxious weeds	May
2026	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.	May
2027	PE - Interpretation & Signage	Works associated with the provision of visitor signage, waymarking, interpretation features and leaflets	May
2027	PE - Events - Schools	Provision of materials needed to support a schools / young people's events and activities such as refreshments / shelters / materials for activities etc	October

Year	Type Of Work	Description	Due Date
2027	WC - Planting Ground Preparation	Works associated with the physical preparation of the ground to ensure it is suitable for planting such as ripping, grass seeding , mounding	December
2028	WC - Tree / Seed Supply	The supply of trees/seeds for woodland creation sites	March
2027	WMM - Invasive Plant Control	Works associated with the on-going management of invasive plants– such a repeat cutting and control treatments	March
2028	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.	April
2027	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.	May
2027	PE - Events - General	Provision of materials needed to support a WT event / guided walk such as refreshments / shelters / mobile toilets	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.	May
2027	NWH - Maintenance Work	Works associated with the maintenance of non-woodland habitats – mechanical management, hay cutting, fence and wall maintenance etc	May
2028	WC - Tree Weeding / Fertilising	Works associated with tree weeding and fertilising operations to ensure the successful establishment of planted trees	May
2028	WC - Tree Planting / Seeding	Works associated with tree planting / tree seeding for woodland creation sites	May
2029	WC - Tree Planting / Seeding	Works associated with tree planting / tree seeding for woodland creation sites	May
2028	NWH - Maintenance Work	Works associated with the maintenance of non-woodland habitats – mechanical management, hay cutting, fence and wall maintenance etc	May
2029	WC - Tree Planting / Seeding	Works associated with tree planting / tree seeding for woodland creation sites	May
2028	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points,	May

Year	Type Of Work	Description	Due Date
		maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	
2028	PE - Interpretation & Signage	Works associated with the provision of visitor signage, waymarking, interpretation features and leaflets	May
2029	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
2030	CS - Ecological Survey & Assessment	Use of external consultants to support the provision of ecological surveys, assessment and biodiversity / species monitoring	May
2029	NWH - Maintenance Work	Works associated with the maintenance of non-woodland habitats – mechanical management, hay cutting, fence and wall maintenance etc	May
2030	NWH - Maintenance Work	Works associated with the maintenance of non-woodland habitats – mechanical management, hay cutting, fence and wall maintenance etc	May
2030	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
2030	PE - Interpretation & Signage	Works associated with the provision of visitor signage, waymarking, interpretation features and leaflets	May
2031	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

APPENDIX 1 : MAP



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Management Plan Map - Gleann Shìldeag

APPENDIX 2 : COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
1a	42	Downy birch	2022	High forest		National Scenic Area, Site of Special Scientific Interest, Special Area of Conservation
An extensive area of upland birch woodland, Mheallaidh Wood, on the slopes of Sròn an Fhithich behind and to the east of Shieldaig village. Downy birch is predominant in a diverse age structure, with scattered sessile oak, rowan and willow; Scots pine is restricted to the upper crags. This compartment is particularly notable for its oceanic bryophyte communities, including characteristic rainforest species						
2a	258	Downy birch	2022	Wood establishment		
Area of open ground comprising of a shoulder of Ben Shieldaig (comprised mostly of Lewissian Gneiss, rather than Torridian Sandstone) jutting out from the main massif with the A896 running along the northern edge. There is a small patch of birch woodland with a few scattered oak, just over the Allt an Aoil from the main birchwood in compartment 1. Otherwise, there are a number of veteran trees, including aspen, willow and holly, which are present in the gullies and crags running up to the main ride. Most of the ground cover is heather with some larger areas of bracken nearer the birchwood and road. A previous large landslide in Coire an Fionn-ullt, rising up from the shores of Loch Damh, provides good conditions for woodland creation.						
3a	102	Scots pine	2022	High forest		
A large area of Caledonian pine, Coille Creag-loch, and one of the listed CPI sites. The canopy of the pinewood is mostly made up of 'mature' Scots pine although younger birch are also significant locally. Undergrowth is mainly made up of regenerating Scots pine along with some birch, whilst rowan and other palatable trees are suppressed by browsing. Oak is scattered at low cover with early-mature to mature trees on bouldery terrain and crags. Aspen is rare, restricted to a few of the crags, and holly is rare and scattered. Ground vegetation is mostly ling heather although purple moor grass is locally dominant within denser parts of the woodland and in the southern part of the pinewood. Bracken is widespread and significant locally. Blaeberry, hard fern, bell heather and crossleaved heath are widespread at low cover, and bramble, dog rose, honeysuckle, ivy and buckler ferns are local though suppressed by browsing/grazing Until 1993 maintaining higher deer numbers for stalking was the main focus of management on Ben Shieldaig. However, in 1993 a Woodland Grant Scheme (WGS) was established to encourage natural regeneration and expand the native woodland. In 1995 a second WGS was established on the SSSI to expand the woodland to the east of the site through natural regeneration.						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
A deer fence was erected across the Estate from Loch Dughaill in the west to Loch Damh in the east, fencing off 830 ha of the northern part of the Estate, in order to control deer movements and provide an independent management block within which to maintain lower densities of deer. No fence was placed along the northern boundary, as it was considered at the time that the river and the waters of Loch Damh formed a reasonably effective boundary. This WGS scheme may have initially had some impact on deer densities and enabled some natural regeneration within the existing woodland however it has not proved an effective barrier at controlling deer movements as they have been able to swim around the part of the fence which ran into Loch Damh and also enter via the stock fence. Lower densities of deer also do not seem to have been maintained.						
4a	465	Downy birch	2022	Wood establishment		
A large area of open ground which makes up a large part of Glen Shieldaig. This compartment stretches from the boundary with Kinloch Woodlands and Compartment 3 in the north, to the top of the Glen in the south, crossing the bottom of the Ben Shieldaig ridge down to Loch Damh. Comprised mostly of wet heath interspersed with numerous rock exposures, ground vegetation is mostly ling heather, deer-grass, cross-leaved heath and purple moor-grass. Areas of dry dwarf shrub heath are found mainly on the inland cliffs of the south-west facing slopes. Straddling either side of the meandering Abhainn nan Lùb which runs up the middle of Glen Shieldaig, there are also areas of blanket bog dominated by purple moor-grass. A area of marshy grassland lines the lower reaches of the Allt Coire Mhurchaidh and is dominated by purple moor-grass with the occasional presence of cross-leaved heath, ling heather and bog myrtle. Small numbers of rowan, holly, downy birch and willow are scattered throughout the compartment, particularly in rocky areas or associated with slightly drier conditions associated with stands of scattered bracken. This includes some aspen in the gully of Allt Ceann a Mhill Dhubh on the west facing slopes of Ben Shieldaig, just above the small section of old road.						
5a	227	NULL	2022	Non-wood habitat		
A large area of open hill ground which runs the length of the western shores of Loch Damh and continues up to the main ridge of Ben Shieldaig. This compartment is characterised by the numerous cliffs and crags, particularly the impressive buttress of Creag Dhubh Phollaster. Comprised mostly of wet heath interspersed with numerous rock exposures, ground vegetation is mostly ling heather, deer-grass, cross-leaved heath and purple moor-grass. Areas of dry dwarf shrub heath are found mainly on the north facing cliffs of Creag Dhubh Phollaster and, particularly areas of the internationally important liverwort						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
heath. Small numbers of rowan, holly, downy birch and willow are scattered throughout the compartment, particularly in rocky areas or on the shoreline of Loch Damh.						
6a	239	Scots pine	2022	Non-wood habitat		
Contains the northern part of the ridge and summit of Ben Shieldaig. There is a large amount of exposed rock with wind-blasted wet heath vegetation and frequently dwarf juniper. Large areas of dry heath in the north and particularly more areas of liverwort heath on the cliffs towering over Shieldaig village, comprising of ling heather, blaeberry and sphagnum. Small areas of blanket bog exist above the cliffs, amongst oceanic liverworts occurring in the wet heath vegetation close to boulders and crags facing north. The main lochan on Ben Shieldaig, Loch nan Eun, sit just below the summit and is popular with waders. Scattered pine in particular are spreading up the western slopes of this compartment, from the main pinewood section in compartment 3.						
7a	447	NULL	2022	Non-wood habitat		
Containing the ridge of Ben Shieldaig that runs from the northwest to the southeast has a great deal of exposed rock with wind-blasted wet heath vegetation. The moss Racomitrium lanuginosum (Woolly fringe-moss) and terricolous lichens are more obvious here. Patches of blanket bog occur in scattered hollows across this summit area; hare's-tail cotton-grass is abundant in these locations with ling heather in the canopy and aphagnum moss constant below. There are numerous lochans on the ridge, surrounded in places by dwarf juniper and a series of blanket bogs.						
8a	931	NULL	2025	Non-wood habitat		
Takes in the summits of Beinn a Chait and An Staonach. Comprised mostly of wet heath interspersed with blanket bog, particularly on the south facing slopes, and numerous rock exposures. Ground vegetation is mostly ling heather, deer-grass, cross-leaved heath and purple moor-grass. There are areas of dry dwarf shrub heath and grassland spread throughout. There are numerous lochans and watercourses throughout the compartment, most of which contribute to the Kishorn river to the south. The north-west boundary reaches the shores of Luch Lundie.						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
Small numbers of rowan, holly, downy birch and willow are scattered throughout the compartment, and large areas of the summits are covered with prostrate juniper.						
9a	639.55	Mixed native broadleaves	2025	Wood establishment	Mostly wet ground/exposed site, No/poor vehicular access within the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	National Scenic Area, Site of Special Scientific Interest, Special Area of Conservation
Comprises the small peak of Meallan Gobhar to the north of the compartment,, with the Allt Meallan Gobhar the main watercourse which runs through the compartment to the south, and into the Kishorn river. The gorge of this river contains a range of broadleaf species, including oak and aspen, which are growing on the sides of the steep slopes and which would begin to regenerate out from the gorge with lower browsing pressure. Most of the compartment is comprised of wet heath interspersed with areas of blanket bog. There is an area of dry dwarf shrub just to the north of Meallan Gobhar. Numerous gullies and riparian zones are occupied by sedge and rush-dominated acid flush communities. At the eastern edge of the compartment are the connected lochans of Loch Coultrie and Loch an Loin which are bordered to the north and west by areas of blanket bog and some marsh grassland.						
10a	80	Mixed conifers	2025	Wood establishment		
A large area of this compartment consists of the old Couldoran estate grounds with associated infrastructure. This includes a large hatchery, a 10-bedroom lodge, 3 private cottages, a number of outbuildings and a small tree nursery, all connected via a private road from the A896. This infrastructure is surrounded by mixed plantation woodland, which includes a number of exotic species planted for screening and amenity purposes, as well as areas of lodgepole pine and larch. To the south, there are further stands of mixed woodland, dominated by downy birch which was planted under a Woodland Grant Scheme approved in 1994 for 13.9 ha of new native woodland. Invasive plant species are spread throughout the compartment, particularly Rhododendron ponticum, though a treatment programme began in 2022. The flatter areas to the south have been heavily affected by agricultural improvement, and the network of field systems are dominated by marshy and acid grassland communities in mosaic with modified bog habitats. An artificial pond was established previously for duck-shooting. The compartment is surrounded by a deer height fence of roughly 3.2 km. This was clearly porous for a number of						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
years under the previous ownership and high numbers of deer were regularly seen throughout the grounds, with very little regeneration of the woodland scheme from 1994. The fence was repaired in 2023 and all deer have now been excluded.						

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.

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