



Forestry and
Land Scotland
Coilltearachd agus
Fearann Alba

Glenbranter Forest Long Term Plan 2026-2036

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Our land management plans bring together key information, enable us to evaluate options and plan responsibly for the future. We welcome comments on these plans at any time.



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Version History

Version	Date	Comments
1	January 2026	Prepared for internal discussion and agreement prior to submission
2	March 2026	Original submission version, updated to reflect comments received from internal discussion as mentioned above.
3	May 2026	Draft revision, with minor adjustments and additions following site visits with and feedback from Scottish Forestry.
4	June 2026	This version, with adjustments and corrections following advice from Scottish Forestry.

A. Description of Woodlands

A.1 Property Details

A.1 Property Details			
Property Name:	Glenbranter Forest		
Business Reference Number:		Main Location Code:	
Grid Reference: (e.g. NH 234 567)	NS 103 965	Nearest town or locality:	Glenbranter
Local Authority:	Loch Lomond & The Trossachs National Park / Argyll & Bute Council		
LMP Plan area (hectares):	3608.8 ha		
Owner's Details			
Title:		Forename:	
Surname:			
Organisation:	Forestry and Land Scotland	Position:	Central Region
Primary Contact Number:	0300 067 6600	Alternative Contact Number:	N/A
Email:	enquiries.central@forestryandland.gov.scot		
Address:	Central Region, Glenbranter Office, Glenbranter, Argyll		
Postcode:	PA27 8DJ	Country:	Scotland
Approval - to be completed by Scottish Forestry staff:			
LMP Reference Number:			
Plan Period: (ten years) (day/month/year)	From:	To:	
Operations Manager Signature:		Approval Date: (dd/mm/yyyy)	

Declaration

I hereby apply for a permission to fell the trees described in this application and I certify that:

- I am the landowner or an occupier of the land with written permission of the landowner;
- Where the landowner is a business, I am authorised to sign legal contracts on behalf of that business;
- If I am acting on behalf of the landowner or occupier, I have been mandated to do so;
- Any necessary consents from any other person(s) if required, have been obtained;
- I have made the necessary checks with the local planning authorities regarding Tree Preservation Orders and Conservation Areas;
- I have notified all stakeholders that may be affected by the felling in this application and sought their views prior to submitting this application;
- I hereby acknowledge that Scottish Ministers may process any of my personal data contained in or relating to this application in accordance with the terms of Scottish Forestry's Privacy Notice, a copy of which is available at www.forestry.gov.scot;
- Where applicable and appropriate I have submitted an EIA screening opinion form for operations contained within this application under the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017;
- I have read and understand this application fully and, to the best of my knowledge and belief, the information given in this application is complete, true, and accurate;
- I accept that any false or misleading information provided in this application constitutes an offence and may result in any felling permission based on this application being revoked at any time, and

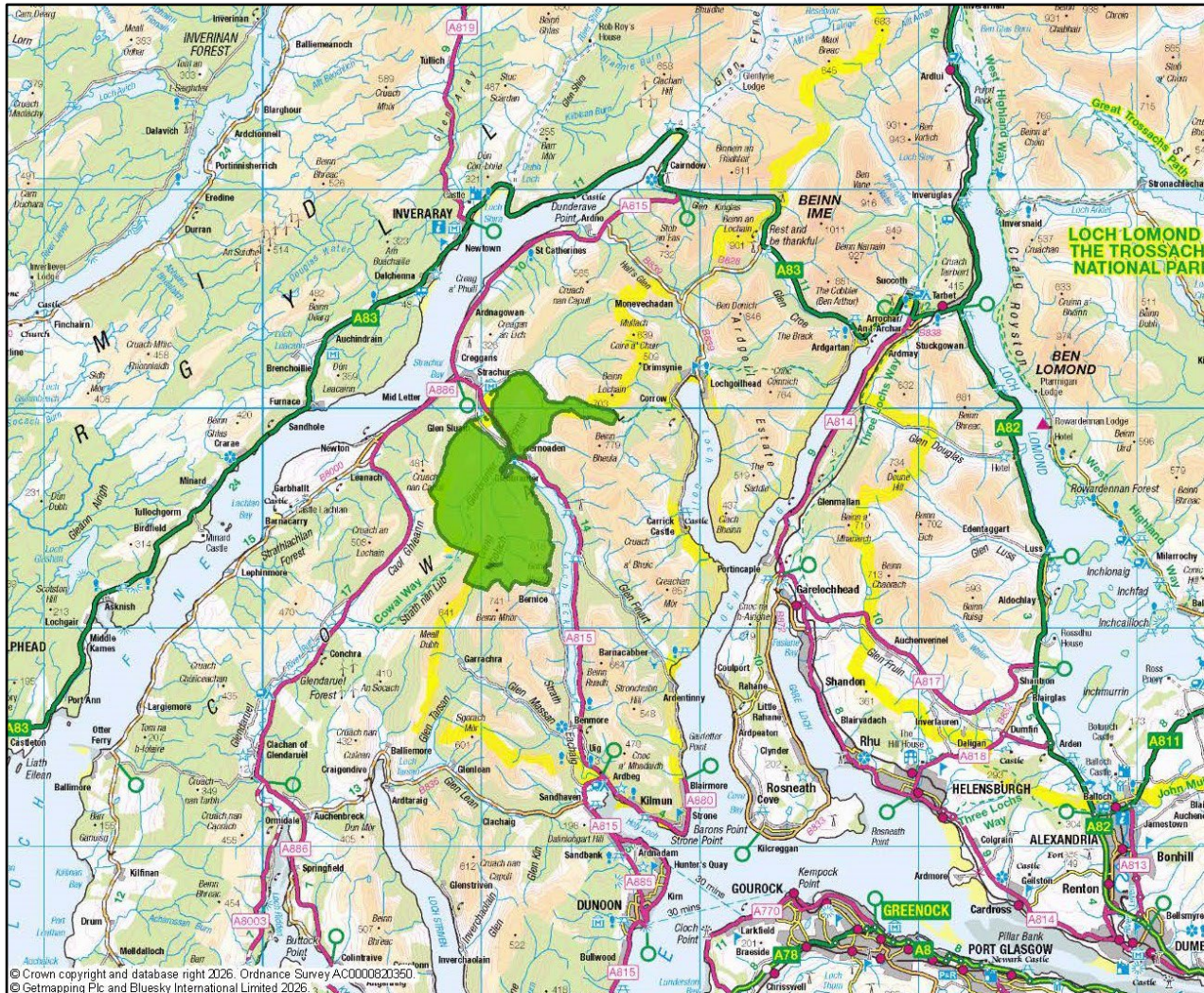
I have read and understand Scottish Forestry's Privacy Notice, a copy of which is available at <https://forestry.gov.scot/privacy-complaints-freedom-of-information-and-requests-for-information>

Do you give consent for Scottish Forestry to access your land? Delete as appropriate.	YES	
<p>You are not obliged to give us consent to enter your land, however if we are denied access to your land, and cannot carry out an assessment because of this, we may reject your application.</p> <p>This consent is for access to assess this application as well as monitor compliance with any subsequent approval, where applicable</p>		
Signed:		Print: <input type="text"/> Date: <input type="text"/>

A.2 Location and Background

A.2.1 Location and Background to this plan

Figure 1 – Location map of Glenbranter Forest



Glenbranter Forest is located around the village of Glenbranter in the Cowal Peninsula, within the Loch Lomond and the Trossachs National Park (Figure 1). The total plan area occupies 3608.8ha of coniferous forest, broadleaved woodland and open hill.

This is a 10-year plan developed to achieve a number of long term management objectives, which are described below. These include timber production, improving the resilience of the future forest and improving the forest for biodiversity.

Glenbranter has a number of conservation features of interest, which are further described below. The forest is popular locally for recreation and this is also something that we will continue to promote.

A number of considerations have gone into the development of this plan including:

- Timber production
- The even-agedness of the current forest

- Species diversification of the future forest
- Conservation considerations, including the Red Squirrel Stronghold
- Recreation
- Visual impact on the landscape
- Water utilities, including private water supplies

This plan succeeds the one approved in 2010.

A.2.2. Summary of Proposals

Table 1 – Summary of key proposals

Total Plan Area: 3608.8ha	
Planned Operations:	
Felling	Total plan period: 505.4ha (<i>Table 4 Felling</i>) Phase 1: 211.5ha (<i>210.5ha conifers, 1ha broadleaves</i>) Phase 2: 293.9ha (<i>292.9ha conifers, 1ha broadleaves</i>)
Thinning	124.3ha
Restocking	544.8ha* (<i>Table 6 Restocking</i>) Phase 0: 39.4ha (<i>coupe 07076, felled awaiting restock</i>) Phase 1: 211.5ha Phase 2: 293.9ha
New Planting	0ha
Roads and Tracks	n/a †
Public Access	n/a‡

*Total NET restocking area; includes coupe 07076, already felled and awaiting restock at time of writing.

†Note that further roading and access tracks will be required for the successful delivery of some aspects of this plan; approval for these will be applied for via separate EIA-SORs.

‡This refers to planned new public access features.

A.3 Existing Schemes & Permissions

Table: Existing Schemes & Permissions		
Type (e.g. Felling Permission)	Ref. No.	Details
Forest Design Plan	033/CT/G/11(2)	Previous plan, expired 31/07/2022. This Long Term Plan (LTP) replaces it.
EIA Screening Opinion / Prior Notification	EIA-18 (SOR 659); 2025/0146/NOT	Planning approval for new Ritual Grove bridge, replacing the crossing destroyed by storm in October 2023.
Felling Permission	FPA-12707	Felling Permission to fell corridor for road realignment for new Ritual Grove bridge.

A.4 Stakeholder Engagement

Table: Stakeholder Engagement Summary	
Scoping – Main Points	LTP Reference (section/page):
Recreation: The forest of Glenbranter is an important recreational resource to the local community. Retention and ideally expansion or recreational offering would be welcomed, including during forestry operations	C.2.13
Community engagement ahead of planned forestry operations	C.2.13
Hydrology: the whole forest is within a public drinking water supply catchment which must be protected	C.2.9
Hydrology: the whole forest is within the catchment for the Loch Eck SSSI and fish habitats. Concerns raised about potential siltation and run-off from forestry operations, and request from stakeholder(s) to be kept up to date on plans for clearfell and road building in particular.	C.2.9
Habitats: proposed connectivity of native woodlands welcomed, including riparian corridors, and advice that this could be extended to connect with neighbouring landholdings	C.2.7; C.2.15
Habitats: open habitat, and its interface with upper forest treeline, should be enhanced with greater species and habitat diversity	C.2.15
Biodiversity: protected species should have mitigation plans e.g. raptors, red squirrels	C.2.15
Landscape is an important consideration, and forest redesign should contribute to or enhance the area’s “Special Landscape Qualities”	C.2.19; Appendix 2

A full record of comments raised during public consultation is available in Appendix 1.

A.5 Management Objectives

Management Objectives		
No.	Objectives (including environmental, economic and social considerations)	Indicator of objective being met
1	Sustain sawlog output for future rotations	Continued management of maturing and mature timber crops as per felling proposals in this plan; successful restocking and establishment of clearfell coupes with productive species, as per restocking proposals in this plan.
2	Enhance forest resilience through improved structural and species diversity	Through successful restocking and establishment of clearfelled coupes with a more diverse range of species, as per restocking proposals in this plan.
3	Aim to remove all dead and dying Larch that may pose a danger to people and property, e.g. next to public roads, within the plan period	Felling of management coupes that target areas of Larch, as per management proposals in this plan.
4	Manage recently windblown coupes	Felling of management coupes that target known areas of windblow and mature crops, as per management proposals.
5	Enhance the ecological and visual diversity of the forest through continued restoration of PAWS to native broadleaves; ecological retentions; connectivity of forest habitat networks; managing invasive non-native species	Through successful restocking and establishment of clearfelled sites where native broadleaves are specified in the restocking proposals; Long-Term Retentions of selected coupes; Ongoing management of existing ASNW, FHNs and INNS.

A.6 General Site Description

A.6.1 Topography

Glenbranter Forest sits between Loch Fyne and Loch Eck in the Cowal Peninsula, within a landscape of deep glens, steep slopes and craggy summits. The landscape rises from the shores of Loch Eck at approx. 20 metres elevation, to a high point at Beinn Bheag at 618 metres, between Glenshellish and Loch Eck. Higher summits including Beinn Mhòr and Beinn Bheula lie outwith but overlook the forest.

The wide strath between the village of Strachur and the head of Loch Eck divides the forest northeast-southwest. To the northeast is the almost conical Beinn Lagan; to the southwest the forest includes the discrete forest area known locally as Balliemore, Glenbranter (or High Glenbranter) and Glenshellish.

The landscape has been characterised into two Landscape Character Types in the NatureScot National Landscape Character Assessment: most of the plan is within *LCT 250 Steep Ridges and Hills*, with the strath between Strachur and Loch Eck in *LCT 253 Straths and Glens*.

Appendix 2 contains a selection of visualisations to illustrate the change and associated visual impact on the landscape.

A.6.2 Geology and Soils

Bedrock: Underlying geology is metamorphic from the Southern Highland Group, composed in the northwest edge of the forest from the geological unit previously known as the Upper Dalradian Group, and in the remaining area the Beinn Bheula Schist. These are composed of metamorphic rocks including psammite and pelite (metamorphosed sedimentary rocks), and schist, and date from the Neoproterozoic Era before 541 Ma. There are also numerous igneous dykes of more recent periods.

Superficial: Fluvial deposits of clay, silt, sand and gravel are found in the flat ground between Strachur and Loch Eck. Hummocky glacial deposits, and glacial till, can be found on the glen slopes throughout the forest.

Soils: This is quite varied across the forest. Much of the forest has had detailed soil surveys which show Upland Brown Earths occurring on the lower slopes of west Beinn Lagan, Glenbranter and by the head of Loch Eck. The middle slopes of Beinn Lagan are Ironpan and Peaty Surface-Water Gley; the latter are also characteristic of much of Glenshellish. Podzols and Typical Surface Water Gleys are also found across the forest. Peat soils are generally confined to the upper ground; in the southwest of the forest in the High Glenbranter area, these are generally 9d and 9e flushed blanket bogs; above Glenshellish, Balliemore and the summit of Beinn Lagan, these are 11b unflushed *Trichophorum*, *Calluna* bog.

A.6.3 Climate

Mean annual temperatures for this area are around 9.0°C, January being the coldest month and July-August the warmest. Annual rainfall is up to 3500mm, making the west of Scotland one of the wettest parts of the UK. October to January is the wettest season with rainfall of 120mm-150mm per month; April to June is the driest season, with 60mm-100mm per month. Western Scotland is very exposed to Atlantic weather systems, and the frequency and intensity of depressions is highest in the winter. Subsequently, winds are strongest from November until March, and lightest in July-August. Prevailing wind directions are typically from the south through to the northwest. Climate change projections suggest that the climate will in general become warmer and wetter in this area, with an increase of frequency and intensity of extreme weather events expected.

A.6.4 Hydrology

The forest is surrounded and incised by watercourses, all of which drain into Loch Eck. The principal burns are the Leavanin Burn and River Cur on the north and west of Beinn Lagan; Allt Ruadh on the southeast side of Beinn Lagan; the Sluain Burn on the northwest side of Balliemore; Allt Robuic through High Glenbranter; and the Glenshellish Burn. There are numerous smaller interconnecting burns in all parts of the forest.

The whole forest is therefore within the catchment of Loch Eck, which is both a SSSI and a Drinking Water Protected Area (DWPA), DWPA13_374.

There are some Private Water Supplies (PWS) still in use in the forest which feed neighbouring residences.

A.6.5 Windthrow

There are areas of windblow across all parts of the forest. Windblow has been mapped and can be seen on *Map 2a Larch and Windblow*. The largest areas are located in Balliemore, to the southwest of Glenbranter village around Allt Robuic (the area known as Ritual Grove), and the southern end of Glenshellish. Multiple smaller pockets are spread throughout the rest of the forest. Some areas e.g. Bealach an Lochain are not accessible with the existing forest road network.

A.6.6 Adjacent Land Use

Glenbranter Forest adjoins other FLS managed forests of Strath-nan-Lub to the southwest and Loch Goil to the east of Beinn Lagan. Other neighbouring land is forested, farmed or open hill. There are various neighbouring farms and residences including the villages of Glenbranter and Strachur.

A.6.7 Public Access

There are a number of promoted trails and features in the Glenbranter Forest area which can be seen on *Map 6 Recreation and Map 6a Recreation (detail)*. This includes a number of FLS-promoted walking and cycling routes, and The Loch Lomond and Cowal Way long distance route which runs through High Glenbranter and Beinn Lagan. The accompanying maps also show “Other Core Paths”, but it should be noted that all of the routes shown on the maps, with the exception of the Glenshellish Loop, are also Core Paths.

The forest road network and wider forest is managed in line with the Scottish Outdoor Access Code (SOAC) which encourages responsible outdoor access.

A.6.8 Historic Environment

There are no scheduled monuments in Glenbranter Forest.

There are 27 known and mapped unscheduled features, including some of regional importance. Types of feature are various but tend to be remains of buildings or past human activity, but a few are still in use such as the bridge crossing the River Cur at Glenbranter and some farmhouses still occupied.

A full list of historical features can be seen in *Appendix 3* and are shown on *Map 7a Heritage*.

Known historical features are mapped on FLS’ internal GIS system, which was cross referred with information held by West of Scotland Archaeological Service (WoSAS).

A.6.9 Biodiversity

Designations: Glenbranter is a Red Squirrel Stronghold. The forest is adjacent to and within the catchment of Loch Eck SSSI, which is designated for its fish species and community; its freshwater habitat and associated plant species; its floodplain fen habitat; and the oak-birch native woodland found along the shores, for its Atlantic bryophyte populations and assemblage.

Species: Mammals include Red Squirrel, Pine Marten, Badger and Otter, populations of which are known and expanding. Bats are present and use a number of habitats and built structures within the forest; species include Soprano, Common Pipistrelle and Natterer. For birdlife, there is a successful Peregrine Falcon breeding site; the open hill in the forest area forms part of the territory of Golden Eagle nesting outwith the forest itself; Black Grouse are regularly seen in the area but there are no known recent lekking activity recorded. Other notable bird species include Barn Owl and Osprey.

Woodland Habitats: Existing Ancient Semi-Natural Woodland (ASNW) including Atlantic Rainforest and riparian ASNW; there are also areas of Plantation on Ancient Woodland (PAWS).

Other Habitats: Mainly limited to the open ground in the upland parts of the forest are areas of Blanket bog; Acid Grassland; Upland Flush, Fen and Swamp; and Upland Heath.

Designations and habitats are shown on Map 7 Designations.

A.6.10 Invasive Species

Rhododendron ponticum is found in native woodland areas and is a threat to that habitat. *Gaultheria*, Piri-Piri Burr and Himalayan Balsam are also present in the forest.

A.6.11 Utilities

Infrastructure for various utilities are to be found around the forest.

Electricity overhead lines and water mains are mainly routed through the strath between Strachur and Loch Eck, and only come close to the forest in a few locations.

The Invernoaden hydro electricity scheme is adjacent to the Beinn Lagan part of the forest.

As described in *section A.6.4* above, the whole forest is within the catchment of Loch Eck which is a public drinking water supply. There are a number of private water supplies which have been identified and mapped, but for privacy reasons are not published on maps accompanying this document. All other information is shown on *Map 8 Utilities*.

A.7 Woodland Description

Map 2 Current Species shows today's forest by the main species component present per area unit ("sub-compartment") of the forest. This is broken down in *Table 2* below alongside an indication of the future direction of travel in terms of change and species diversification. Today's forest is heavily dominated by Sitka spruce, with smaller areas of other conifers scattered throughout. Larch spp. are mainly found in the areas of forest nearest the wide strath between Strachur and Loch Eck, in western and southern Beinn Lagan, the northeast face of Balliemore and southeast of Glenshellish Farm.

Native broadleaved woodlands are found in riparian areas around Beinn Lagan, around Glenbranter village, and around the burns in Glenbranter and Glenshellish. These areas can also be seen on *Map 7 Designations*. This map also shows the location and extent of Plantation on Ancient Woodland Sites (PAWS) in today's forest. Proposed clearfell coupes on such sites offer the opportunity to restore native species to the forest through restocking. The future forest will have a reduced amount of Sitka spruce and an increased amount other conifer species and native broadleaves (*Map 4 Future Habitats*, *Map 4a Restocking within plan period* and *Table 2*). Much of the forest was planted in the 1970s and 1980s, while some stands of conifers still remain from 1960s plantings, in particular in south Glenshellish and northwestern Beinn Lagan. These are coincident with areas of windblow, as described in *section A.6.5* above. The distribution of age classes in the current and future forest is shown in *Table 3* and *Figure 2* below. Analysis of sub-compartment data suggests that most of the forest will reach or has already reached its Maximum Mean Annual Increment (MaxMAI) by the end of Phase 4 i.e. within the next 20 years.

Table 2 - Area by species

This shows the current and future species composition within the entire Long Term Plan area.

Area by species						
Species (Add relevant species groups, or OG/OL)	Current*		Year 10*		Year 20*	
	Area (ha)	%	Area (ha)	%	Area (ha)	%
Sitka spruce	1752.9	73.0	1578.7	65.0	1336.5	55.6
Norway spruce	90.1	3.8	107.5	4.4	137.8	5.7
Larch spp.	56.9	2.4	18.8	0.8	10.1	0.4
Douglas fir	17.0	0.7	22.9	0.9	21.9	0.9
Scots pine	4.8	0.2	13.2	0.5	20.6	0.9
All other conifers†	7.4	0.3	47.8	2.0	111.4	4.6
Birch spp.	54.9	2.3	130.1	5.5	210.7	8.8
Native broadleaves	46.8	1.9	97.5	4.0	147.0	6.1
All other broadleaves‡	12.9	0.5	10.2	0.4	9.4	0.4
Felled awaiting restock§	27.9	1.2	0.0	0.0	0.0	0.0
Internal Open Space¶	329.9	13.7	401.6	16.5	398.1	16.6
Total	2401.5	100	2428.3	100	2403.5	100

* Of forested area (including internal open ground (OG)). Any mixtures such as Mixed Conifer (MC) should be broken down and included as an individual species component where a species occupies more than 10%.

† Other conifer species choice will follow FLS' Establishment Strategy, and the vast majority can be expected to be (although not exclusively) species drawn from FLS' shortlist of primary productive conifer species e.g. DF, NS, SP, WRC

‡ This refers to non-native broadleaves present in the forest – Beech, Eucalyptus (Forest Research experiment site), Sycamore and Raulí.

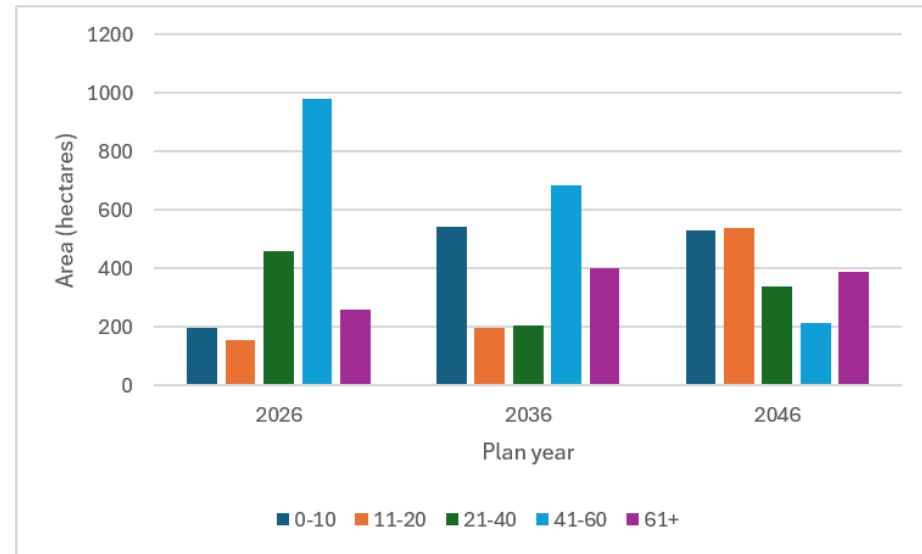
§ Coupe 07076. In the previous plan this was to be restocked with SS/JL. Restocking is due but the species have been revised due to P. ramorum affecting Larch; this will now be planted with Sitka spruce and mixed native broadleaves.

¶ This refers to open space within the forested area, and excludes areas such as open hill, open water, forest roads and other non-forest land.

Table 3 – Area by Age Class

Age class (years)	Current	2035	2045
	Area (ha)	Area (ha)	Area (ha)
0-10	194.8	542.1	530.6
11-20	154.0	194.6	537.6
21-40	459.5	204.2	336.1
41-60	977.9	684.3	214.8
61+	257.5	401.5	386.3
Total	2043.7	2026.7	2005.4

Figure 2 – Change in Age Class over time (as per Table 3)



A.8 Plant Health

Phytophthora ramorum disease affecting Larch species was first confirmed in Glenbranter Forest in 2021. Statutory Plant Health Notices (SPHN) have been served on the forest as the disease has spread. It is expected that over time, all of the larch within Glenbranter Forest will become infected with *P. ramorum*.

Compliance with SPHNs require FLS to fell all Larch trees within a defined buffer; some of this felling has taken place in Glenbranter Forest. This often means felling other tree species at the same time in order to leave the remaining forest in a windfirm state.

Glenbranter Forest is within the *Risk Reduction Zone* of Scottish Forestry's *Phytophthora ramorum on Larch Action Plan*.

B. Analysis of Information

B.1 Constraints and Opportunities

B.1 Constraints and Opportunities		
Factor	Constraint	Opportunity
Larch / tree health (A.8)	Phytophthora ramorum is present in Glenbranter Forest, and SPHNs have been served. Tackling infected Larch spp. is one of this plan’s objectives (A.5). This plan’s felling design will aim to encapsulate the majority of Larch spp. in Phase 1-2 felling coupes.	Increase the species diversity in the forest through clearfell and restocking with diverse species; Improve the resilience of the future forest to future threats through increased species diversity. (Maps 2a, 4)
Windblow (A.6.5)	Windblow is present throughout the forest, in some larger discrete areas, but also in clusters of smaller patches. This is partly a consequence of the even-agedness of the forest. Managing windblow is one of this plan’s objectives. This plan’s felling coupe design will aim to encapsulate the worst affected areas of the forest.	Secure future crop stability through restocking and providing more options for future forest management where appropriate e.g. LISS / CCR / native broadleaves. (Maps 2a, 3, 4)
Even-aged and monocultural forest (A.7)	Most of the forest was planted between the 1960s and 1980s, with a very high proportion of Sitka spruce. The legacy of this is that today’s forest has matured or is approaching maturity (this is reflected in the spread of windblow across the forest). Restructuring the forest through felling needs balance against other factors e.g. biodiversity, hydrology, landscape.	Restructuring of the forest into an more diverse forest in terms of age class, species diversity and habitats. This could make the forest more resilient in the future to threats such as plant disease and severe weather, provide better interconnection of the forest habitat network and better, more robust and permanent buffers around features such as native habitats, watercourses and recreational areas.

Hydrology – catchment of SSSI and DWPA (A.6.4)	The whole forest is within the catchment of Loch Eck, with all watercourse in and bordering the forest draining into the loch. The loch is a SSSI and a public drinking water supply. This requires a heightened emphasis on good site management for all forest operations; and the future forest design should serve to improve the riparian environment, including building in buffers of native broadleaves.	Building in more robust and permanent buffers from forestry operations from the riparian habitat by establishing good riparian zones with native broadleaved species. This is most likely to come at restocking following clearfell operations on a coupe-by-coupe basis.
Recreational access (A.6.7)	The forest is a popular recreational resource locally, especially the area between Glenbranter village and Allt Robuic, including the Waterfall Trail and Ritual Grove. Windblow and Larch spp. in this area will necessitate felling. Felling here will require careful design and planning to minimize impact to other forest users, and the future forest design should consider the visitor experience e.g. diverse species planting.	Felling and restocking in this core recreation area will afford opportunities to enhance the future visitor experience through planting a richer, more diverse mixture of species in this area, both native broadleaves and conifers.
Red Squirrel Stronghold (A.6.9)	Glenbranter Forest is part of a wider Red Squirrel Stronghold, which also includes much of the forests along Loch Eck. Plan objectives of timber production (A.5 (1)) and forest restructuring (A.5 (2)) will have to be balanced with the need to maintain red squirrel populations and habitats which will influence felling coupe and restocking design. This will be assisted by population analysis undertaken by FLS Environment staff.	In the future forest, a more species-diverse forest suitable for red squirrel, with conifer and broadleaved food sources; and more resilient options for forest management e.g. thinning / LISS / CCF where appropriate.

PAWS / ASNW / Atlantic Rainforest (A.6.9)	PAWS sites will be restocked as per FLS policy following clearfell. Where existing ASNW is adjacent to planned felling, it will be suitably protected. The challenges will be to protect broadleaves from mammal browsing, and manage INNS and natural regeneration of exotic conifer species within PAWS restockings and within the existing ASNW.	Glenbranter Forest is within the Strategic Rainforest Zone and PAWS restorations will use a suite of native broadleaved species tailored to the site specific conditions, but be consistent with rainforest species mixtures. This will help to enhance the forest habitat network, including for red squirrels.
Upper forest margin – open ground interface (A.4)	The upper treeline area across the forest, while having a more broken margin in some places e.g. the west side of Glenshellish, is largely absent of native woodland species. Managing the spread of conifer regeneration here, while establishing an enriched species mix, will be challenging with limited access from the forest roads network for forestry operations and deer management.	Opportunities may arise following clearfell operations where access options can be established to allow ongoing management at the higher elevations. Create a permanent buffer of forest margin habitat that is separate from the productive forestry zone; this would also help protect the open habitat from encroachment of exotic conifer regeneration.
Visual impact on landscape of forestry operations (A.6.1; Appendix 2)	Some parts of the forest are quite visible in the landscape; especially those areas bordering the strath between Strachur and Loch Eck. These are also the areas where Larch spp. are more prevalent, and it is an objective of this plan to target Larch for felling. Felling coupe design in these areas will have to take into consideration the visual impact of felling on the landscape.	The most visible areas of the forest are along the strath between Strachur and Loch Eck. The forest at Balliemore already has quite a rich mixture of conifers when seen from here, but there will be an opportunity to enhance this elsewhere with a more diverse suite of species, both conifer and broadleaved, to provide a more varied scene in terms of forest structure and colour.

B.2 Concept

The *Key Features* and *Considerations* maps summarise the various factors and features of Glenbranter Forest.

Tree health and crop stability have been two of the key considerations when developing this plan, as well as the even-agedness of the forest. *P. ramorum* and windblow are present and developing in the forest. The *Considerations* map and *Map 2a Larch and Windblow* show the distribution of Larch spp. and windblow; Table 3 and Figure 2 above describes the even-aged character of the forest. Felling coupes presented in this plan have attempted to encapsulate the majority of Larch spp. and areas worst affected by windblow in the first two felling phases, where possible (*Maps 2a, 3 and 3a*).

This plan attempts to address the even-agedness of the rest of the forest by focusing on the older coupes in the forest and planning felling in phases 3-4, whilst trying to minimise felling adjacency. It has also been attempted to design retentions to maintain connectivity of mature woodland, conifer and broadleaved, to ensure continuity of habitat for biodiversity, in particular for red squirrels.

PAWS sites will be restored to native broadleaves post-felling via restocking, and this restocking plans in general will serve to enhance the forest habitat network in the forest, in particular in riparian zones, which will have a positive benefit on the hydrological environment of the forest. This will be complimented by ongoing management of existing ASNW and priority open habitats. Restocking proposals can be seen in *Map 4 Future Habitats*, and the restocking that is planned for the ten year plan period is shown in *Map 4a*.

Restocking proposals in general seek to diversify the forest, and also establish a more “zonal” forest as shown in the *Concept map*. This will help improve the visual appearance of the forest in many areas, including the visitor experience, by having more diverse conifers and broadleaves in the more visible or visited areas; and to an extent help separate the productive zones of the forest from the areas more focused on recreation or biodiversity.

C. Management Proposals

C.1 Silvicultural Practices

The previous plan was managed through clearfell and restocking, including some felling amendments due to windblow. There was no thinning in the last plan period.

While there was some line thinning carried out in the forest in the past, evidence of which can be seen in southeastern parts of Beinn Lagan, this dates back to the 1990s. There is no recent history of thinning in Glenbranter Forest, so any future thinning operations for timber production will be limited to younger crops. These are unlikely to be ready for first thinning in the ten years of this plan. The *Concept map* shows a “Multipurpose Forestry Zone” which was identified as the most suitable area for thinning operations, based on soils, slope and exposure.

The primary management method in the next ten years will be clearfell-restock.

There may be some selective felling of Larch spp. in the forest where it has not been possible to include these in clearfell coupes. This is likely to be limited to SPHN felling.

Restocking in this plan will diversify the range of productive conifer species in the forest and expand the native broadleaf area. Restocked sites will introduce more options for future management options that are available in today’s forest.

This is further described in the following sections.

C.2 Prescriptions

C.2.1 Clearfelling

Due to the lack of thinning in the forest in recent years, and the mature character of a large proportion of the productive element of this forest, the primary management method for this rotation will be clearfell-restock. Felling proposals are seen in *Maps 3 and 3a*.

Clearfell coupes have been designed to encapsulate the majority of Larch spp. in the face of *P. ramorum*, and include the worst affect areas of windblow. These are seen in *Map 2a*.

Coupe boundaries have been designed using existing windfirm boundaries such as rides and roadlines; this is order to maintain the stability of the surrounding forest post-clearfell.

Much of the forest is even-aged, mature and in places showing signs of windblow; analysis of stock data indicates that much of the forest has reached or is approaching its *Maximum Mean Annual Increment (MaxMAI)*. Coupe phasing has been designed to address this whilst leaving connecting forest cover to maintain habitat for resident species including squirrels, and to minimise adjacency issues. The visual impact on the landscape has also been considered and some coupe extents have been made larger to avoid, for example, leaving incongruous remnants on hillsides (e.g. coupe 07017 in Beinn Lagan; *Map 3*).

It is acknowledged that there is adjacent felling proposed in some areas. Firstly, coupes 07089 and 07091 at the north end of Glenshellish; separated by a narrow riparian zone, these were originally conceived as one coupe, but since split across two phases due to the very steep ground. This will require winch felling work for which it was deemed preferable to spread across

the life of the plan; and to provide flexibility when working in this area which has significant biodiversity and environmental constraints. Secondly, coupes 07125 and 07127 at the south end of Glenshellish; these were phased thus in the previous plan, and both are presenting significant development of windblow, clearance of which is one of this plan's objectives (A.5 (4)).

The effect of this adjacent felling, e.g. 07125/07127, may result in a large area of closely aged crops in the next rotation. This can be mitigated by timing of felling early in Phase 1 and late in Phase 2, maximising the age difference between the new crops; by dividing the two coupes in the future restock design with an area of different species (in the case of 07125/07127, the two areas of Sitka spruce are divided by an area of mixed native broadleaves); and by delaying restocking in some areas (see *Section C.2.7* for more on restocking).

C.2.2 Thinning and Respacing

There has been no recent history of thinning in Glenbranter Forest. Any future thinning for timber production will consequently be first thinning in younger crops. Desktop analysis of soils, slope and exposure, as well as numerous site visits, helped identify the "Multipurpose Forestry Zone" shown in the *Concept* map. This area identifies the parts of the forest more suited to more diverse forestry management techniques, including thinning. These areas are generally under cover of mature forest so any future thinning will be limited to future crops.

Of today's forest, areas that will be worth monitoring for future thinning include the northern end of Glenshellish, which has been planted with Sitka spruce, Norway spruce and Douglas Fir in 2018-19, but the slope may be too steep for repeated thinning interventions. Due to the age of this crop this is unlikely to be ready for first thinning within the ten year span of this plan.

Map 3b Thinning does however highlight a small number of thinning coupes. Permission for thinning here is for specific reasons which are described below. None of these are productive or systematic thinning in the normal sense and no or negligible timber volume is expected from these thinnings. Species composition of these coupes is described in Table 5 below.

- *Coupe 07530*: Balliemore. Permission sought to fell a minimum amount of mixed conifer species (mainly 1938-39 NS, SS) only if required to facilitate operation of the clearfell coupe 07038 which this thinning coupe surrounds.
- *Coupe 07744*: Balliemore. Permission sought to fell any Larch spp. (1939 JL) outwith the current SPHN; and a minimum number of 1939 NS and/or SS only if required to facilitate Larch felling.
- *Coupe 07649*: Glenbranter. ASNW/PAWS. Permission for selective removal of exotic species (conifers inc. SS, HL; non-native broadleaved species e.g. BE, SYC) for the purpose of rainforest habitat improvement; and removal of large conifers if required for public safety reasons.
- *Coupe 07555*: Glenbranter. Permission sought to fell any Larch spp. (1943 HL) outwith the current SPHN; and any Western Hemlock (PY 1943) to reduce seed source adjacent to PAWS and watercourse.

- *Coupe 07660*: Glenbranter. ASNW/PAWS. Permission for selective removal of exotic species (conifers inc. SS, HL; non-native broadleaved species e.g. BE, SYC) for the purpose of rainforest habitat improvement. Halo thinning to improve rainforest habitat, which may include felling of broadleaved species.
- *Coupe 07665*: Glenbranter. PAWS, partly restocked with native species. Permission sought for removal of exotic species (mainly SS) for riparian habitat improvement. Mainly SS 2011 and younger, as yet unmapped SS natural regeneration.
- *Coupe 07686*: Glenshellish. ASNW/PAWS. Permission sought to remove small number of exotic species (mainly SS) for rainforest habitat improvement.
- *Coupe 07698*: Glenshellish. PAWS, partly restocked with native species. Permission sought for removal of exotic species (mainly SS) for riparian habitat improvement. Mainly younger, as yet unmapped SS natural regeneration.

C.2.3 LISS/CCF

There has been no recent history of CCF or other LISS management in Glenbranter Forest. For this reason any candidates for this management type are likely to be in younger, still developing stands, or future ones yet to be established. As noted in section C.2.2 above, potential stands are likely to be found in the “Multipurpose Forestry Zone” as seen in the *Concept* map. This is likely to include PAWS restocking sites where conifer regeneration is expected to be a management challenge.

Opportunities will be sought to improve and expand the native woodland throughout the forest, in existing ASNW or on PAWS sites. Where suitable sites are identified or the need arises, these will be actively managed, including halo thinning conifer trees to benefit native species.

As noted in previous sections, clearfell coupes presented in this plan attempt to encapsulate the majority of Larch spp. but some areas of Larch spp. will persist outwith felling coupes. This is due to the small size, challenging ground conditions or biodiversity reasons where it is not possible or not desirable to create additional clearfell coupes; for example, coupe 07026 in Beinn Lagan (small, partly checked crop in steep and rocky ground). In the case of SPHNs being served on these stands, they will be managed in line with the SPHN served and management options will include selective felling.

C.2.4 Long Term Retentions / Minimum Intervention

There is already an established or developing network of native woodland in Glenbranter Forest, in particular in Glenshellish and by Glenbranter village. Some of this has been designated as Minimum Intervention. Here there will be no systematic felling or planting of trees, with operations limited to control of exotic species, deer management, maintenance of paths and rides and safety work.

There are a number of coupes designated as Long Term Retentions. These are stands retained beyond the age otherwise expected in a productive forest stand. Reasons for this in Glenbranter Forest include for biodiversity (Balliemore, Glenbranter and Glenshellish), coincidence with

ongoing Forest Research experiment stands (Beinn Lagan and Glenbranter) and landscape (Balliemore).

C.2.5 Other Tree Felling in Exceptional Circumstances

FLS will normally seek to map and identify all planned tree felling in advance through the LTP process. However, there are some circumstances requiring small scale tree felling where this may not be possible and where it may be impractical to apply for a separate felling permission due to the risks or impacts of delaying the felling.

Felling permission is therefore sought for the LTP approval period to cover the following circumstances:

- Individual trees, rows of trees or small groups of trees that are impacting on important infrastructure (as defined below*), either because they are now encroaching on or have been destabilised or made unsafe by wind, physical damage, or impeded drainage.

**Infrastructure includes forest roads, footpaths, access (vehicle, cycle, horse walking) routes, buildings, utilities and services, and drains.*

The maximum volume of felling in exceptional circumstances covered by this approval is 75m³ per Long Term Plan per calendar year. A record of the volume felled in this way will be maintained and will be considered during the five year Long Term Plan review.

C.2.6 Woodland Management in Visitor Zones

Visitor Zones have been identified in areas where FLS encourage and manage access or where the woodland managed by FLS interacts with popular visitor sites or access routes. Visitor Zones are shown on *Map 6* and *6a Recreation*.

In these areas, single trees or small groups of trees will be removed when necessary to protect facilities, infrastructure and trails, or to enhance the setting of features, or to maintain existing views.

Woodland in these zones will also be thinned, or trees re-spaced, for safety reasons (including to increase visibility to ensure that sites are welcoming and feel safe), and where it is necessary to enhance the experience of the forest setting; such as through the development of large trees, or preferential removal of trees to favour a particular species.

C.2.7 Restocking Proposals / Natural Regeneration

Restocking proposals in this plan can be seen on *Map 4 Future Habitats*. This map shows the ultimate destination of the forest. The coupes to be restocked in the ten year span of this plan are shown on *Map 4a*, and *Map 4b* shows the plan period restocks against the context of the surrounding forest. A coupe-by-coupe description can be seen in Table 5 below. The effect these restocking proposals will have on the future forest can be seen in Table 2.

Restocking proposals here have thoroughly reviewed those in the previous approved plan.

Restocking proposals have been based upon the various zones shown in the *Concept map*, which were based on a desk-based analysis of GIS data and on numerous site visits. This helped identify

the areas suitable for diversification of the forest, those for native woodland expansion and the area providing fewer management options for forestry; this latter was revised to mainly (but not exclusively) be a clearfell-restock zone concentrating on Sitka spruce. The species diversification of the forest has been concentrated on the “Multipurpose Forestry Zone”; *Map 4* shows some areas with species choice specified, and others where the main species is “Other/Mixed Conifers”. This species group was chosen to allow more robust decisions on species choice to be made by our operational staff following clearfell, when ground conditions can be better assessed, and to be flexible around potential plant supply challenges when specifying alternative species. It can be expected that “Other/Mixed Conifers” species choice will follow FLS’ Establishment Strategy, and the vast majority can be expected to be (although not exclusively) species drawn from FLS’ shortlist of primary productive conifer species e.g. DF, NS, SP, WRC. Note that Larch spp. have been replaced or removed as a restocking option in the future forest due to *P. ramorum*.

Restocks following clearfell on PAWS sites will be replanted with a suite of native broadleaves appropriate to the local site conditions and consistent with Atlantic Rainforest habitat e.g. Birch spp./Oak/Hazel.

Future coupe design has used forest roadlines, watercourses and rides to create smaller sized coupes in the future forest than in today’s forest.

In the event of restocking following SPHN felling, species choice will follow Scottish Forestry’s *Advice on Replanting Sites Affected by Phytophthora ramorum*; this includes conifers and broadleaves. Natural regeneration of Larch spp. will be controlled as directed by the SPHN.

Where production is the key objective conifers will be planted at densities of approximately 2700 stems/ha and productive broadleaves at least 3500 stems/ha. Non-productive Native Mixed Broadleaves will be planted at approximately 1600 stems/ha. Restocking will be within two years of felling unless the Hylobius Management Support System indicates a longer fallow period is necessary (Section C.2.16). In the latter case planting will be carried out within five years. Where Larch spp. is removed selectively, natural regeneration of non-Larch spp. will be the preferred method of restock if it appears to be a realistic prospect. A survey of natural regeneration will be conducted at year 5 to assess progress; where it appears to be developing, a subsequent survey will be conducted at year 7; where natural regeneration is not developing satisfactorily, enrichment planting will be conducted by year 10 with appropriate species.

The effect of adjacent fellings, in particular 07125/07127, may result in a large area of close aged crops. As discussed in *Section C.2.1*, This can be mitigated by careful timing of felling; and if necessary in restocking, by dividing the two coupes in the future restock design with an area of different species (in the case of 07125/07127, the two areas of Sitka spruce are divided by an area of mixed native broadleaves); and by delaying restocking in some areas. A decision on this latter option has to be balanced with the ground conditions of the restock coupes, in particular in areas that will be flat-planted due to steepness of slope and the expectation of vegetation recolonising the clearfelled coupe, both factors which make restocking more challenging.

In the case of 07125/07127, the area between the track and planned road between the two coupes is probably the most suitable area here to delay restocking; species will mainly be native

mixed broadleaves, and natural regeneration of Sitka spruce may well develop here, which will further enhance the future structural diversity.

C.2.8 Ground Preparation

Ground preparation, including cultivation, is undertaken to aid tree establishment. FLS is committed to undertaking ground preparation operations with minimal site disturbance. Soils and terrain vary throughout the plan area, as can post-harvesting site conditions. This means a mix of different ground preparation techniques will be required on restocking sites in Glenbranter Forest, ranging from no cultivation (“flat-planting”) to non-linear cultivation techniques including various types of mounding. The most appropriate technique will be selected during detailed site planning following harvesting, and will include appropriate buffers and mitigations to protect vulnerable features such as watercourses, water supplies or sensitive habitats.

Table 4 – Felling

This shows the scale of felling within the felling phases in the context of the whole LMP. This includes any areas of ‘LISS – Fell’ (i.e. removal of final overstorey).

SCALE OF PROPOSED FELLING AREAS (including LISS final fell areas*)													
Total LMP Area:		3608.8		hectares									
Felling	Phase 1	%	Phase 2	%	Phase 3	%	Phase 4	%	Long Term Retention	%	Area out-with 20yr plan period	%	
Area (Ha)	211.5	5.9	293.9	8.1	269.9	7.5	320.0	8.9	0.0	0.0	1198.8	33.2	

*Gross coupe felling areas, adjusted to exclude roadlines internal to management coupe areas

Table 5 – Thinning

This shows the area of thinning over the first 10 years of the LMP (see map **M10**). See *Sections C.2.2* for further description.

Species*	Thinning coupe ref	Thinning (ha)**
NS 60%, SS 15%, MB 2%, Open 23%	07530	17.7
JL 15%, NS 22%, SS 50%, Open 13%	07744	4.9
BE 15%, SYC 7%, SOK 22%, NMB 32%, DF 3%, HL 2%, MC 4%, NS 10%, SS 3%, Open 2%	07649	24.9
NS 75%, WH 15%, HL 10%	07555	0.8
DBI 11%, SOK 46%, NMB 19%, MC 1%, SS 10%, Other MB 4%, Open 9%	07660	13.2
DBI 21%, SOK 6%, SP 5%, SS 14%, Open 54%	07665	17.5
MC 5%, DBI 23%, SOK 8%, MB 7%, Open 57%	07686	42.1
SOK 65%, DBI 35%	07698	3.2
Total		124.3

* Percentages are given for the respective sub-compartment areas and not representative of the proportion of each species being removed in thinning prescriptions.

** Gross coupe areas given; net area of thinning operations is likely to be significantly less.

Table 6 – Restocking

This table provides information on the restocking proposals for the first 10 years of the LMP listed on a coupe by coupe basis (see **Map 4a**).

Felling Phase	Map Identifier(s)	Species to be planted	Area (ha) to be planted*
Felled, awaiting restock	07076	39% Sitka spruce, 31% native mixed broadleaves; 30% Open	39.4
Phase 1	07009	21% Sitka spruce, 41% mixed conifers, 14% Downy birch, 9% native mixed broadleaves; 15% Open	45.1
Phase 1	07023	8% Sitka spruce, 31% Norway spruce, 19% Douglas fir, 10% Mixed Conifers, 12% Downy birch, 9% native mixed broadleaves; 11% Open	30.0
Phase 1	07063	50% Downy birch, 30% Sessile ok, 10% native mixed broadleaves; 10% Open	12.2
Phase 1	07089	48% Sitka spruce, 12% Norway spruce, 3% Douglas fir, 16% Scots pine, 18% native mixed broadleaves; 3% Open	23.5
Phase 1	07105	30% Sitka spruce, 60% mixed conifers; 10% Open	2.5
Phase 1	07118	87% Sitka spruce, 8% native mixed broadleaves; 5% Open	39.4
Phase 1	07125	57% Sitka spruce, 9% Norway spruce, 15% native mixed broadleaves; 19% Open	53.7
Phase 1	07150	90% mixed conifers; 10% Open	5.1
Phase 2	07017	91% Sitka spruce, 5% mixed conifers, 2% native mixed broadleaves; 2% Open	79.1
Phase 2	07038	23% Sitka spruce, 51% mixed conifers, 14% native mixed broadleaves; 12% Open	6.9
Phase 2	07042	88% Sitka spruce, 10% native mixed broadleaves; 2% Open	31.3
Phase 2	07057	90% native mixed broadleaves; 10% Open	4.0
Phase 2	07084	68% native mixed broadleaves; 32% Open	2.8

Felling Phase	Map Identifier(s)	Species to be planted	Area (ha) to be planted*
Phase 2	07091	3% Sitka spruce, 9% Norway spruce, 18% Scots pine, 35% Downy birch, 19% Sessile oak, 8% native mixed broadleaves; 8% Open	25.3
Phase 2	07100	64% mixed conifers, 25% native mixed broadleaves; 11% Open	7.9
Phase 2	07109	34% Sitka spruce, 56% Norway spruce; 10% Open	15.3
Phase 2	07127	81% Sitka spruce, 3% native mixed broadleaves; 16% Open	62.3
Phase 2	07132	69% Sitka spruce, 8% Sessile oak, 15% Downy birch, 4% native mixed broadleaves; 4% Open	15.9
Phase 2	07133	83% Sitka spruce, 2% native mixed broadleaves; 15% Open	25.4
Phase 2	07139	36% mixed conifers, 18% Sessile oak, 30% Downy birch, 6% native mixed broadleaves; 10% Open	6.8
Phase 2	07142	90% native mixed broadleaves; 10% Open	2.7
Phase 2	07166	100% Sitka spruce	2.9
Phase 2	07167	47% Sitka spruce, 19% Downy birch, 12% native mixed broadleaves; 22% Open	0.9
Phase 2	07168	70% Sitka spruce, 30% mixed conifers	1.5
Phase 2	07170	32% Sitka spruce, 32% Norway spruce, 20% Downy birch, 12% native mixed broadleaves; 4% Open	2.9
Total Restocking Area			544.8**
<i>Phase 0 only (coupe 07076)</i>			<i>39.4</i>
<i>Phase 1 only</i>			<i>211.5</i>
<i>Phase 2 only</i>			<i>293.9</i>

*Net area, including internal open ground but excluding roadlines internal to management coupe areas.

**Sub-totals shown here for comparison with Table 4 Felling

C.2.9 Hydrology

Forest & Water Guidelines and all relevant guidance and legislation will be followed in order to prevent pollution and protect water bodies and water related infrastructure. Future resilience is built in to the restocking proposals with planting of native broadleaves in riparian areas and more broadly in the plan area.

The following features can be seen in *Map 8 Utilities*. This map does not include Private Water Supplies (PWS) which are mapped internally for operational use, but not published for privacy reasons.

Hydro power scheme: Invernoaden, to the southeast of Beinn Lagan. Some of the infrastructure for this scheme will be close to clearfell-restock coupe 07023. The asset owner will be liaised with to agree safe working buffers in advance of operations. Access is not taken via Beinn Lagan and is not expected to be affected by proposals in this plan, but will be managed during forestry operations.

Scottish Water infrastructure: Comes adjacent to the forest at the northern and southern ends of Beinn Lagan, and by Glenbranter village. Information confirming the locations of infrastructure is mapped on FLS GIS systems based on information supplied by Scottish Water. Scottish Water have provided guidance which will be followed during forestry operations. This includes liaison with Scottish Water in advance of operations.

DWPA: Loch Eck is a public drinking water supply, and the whole forest is within the catchment of the Loch Eck catchment. Scottish Water have provided guidance which should be followed. This includes liaison with Scottish Water in advance of operations.

PWS: Present in various part of the forest. Known PWS infrastructure and their catchments are mapped on FLS' internal GIS system; these have been ground-truthed during the development of this plan, with further ground truthing takes place at work planning stage and pre-operations. PWS owners affected by our proposed operations will be contacted in advance of operations during the operational planning stage. Guidance, including Scottish Forestry's *Managing Forestry Operations to Protect Private Water Supplies (2025)* specify minimum buffer zones to apply to protect these features and their catchments, and additional mitigations can be installed should it be found necessary during operational site planning.

C.2.10 Protection

The proposals for restocking include diversifying the forest with a significant amount of mixed conifer and native broadleaf species, much of which will be vulnerable to deer browsing. Deer management measures will be critical to successful restocking, including culling and fencing (see Section C 2.11 for fencing). Where treeshelters are deemed appropriate and necessary, these will be recorded and managed in line with internal procedures, including take down date and waste disposal. Deer Management for Glenbranter Forest is covered by the *Cowal & Trossachs Deer Management Plan*. Further information on deer management on the FLS estate can be view here:

[Deer management | Forestry and Land Scotland.](#)

C.2.11 Fence Erection / Removal

It is FLS policy that internal fences should be the exception rather than the rule, but will be considered where additional protection is required for areas of vulnerable species, or where opportunities to shoot are limited by, for example, high public usage. It is acknowledged that fencing can present a risk to wildlife, including bird strike, and that Glenbranter and the surrounding area is highly suitable for protected species such as Eagle species and Black Grouse. The requirement for fencing will be assessed by the FLS Wildlife Management team, and design considered at the operational work planning stage; any fencing will have to consider public access, landscape impact and potential impacts on wildlife, including the risk of bird strike, and migration of deer species. Where fencing is deemed to be necessary, appropriate mitigations to maintain access and protect wildlife will be used, including careful route design, fence markers and timely takedown.

C.2.12 Road Operations and Timber Haulage

Haulage plans for timber movements out of Glenbranter Forest are detailed on Map 5 Roads, Access and Haulage. The public road network around Glenbranter includes the A815 and two minor roads, between Strachur and Glenbranter and from Strachur to Succothmore. For timber transport purposes, the A815 is an Agreed Route and the two minor roads are Severely Restricted. Argyll & Bute Council will be consulted in advance for these operations as part of our operational planning process, and are given annual updates from FLS on timber haulage plans. The Succothmore road will only be used for light vehicle access, but the minor road between Strachur and Glenbranter is the only road access to and from the Balliemore part of the forest. This also includes a short road with access shared with two neighbouring residences. In summary, all timber transport from the Beinn Lagan, Glenbranter and Glenshellish areas use the internal forest road network until joining the A815 Agreed Route by Glenbranter village; haulage from the Balliemore area will require use of the Severely Restricted Route between the Balliemore forest road end south to Glenbranter village, approx. 2.2km. This is a narrow road with limited passing places. Argyll & Bute Council, Argyll Timber Transport Group and affected neighbouring residents will be consulted in advance of planned felling operations about haulage operations on this road.

Two coupes will require the construction of new forest roads in this plan, 07127 in south Glenshellish and 07057 beside the A815. Both are in Phase 2 of this plan to allow for detailed planning work and consultation. Due to the limited period of approval, an EIA Screening Opinion Request will not accompany this plan but will be submitted for consideration to Scottish Forestry separately, nearer the time. Any additional civil engineering works including harvesting infrastructure will likewise be submitted for approval separately.

A Timber Transport Management Plan exists for the C57 Glenbranter minor road and is available on Argyll & Bute Council's website [here](#).

C.2.13 Public Access

Public Access Management Plans (PAMP) accompany operational work plans where appropriate, including for tree felling, restocking and road construction. They may also include unplanned works or restrictions such as dangerous trees. Developed by our Visitor Services team, PAMPs outline the necessary steps to maintain Health & Safety with regards to public access, e.g. path diversions with communications and site signage. These also direct internal consultation and external consultation as appropriate, e.g. LLTNP and local groups. Ref *Map 6 and Map 6a Recreation* for an indication of which routes or areas might be affected by the proposed operations. This map has been updated in light of comments received during this plan's consultation to show additional routes. Fencing will only be used where necessary and will not restrict access to walkers, either by route choice of fencelines and/or access infrastructure such as suitable gates. All forest roads and tracks are accessible under SOAS.

Where our proposed forestry operations may affect our neighbours and neighbouring landholdings, we will liaise with relevant parties to in advance of operations starting to discuss and agree mitigations. This will be managed throughout internal work planning process (Appendix 4). Please also refer to Forestry Commission Practice Note FCPN104 "Managing woodland access and forest operations in Scotland" (2013). This guidance, and/or any relevant guidance and legislation that may update or replace this, will be followed when managing public access and all forestry operations.

C.2.14 Historic Environment

Our key priorities for archaeology and the historic environment are to undertake conservation management, condition monitoring and archaeological recording at our significant historic assets; and to seek opportunities to work in partnership to help to deliver *Our Place in Time: the Historic Environment Strategy for Scotland and Scotland's Archaeology Strategy*. Significant historic environment features will be protected and managed following the UK Forestry Standard. Harvesting coupes, access roads and fence lines will be surveyed prior to any work being undertaken to ensure that upstanding historic environment features can be marked and avoided. At establishment and restocking, work prescriptions remove relevant historic environment features from ground disturbing operations and replanting. Where appropriate, significant historic assets are recorded by archaeological measured survey (see active conservation management) and may be presented to the public with interpretation panels and access paths. Opportunities to enhance the setting of important sites and landscapes will be considered on a case-by-case basis (such as the views to and from a significant designated site). The Regional Historic Asset Management Plan includes conservation management intentions for those designated historic assets in Scotland's national forests. Details of all known historic environment features are held within the Forester Web Heritage Data (built using national and regional historic environment records) and included within specific operational Work Plans to ensure damage is avoided. Significant historic environment features will be depicted on all relevant operational maps. It is acknowledged that there may be features within the forest that have not been identified that could be uncovered during forestry operations; site operatives will be made aware of this possibility and to report any such findings in order that appropriate mitigations can be put on place.

Following current guidance, minimum protective buffers around features are:

- 20m for National Importance / Designated Historic Assets: scheduled monuments and listed buildings;
- 10m for Regional Importance / Heritage Features and Significant Heritage Features: including all prehistoric archaeological features and once-roofed pre-20th century structures (houses, barns, kilns etc) as archaeological deposits may be expected to survive. Sites of regional importance include their associated immediate historic landscape. Consideration should also be given to significant elements of 20th century history (ie WWII defences and pill boxes, and unusual monuments of industry). Some sites categorised as of regional importance may warrant future scheduling.
- 5m for Local Importance / Heritage Features: all originally unroofed pre-20th century structures (sheep folds, dykes etc) as any surviving archaeological information is unlikely to be significant; and all possible sites with likely provenance (ie ‘possible hut circle’). Condition and historic character are important considerations in regard to features of local importance. Well-preserved drystone sheepfolds and dykes are significant elements of the local historic environment character.

The following table is taken from FLS’ internal Archaeology and the Historic Environment Practice Guide:

Objective	Opportunities	Constraints	Concept
Caring for the Historic Environment	We will ensure positive conservation management at significant historic assets, undertaking scrub control, condition monitoring and archaeological recording where necessary.	We will undertake suitable work practices on operational sites with known historic assets (and those discovered during operations).	We will ensure that historic assets (both designated and un-designated) are included within our land management and operational plans and are managed in line with the UKFS.

C.2.15 Biodiversity

FLS’ local Environment team have developed a *Habitat Action Plan* and maintains records of biodiversity, including protected species, in the forest and surrounding landholding. This knowledge has contributed to the development of this plan and feeds into appropriate operational timing and other mitigation measures as required e.g. breeding seasons for birds and mammals; protected habitats. This is picked up at the operational work planning process well in

advance of operations when detailed operational plans come together, followed by pre-operational site checks for conservation constraints nearer the time work is due to start, with ongoing site monitoring as necessary, should anything be present that was previously unrecorded.

Any operations that are planned near to Schedule A1 or 1A birds will be treated as sensitive sites and will be undertaken in such a way that potential disturbance is avoided or minimised. Any operations on sensitive sites will have a qualified Ecological Supervisor, and where required guidance will be sought from Argyll Raptor Study Group and/or NatureScot. FLS will comply with all relevant guidance and legislation, including FCS Guidance Note 32 and/or any that supersede this note.

The whole of Glenbranter Forest is within the catchment of Loch Eck, a SSSI and DWPA; this will be protected by good work practices on site, with adherence to UKFS including Forest & Water Guidelines.

Red Squirrel Stronghold: The following guidance was used in the development of this plan:

- FCS Practice Note FCPN102 Managing forests as red squirrel strongholds (2012)
- Modelling the impact of tree removal due to *Phytophthora ramorum* on red squirrels (*Sciurus vulgaris*) in the Cowal Peninsula (Heriot-Watt University, internal report for FLS, 2021)

This has influenced the design of felling coupes, in particular Long-Term Retentions and the phasing of some felling coupes later than optimal (e.g. 07011 in Beinn Lagan; ref. *Map 3 Management*), in order to retain a mosaic of mature tree cover throughout the forest. This will be reviewed at the next LMP renewal. This plan's restocking proposal is also in line with these guidance documents with diversification of conifers and expansion of native woodland. In addition, the proposals in this plan were assessed for their potential impact on the present red squirrel population using a statistical analysis with a satisfactory outcome.

Open ground: The main areas of open ground in the Glenbranter Forest plan area are the high tops of Beinn Lagan, Beinn Bheag, Beinn Mhòr and the ridges of Creag Tharsuinn and Meall Reamhar; an area of approx. 908 ha. There may be potential in some locations for the expansion of native woodlands, including montane habitats, or peatland restoration, in line with Loch Lomond and the Trossachs National Park's Trees and Woodland Strategy. Site investigations at Meall Reamhar have identified this as a potential peatland restoration site although there is no operational access at this time; this will be considered more fully when planning the clearfell and restocking of coupe 07042 in Balliemore when access could be designed and integrated. There may be scope for investigating open ground management further and this will be reviewed in the next full Land Management Plan.

The remaining open ground in the plan area is internal open space around crags and riparian areas. These will be managed as successional but where there is encroachment from invasive species such as *Rhododendron ponticum*, Sitka spruce or Western Hemlock, these will be managed to acceptable levels, particularly around watercourses and priority habitats.

INNS: The principal Invasive Non-Native Species (INNS) present in Glenbranter Forest is *Rhododendron ponticum*. FLS has prioritized landscape-scale control of *R. ponticum*; the Loch

Goil and Ardgartan area has been identified as a Priority Rainforest Rhododendron Area (PRRA), where rhododendron control can make the biggest difference to landscape-scale conservation in the Rainforest Zone. Glenbranter Forest is within the Rainforest Zone but is not a priority area at this time. There is currently no planned programme of work to manage INNS specifically proposed in the Glenbranter Forest area, however all INNS will be managed as part of our normal programme of works including habitat management; tree felling; and the establishment of replanted sites following clearfell. All other INNS will be managed in accordance with UKFS and relevant legislation including Scottish Government's *Non-Native Species: Code of Practice*. *Native woodland*: Glenbranter Forest has approx. 131 ha of existing native woodland today. Restocking following the felling proposed in the ten years of this plan will contribute an additional 59 ha with more following in years 11-20. It is hoped that opportunities will arise to undertake some active management of ASNW through selective removal of exotic conifers and halo thinning to improve habitat. Areas with potential for this have been identified in the Glenbranter forest area; ref. *Section C.2.2* and *Map 3b*.

C.2.16 Tree Health

Principally, *Phytophthora ramorum*. This is being addressed by this plan via targeted felling of Larch spp. Operations will be managed with strict biosecurity measures which are detailed in individual SPHNs and described on Scottish Forestry's website.

Other pests and diseases are present in the forest environment across the United Kingdom. Should any of these, or any new ones, become an issue in Glenbranter Forest, these will be dealt with in accordance with all relevant guidance and legislation.

Hylobius abietis (large pine weevil) is a widespread problem for forest restock sites, particularly in the first five years of establishment, as the weevil damages or kills young plants. The *Hylobius* Management Support System (HMSS) is used to predict when the peak outbreaks of weevil will occur and helps plan timing of restocking to minimise weevil damage. A fallow period of up to 5 years may be imposed if required, but this will be on a site by site basis and in line with tolerances described in Section C 4 Tolerance Table. See also Section C 2.7 Restocking.

Dangerous trees do occur in the forest environment, either by pests, diseases, physical damage or natural mortality. Tree safety is managed in line with FLS' operational guidance. Regular inspections are undertaken where FLS' forest meets infrastructure or areas of high public activity. When hazardous trees are identified, action will be taken to reduce or remove the hazard e.g. by limbing or felling the dangerous tree. Before such remedial work takes place, and during the work itself, access may need to be restricted for reasons of safety (Section C 2.13).

C.2.17 Utilities

See section C.2.9 for information about water utilities and PWS.

The utilities listed below are known and mapped; this information is fed through to FLS' work planning process. The relevant asset owner or operator will be liaised with where appropriate in advance of operations to agree working methods and mitigations, e.g. timing, safe working zones. Locations of utilities are shown in *Map 8 Utilities*.

OHPL: These are mainly routed along the road corridors and come close to the forest only in the Glenbranter village area. Where tree felling is in proximity to OHPLs, FISA 804 Electricity at Work: Forestry must be adhered to; SSEN will be liaised with in advance to agree working parameters and timing. Where this affects the public road, Argyll & Bute Council will also be consulted.

Public roads: The A815 is the main road to and from Dunoon and is adjacent to the southwestern side of Beinn Lagan. There are two minor public roads adjacent to the forest; one between Strachur and Glenbranter village passing the Balliemore part of the forest, and one from Strachur passing the northern side of Beinn Lagan. The latter will not be affected by felling operations and would only be used for light vehicle access by FLS; the other two roads are adjacent to or are part of the access routes to and from the forest. Argyll & Bute Council will be consulted to agree timing of works. Traffic control measures may be required to ensure safety to the public during felling operations. See also section C.2.12 for timber haulage.

C.2.18 Wildfire

FLS's approach to wildfire management can be viewed here -

<https://forestryandland.gov.scot/what-we-do/health-safety-wellbeing/wildfire-prevention>

At these particular sites there is not a history of wildfires, however the design of the forest has been informed by the guidance found in *Forestry Commission Practice Guide 22: Building Wildfire Resilience into Forest Management Planning (2014)* and *Scottish Forestry's Information Note: Forest Planning to minimise wildfire risk in Scotland*.

C.2.19 Landscape

A number of decisions were taken with consideration of the visual impact this plan's proposals could have on the landscape and visitor experience, specifically around coupe design and restocking. This mostly affects the most visible areas of the forest of western Beinn Lagan, and the northern parts of Balliemore and Glenshellish (*Map 1 Location* and *Map 3 Management*).

Beinn Lagan: the top (eastern) edge of coupe 07009 was reshaped to avoid an obvious linearity; coupe 07017 is large and could have been split north-south, but this has not been done to avoid leaving the remnant coupe splitting the summit vertically; all lower slopes have diverse conifers and broadleaf edges, providing visual diversity.

Balliemore: selective felling of Larch spp. (coupe 07038) and retaining 07030 instead of clearfell comes with a risk of windblow, but was the preferred option given the visual prominence and diversity of this part of the forest.

Glenshellish: mixed NMB and SP/NS restocking of coupes 07089 and 07091 will provide enhanced visual diversity compared to today; in south Glenshellish, enhancement of the riparian MB restocking between coupes 07125 and 07127 will improve separation of these SS restocks.

Glenbranter: in the core recreation area, LTR and LISS management coupes help screen the necessary windblow and Larch felling of coupes 07150 and 07139 from one of the main routes through the forest.

C.3 Environmental Impact Assessment and Permitted Development Notifications

Total area (hectares) for each project type and details as requested by sensitive or non-sensitive area.

Type of Project	Sensitive Area		Non-sensitive Area		Total
Afforestation	%Con	%BL	Con	BL	0ha
Deforestation	%Con	%BL	%Con	%BL	0ha
Forest Roads	0ha		0ha		0ha
Quarries	0ha		0ha		0ha

Two new forest roads are illustrated on Map 5 Roads, Access and Haulage and Consultation Maps 4 & 5, one at the south end of Glenshellish to access coupe 07127, the other a short spur and turning point to access coupe 07057 off the A815. As explained in section C 2.12 above, this work is not planned until later in this plan’s timeframe. Due to the limited time of approval for EIA SOR, a submission for this work will be submitted separately, nearer this time.

There is one active quarry within the plan area, in Glenshellish. A Screening Opinion Request to expand this quarry will be submitted separately from this plan when details of this proposed expansion are ready.

There is likely to be an requirement to develop new quarries during the lifetime this plan. Investigations to identify future sources of stone in this and the adjacent forest block, Strath-nan-Lub, are ongoing. Should quarry development or expansion be required, an EIA Screening Opinion Request will be submitted separately.

C.4 Tolerance Table

	Map Required (Y/N)	Adjustment to felling period*	Adjustment to felling coupe boundaries**	Timing of Restocking	Changes to Restocking species	Changes to road lines	Designed open ground ***	Windblow Clearance****
FC Approval normally not required	N	Fell date can be moved within 5 year period where separation or other constraints are met	Up to 10% of coupe area	Up to 2 planting seasons after felling	Change within species group e.g. evergreen conifers or broadleaves		Increase by up to 5% of coupe area	
Approval by exchange of email and map	Y		Up to 15% of coupe area	Between 2 and 5 planting seasons after felling subject to the wider forest and habitat structure not being significantly compromised		Additional felling of trees not agreed in plan Departures of more than 60m in either direction from centre line of road	Increase by up to 10% Any reduction in open ground within coupe area	Up to 5 ha
Approval by formal plan amendment may be required	Y	Felling delayed into second or later 5 year period Advance felling into current or 2 nd 5 year period	More than 15% of coupe area	More than 5 planting seasons after felling subject to the wider forest and habitat structure not being significantly compromised	Change from specified native species Change between species group	As above, depending on sensitivity	More than 10% of coupe area Colonisation of open areas agreed as critical	More than 5 ha

Note

*Felling sequence must not compromise UKFS in particular felling coupe adjacency. Felling progress and impact will be reviewed against UKFS at 5 year review.

** No more than 1 ha, without consultation with Scottish Forestry, where the location is defined as 'sensitive' within the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017.

*** Tolerance subject to an overriding maximum of 20% designed open ground.

****Where windblow occurs, Scottish Forestry must be informed of extent prior to clearance and consulted on clearance of any standing trees.

D. Production Forecast

N/A – FLS provide this nationally to Forest Research as per agreement with Scottish Forestry.

Appendices

Item number	Title
1	Consultation Record
2	Landscape Visualisations
3	Heritage Features
4	Cowal & Trossachs Deer Management Plan

Maps

Item number	Title
Consultation 1	Key Features
Consultation 2	Considerations
Consultation 3	Concept
Consultation 4 & 5	Planned Roads (detailed)
1	Location
2	Current Species
2a	Larch and Windblow
3	Management
3a	Management Phase 1-2
3b	Thinning
4	Future Habitats
4a	Restocking within plan period
4b	Restocking Phase 1-2 with current species
5	Roads, Access and Haulage
6	Recreation
6a	Recreation (detail)
7	Designations
7a	Heritage
8	Utilities