



Summary of the Land Management Plan proposals for Leanachan Forest

Background to forest

Leanachan is an important forest in Lochaber as a source of accessible spruce for the timber industry as well as containing significant riparian and peatland habitats. It is a major visitor destination for outdoor sport and the setting for an industrial quarry and rural business centre. The LMP aims to balance these different needs, which can at times be conflicting, while maintaining the integrity of the forest landscape and function.

The Leanachan Land Management Plan (LMP) area lies in the broad forested strath of the Great Glen to the north east of Fort William. It covers the north-western lower slopes of Aonach Mor, Carn Mor Dearg and Beinn Nebheis mountain massif and includes a small part of the Beinn Nebheis SSSI and SAC. The 3,130ha national forest estate here is continuous with the forest of Killiechonate estate to the east and the re-establishing natural woodland of the Jahama Highland estate to the west. These forested areas fringe the lower slopes of the mountain massif when viewed from the Commando Memorial. The north western boundary is the West Coast railway line. See Map 1. Location map.

The forest is a predominantly conifer plantation woodland with good access and proximity to timber markets. A fringe of native woodland has developed above the conifer tree line and represents a link to a tree cover predating the Forestry Commission's work.

Restructuring of the forest has begun with felling of the first rotation crop as it reaches maturity in line with the previous forest design plan. The forest along with Killiechonate has been identified as a red squirrel stronghold due to its isolation from grey squirrels and large area of conifer woodland although the carrying capacity at present is low.

In addition to establishing the second rotation of productive conifers, the restocking has created wider riparian areas and increased the amount of native broadleaf and open space.

In the core of the forest lies the lowland blanket bog of Lon Leanachain SSSI. Further peatland with a presumption to restore has been identified in the afforested area to the west of the SSSI. The burns coming from the hills and the bog are a defining feature of the forest area and there is scope for further strengthening the associated semi-natural habitats.

The water flowing from the mountains to the south also provide hydro power and from the eastern part of the forest flows into the River Spean and then the River Lochy supplying Fort William with its drinking water.

For many people, Leanachan Forest is associated with recreation and mountain biking in particular. At its heart is Nevis Range with its gondola, catering for some 130k visitors a year, skiing and downhill mountain bike trails but the forest also offers gentle cycling and walking trails.

The commercial Dornie quarry lies within the forest boundary as does the Lochaber Rural Complex with the auction mart.

Key issues in the development of the plan

- Age structure – The age structure of the conifer component is uneven with around half aged between 50 and 60 years old. This uneven and older age structure reduces the options to achieve restructuring of the forest as a whole within the this rotation. It also increases the risk of a period of time when the proportion of coning trees will only be able to support a low population of red squirrels.
Most of these stands have reached their economic maturity and are at increasing risk of windblow. Larch areas are being targeted due to the likelihood of *P. ramorum*, which skews the ability to restructure the forest successfully.
- Low Impact Silvicultural Systems (LISS) and thinning – the lack of thinning for many years in Leanachan means that none of the current mature stands can be managed under continuous cover forestry (CCF). There is potential to initiate thinning with a view to long term CCF management in some of the young conifer stands. Priority should be given to the stands in the west where the recreation interest is highest. However, working on rough and often soft ground is a significant challenge to achieving sustainable silvicultural thinning. The current markets for biomass in the Lochaber are small due to its location relative to the demand. There is, however, a growing interest and demand nationally which could change the local position during this plan period.
On a smaller scale there is scope for thinning some of the birch areas but this is depended on sourcing the appropriate equipment to cost-effectively handle small material.
- Wind – Leanachan is generally a relatively sheltered forest which has allowed the retention of some areas of conifers beyond their normal felling age. To achieve a greater degree of restructuring this rotation some risks are being taken with these older stands. The forest has suffered from significant storm damage in the past. Priority has been given to the clearance of windblown stands in the development of this plan includes the premature felling of a large coupe at Chapman wood due to extensive wind damage.

Resilience – Leanachan has a high % of SS in its species composition and forms part of a larger spruce dominated forest landscape. This does increase the vulnerability in the event of a serious disease or pest of Sitka spruce (SS) or a change in the climate which makes the area less favourable. The opportunity for alternative conifers is limited to the low-lying more sheltered river areas where the soils are also better. A changing climate in the west of Scotland brings the probability of milder but wetter winters and an increase in storm events. LISS is not an option in the current rotation due to the lack of past thinning. The focus of resilience for wind will lie in coupe design and the provision of rides and the break-up of the even aged structure of the forest.

- *Phytophthora ramorum* –the number of infected stands of larch is expected to increase significantly in Lochaber during the plan period. The forest is in Scottish Forestry’s Priority Action Zone in which larch stands served with a Statutory Plant Health Notice must be felled as soon as possible, to prevent a further sporulation. FLS’s policy is to pre-emptively remove 20% of the larch standing volume (at April 2022) in the PAZ forests by April 2027. The plan seeks to identify some coupes that can be taken early to reduce the overall percentage of larch as well as making provision for accessing other stands should they become infected.
- Dothistroma needle blight (DNB) – a survey undertaken in 2019 has identified some likely infection in Lodgepole pine (LP) in Leanachan. The level of infection in the individual stands is generally low but there are some areas where the pine is in poorer condition. Removal of windblow stands is the higher priority in the first phase of the plan although this will also remove some LP e.g. at Chapman Wood. Monitoring of the pine stands condition will be undertaken every three years and if there is further deterioration of the pine condition a felling amendment will be sought.
- Economic activity – The forest provides the setting for recreation and commercial interests which are due to increase as further tourism development is planned over the next few years and the quarry expands its operations to the east. The plan seeks to enhance the appearance of the forest around recreation areas and minimise any potential conflict between different user groups through forest design.
- Plantations on Ancient Woodland Sites (PAWS) restoration – the main PAWS restoration area is Coille Leanachain on the slopes of Aonach Mor. The priority in this plan period is to secure regeneration of the felled part of the wood with the clearing of the remaining conifer being delayed until phase 3, provided the wind damage does not progress further. Conifer natural regeneration in the riparian and PAWS areas required constant monitoring and periodic intervention.
- Peatland – Alongside the expansion of woodland cover to sequester carbon, prevention of the release of carbon from damaged peatland is part of the Scottish Government’s strategy to reach net zero by 2045. There is a balance between carbon loss for peat and the sequestration by the planted trees depending on the nature of the peat and tree species. An initial assessment shows that the conifer forest adjacent to Lon Leanachain SSSI is having a negative impact on its hydrological integrity as well as increasing the risk of seeding onto the bog surface.
- Herbivore impact – The latest herbivore impact assessment indicate 18% of damage to conifers primarily due to deer – roe and red. The Lon Leanachan SSSI is currently in unfavourable condition due in part to over grazing.

The primary management of deer in Leanachan is by culling and this will continue during the period of the plan. There is only partial deer fencing to the south against the open hill and winter incursion of red deer adds pressure to the management of the resident population.

Control of deer is challenging in a high recreation use forest.

Associated maps

The following maps illustrate some of the key issues and opportunities in Leanachan forest

Map 2. Current forest species composition

Map 3. Current forest age structure

Map 4. Soils

Map 5. Environment features of Leanachan

Map 6. Recreation features of Leanachan

Objectives

- Through forest design and management, create and maintain an attractive environment for people visiting the forest for leisure, outdoor activity and employment, in support of the local tourist economy.
- Maintain the productive potential of the forest, providing a sustainable, steady flow of conifer sawlog timber and managing suitable broadleaf areas for wood production.
- In the core recreation area, manage the forest using lower impact silvicultural systems and a wider variety of tree species where crop condition, terrain and access are suitable.
- Protect and enhance the wetland, in particular the Lon Leanachain SSSI, and riparian features of the forest. Protect and restore areas of deep peat.
- The development of a more natural ecological transition between the conifer forest and the open hill land through the restoration, linkage and expansion of the PAWS and semi-natural woodland remnants.

The broad scope of the future design of the forest is to achieve

- the restoration of functioning peatland around the SSSI in the short term
- the gradual improvement of the variety and ages structure of the conifer landscape around the recreation areas in the west of the forest
- The ongoing expansion of native woodland adjacent to both the Ben Nevis and the Lon Leanachain SSSIs and in the riparian corridors
- the restructuring of the productive conifers improve resilience in the production of timber in the long term

See Map 7. Design concept

Proposals for the future management of Leanachan forest

The following maps show the proposals and their location in detail

Map 8. Future felling and roads

Map 9. Future species and habitats

Map 10. Potential thinning areas

Over the 10 year period of the plan the felling of the mature timber will continue with a focus on addressing the backlog of wind damaged site and the removal of the conifer stands around the Lon Leanachain SSSI. This will require the construction of some further short section of forest road to facilitate access to the stands but the road length will be kept to a minimum. The selective removal of some of small coupes of mid rotation stands of conifers in the west is aimed at bringing forward the diversification of both age and species in the recreation area.

The second phase of felling will tackle the restoration of the peat area at Torr Sonnachain as well as continuing the restructuring of the mature stands to the east. The felling of the coupes at Coille Leanachain will remove the last of the conifers from this ancient woodland site and allow its restoration to native woodland.

Throughout the period of the plan there will be continuing monitoring of the impact of herbivores on the regeneration for the forest and restoration of peatland and ongoing management of the deer population.