1.0 Summary

1.1 Introduction

The Achray Land Management Plan area (Map M1) is bounded by the Highland Boundary Fault to the south and the western shores of Glen Finglas in the North. Ben Venue and the smaller, but equally dramatic, Ben A'an guard the western extremity whereas in the east the woodlands merge imperceptibly with private woodland on the northern slopes of the Menteith Hills. Aberfoyle lies at the southern end and from there the A821, Duke's Pass, bisects the forest as it snakes its way towards the village of Brig o' Turk in the north. Also to the south are the upper reaches of the River Forth, whilst in the north, Lochs Achray and Venachar are part of the River Teith Special Area of Conservation (SAC). The whole plan area is within the Loch Lomond and The Trossachs National Park and is one of the most iconic and popular tourist destinations in Scotland. The Lodge Visitor Centre provides a central hub, overlooking the larch covered slopes of the Achray Face. From there visitors can access a myriad of formal and informal trails and forest roads to further explore the area by foot, bike or car. The total plan area is 3,960ha, of which about 1,194ha is open hill ground; other permanent and transient open space within the woodlands accounts for a further 459ha. Topography is rugged and elevation varies from around 20m above sea level at Aberfoyle to 729m at the summit of Ben Venue. Of the woodland area 46% is Sitka spruce, 9% is larch and 20% other conifers (including Scots pine); the remainder is broadleaved woodland, the majority of which is native woodland, (Map M8). About 35% of the woodland is under 20 years of age, about 21% between 20 and 40 years of age and only 10% between 40 and 60 years. Around 20% is greater than 80 years (Map M9).

	2022	2032	2042
woodland	2307	2158	2254
integral open space	459	608	512
permanent open space	1194	1194	1194
total plan area	3960	3960	3960

Table 1.1 Distribution of woodland and open space

Achray is a truly multi-purpose forest and plan objectives aim to maintain and improve the already high levels of socio-economic and environmental diversity. The revised plan seeks to continue the restructuring process, started in the previous submission, aiming to increase both species and age diversity. Given the ongoing concern with Ramorum disease in larch a programme of progressive removal of this species will be implemented. Timber production will remain a significant objective but efforts will be made to lessen the impact of monoculture spruce plantation on habitats and landscape. In particular protection will continue to be afforded to the SACs and SSSIs and restoration of ancient woodland sites will see a considerable increase in native species in the coming decades. The significant recreation interest will be maintained. An effective deer management programme will be necessary to protect sensitive species.

1.2 Objectives

Achray is one of the most diverse forest blocks in Central Region and a key aspiration is to maintain that diversity and keep the unique sense of place that epitomises The Trossachs. It is important to retain the range of colour and texture provided by the mix of species and habitats, especially where seen from prominent viewpoints and well used tourist routes. Also central to this aspiration is sensitive management of the many native woodlands, enhancing or restoring these as appropriate. Productive management of the woodlands will continue and, although a variety of species will be used at restocking, Sitka spruce will remain one of the main species of choice. There will be an emphasis on low impact silvicultural systems where these meet objectives and conditions are suitable. Among the key challenges is the management of larch stands given the increasing threat of Ramorum disease.

- Progress the restructuring process started in the previous plan aiming to diversify both species and age. Include coupes already incorporated into the Regional felling programme.
- Fell a proportion of larch during the plan period to mitigate against the risk of Ramorum disease in line with FLS policy. Develop a programme that treats the Achray Face and Achray North sensitively, minimising, as far as possible, the visual impact of clearfelling, and seeking opportunities to maintain visual and species diversity at restocking.
- Continue to provide a high level of visitor services, centred on The Lodge, The Three Lochs Forest Drive and Duke's Pass, balancing visual and environmental diversity and recreation facilities with the operations necessary for a working forest.
- Maintain a high level of timber production using a range of management techniques and restocking with Sitka spruce where this is clearly the most suitable species for the purpose. Use alternative species where site conditions are favourable and there will be no significant loss of production.
- Review status of stands designated as Continuous Cover Forestry (CCF), and incorporate these into the clearfell fell programme if CCF management is no longer considered feasible or does not meet site objectives.
- Protect and enhance SACs and SSSIs and other existing native woodland and priority habitats. Restore ancient woodland sites when non-native species are clearfelled. Remove invasive natural regeneration, including Sitka spruce and western hemlock from priority sites.
- Examine longer term opportunities for modification of commercial treeline and expansion of native woodland onto open ground whilst retaining the element of wildness associated with the higher hillsides and crags.

1.3 Key proposals

Total Plan Area	3960.1 ha
Planned operations	Detail
Felling	336ha; 145860m³
Thinning	859ha; 43829m³
Restock	209ha of conifer; 209ha of broadleaf
New planting	Oha
Roads and tracks	1050m forest road; 23262m ATV and forwarder tracks; 3750m ramps
Public access	

1.4 Species diversity

Species group	2022	2032	2042
Sitka spruce	38.0%	31.5%	26.8%
Larch spp	7.1%	2.4%	1.3%
Other conifers	10.2%	12.3%	17.0%
Scots pine	6.4%	5.7%	5.5%
Broadleaves	21.7%	26.1%	30.9%
Open space	16.6%	22.0%	18.5%

NB figures exclude open hill ground; the majority of broadleaves are native species.

1.5 Major issues

Issue	Description/mitigation	
Issue 1	Threat from Ramorum disease in landscape sensitive area and impacting management of non-larch trees. Incorporate larch into a felling programme that fits with FLS objective of removing 20% of that species before the end of 2023.	
Issue 2	High numbers of visitors throughout the woodlands at all seasons. Careful planning of all operations to minimise impacts on visitors.	
Issue 3	Extensive areas of plantation on ancient woodland sites. Establish extent of priority ancient woodland and outline a sustainable restoration plan that can be sustained into the future.	
Issue 4	Several coupes wholly or partly difficult of access. Construction of suitable access routes and or/careful management of operations to access difficult areas.	

1.6 Critical success factors

The following are critical to the success of the plan:

- 1. Early restocking of landscape sensitive felling coupes with a diversity of species.
- 2. Detailed operational planning to ensure minimum impact on and safety of visitors.
- 3. Timely construction of new, or upgrading of, existing roads, and roads/tracks to access approved felling coupes.
- 4. Adequate deer control measures for protection of broadleaved species and soft conifers.

1.7 Standards and guidelines

This plan takes account of Scottish Government and Forestry and Land Scotland policy and strategy. It has been developed in accord with the latest UKFS Guidelines and is audited under the UK Woodland Assurance Standard. Forest and Land Scotland Woodlands are certified as being sustainable by both FSC and PEFC. Proposals for removing larch are based on Forestry and Land Scotland's 'Strategy for Managing Larch', July 2019.

Other key policy, strategy and guidance documentation can be found at:

Links - Forestry and Land Scotland

1.8 Consultation

During the development of this plan we have consulted with stakeholders known to have an interest in this plan area. A list of stakeholders and their response can be found in Appendix I.

1.9 Contacts and further information

For further information on this or any other land management plan please contact: Forest and Land Scotland

Central Region (Aberfoyle Office)

Aberfoyle FK8 3UX tel. 0131 370 5674

2.0 Scottish Forestry regulatory requirements

2.1 Context and rationale for concept

Achray forest is situated in the heart of the Trossachs, one of the most popular and iconic tourist destinations in Scotland. A combination of extensive woodlands, attractive lochs and steep sided, rugged peaks have made the area an attraction since Victorian times. In the south there are dramatic views over the Forth Valley and the Achray Face from the Lodge Visitor Centre. The Achray Face, marks the line of the Highland Boundary Fault, where Lowlands meet Highlands. Between here and Brig o' Turk, to the north, the Duke's Pass twists and climbs through a landscape of ever changing outlook, culminating with splendid views over Loch Achray and Ben A'an. This is a land of poets and warriors, of Scott and McGregor.

As well as being scenically important there is also substantial environmental interest. In particular there are a number of national and international designated sites and the extensive remnants of ancient semi-natural woodland fall within the Scottish Rain Forest zone. Several priority species are found in the area including golden eagle, black grouse and red squirrel. Timber production remains a key feature of the local economy and the woodlands of the area are dominated by commercial plantations. There is, however, a significant amount of species diversity within the forest, larch in particular standing out on many of the steeper slopes; restructuring of relatively even aged forests and the use of low impact management practices will further expand the variation in both age and species. The potential impact of the spread of Ramorum disease in larch has greatly influenced the felling programme.

2.2 Proposed felling in years 2022 – 2032

Phase	Area (ha)	Volume (m³)
1	163	69689
2	174	76171
	337	145860

Table 2.1 Summary of felling proposals (net area)

Map M5 shows the coupes for which approval is being sought for clearfelling during the plan period. These are set in the context of longer term management proposals in Map M4. The future habitats map (M6) should also be referred to.

2.3 Proposed thinning in years 2022 – 2032

Phase	Area (ha)	Volume (m³)
1	396	21363
2	463	22466
	859	43829

Table 2.2 Summary of thinning proposals

Indicative thinning areas are shown on map M5.

2.4 Proposed restocking in years 2022 – 2032

Phase	Species	Area (ha)
1/2	Conifer	209
1/2	Broadleaf	209
		418

Table 2.3 Summary of restocking proposals

Restocking proposals are shown on map M6 and further details found in section 5.2. The overall objective has been to maintain a high level of production whilst introducing greater diversity and restoring large areas of plantation on ancient woodland sites. Maintaining the visual interest of the Achray Face has also been an important consideration.

Where production is the key objective conifers will be planted at densities of approximately 2700 stems per hectare (sph) and broadleaves in the region of 3500 sph. Restocking will be within two years of felling unless Hylobius Management Support System indicates a longer fallow period is necessary. In the latter case planting will be carried out within five years.

Where production is not the key objective target densities for planting, or natural regeneration, of native and non-native species, will vary depending on site objectives. On the majority of sites an overall density of at least 1600sph will be achieved; in transitional areas, such as upper treelines, lower densities, of between 500 and 1100sph, will be accepted, dependent on overall site objectives. Natural regeneration sites will be assessed five to eight years after felling. If it seems unlikely regeneration will become established by year 10, the site will be planted to achieve the desired stocking level at year 10.

Open areas will be allowed up to 20% tree cover. Sitka spruce regeneration will be kept within agreed tolerance limits on both open ground and in areas designated for broadleaved woodland. Large amounts of rhododendron are known to be present and appropriate measures to control this species will be put in place.

2.5 Access and roading in years 2022 – 2032

Phase	Туре	Length (m)	Area (ha)
1	New roads	1050	0.74
1/2	Tracks/ramps	28720	6.49

Table 2.4 Summary of roads and tracks

Proposed roads and tracks are shown on map M10.

2.6 UKFS

Forestry and Land Scotland manage their properties in line with the requirements, guidelines and principles of the UKFS and as such there are no departures from UKFS guidelines.

In general, in order to meet UKFS best practice standards adjoining coupes will not be felled until the restocking in the previously felled coupe is a minimum of 2m high. In this plan the coupe structure is strongly influenced by the desire to begin removal of larch stands to mitigate the continued spread of Phytophthora ramorum. Because of this several first and second phase coupes are adjacent to each other and it may not be possible to meet this best practice guideline. However, this is seen as a better approach to larger scale felling in the event of P. ramorum becoming established. It is intended to fell first and second phase coupes as far apart as possible to allow restocking to become well established between those operations. Unfortunately, windblow in winter 2021/22 exacerbated this problem and the coupe structure is also designed to help manage the clearance of severely damaged areas. Several of the coupes, for example on the north east slopes of Ben Venue, will also be restocked with native woodland further mitigating any adjacency effect.

Appropriate permission will be sought for any departures from the approved plan. Requirements for permissions are set out in the tolerance table (Section 2.7).