


Land Management Plan Brief, West Region LMP: Glen Creran Date: 20/11/19	 Forestry and Land Scotland Coilltearachd agus Fearann Alba
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Description

Glen Creran forest lies about 21 km NE of Oban and is accessed from the public car park at Elleric, towards the end of the minor public road that runs along the glen. The Land Management Plan (LMP) area covers 2,482 ha of forest and open land that extends from sea level to 760 metres, with conditions varying from sheltered glens to exposed hillsides and sub alpine conditions at the highest elevations.

Creran comprises two distinctive zones: the upper part of the forest supports productive conifer plantation while the lower part is native broadleaved woodland, mainly Ancient Semi-Natural Woodland (ASNW) designated as the Glen Creran Woods SSSI and SAC. The commercial conifer planting is predominantly Sitka spruce with some larch, Scots pine and other conifer species, planted in the 1960's, with small areas of 1970's planting.

The southern margin of the native woodland zone, in the lower glen, lies adjacent to the Glasdrum National Nature Reserve. The forest is bounded by Scotland's National Forest and Land holdings of Duror and Bealach to the West and Brecklet to the North - the open hill is contiguous between these blocks, with private estates neighbouring to the East, South and North-West.

The forested area covers 1,185 ha, comprising currently, 697 ha conifers (72% of the current tree cover) and 269 ha broadleaves (28% of the current tree cover). The open ground extends to 1,365 ha, the majority of which is hill ground.

There are two areas of SSSI/SAC in the lower zone, separated by commercial conifer coupes. The coupe on the lower ground here has been felled and deer fenced and is regenerating naturally with native species but the coupes on the upper slopes await felling.

Social Factors

Creran forest lies at the upper end of Glen Creran, the lower part of which has ribbon settlements of individual houses and farms along its length - but the nearest village settlements are Appin, approximately 7 km to the West and Barcaldine 8 km to the SW. The land to the East of the forest is a shooting estate. One private house lies in a plot within the FLS land holding.

The public car park at Elleric, which lies in the native woodland part of the forest, is well used by visitors who use the trails through the native woodland, by hillwalkers for the Munros and by some of the walkers using the Public Right of Way to Glenachulish.

Environmental Factors

Most of the open ground adjacent to the Glen Creran LMP area is covered by the Glen Etive and Glen Fyne SPA but this designation does not extend into the forested zones. However, the potential impact on the SPA would need to be assessed if the woodland is expanded above the current tree line.

The Ben Nevis and Glen Coe National Scenic Area touches the open land at the northern end of the forest. The Loch Etive Mountains Wild Land Area lies East and NE of the forest and extends slightly into the open land in the NE part of the block.

Glen Creran Woods SSSI and SAC extends over most of lower Glen Creran, including much of the lower section of the Creran forest block. The Glasdrum National Nature Reserve is adjacent to the southern boundary of the forest block.

The River Creran runs along the eastern boundary of Creran forest and drains into Loch Creran, which is a marine SAC and a designated shellfish area. Salmonids spawn in the river and other main watercourses. Loch Creran, the Firth of Lorn and Loch Linnhe are potentially vulnerable sea lochs, which can be affected by forestry activities.

Overall, environmental condition of Loch Creran and the Firth of Lorn are good, with high scorings on physical condition and freedom from invasive species, while the condition of River Creran has dropped from good to moderate between 2014 and 2017 – for pre HMWB (Heavily Modified Water Body) status, physico-chemical, biological, fish ecology conditions and presence of barriers to fish migration. The condition of the shellfish water protected area was fair in 2014. A number of private water supplies are drawn from Creran forest.

The Scottish Natural Heritage Landscape Character Assessment describes the Landscape Character type in Glen Creran as “Upland Glens – Argyll”. Key characteristics are:

- Flat glen floor of narrow, linear mountain glens with a sharp break of slope at glen sides
- Long ribbon lochs in lower glen; glacial moraine creates uneven landform with small, rounded lochs on floor of upper glen
- Mudflats and winding creeks at loch heads and at the mouth of the glen
- Meandering river, fringed with groups of trees, contrasts with rectangular pastures drained by straight ditches
- Small blocks of woodland and some conifer plantations
- Linear settlements strung out along lanes at the foot of the steep side slopes
- Castles and estates are important local landmarks.

The specific landscape guidelines include plantations remaining small in scale, not obscuring distinctive landforms and maintaining rivers as focal points. However, this is not entirely applicable to Creran, given that it is a large forest and the upper glen is quite a broad, open landscape from the perspective within the glen.

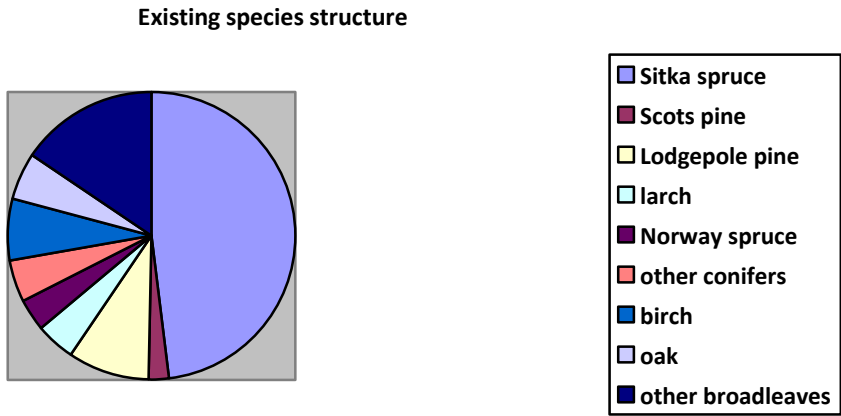
The conifer forest is located nearer the head of the glen and is much less visible than the native forest lower down. Visibility of slopes planted with conifers is very limited from locations outwith the forest, other than from surrounding high ridges.

Priority species include Chequered skipper and Pearl bordered fritillary butterflies; Red squirrels, Golden eagles; Pine martens; lichen assemblages. There is one scheduled and 21 unscheduled ancient monuments in the LMP area.

Rhododendron ponticum has infested the native woodland area and isolated bushes are even found in the Coires and higher ground. A partnership project has been successful in removing most of the bushes but an ongoing programme to remove regeneration and new growth is underway.

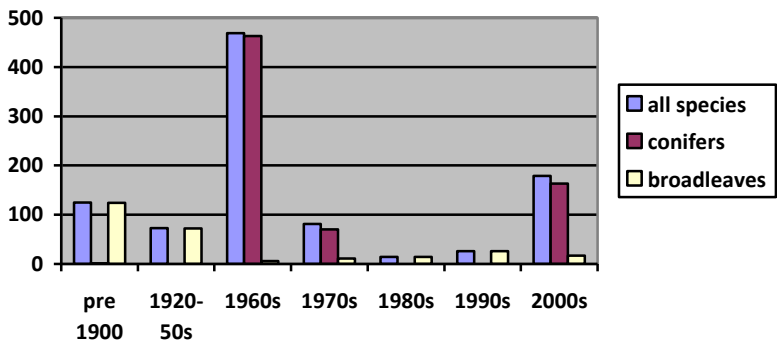
Economic Factors

Of the forested ground, 697 ha is under commercial conifers and 269 ha of broadleaves, with a further 58 ha of felled, failed or windblow, some of which is designated for restock, under the current LMP.



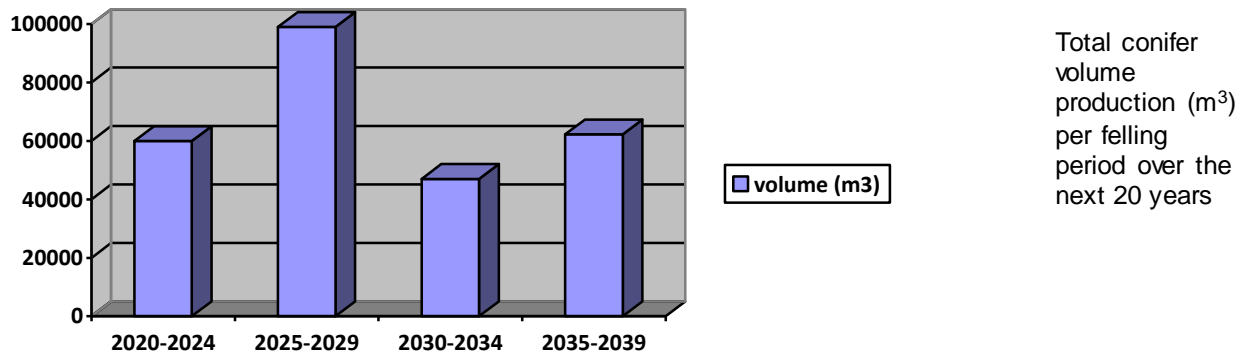
Tree cover in the upper zone is dominated by Sitka spruce, with broadleaves mainly in the lower, native woodland, zone. For the commercial crop, a challenge will be to increase diversity to improve resilience, while maximising productivity. There is 45 ha of larch, which is vulnerable to Phytophthora ramorum and plans to harvest these at the earliest opportunity will be reviewed.

The forest is even-aged, with around 49% planted in the 1960's and further significant planting in the 2000's; the pre 1900 trees are broadleaves. A relatively large area is at, or close to, economic maturity.



Area of tree cover per planting / establishment period

This relatively poor age diversity impacts both the flow of timber from the forest over time and on the structural and visual diversity of the forest. The 20 year production forecast, based on the existing LMP felling programme, predicts production volume spiking during 2025 –2029 then dropping - felling, on average, 21 ha annually for the next five years, rising to around 30 ha per year between 2025 and 2029.



Many of the coupes to be harvested later in the felling programme will be past their optimum rotation age at felling. Some restructuring of coupe sizes and felling sequences may be required, to optimise production of the most promising coupes and even-out production, while bearing in mind the need to diversify age, species and spatial structure. Tree growth is quite variable across the forest, reflecting differences in soils and other growing conditions, so there may be opportunities to delay felling of some coupes beyond the normal rotation age. Restocking of the worst affected areas will be reviewed, to avoid the wettest and poorest soils conditions. Windblow has not been too great a problem to date, so the slower growing areas may be sufficiently stable to enable some retention to older age classes. Problems with deer incursion has resulted in patchy growth in some areas, which will impact on production volumes from the coupes in question. This needs to be taken into account when designing felling sequences and the problem addressed for subsequent restocking.

In the upper glen, there will be a presumption to maintain optimum production levels in the longer term, subject to maintaining suitable buffers around riparian zones and addressing the issue of whether to maintain or reduce current conifer tree lines - and potential expansion of broadleaf cover. Consideration will be given to growing productive broadleaves, as well as maximising alternative conifer species, to improve structural and species diversity, while maintaining productivity.

A 0.5 MW Hydroelectric scheme has gained approval for development on the Allt Eilidh burn in the NW section of the Creran forest; developed by Renewables First for Osprey Energy. The scheme will be serviced within the forest but the route and siting of infrastructure will have only limited impact on the future felling programme.

The lower section of forest will be managed as native broadleaved woodland and the aim is to maintain the SSSI / SAC in favourable condition.

The recreational trails attract people into the forest and indications are that numbers will increase, the popularity of the area reflecting the growing visitor numbers in North Argyll and Lochaber. Recreation provision will be maintained and improved where possible.

A reduction of deer browsing pressure will be required, to protect broadleaves and softer conifer species and improve the diversity and quality of open ground habitats. FLS participates in the Deer Management Group and seeks to reduce deer numbers combined with use of deer fencing that facilitates management at the landscape scale.

Achieving national priorities locally

The management of Scotland's National Forests and Land is guided by Scotland's Forestry Strategy 2019 – 2029 and the organisation's Corporate Plan and is informed by strategies on a range of topics, including land use, economy, climate change, biodiversity and the historic environment.

Scotland's Forestry Strategy sets out a 50 year vision:

“In 2070, Scotland will have more forests and woodland, sustainably managed and better integrated with other land uses. These will provide a more resilient adaptable resource with greater natural capital value that supports a strong economy, a thriving environment and healthy and flourishing communities.”

To support the 50 year vision, the Scottish Government has identified three objectives to deliver over the next 10 years:

- Increase the contribution of forests and woodland to Scotland's sustainable and inclusive economic growth
- Improve the resilience of Scotland's forests and woodland and increase their contribution to a healthy and high quality environment
- Increase the use of Scotland's forest and woodland resources to enable more people to improve their health, wellbeing and life chances

This Land Management Plan will help deliver on these objectives, in line with FLS corporate outcomes, to ensure clear linkages through the planning framework and implementation of national and regional priorities.

The brief is also guided by the National Spatial Overview, which has identified the broad focus of effort and investment challenges for this area.

Key contributions that Glen Creran forest makes to our Priorities, Aims and Objectives are:

- Ecosystem services and additional public benefits – scenic quality and visitor attractions contribute to tourism income; sustainable timber production
- Other national commitments – PAWS restoration; rhododendron control; habitat management for chequered skipper butterfly; dealing with the potential impact of *P ramorum* on larch
- Contribution to financial sustainability – range of softwood; hydro schemes

The focus of effort and investment challenges for Glen Creran forest include:

- Improving age and species diversity to achieve sustainable timber production in the longer term
- Native / broadleaved woodland management to develop markets and maximise productive capacity from broadleaved woodlands
- Expanding native woodland to the natural tree line, where feasible
- Protecting restocking and improving open habitats through deer management / control
- Managing ASNW, designated sites and priority open habitat in favourable condition
- Management of riparian areas to protect watercourses and develop open canopied riparian broadleaved woodland
- Planning and delivering an efficient road construction programme to help optimise the harvesting programme
- Control of invasive non- native species

Critical success factors

Deer control will be the main critical success factor for restocking by planting or natural regeneration of both commercial and native woodland. The approach taken will be deer culling (working with the Deer Management Group) combined with the strategic deer fence and limited use of internal enclosure fences where appropriate. Close collaboration with neighbours and other partners will be crucial to successful deer management.

Where deer are adequately controlled, natural regeneration will need to be managed timeously, to achieve the desired species in all crops and to remove non-native species from the native woodland areas.

The continued control of invasive species, particularly Rhododendron, is required to protect the native woodland and commercial crops.

Access is also key – the timing of road construction to access felling coupes needs to synchronise with production requirements and this will determine the harvesting and restocking programmes.

LMP Objectives

- Maximise the returns from the current productive stands through coupe and access design and timing of harvesting
- Optimise production potential by focusing future conifer production on the most suitable areas, concentrating on the upper glen and reviewing options on steep and marginal ground
- Manage deer populations, to allow the successful establishment of planted and naturally regenerating trees and to maintain priority open ground habitats in favourable condition
- Manage recreation access by maintaining a network of trails and the Right of Way to Glenachulish; creating provision to the Fairy Bridge
- Increase the resilience of the forest to climate change and pests and disease through design and species choice
- Manage and expand the native woodland habitat, focussing on the lower glen and above the current tree line

- Manage riparian areas to protect watercourses and develop open canopied broadleaved woodland along larger watercourses
- Protect and enhance the designated sites and features.

Appendix

Key issues identified for the LMP

Corporate plan outcomes and priorities	Key Corporate Actions	LMP priorities
<p>Outcome:</p> <p>“FLS supports sustainable rural economy by managing the national forests and land in a way that encourages business growth, development opportunities, jobs and investments.”</p> <p>Priority:</p> <p>Provide sustainable economic benefits from the national forests and land</p>	<ul style="list-style-type: none"> ➤ Ensure a sustainable balance between the resilience and productivity of the national forests and land ➤ Provide a sustainable supply of timber ➤ Implement the national restocking strategy ➤ Support Scottish tourism and the visitor economy through provision of visitor attractions ➤ Work to release value from rural development opportunities for reinvestment in the national forests and land ➤ Support commercial activity on the national forest estate which help to sustain rural communities 	<ul style="list-style-type: none"> • Softwood timber production will continue to be a core objective but effort will be focused on areas where soil, topography, shelter and other environmental conditions will achieve the best growth and where cost effective infrastructure can support the necessary harvesting and forest management activities • Coupe size / shapes, felling sequences and restocking will be reviewed to better balance priorities of visual amenity; sustainable volume production; optimised costs/income; environmental benefits and resilience • We will review areas of steep ground to identify optimal restocking in these areas that balances economic benefit with safety and environment / landscape issues. Conifers will be restocked to the existing viable timber line where site, safety and environmental/landscape conditions are suitable • We will consider opportunities to create and manage productive broadleaved woodland for firewood and small roundwood, using low impact management, where access permits and where it is compatible with conservation priorities • Broadleaves may offer longer term opportunities to

		<p>contribute to local economic activity, encouraging value adding and job creation by encouraging small scale local markets such as wood turning and furniture making. Continuing forest management will help to secure / support long term downstream jobs</p> <ul style="list-style-type: none"> • Local economic diversity will be encouraged by: <ul style="list-style-type: none"> ○ Supporting planned hydro-electric developments; ○ Maintaining productive relationships with neighbouring landowners and businesses; ○ Giving consideration to requests / proposals from the community and local SMEs; ○ Maintaining and expanding existing path networks, improving car park facilities and signage and by maintaining access to the open hill and the Right of Way to Glenachulish • We will support the Scottish Government's woodland expansion policy by encouraging natural regeneration of native woodland in the upper margins and in riparian zones and by planting new conifer and broadleaved woodland in open ground where appropriate (avoiding open ground priority habitats), A separate plan for open habitats will complement this work. Previous plans to pull back the existing tree line from high ground will be reconsidered • We will review the felling schedule in the coupes between the areas of SSSI and SAC to rationalise harvesting access and maximise native woodland restoration plans in the context of sustainable volume production from the forest as a whole
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		<ul style="list-style-type: none"> • We will review the existing plans for new roads, with the aim of minimising new road construction where possible
<p>Outcome: “Scotland’s national forests and land are looked after; Biodiversity is protected and enhanced More environmental services are provided to people”</p> <p>Priority: Ensure forests and woodland are sustainably managed – by woodland expansion, increasing adaptability and resilience, and enhancing environmental benefits provided by forests and woodland</p>	<ul style="list-style-type: none"> ➤ Manage the forests and land to further the conservation and enhancement of biodiversity ➤ Collaborate with partners on integrated landscape-scale approaches to habitat management and restoration ➤ Protect and enhance priority species ➤ Contribute to renewable energy targets ➤ Supporting forest research ➤ Manage the historic environment assets ➤ Work with neighbouring landowners to control non-native invasive species, e.g. Rhododendron ➤ Improve the resilience of forests and land to impacts of climate change and tree health threats e.g. Phytophthora ramorum ➤ Contribute to Scotland’s national woodland creation targets 	<ul style="list-style-type: none"> • We will consolidate and protect the SSSI areas by continuing to remove conifers; bringing forward felling of the conifer coupes between the SSSIs and restocking them with native broadleaves and by creating a buffer area of alternative conifers and broadleaves between the SSSIs and the Sitka spruce plantation to the north. Broadleaves and soft conifer planting will require deer fencing • We will consider the potential for thinning 2nd rotation crops for production, with a focus on the glen floor and more sheltered lower slopes, as well as opportunities for growing productive broadleaves under continuous cover forestry • We will maintain tree cover by restocking with optimum / minimum fallow, continuous cover of broadleaves and management of ASNW/PAWS. We will balance fallow length with the need to control weed growth. Adjacency issues may impact on length of fallow, coupe size and felling schedules • Where there are areas of poor conifer growth, we will consider options for developing native woodland where site conditions are unsuitable for commercial woodland • We will review areas for Long Term Retention to improve diversity and ensure that older age classes are represented in the forests. A proportion of trees will be maintained to provide dead wood habitat, where this will have environmental benefit

		<ul style="list-style-type: none"> • Ground preparation techniques will seek to protect the soil and soil carbon at the same time as achieving rapid re-establishment of woodland cover • Wherever possible, we will improve wind resistance by encouraging green edges on roads, rides and breaks, reinforcing riparian broadleaves to create natural breaks and environmental benefits • We will continue the programme of Rhododendron ponticum control and will monitor for encroachment of Rhododendron from neighbouring ground and remove this as soon as possible • We will monitor the woodlands for significant tree pathogens such as Phytophthora ramorum, Hylobius spp. and Chalara fraxinea • We will strive to manage deer to fulfil our land management aspirations. We will work with Deer Management Groups and adjacent landowners to maintain good relations and ensure that views and objectives are taken into account • The forest management of Creran will contribute towards achieving the objectives of The River Basin Management Plan (RBMP) by:- <ul style="list-style-type: none"> ○ Addressing any local water body deteriorations within the plan area - removing conifers from the riparian zone and expanding native broadleaved riparian woodland ○ Designing new proposals so that they will not result in deterioration of any water body status by creating open broadleaved habitat in riparian zones
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		<ul style="list-style-type: none"> ○ By ensuring that forest activities are managed in such a way as to ensure they do not cause pollution • Open habitats will be maintained in good ecological condition. A clear rationale for planting open ground will be agreed • Conifers will be removed from riparian zones and growth of broadleaves encouraged in key areas, maintaining at least 50 % open ground along watercourses • We will investigate options to restore the water feature and areas of peat in coupe 44515 • Roads and tracks will be planned to facilitate management of ASNW/PAWS as well as commercial coupes • Archaeological remains will be protected
<p>Outcome:</p> <p>“Everyone can visit and enjoy Scotland’s national forest and land to connect with nature, have fun, benefit their health and wellbeing and have the opportunity to engage in our community decision making</p> <p>Priority:</p>	<ul style="list-style-type: none"> ➤ Maintain walking and biking trails, for everyone to enjoy and gain health and other benefits ➤ Engage communities in decisions on management of forest and land ➤ Help facilitate local communities make use of the forest to benefit their communities 	<ul style="list-style-type: none"> • The forests are open to all, within the framework of the Scottish Outdoor Access Code and we will continue to promote best practice in relation to access • Car parking provision will be expanded and the existing Elleric car park will be maintained • Access to the Fairy Bridge will be developed and access routes to the open hill maintained and signed, including the Right of Way • We will continue to work with hydro developers at Creran to help and encourage them to provide community benefit from the schemes

Engage more people and communities in the use and management of forests and woodlands.		<ul style="list-style-type: none"> • Links with Appin Community Council will be maintained and any requests to engage local communities and organisations in using and managing the woodland will be given serious consideration • Opportunities for volunteering, or for encouraging a more diverse range of people to use the forest, will be considered, focusing most on the native woodland areas
<p>Outcome:</p> <p>“FLS is a supportive, safe and inclusive organisation....”</p> <p>Priority:</p> <p>Sustain a safe working environment for people working in, and using our forests and promote healthier lifestyles</p>	<ul style="list-style-type: none"> • Ensure health and safety of forestry workers and users underpin all forest planning and operations 	<ul style="list-style-type: none"> • Safety considerations will inform decisions on restocking coupes on steep ground
<p>Outcome:</p> <p>“FLS is recognised as a high performing, efficient and effective, financially sustainable organisation that continues to</p>	<ul style="list-style-type: none"> • Meet statutory duties as an executive agency • Maintain UKWAS certification • Align with Scottish Government targets on carbon emissions, waste, water and chemical use • Working collaboratively, openly and responsibly with partners and others to improve the 	<ul style="list-style-type: none"> • The LMP will be tested against UKFS and UKWAS to ensure compliance with these Standards. • Stakeholders will be consulted on key amendments to planned forest management • We will participate in partnership projects, such as the landscape control of invasive species

transform and adapt.” Priority: Deliver best value in the effective and efficient delivery of public service	management of forest estate Enable and deliver continuous improvement	<ul style="list-style-type: none"> We will maintain productive dialogue with neighbours and key stakeholders
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Stakeholders & consultation

Scottish Forestry
SNH
SEPA
Argyll and Bute Council
Appin Community Council
Confor
Argyll and the Isles Coast and Countryside Trust
Appin Historical Society
Appin Community Development Trust
Mountaineering Scotland
Ramblers Association
Scottish Rights of Way Society
VisitScotland
Argyll Fisheries Trust
Argyll District Salmon Fishery Board
RSPB
Butterfly Conservation Trust
Neighbouring landowners