



West Region Central Mull Land Management Plan



Appendices

We manage Scotland's National Forest Estate to the United Kingdom Woodland Assurance Standard – the standard endorsed in the UK by the international Forest Stewardship Council® and the Programme for the Endorsement of Forest Certification. We are independently audited.

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.



The mark of responsible forestry



Contents

Appendix I	Land Management Plan Brief	3
Appendix II	Analysis of Previous Plans	8
Appendix III	Background information	10
Appendix IV	Concept Tables	18
Appendix V	Peatland Appendices	24
Appendix VI	Deer Management Plan	30
Appendix VII	Provenance guidance chart	46
Appendix VIII	Abbreviations used within this plan	47
Appendix IX	Unexpired EIA determinations / PNs	48
Appendix X	Approval Documents for EIA determinations	49
Appendix XI	Scoping Report: SF ONLY	56

Appendix I - Land Management Plan Brief

1. Key background information

Introduction

Central Mull LMP encompasses 4805 ha of land and the main woodlands covered within this LMP are:

- Salen (656 ha)
- Crannich (1227 ha)
- Aintuim (981 ha)
- Lettermore (1941 ha)

This management plan will replace and renew the previous Land Management Plan of Central Mull (SF File Ref 033/W/C/13(4))

Silvicultural Potential

Across the plan area elevation ranges from just 20m above sea level near the Aros Office in Lettermore, up to 440 m at An Speinne in the same block. The blocks sit within a mixture of two landscape types, and are primarily “Stepped Rocky Coastlands” with low stepped headlands and ridges following a SE/NW alignment interspersed with ribbon lochs and undulating moorland. Some steeper areas of Aintuim and Lettermore are classed as “Stepped Cliffs and Terraces”, an exposed open landscape with steep cliffs separating stepped-profile terraces.

The prevailing cool & wet climate is conducive to good conifer tree growth although the combination of soil types and varied topography (exposed and sometimes steep combined with very flat, wet areas) limits the choice of tree species suitable for continued productive conifer crops. Climate change predictions suggest that the climate will become generally warmer, with drier summers and wetter winters. Previous species and provenance choice has not always been ideal to make the most of the silvicultural potential.

Existing crop

Approximately 62% of the site is under woodland cover, with a further 3% having been felled awaiting restocking and the remaining 35% given over to open ground, with large areas in Aintuim and Lettermore. Sitka spruce accounts for just 58% of the woodland with Lodgepole Pine (LP) a relatively high component, for example Crannich block has 31% LP. Broadleaves currently account for approximately 6% of the woodland area.

The current split in terms of age classes structure is approximately:

- 7% establishing crop (0-10 years)
- 2% thicket (11-20 years)

Central Mull Appendices - Land Management Plan 2024 – 2034

- 36% pole stage (21-40 years)
- 52% mature (41-60 years)
- 3% old forest (61+ years)

Age diversification is therefore minimal with a predominantly even aged mature crop.

Most of the remaining pole stage and mature trees are first rotation forest with a small but increasing area establishing as second rotation. Both the first and subsequent rotations of productive forest were managed as patch clearfell. Thinning is not suitable due to the relatively exposed nature of the site and predominantly peaty soil.

There is a reasonably significant element of larch within the forests; SPHNs have been issued in Crannich for *Phytophthora ramorum* so it is assumed further infections are likely.

Operational Access

The forests have a road network totaling approx. 41 km. This existing network allows economic operational access (i.e. 500 m or less) for a good proportion of Crannich and Lettermore apart from smaller sections of the block. However, large areas of Aintuim and also Salen blocks need consideration for further roading for future harvesting operations as there is currently no access.

Natural Environment

The richness of the natural environment on Mull is well known both across the UK and internationally. The island is known as a nationally important area for a variety of species including raptors such as White Tailed Eagle, Golden Eagle and Hen Harrier. Open habitats for peatland include both Blanket Bog and Upland Flush with varying conditions from drained to favourable – bog restoration will be an important component of this LMP area especially in Aintuim and Crannich. Ledmore in Lettermore was an important hoverfly habitat. Although there are no specific designations on FLS land within the Central Mull plan area, the whole of the isle of Mull is designated as an Environmentally Sensitive Area and the surrounding seas form the Inner Hebrides and the Minches Marine Special area of Conversation.

Half of Salen block falls within the council's Local Landscape Area (LLA) and land bordering the southern boundary is within a National Scenic Area.

There are 160 ha of Ancient Woodland sites within the plan area, mostly in Salen, and one area of Natural Reserve in Lettermore. Japanese knotweed has been recorded in Salen quarry and *Rhododendron ponticum* is also found in Salen and Aintuim (Allt Darach).

The forests sit within three River Drainage Areas, Ba, Aros and Bellart, and are part of several waterbody catchments, all with good status/potential apart from a small area in north Aintuim (Mingary Burn) and north Lettermore (Tobermory River).

Central Mull Appendices - Land Management Plan 2024 – 2034

Cultural Environment

There are two scheduled monuments within the plan area, Cill an Ailean chapel (Lettermore) and Cnoc nan Dubh Leitre an ancient fair site in Aintuim) and there are a variety of undesignated features across the sites recorded in the heritage layer, such as shielings and settlements with arrowhead finds.

Landscape

NatureScot Landscape Designations show the FLS land area to be mostly Stepped Rocky Coastlands, although the high open land of Lettermore, Crannich and Aintuim are designated as Stepped Cliffs and Terraces.

Community Use

A Scotways Right of Way runs through the northern section of Aintuim and along the FLS boundary; in addition Core Paths run through the forest roads of Lettermore (also a formal recreation site) and the lower road and paths of Salen.

Argyll and Bute Council's Local Development Plan LDP2 has been consulted on in 2019 and the revised plan identifies FLS land as Countryside Areas.

Neighbouring reservoirs / fisheries

A large portion of Salen's drinking water catchment falls within FLS' Salen forest. There are also a small number of private water supplies within each forest in the plan. This may change as the drinking water supply for the majority of the island changes to being fed from the Tobermory water supply.

Loch Frisa offers fishing opportunities via permit for brown trout, salmon and sea trout. There is also a fishfarm present on the loch.

Wildlife Control

Deer control in both Central and North areas is undertaken by direct Wildlife staff with additional contract control assistance in five forest blocks to reduce deer impact on current and future establishment operations, this combined approach currently provides a red deer cull figure of 350+ per year across both plan areas.

Both plan areas are subject to deer and sheep movement from sporting estates with current neighbouring deer density's being available in the 2019 helicopter deer count undertaken by NatureScot in Spring 2019.

2. Strategic drivers

To realise the vision as set out in the Scottish Forestry Strategy 2019-2029, six priorities for action have been identified for implementation:

Central Mull Appendices - Land Management Plan 2024 – 2034

- Ensuring forests and woodlands are sustainably managed
- Expanding the area of forests and woodlands, recognising wider land-use objectives
- Improving efficiency and productivity, and developing markets
- Increasing the adaptability and resilience of forests and woodlands
- Enhancing the environmental benefits provided by forests and woodlands
- Engaging more people/communities & businesses in the creation, management & use of forests/woodlands

To demonstrate how we will have regard to the Forestry Strategy in our work, we have identified the relevant Forestry Strategy ‘Priorities for Action’ in our Corporate Outcomes section of the FLS Corporate Plan 2019-2022. These, alongside key issues and site specific challenges, have informed our draft land management objectives, as illustrated in Table 12 below.

3. Draft land management plan objectives

- Develop a strategy for the future management of existing poor quality crops in current rotation and increase rotation length where appropriate.
- Improve the long term sustainability of timber production by exploring opportunities for crops of varying quality into the next rotation; this will work towards future smoothing of the production forecast whilst incorporating the impact of peat restoration work on age restructuring.
- Work towards removing all larch from Mull within the next ten years by managed removal of prioritised larch areas, especially in Crannich, minimising the impact of future SPHNs on the forest’s sustainable management.
- Review and improve both the choice of species and their provenance (in conjunction with ground condition suitability) and also diversification of species (within the constraints of high wind hazard classes impacting on the thinning potential of species other than SS/LP), to ensure sustainable timber production as the forests move into their next rotation.
- Ensure both forest road network and provision of quarries is suitable for future management via an achievable road programme, especially in Aintuim and Salen.
- Develop a strategy to reduce herbivore impact across the FLS estate.
- Develop large scale Peat Restoration in Aintuim and enhance Open Habitats, & Lettermore & Crannich.
- Develop PAWS restoration in Salen and Aintuim blocks, and develop habitat networks via woodland expansion to increase the percentage of broadleaves and subsequent biodiversity (including control of Exotic Invasive species at Salen).
- Management and protection of key species including considerable raptor interests across Mull (“Eagle Island” draws in high tourist numbers), and in addition the archaeological heritage of the area.
- Ensure water quality maintained in River Bellart water catchment (Aintuim).

Central Mull Appendices - Land Management Plan 2024 – 2034

- Maintain & enhance both views and existing recreation provision for the benefit of locals and increasingly large visitor numbers to Mull; focussed in Lettermore.
- Work with local communities and MICT, especially around Salen, supporting the large-scale tourism now dominating the local economy with subsequent high nature visitor numbers.

4. Stakeholders

- Scottish Forestry
- NatureScot
- Argyll & Bute Council
- Argyll Fisheries Trust
- Argyll Timber Transport Group (ATTG)
- Scottish Environment Protection Agency
- West of Scotland Archaeology Service (WoSAS)
- Royal Society for the Protection of Birds (RSPB)
- Mull and Iona Community Trust (MICT)
- Rural Payments and Inspection Division (RPID)
- Scottish Water (SW)
- Loch Frisa Fish Farm
- Mull Deer Management Group
- Historic Environment Scotland
- Visit Scotland
- Community Councils
- Confor
- Holiday Mull
- Scottish Southern Energy
- Scottish Water
- Mull Museum
- Mull Native Woodland Group
- Neighbours

Appendix II: Analysis of Previous Plans

The previous Forest Design Plan covering the LMP area ran from August 2013 to present. At Mid Term Review in 2018 the plan was identified as no longer fit for purpose and required complete revision. The previous plan has since been significantly shaped by a number of factors including Phytophthora infections, availability of contractor resource and poor and failed crops due to species choice, weevil and heather check.

Objectives	Achievements/Changes	Relevance to the plan revision
Commercial timber production: 706ha of felling (34km ³ p.a.)	Approx. 15% of felling achieved	SPHNs impact; also poor crops & coupe sizes affected roads prog. Aim to increase coupe sizes: Salen, Crannich
New planting & 694 ha of restocking	Nearly 20% of conifer restocking; 25% of planted BL	Ensure restocking can progress in new plan; progress opening up of areas for deer control via bigger coupes. Ensure correct provenance eg Alaskan
Full PAWS restoration	No PAWS restoration yet in Aintuim or Lettermore; 5ha being restored in Salen but high herbivore impact.	Continue programme of restoration; invasives in Aintuim, Allt Darach and Salen NW
Development of habitat networks: open space & riparian corridors	Networks developing north of Lettermore and Aintuim	Continue development of habitat networks
Landscape improvement	Not as far progressed due to reduced felling	Leave hilltops visible in Crannich, similar to adjacent landscape.
Enhancement & protection of habitats benefitting key species,	Peat restoration: two projects being undertaken, one in Aintuim along River	Invertebrates: Marsh fritillaries. Ledmore hoverflies: still associate with ants / larch?

Central Mull Appendices - Land Management Plan 2024 – 2034

Objectives	Achievements/Changes	Relevance to the plan revision
notably raptors: protect sensitive features	Bellart and second in Crannich block	
Incorporate review of open space prescriptions	Open spaces surveyed	Identify peat restoration areas with peatland foresters, more detailed survey of soils and peat depths where relevant
Construction of new forest roads: 23.9km	Only 15% of roads constructed	Progress roading of Aintuim and Salen
Enhancement & protection of water features/supplies	Work being completed along River Bellart improving water quality	Continue restoration of habitat along River Bellart.
Enhancement & protection of cultural heritage	Area around Cill an Ailean not restocked yet	Poss. further heritage potential in north Crannich and west Salen
Comply with UKWAS guidance	Guidance followed for all operations	
Design improvements in line with visitor zone analysis.	No restructuring in Aintuim and only partial in Crannich. Hindered by reactionary approach required by repeated SPHNS	Wildlife viewing very important to island economy (RET). Ensure no conflict with increased campervans, liaise with MICT
Reassess upper planting lines at Lettermore	Some progress made, upper margin changed; much SS regeneration along ridge	Push treeline up the hill, topography an issue. Try to avoid straight lines. Work with open habitat specialists on An Speinne ridge.

Appendix III: Background Information

Context

History of Plan

The forests of Central Mull are comprised of Aintuim, Crannich, Lettermore and Salen. Aintuim was acquired in several parts between 1958 and 1967 with the western half being planted upto 1974 and the east later in the 1980s. First felling commenced in 2010.

In contrast, Lettermore was acquired in 1928; the northern section was planted after 1935 then Ledmore in 1952 . Felling commenced in 1990. Existing woodland in the east from the 1920s was cleared and replanted in the 1980s along with the remainder of the land here. A Forest Research Climate Change Agenda species trial (Project REINFORCE) started in 2011 and is 1 of 37 sites across Europe using the same 30 tree species.

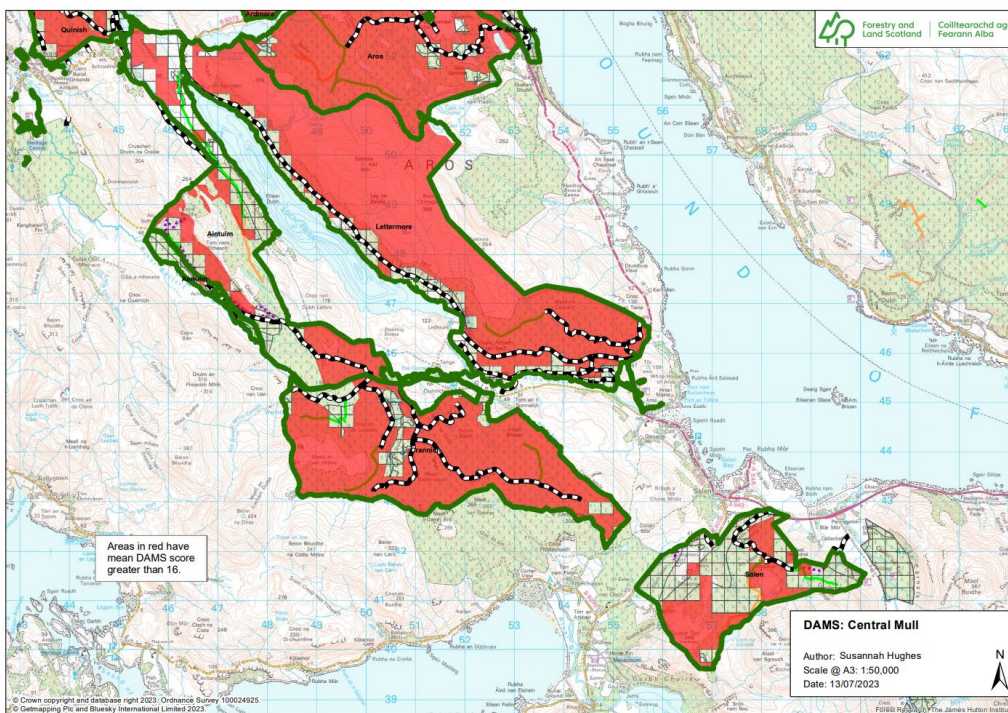
Crannich forest was planted between 1978 and 1986.

Salen was planted in three phases; the north in the 1960s, the west in the 1970s and the east in 1980s. There is a significant amount of native woodland in the west and also open hill land; poor soils in the east as led to a degree of failed crops.

A Timber Haul route runs from the community owned North-west Mull woodlands through Crannich and thence Lettermore with a short section on the public road.

Physical site factors

Geology, Soils and landform



The solid geology of the area comprises intrusive igneous Basalts, Dolerites and Comptonites, with Tertiary extrusive Basalt lavas forming narrow bands within these.

High DAMS scores show the exposed nature of much of the area.

The steeper slopes are typically Upland Brown Earths and podzols, associated with Basalt

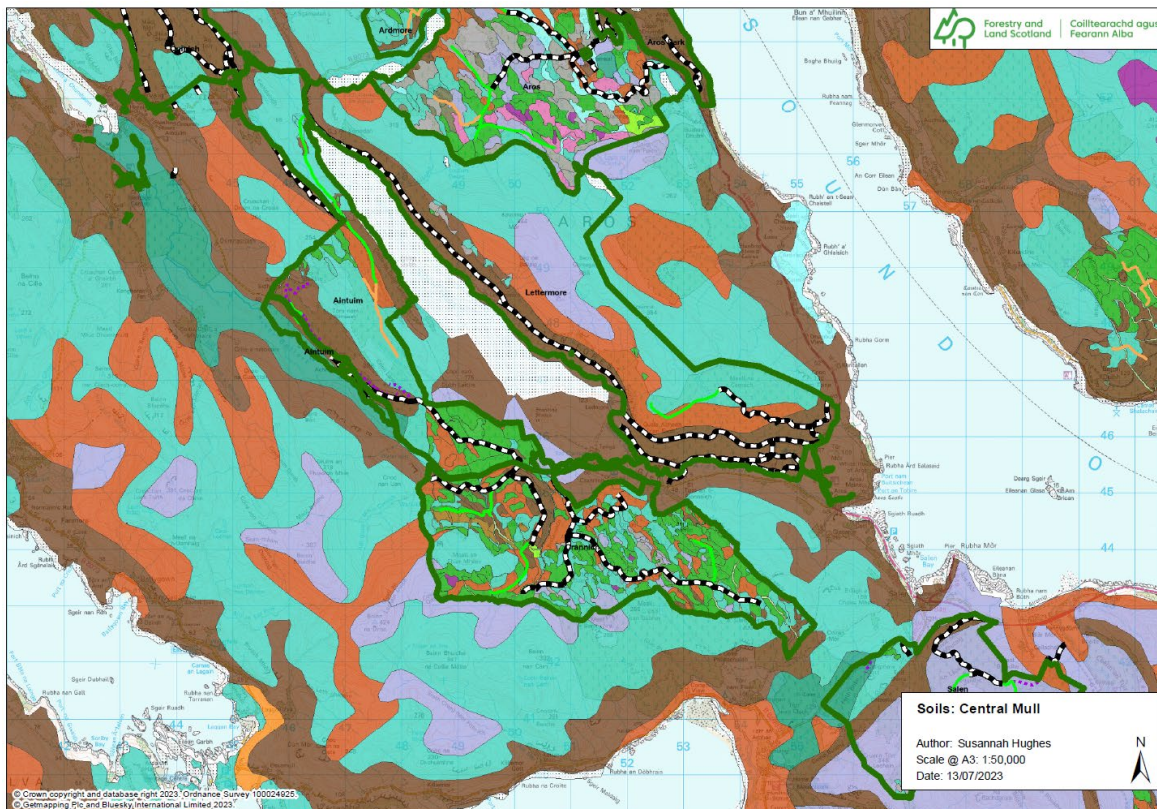
Central Mull Appendices - Land Management Plan 2024 – 2034

outcrops. But poorer flushed Blanket bogs are typical in both sites with higher elevation and with flatter topography. Where some drainage has been possible, peaty gleys are found.

Soil survey data for the forests is being built up across the area, with a focus on peatland areas taking priority in line with FLS policies.

There is a presumption against planting open hill ground where Blanket Bog and Upland Heathland vegetation types and soils are present; FLS policy on assessing peatland soil types has been followed to identify areas for restoration or restocking. Coupe shapes reflect landform where possible.

The adjacent map given an indication of soil survey coverage across the forests of Central Mull.



Water

Water is an important component of the Central Mull LMP area. Enhancement of riparian corridors will have benefits for water users and woodland and open habitat networks. Broadleaved woodland will be envisaged here, either by planting or preferably by natural regeneration, where soils and climate are suitable. Creation of partially shaded riparian corridors will benefit fish and freshwater shellfish populations.

WATER QUALITY:

Under the Water Framework Directive, the water quality assessments for all the waterbodies assessed within the plan area were either Good or High. These include: Allt an Lon Biolaireach (Crannich), Allt nan

Central Mull Appendices - Land Management Plan 2024 – 2034

Torc (Lettermore), River Bellart (Aintuim), the Aros River (Lettermore) and Allt a'Chlogaid (Lettermore). No watercourses were classed as 'definitely at risk', although some of the overall ratings were given as Poor (Mingary Burn rising at the top end of Aintuim). For this watercourse, more detailed information will be given in the North Mull LMP which exerts a greater potential influence over the quality of the watercourse. Loch Frisa in the centre of the forests has a fish farm sited to its north-west with associated infrastructure at the head of the loch.

WATER SUPPLIES:

Private water supplies utilise forest burns for water where properties are not served by mains water, and the few that are present within these forests are recorded on our GIS mapping layers to ensure they are prioritised during any works within the forest. The public water supply for the majority of the island comes from the Mishnish Lochs to the north of Lettermore but the supply for Dervaig comes from the catchment covering parts of Aintuim and Crannich forests. Private water supplies utilize forest burns for water. There are plenty of opportunities within the longer term to develop robust riparian corridors. These will contribute to habitat network development, private water supplies and fishing interests.

Slope instability – a small landslide occurred between the quarry along Lettermore face and the lochside but this will now be considered for establishment which will help to stabilise the area. Areas of blanket bog have been protected from afforestation and these areas will vastly increase through the duration of this plan, with active deforestation of peatland areas where criteria are met and subject to the necessary EIA determinations. An area between the forest road and the open hill alongside Loch Frisa, 3.5km, is rated as having low to moderate risk on FLS's slope instability GIS database. The northern part of this has a moderate to high hazard score but the area with the landslide was outwith this delineated zone.

Renewable Energy

Some 30 or so small scale woodfuel plants were running on Mull throughout the period of the last last plan including the hospital, the biscuit factory, hotels and the swimming pool and Crannich Farm ran a wood chip supply business on the island. Lack of firewood merchants on the island is currently an issue. There are no small-scale hydro schemes being pursued on FLS land within the plan area and there has been considerable opposition to any windfarm proposals on Mull in the past.

Climate

Continentality is low (3 to 5), the forests being close to or adjacent to the sea. The climatic region is described variously for coastal sections as 'warm, moist or wet' and for more inland parts as 'cool, wet'. Exposure is mostly moderate to severe and high open tops are classed as 'cool, wet, too exposed for forestry'.

Climate projections point to a warmer climate with lower summer rainfall and higher winter rainfall. DAMS scores vary across the area of the plan.

The climate is mild, wet and windy, with average annual temperatures around 8 – 9°C and precipitation above 1800 mm per year. Although snow is less prevalent than eastern and central Scotland, the region is subject to rain bearing South Westerly winds. Humidity levels are high throughout the year, rarely sinking

Central Mull Appendices - Land Management Plan 2024 – 2034

below 70% relative humidity. The wet conditions contribute to soil leaching and development of gleys and bogs where soils are insufficiently free- draining.

Coupe structure follows windfirm boundaries where possible to alleviate windblow risk. Mounding rather than ploughing will be preferred for cultivation, to minimise runoff and erosion risk. Retention of naturally regenerated broadleaves along coupe buffers will be encouraged to aid formation of windfirm edges.

The existing forest

Age structure, species and yield class

There are social, landscape and biodiversity grounds for increasing diversity, along with possible benefits for countering possible effects of climate change. However, the objectives vary widely across the areas with the primary objectives in some being the restoration of both temperate rainforests and peatlands. Whilst others are more suited to commercial conifer plantations, with predominantly Sitka spruce being the main species suited to thrive in the area. Brown earths are mostly restricted to PAWS sites and areas of existing native woodland, especially in Aintuim and Salen.



Forestry and Land Scotland

Coilltearachd agus Fearann Alba

Planting Age: Central Mull

Author: Susannah Hughes

Scale @ A3: 1:50,000

Date: 13/07/2023

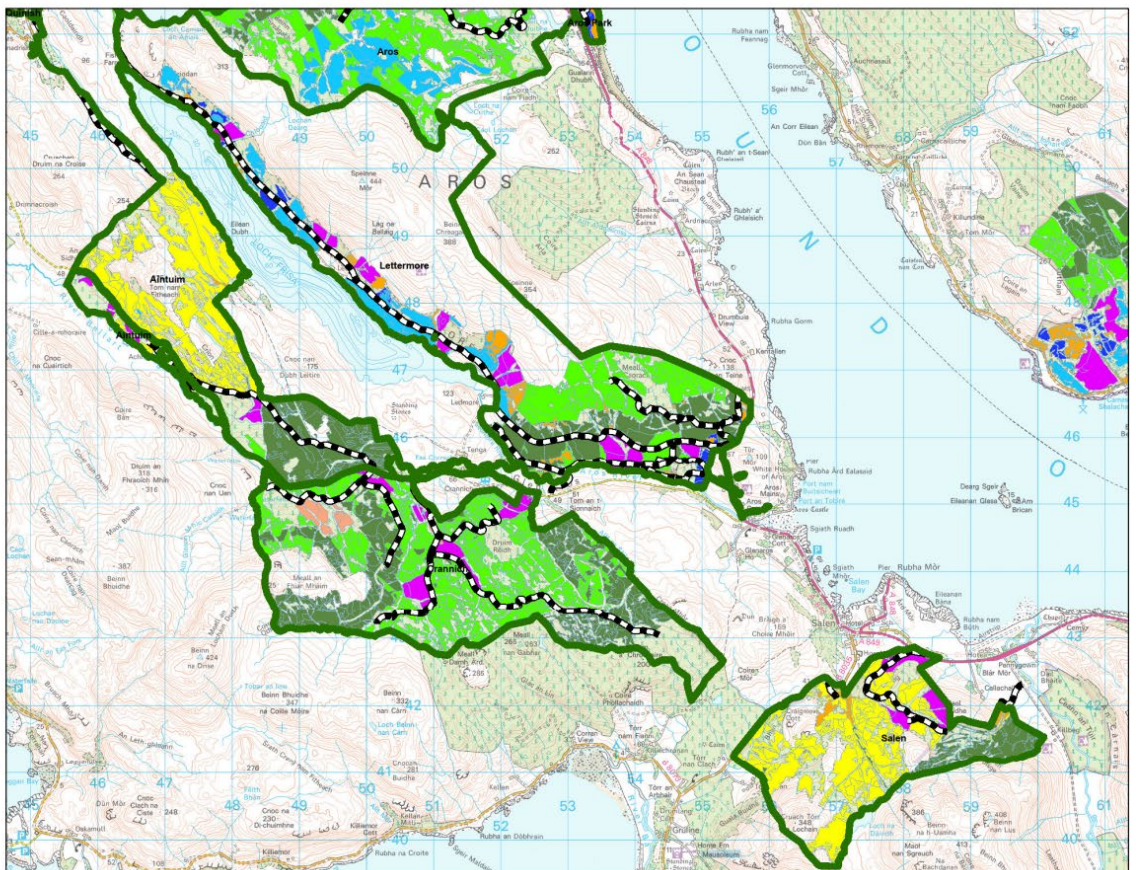
Legend

- Blocks
- Forest Roads
- Sub-compartments (Planting Year)**
 - Pre 1900
 - 1901 - 1960
 - 1961 - 1970
 - 1971 - 1980
 - 1981 - 1990
 - 1991 - 2000
 - 2001 - 2010
 - 2011 - 2020
 - 2021 - 2030



Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2023. All rights reserved. Ordnance Survey Licence number: 100024923 © Getmapping Plc and BlueSky International Limited 2023.

Scotland's national forests and land are responsibly managed to the UK Woodland Assurance Standard.



Neighbouring Land Use

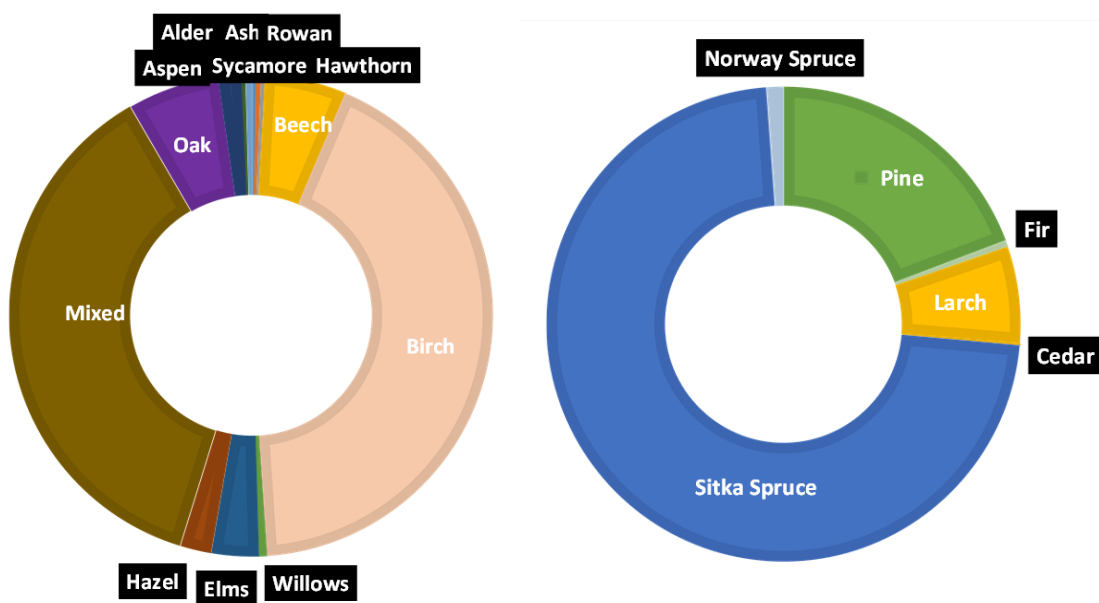
Native woodland habitat networks are developing within Aintuim, Lettermore and Salen forests, linking areas of Ancient Woodland.

Apart from Loch Frisa at the centre of the plan area there are several small-holdings within Lettermore forest that contribute to the diversity by providing open space and alternative landuses. However, agricultural neighbours to the west and east of Lettermore have very different approaches to deer control which creates a difficult situation for enabling successful establishment of our forests.

New neighbours between Salen and Crannich, Glen Aros Estate, have initiated a rewilding project with similar objectives to ourselves and an increased element of broadleaf has been fed into this plan revision to reflect their aspirations towards increased broadleaves to the south of our forest. Neighbours to the south of Crannich, Killiechronan are primarily commercial forestry objectives but mostly open hill is to be found to the west of Aintuim and Crannich, and also to the south of Salen.

Species Choice

There are social, landscape and biodiversity grounds for increasing diversity, along with possible benefits for countering possible effects of climate change. Much of the lower areas are suitable for a variety of species, although a predominance of Surface-water gleys on the slopes normally excludes the use of Douglas fir. Soil data coverage is partial. Frost hollows are problematic for establishment, but will grow high yield class crops once established. Such areas are vulnerable to broadleaved regeneration. Exposure, poor nutrients, heath check and shallow soils are major challenges to achieving productive forestry in some eastern areas. These crops were routinely fertilised in the past and many show requirements for further input.



Timber

High yield classes are achievable in some areas for spruce, especially on the better soils. The average yield class for Sitka spruce is 12. Restructuring has progressed well in places, however the impact of multiple Statutory Plant Health Notices, especially in Crannich forest, has impacted on the carefully phased approach to restructuring. There are not many areas of the forest suitable for thinning, as exposure and in places terrain is a major obstacle.

Timber Quality

Timber quality is mixed across the forests, due in part to poor species choice in the first rotation as well as highly mixed soils and the underlying geology. Stocking densities are mixed, with some understocked first and second rotation crops and multi-stemming. Hardwoods are poor, with few straight stems in any species and there are not currently any productive broadleaves.

Timber in construction

Markets exist for spruce and small quantities of minor conifer species. Few specialist markets have been established. Large diameter material is more difficult to sell.

Hardwood Timber

Much of the existing oakwood at Salen is of poor form and high conservation value, hence are unsuitable for quality hardwood production. Most regeneration, typically of birch, is also of poor form, but may be useable in the biofuel market. Most planted broadleaves have been planted for amenity or landscaping purposes.

Access

Some of the forests are adequately roaded, with all timber going to the Fishnish pier just south of Salen. However areas of Aintuim are still inaccessible and the west of Salen Forest. The majority of the public roads are not useable by timber transport and a network of forest road haulage routes are used with short sections on public roads agreed by the council and maintained as such. This is for both FLS forests and private forestry. Some roading still requires to be constructed as in the main part the first rotation crop is still coming up to harvestable age.

Cultural Heritage

Central Mull LMP contains a wealth of cultural heritage, including two scheduled sites in the plan area; including Cnoc nan Dubh Leitire and Cill an Ailean. In addition, there are numerous unscheduled sites in the area, including townships, isolated farm buildings, clearance cairns and sheepfolds, related to former agricultural communities and activities.

Landscape

Landscape character assessment

Central Mull Appendices - Land Management Plan 2024 – 2034

Mull is mentioned within NatureScot's (SNH) Argyll & Firth of Clyde landscape character assessment for the area. There are two main landscape character's across the area: Stepped Cliffs and Terraces and Stepped Rocky Coastlands

Designations

Sites of Special Scientific Interest and SAC/SPA

There are not any designations across the forests

Landscape

None of the forest falls within a national landscape designation
However, the western half of Salen is within a council landscape area.

Environment

Priority Species

- Open hill-tops are used by raptors, including White Tailed Eagle, Golden eagle and Hen harrier.
- Freshwater pearl mussels
- Barn owl barrels are sited in several places.
- Various species of bats (Daubenton's (LBAP), Natterer's (LBAP) and Pipistrelle (UKBAP, LBAP).
- Badger setts have been present in the forest historically, though most are now unused.
- Otters are known to use the riparian networks, but no holts are known.
- Invasive Mink are present within the plan area.
- Bryophytes, ferns and lichens are found especially within Salen forest.
- Pine Marten – Historically no records of pine marten on the island, however since 2004 the number of reported sightings has increased rapidly. We have no records of dens/breeding sites, but have confirmed sightings of individuals in Salen (2022), Lettermore (2014) and Crannich (2016)
- Lepidoptera – Historically records of Marsh Fritillary *Euphydryas aurinia* from 1998 in Lettermore, at the south eastern tip of Loch Frisa. Working with Butterfly Conservation to see if any resurgence of population.
- Odonata - Beautiful Demoiselle *Calopteryx virgo*. Crannich (2012), Salen (2003)

Biodiversity

Deadwood

The ecological potential for deadwood is generally for the LMP forested area. The highest ecological potential for deadwood is found in the established woodland and in PAWS areas and also within the Long Term Retention and minimum intervention areas. Areas of lower potential for deadwood will be found in the higher, more exposed areas of conifer crop.

Social factors

Recreation & Community

There is one formal recreation facility but the island of Mull is a hugely popular visitor destination especially for people wishing to enjoy the outdoors and experience the wildlife the island has to offer.

There is a strong community on Mull, due in part to life on an island bringing people together with a shared love of place.

Appendix IV: Concept Tables

Objective	Opportunity	Constraint	Concept
<p>Ensure both forest road network and provision of quarries is suitable for future management via an achievable road programme, especially in Aintuim and Salen.</p>	<p>Solving access issues opens up multiple opportunities for peatland restoration, PAWS restoration and larch access as well as commercial forestry access.</p>	<p>Potential impact on open habitat along lochside and steep ground / larch limitations along roadside; consultation route with neighbours at Achnadrish.</p>	<p>Explore access/roading options for problematic areas of inaccessible crop such as Aintuim lochside and roadside</p>
<p>Work towards removing all larch from Mull within the next ten years by managed removal of prioritised larch areas, especially in Crannich, minimising the impact of future SPHNs on the sustainable management of the forest.</p>	<p>Include areas of larch within priority coupes where possible.</p>	<p>Phytophthora ramorum potentially may be found in difficult to access places eg Aintuim with limited access. Large amounts of larch in Crannich; some areas in Salen may not be removable in steep gullies.</p>	<p>Prioritise difficult to access Larch areas so they can be felled in a controlled manner, in accordance with good forest design, ensuring all larch to be removed is accessible by the end of the plan’s 10 year period.</p>
<p>Review and improve both the choice of species and their provenance (in conjunction with ground condition</p>	<p>Allow a more successful productive forest to be planted over the second rotation,</p>	<p>Previously poor species and provenance choice and availability.</p>	<p>Careful and considered choice of both tree species and provenance and ground conditions</p>

Central Mull Appendices - Land Management Plan 2024 – 2034

<p>suitability) and also diversification of species (within the constraints of high wind hazard classes impacting on the thinning potential of species other than SS/LP), to ensure sustainable timber production as the forests move into their next rotation.</p>	<p>focusing on the right tree in the right place.</p> <p>Opportunity to combine objectives e.g. increased diversity of species around archaeological and recreational areas.</p>	<p>Ground planted previously would no longer be considered appropriate for afforestation.</p>	<p>Where appropriate, increase diversity of conifer crop, potentially in better visited areas to reduce impact of deer browsing.</p>
<p>Develop a strategy for the future management of existing poor quality crops in current rotation and increase rotation length where appropriate.</p>	<p>Increase in potential new markets for poorer quality crops.</p>	<p>Availability of contractors and machinery given the constraints of working in an island setting.</p>	<p>Working with marketing teams, develop a strategy for the large volume of poorer quality crops.</p>
<p>Develop a strategy to reduce herbivore impact across the FLS estate.</p>	<p>Successful combination of ‘in-house’ rangers and contractors currently ensures targets are achieved for status quo.</p> <p>Fencing certain areas of blocks would help overall management of forests and</p>	<p>Planned restocking has not been able to proceed due to excessive herbivore impact despite current cull efforts.</p> <p>Cost of fencing often prohibitive to achieve herbivore impact reduction; however, in two areas FLS</p>	<p>Work with Ranger teams to explore full range of options to manage herbivore impact on current and future forests.</p>

Central Mull Appendices - Land Management Plan 2024 – 2034

	<p>successful tree establishment and habitat restoration.</p> <p>New neighbour’s rewilding project at Crannich; potential for better protection/diversity.</p>	<p>manages large contiguous areas of land but resident herbivores in between our ownership has a large impact on crop protection.</p> <p>Large sporting estates can impact on protection of trees with differing overall objectives.</p>	<p>Working with like-minded neighbours and collaborate with Mull DMG to reduce impact.</p>
<p>Improve the long term sustainability of timber production by exploring opportunities for crops of varying quality into the next rotation; this will work towards future smoothing of the production forecast whilst incorporating the impact of peat restoration work on age restructuring.</p>	<p>New and expanding timber markets may provide opportunities for improved viability of variably performing crops.</p>	<p>Highly variable performance of crops across LMP area, often dependent on species and provenance choice.</p> <p>Reactionary approach has had to be implemented due to prevalence of disease.</p>	<p>Where possible, work collaboratively where objectives overlap.</p> <p>Improved access and a planned approach to larch removal should allow for a smoother production forecast across whole forested area.</p>

Central Mull Appendices - Land Management Plan 2024 – 2034

<p>Management and protection of key species including considerable raptor interests across Mull ('Eagle Island' draws in high tourist numbers), and in addition the archaeological heritage of the area.</p>	<p>Highly successful WTE reintroduction and 'Mull Eagle Island' has resulted in increased raptor numbers across the island.</p>	<p>Unpredictable timing and location constraints on operational activities during breeding seasons.</p>	<p>Aim to minimise impact of timing constraints on operations where possible with alternative 'paired' coupe suggestions.</p> <p>Continue to work with RSPB and Mull Eagle Watch to promote and help protect key raptor species.</p>
<p>Ensure water quality maintained in River Bellart water catchment (Aintuim).</p>	<p>Restoring peat habitat along riparian areas will also provide additional benefits of improved water quality.</p> <p>Continuation of neighbouring land owners restoration projects provides more joined up approach.</p>	<p>Highly sensitive water catchment for invertebrate interests.</p> <p>Roading solutions at Aintuim need to take into account sensitivities of this River Bellart catchment in regards to potential siltation.</p>	<p>Continue with planned restoration work along riparian corridor, balancing peat, invertebrate and fish interests.</p>

Central Mull Appendices - Land Management Plan 2024 – 2034

<p>Develop large scale Peat Restoration project in Aintuim and enhance Open Habitats, especially in Lettermore & Crannich.</p>	<p>Large areas of high quality peat areas especially in Aintuim can be restored improving Carbon balance of the forests.</p>	<p>Patchy peatland mosaic more prevalent in Crannich and unsurveyed area in Salen requiring more in-depth solutions.</p>	<p>Work up peat project areas in conjunction with Peatland Foresters when appointed.</p>
<p>Develop PAWS restoration in Salen and Aintuim blocks, and develop habitat networks via woodland expansion to increase the percentage of broadleaves and subsequent biodiversity (including control of Exotic Invasive species, R. ponticum, at Salen).</p>	<p>Priority Oak habitat in Salen has been subject to an Action Plan for the last few decades.</p> <p>Areas can be linked to increase broadleaf corridors, using buffers, reducing opportunity for invasive conifers to recolonise.</p>	<p>Rhododendron ponticum is impacting on the PAWS areas in places</p>	<p>Work towards PAWS restoration, prioritising access where necessary and programme of exotic removal where impacting most on natural habitat.</p>
<p>Maintain & enhance both views and existing recreation provision for the benefit of both locals and increasingly large visitor numbers to Mull; focused in Lettermore.</p>	<p>Many informal routes used by community to be built into future establishment for plan area.</p> <p>Large increase in visitor numbers to Mull both pre and post Covid.</p>	<p>Lack of resources to create new any new formal provision.</p> <p>Difficult to prevent the negative landscape impacts whilst operations are progressing.</p>	<p>Work with MICT and communities to identify areas that would be beneficial to locals and visitors and opportunities to enhance views / access as part of forestry operations using Visitor Zones.</p>

Central Mull Appendices - Land Management Plan 2024 – 2034

<p>Work with local communities and MICT, especially around Salen, supporting the large-scale tourism now dominating the local economy with subsequent high nature visitor numbers.</p>	<p>Salen school regularly access forests for school groups.</p>	<p>Access to western side of Salen block not easy and public road restrictions between Gruline and Salen.</p> <p>High visitor numbers can also have a detrimental impact on island infrastructure;</p>	<p>Work with schools and community groups especially in areas close to communities, especially Salen.</p>
--	---	--	---

Appendix V: Peatland Appendices

LMP specific proposals

SUMMARY AREAS TABLE	Hectares (Ha)	Description
All deep peat soils	260	<i>Total estimated area size (Ha) of deep peat within the forest block/LMP area during the ten year period of the plan based on the soils data.</i>
Afforested deep peatland	204	<i>Total area size (Ha) of afforested peatlands based on sub-compartment database (SCDB) information.</i>
Existing open habitat on deep peat	56	<i>Total area of open peatland (Ha) from SCDB.</i>
‘Presumption to Restore’ total area	12	<i>Only includes afforested peatlands which lie next to open existing peatlands, or Scenario A peatland types, as per the SF Practice Guide. The area is based on the complete hydrological unit.</i>
‘Assessed Peatland’ total area	192	<i>Total area of afforested peatlands that will be restored following an assessment of current and future crop performance. The area is based on the complete hydrological unit.</i>
Restock afforested peatlands	0	<i>The poor growth of crops on Mull means that there are no areas identified on deep peats that will fit the criteria of being restocked as opposed to being restored to peatland.</i>

'Presumption to restore' table

Attribute	Description
Designated Sites, priority open peatland habitats	Some Blanket Bog Priority Open habitat areas adjacent or close to areas for restoration.
Scenario A peat types	<i>Very few Scenario A peat types within the LMP area but these will all be restored. They are areas of 9a (Salen) and 14w (Crannich)</i>
Peatland condition and hydrology	Peatland condition mixed within these sites; very small discrete areas.
Target habitat	Target M15 (as per adjacent BB)

'Assessed Peatlands' table

Attribute	Description
Peatland condition and hydrology	<i>Peat condition is varied across the sites; more detailed assessments based on vegetation, water table and impacts of any historic modifications will take place prior to site specific proposals being worked up for each area.</i>
ESC statement	<i>The site has a warm, highly exposed and wet climate. Exposure constraints may limit species options and the ability to thin woodlands without significant risk of windthrow. The soils are wet moisture status and vp2 very poor nutrient status. Wet soils may cause flotation problems for heavy machinery on establishment, and on harvesting, if only lightly crowned species are present (e.g. birch). Tree species recommendations in ESC do not take account of each countries regulatory approval process, so prior to including species in a forest plan advice should be sought from relevant forestry authorities.</i>
Accumulated Annual Temperature	1286
DAMs score	19
Current crop health and performance	<p>Crop stands on peat where varied across the forests:</p> <p>Salen: mostly poorly performing crops in Feith Bhàn, with the exception of better crops in the south-west boundary with the neighbours and alongside the road.</p> <p>Aintuim: consistently poor quality crops with the exception of areas on the northern fringe adjacent to non-peaty soils and small islands of better performing trees within the crop to the east.</p> <p>Crannich: A mixture of performance of crops, although the majority were poorly performing both on peaty soils and neighbouring soil types.</p>

Central Mull Appendices - Land Management Plan 2024 – 2034

Predicted Yield class of future rotations	Future crop performance was assessed and can be seen on Map B for each forest. As these are all first rotation forests, the performance of any theoretical second rotation stand depended on the fact that no drainage or fertilisation would be able to take place. Crop species was assumed to be SS, not LP which had consistently performed poorly throughout each of the forests.
Area to be restored and target habitat	<p>Salen Feith Bhàn: 21 ha to be restored to peat as poorer performing crops; a further 6ha have unconfirmed soil types (still awaiting soil survey results) but due to their hydrological connectivity to the peat, these areas will be restored together. Target M15 (as per adjacent BB)</p> <p>Salen Allt nan Leòthdean: 18ha to be restored to peat; a further 3ha will have trees removed but no restoration due to thin nature of soils, restoration is not feasible. Adjacent identified Blanket Bog will result in a more landscape scale restoration project here. Target M15 (as per adjacent BB)</p> <p>Aintuim: 85 ha to be restored with poorer YC; 27ha with better YC also require to be restored as they impact on the hydrological unit as a whole and cannot be separated out. Target M15 (as per adjacent BB)</p> <p>Crannich: 74 ha to be restored with poorer YC; a further 29 ha of adjacent land with equally poor YC on non-peaty soils to be left open as a mosaic within the peat restoration. Target M17 (as per adjacent BB)</p>
Areas to be restocked	PEW is proposed where YC indicate a potentially better crop but traditional restocking of a commercial crop is unfeasible due to logistical constraints of the isolated areas involved, and where PEW would benefit the site at a landscape scale.

Restoration specification

Attribute	Description
Treatments to restore the hydrology	<i>Full restoration specifications will be developed following site surveys after clearfell when the extent of modifications are visible. This will include Peatland restoration methods, Restoration outcomes and Monitoring of sites.</i>

Peatland Maps

See Map 17 in Map booklet

Terminology

The terminology that FLS uses is adopted from the guidance ‘Deciding future management options for afforested deep peatland’. The exception is the term ‘assessed peatlands’*, which FLS has found helpful in making the distinction between this and PtR. This is to ensure consistency regarding definitions and avoid confusion.

Term	Definition
Presumption to Restore	<p>The circumstances of when a site is a PtR reflects the potential indicators of acceptability given in the SG Control of Woodland Removal policy. This may include areas with peat less than 50 cm deep. These include;</p> <ul style="list-style-type: none"> • Habitats designated as qualifying features in the UK Biodiversity Action Plan, or on Natura sites, Ramsar sites, Sites of Special Scientific Interest (SSSIs) or National Nature Reserves (NNRs); • Sites or parts of sites where restocking is likely to adversely affect the functional connectivity (hydrology) of an adjacent Annex 1 peatland habitat (as defined in the EU Habitats Directive), or a habitat associated with one; • Sites where deforestation would prevent the significant net release of greenhouse gases. <p>On these sites restocking should not take place, but restoration started as soon as possible. This list reflects the potential indicators of acceptability given in the Scottish Government’s Control of Woodland Removal policy for when deforestation would contribute to enhancing priority habitats and their connectivity.</p>
Assessed Peatlands*	<p>This terminology has been adopted by FLS internally to encompass the peatlands which are not defined as a ‘Presumption to Restore’ and therefore require an assessment of crop performance to determine best future management. The assessment method is based on desktop and field data to establish historic and future crop performance, taking reduced cultivation and fertiliser inputs into account.</p>
Scenario A peatland	<p>Peat types that are edaphically unsuited for woodland and so are more suitable for restoring or converting to peat edge woodland.</p> <ul style="list-style-type: none"> • Peat types: 8a, 8d, 9a, 10a, 10b, 14, 14h, 14w. • Characteristic habitat: basin bogs, raised bogs, wet flushes, hagged peats.

	<ul style="list-style-type: none"> • Characteristic vegetation: <i>Sphagnum</i>, <i>Juncus</i>, willow
Scenario B peatland	<p>Peat types that should grow pure SS on maintained drained sites, with PK added, in order to achieve a growth rate that allows a positive greenhouse gas balance.</p> <ul style="list-style-type: none"> • Peat types: 8b, 8c, 9b, 9c, 9d. • Characteristic habitat: fertile wet peats. • Characteristic vegetation: <i>Molinia</i>, <i>Calluna</i>, Downy birch.
Scenario C peatland	<p>Peat types that should grow SS if planted 50:50 with ALP on maintained drained sites, with PK added, in order to achieve a growth rate of the SS that allows a positive greenhouse gas balance. Note, though, that these peat types may face climatic constraints if the site is not AT5>1000.</p> <ul style="list-style-type: none"> • Peat types: 9e, 11a, 11b, 11c, 11d. • Characteristic habitat: infertile but drier peats. • Characteristic vegetation: <i>Erica</i>, Scots pine.
Hydrological unit	<p>A well-functioning peatland (and not a degrading one) is dependent on an intact and healthy hydrological unit.</p> <p>Lowland Raised Bogs have developed and ‘grown’ over the last 7,000 years, while blanket bogs are thought to have developed over the last 2,000 to 3,000 years. It is very likely that their speed and extent of development has been limited by the supply of water. It is useful to visualize water as feeding the growth of sphagnums and the laying down of peat. This varies throughout the seasons. A hydrological unit that is compromised by drainage or an unnatural drawing of water in times when water supply is limited, for example during a drought or after, will mean the peatland experiences harsher conditions, and will degrade to some extent, and act as a carbon source for part of the year as a result. Conditions may be so severe that the peatland degrades, contracts and emits significant amounts of carbon dioxide. Further mechanisms such as the development of peat cracking would accelerate this degradation, causing higher and higher emissions.</p> <p>Some peat types only receive water and nutrients through precipitation, however the topography and slope of the surrounding landscape will also feed water to peatland units, for example the flushed blanket bogs so this, and are often associated with other peat types, such as Lowland Raised Bogs, flushed blanket bogs, and basin bogs. Water input and retention is important for maintaining a high water table which is essential for supporting peatland</p>

	<p>vegetation and habitat functioning, with the critical period being during the spring, summer and autumn droughts.</p> <p>The boundaries of a hydrological unit can be relatively easy to identify in some landscapes and peat types such as for Lowland Raised Bogs, Basin Bogs. However, they can be more challenging in the margins around unflushed and flushed blanket bogs, especially if the original field layer is absent, as is often the case under tree canopies. Nevertheless, contour mapping, digital terrain modelling, the field layer, topography, and the presence of mineral soils or water courses with a mineral base are all helpful to determine the boundaries of hydrological units.</p>
--	--

Guidance: New forest road on Peat

Purpose and necessity

Where a new forest access road is required to be constructed, a general footprint of 10m (6m wide formation and allowance of 2m either side for drains) will be allowed.

This road will be constructed to carry traffic suitable to facilitate the harvesting, timber extractions and restocking work associated with the Land Management Plan.

The road is required to provide safe and suitable infrastructure, allowing access for harvesting and extraction of mature non-native timber (harvesting as per the approved forest plan). This includes achieving a suitable and efficient forwarding distance of 600m to all stands of timber and creating access suitable for heavy goods vehicles used in the transportation of timber to ports and mills.

Once the ground has been surveyed, one of three types of Road Construction will be applied: Standard, Standard with flushes or Peat.

Construction and Design Specification

General

The Forestry and Land Scotland (FLS) standard road specification will be used, taken from the FLS Civil Engineering Handbook, details of which are also contained within the latest revision of the Timber Transport Forum publication ‘The design and use of structural pavement of unsealed roads, 2020’.

The pavement thickness will be designed to accommodate 44 tonne HGV's and 500,000 standard axles of 80 kN.

Road Construction: Standard

The formation of the road will generally be around 6m in width, increased on bends as per the FLS specification. Overburden is removed to expose the sub-grade below for creation of the formation level.

Overburden will be stockpiled outwith the road corridor, generally on the lower side on cross-slopes, and landscaped to encourage re-vegetation and to aid in reducing visibility of the road within the wider landscape.

Where overburden is removed from extractives sites along the length of the road, this should be retained and utilised to restore each site on completion of the extraction of stone material.

Once stripped, the formation is constructed to the general level and gradient of the overall road. This uses the as dug mineral materials found along the roadline or by using stone from locally-extractives sites identified along the roadline.

Once formation is completed, the road base course layer of around 500mm thick of 150mm down stone material will be placed and compacted in 2 layers. This will be followed by a 300mm thick layer of 75mm down stone material placed and compacted in two layers to provide a final width of 4m. The finished profile will generally have a 5% camber from the crown. The road will not exceed a gradient of 10% at any time.

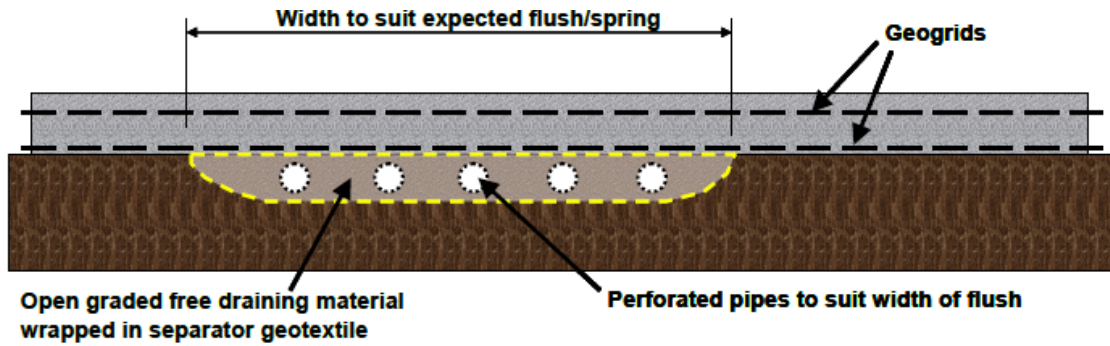
A turning T will be constructed at the end of the road suitable to turn an HGV. Several passing places will be built in suitable locations along the length of the road.

The standard road construction will be with low verges and soil will be recovered to dress off the construction envelope. There will be no verges on either the Standard with flushes or Floated road construction types.

Road Construction: Standard with flushes

Specification for flushes of water as well as longer sections of obvious wetland crossing as per below (a mosaic with initial floating section transitioning into standard road with specification for long flushes where necessary):

For areas in which water appears to flow or settle on the ground diffusely, it shall be allowed passage through the road carriageway via a series of perforated pipes spaced across the area. These pipes are to be surrounded by an open graded, free draining material to allow water to filter through. This entire drain is to be wrapped within a geotextile membrane to prevent migration or movement of the drain.

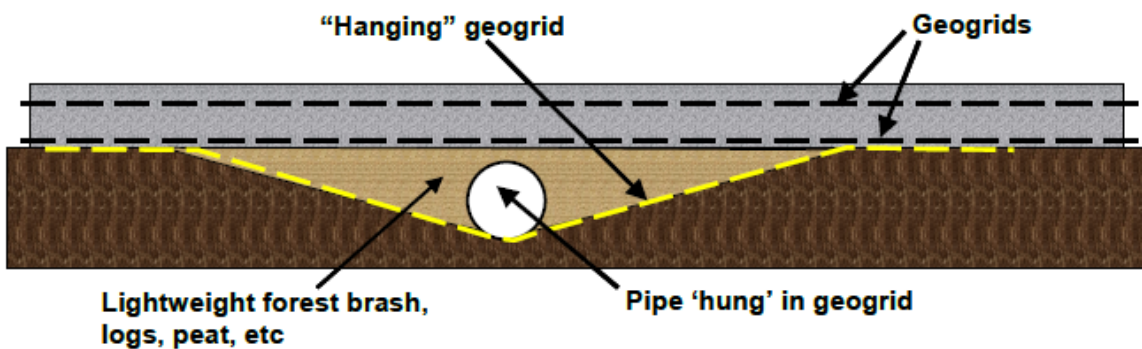


Road Construction: Peat

Where areas of deep peat identified around the site a peat probing survey can be carried out using peat probes to determine a preferred corridor across the peat sections. This minimises impact on the deepest areas and allows access for future restoration of the peatland including blocking old drains. These sections of the road corridor are generally open ground with no stumps or brash. In these locations the proposed method to construct the road would involve the use of geotextiles and geogrids to provide support and strength to the construction as a floating road.

A geogrid would be placed directly onto the unbroken ground, lapped into an area of construction on firmer ground to anchor it in place. The grid is rolled out over the proposed route and material is pushed out onto the grid. The road is gradually constructed in layers of geogrid and crushed stone to provide strength to the construction. A typical detail is provided – see drawing WR_FLS_004.

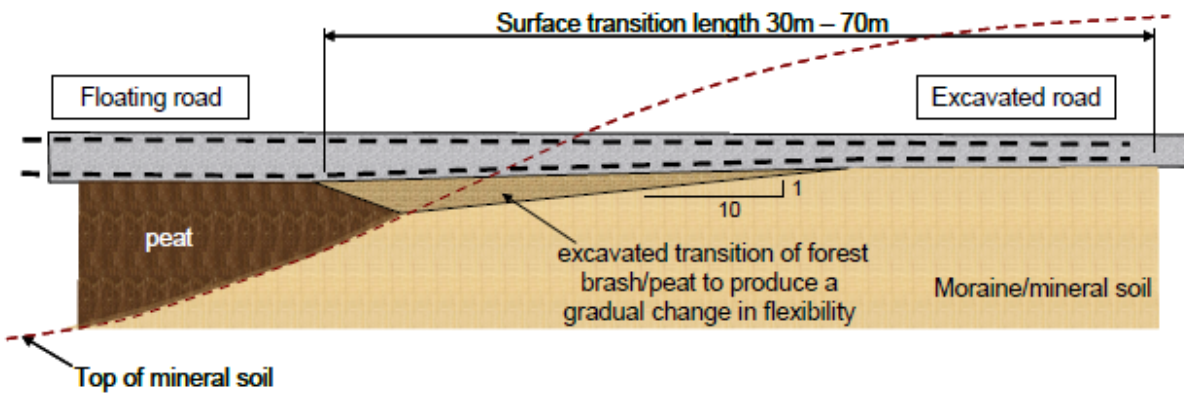
Hanging culverts to be used for cross carriageway drainage in floated sections of road. Specification to consist of an upsized culvert pipe “suspended” by the floating road mass by a section of geogrid. Infill around the pipe and between this geogrid and the underside of the floating road to consist of lightweight brash, smaller logs or peat. Geogrid section to be firmly anchored underneath floating road with a minimum overlap of 10m each side to prevent subsequent vertical movement of the pipe.



Central Mull Appendices - Land Management Plan 2024 – 2034

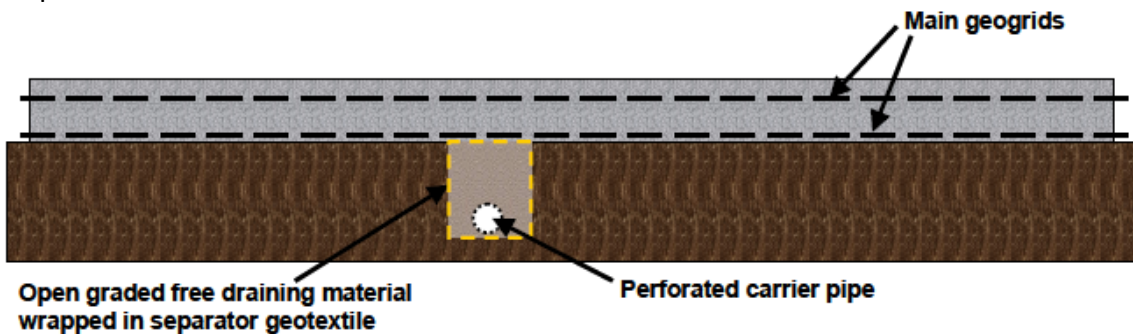
Stone used for geogrid to be cone crushed to 75mm-down to remove sharp edges, preventing damage to geogrid. This is on the assumption that geogrid apertures are sized approximately 65x65mm.

Transition zones are to be utilised to increase the durability of the constructed road at each interface between standard and floating construction. The transition itself from peat to base rock will be a flexible layer of forest brash or peat spread over a transitional distance of minimum 30m. The thickness of this transition layer will reduce gradually to zero on a recommended slope of 1:10. For transitions from rock to peat, this shall apply inversely.



The drain at the head of the loch shall be crossed in a similar way to the hanging culvert method described above, but with vertical rather than sloped sides.

A geotextile membrane will line the entire cross section of the trench. 100mm of open graded free draining material will be placed in the base of the trench to act as a bedding layer. A perforated pipe shall then be placed longitudinally in line with the flow of water. Open graded free draining material will then be added to the “trench” to both surround the pipe and act as support for the sides of the existing ground up to road sub-grade level. The geotextile membrane can then be wrapped across the top of the trench cross section creating an enclosed drainage unit. Floating road construction can then proceed across the drain.



Water Environment

Where any watercourses need to be traversed, culverts will be sized using river and rainfall data available from the Flood Estimation Handbook to calculate an appropriate size of pipe. This data considers existing rainfall volumes and adds an allowance for future climate change and an increase in rainfall volume. In the west coast of Scotland this usually equates to an increase of around 50% of the volume of the pipe.

Ditches and Culverts

A ditch will be dug on the top side of the road to a depth of 150mm below formation. On flat areas or low ground, ditches will be dug on both sides.

Ditch relief culverts will be spaced as required according to the table below, extracted from the FLS Civil Engineering Handbook, Revision 3.

Ditch Gradient	Culvert Spacing (m)	
%	Normal conditions Ground cross slope <15%	Very wet or steep conditions Ground cross slope >15%
<4	200	100
5	160	80
6	130	65
7	115	55
8	100	45
9	90	40
10	80	35
11	70	30
12	65	25

Culverts will be a minimum of 450mm diameter. Sumps will be installed in both the drain line and at the upstream end of a culvert to manage diffuse pollution during general road operation. Silt traps and netting will be used during installation to manage diffuse pollution during construction.

Additionally, a minimum 450mm diameter culvert will be installed around 10m upstream of any watercourse and roadside drainage will be crossed to the downside of the road and discharged into

vegetation to prevent roadside pollution from entering watercourses. CAR and UKFS regulations and guidance will be followed to protect the water environment

Felled width

Through the planted area an existing track will be widened to suit the new road. A 30m felled width has been allowed for with up to 50m on corners where the road widens. This area will be accounted for in the open ground allowance on the forest plan and will be built into the restocking design to prevent deforestation.

The road will be constructed within this 30m – 50m wide corridor, centered on the proposed route of the roadline.

Appendix VI: Deer Management Plan

Background

This Deer Management Plan (DMP) outlines the deer management issues and priorities for Scotland's National Forest Estate in Central and North Mull, managed by Forestry and Land Scotland. The DMP underpins the Land Management Plan. However, this DMP is based on best available information and wider issues for deer management across the whole of West Region still remain to be addressed. The DMP also relates to, and should be used in conjunction with, FLS Deer Management Strategy.

In line with the Scottish Government's consultation on Scotland's Strategic Framework for Biodiversity "Tackling the Nature Emergency" we recognise that reducing herbivore impacts is one of the biggest levers we have in Scotland for reducing biodiversity loss and enabling regeneration at scale.

National & Local objectives

National strategies and objectives:

- Contributing to [Scottish Forestry - Forestry Strategy](#) (also includes Climate Change)
Deer will be managed to help ensure Scotland has a healthy, diverse ecosystem, contributing to our climate change objectives, whilst also contributing to our national and local economy in line with Scottish Government objectives and public interest.
 - Lower deer densities to 2-7 per km² to ensure the above objectives can be met sustainably.
 - Ensure all designated sites are in favorable condition
 - Achieve less than 10% leader browsing damage on all first year restock coupes.
 - Ensure Stocking Density Assessment at year 5 achieves productive forest objectives of 2500 per hectare.
 - Ensure all designated sites are in favorable condition meaning that the features for which SSSIs or Natura sites are designated are in satisfactory condition; or are recovering, with the necessary management measures in place, such that NatureScot (previously SNH) predicts, using expert judgement, that the land will in due course reach favourable condition.
- Deer Management Strategy [Deer management strategy - Forestry and Land Scotland](#)
- Scottish Biodiversity Strategy [Biodiversity strategy: consultation - gov.scot \(www.gov.scot\)](#)
- Outcome 2 of the FLS Corporate Plan 2019 – 2022 is most relevant to this Deer Management Plan:

Central Mull Appendices - Land Management Plan 2024 – 2034

- “Looking after Scotland’s national forests and land” – “Scotland’s national forests and land are looked after; biodiversity is protected and enhanced; and more environmental services are provided to people”.
- The scale of FLS property allows, “whole landscape management, restoring, enhancing and linking habitats”, “to adapt forests and land to increase their resilience and protect and enhance natural assets so they can continue to provide for us”.

Local strategies and objectives:

The main objective of deer management within the West Region is to manage deer populations at a level that is compatible with FLS environment and other management objectives. The aim is:

- to prevent unacceptable damage to commercial tree crops;
- to maintain or enhance biodiversity in key areas;
- to protect all designated sites.

Deer will be managed to help ensure Scotland has a healthy, diverse ecosystem, contributing to our climate change objectives, whilst also contributing to our national and local economy in line with Scottish Government objectives and public interest.

Management of the deer population will be done in a professional, humane and cost-effective way, ensuring the physical wellbeing of the remaining deer populations within the forest boundaries.

Venison income will be optimised and opportunities to create revenue from recreational deer management permissions (RDMP) will be taken, but without compromising the over-riding issue of minimising negative impacts by grazing herbivores.

In the Strategic Plan area, the urgent short- and medium-term aim is to achieve deer browsing levels that allow successful establishment of young trees (planted and natural regeneration) including soft conifers and broadleaved species. Given the scale of native woodland restoration and creation that is planned across the area, including species that are extremely vulnerable to grazing/browsing pressure, we propose that reducing deer densities to the lower end of the spectrum outlined in national targets, i.e. ideally, < 2 deer / km², will be required but note that this will need to be achieved in stages, working with available resources and supported by effective ongoing monitoring of herbivore impacts.

The Central and North Mull DMP is also informed by the Mull DMG Deer Management Plan.

What are we going to protect?

The FLS land holding in Central Mull comprises four forests – Salen, Crannich, Aintuim and Lettermore – and three forests in North Mull – Ardmore, Aros and Quinish; together these cover approximately 7,900 hectares. The area is characterised by mountain and coastal landscapes of national and international significance. The mountainous terrain supports a range of designated habitats and species with areas of high ecological and heritage value. The land includes hills, glens draining into coastal waters of significant importance, some with international designations, and a

Central Mull Appendices - Land Management Plan 2024 – 2034

range of habitats including blanket bog; upland heath; wet flushes, springs and lochs; rivers; conifer plantations and native broadleaved woodland. Priority open habitats, particularly blanket bog and wet flushes have been mapped and require protection from high grazing and browsing pressure. However, some of these habitats benefit from grazing, albeit at low levels, so sustainable numbers of deer need to be maintained - as an important element of properly functioning ecosystems.

Areas suitable for native woodland expansion have been identified. Of the forested ground, 90% is under conifers – predominantly Sitka spruce and Lodgepole Pine – and 10% is under broadleaves. Median Yield Class of Sitka Spruce is 12 and Lodgepole Pine is 6 but there is significant variation across the area and within forests.

Some designated sites may be particularly impacted by deer browsing and deer management. Salen and Aintuim in Central Mull support Ancient Semi-Natural Woodland (ASNW) and Aros and Quinish (North Mull) also have significant areas of PAWS, for which FLS has an obligation to restore 85% to native woodland.

In addition to the planned felling works identified in the previous Land Management Plan, a high amount of extra felling has had to take place across the majority of these forests due to Statutory Plant Health Notices (SPHNs) being issued where larch has been infected by *P.ramorum*. Coupled with the effects of Covid on contractor resource on the island, this has resulted with an unusually high proportion of unplanted land requiring restocking. Beat-ups are required in many sites across the forests and those in Crannich in 2022 were unsuccessful again.

Geography

The locality is defined by seascapes and rugged or mountainous country inland. The land-holding comprises hills and glens, draining to coastal waters. Much of the area is characterised as Stepped Rocky Coastlands and Stepped Cliffs and terraces. The rugged terrain and difficult access constrain opportunities for carcass retrieval from the open hill. Retention of open space within forests will also be essential for deer control. Mull is a hugely popular tourist destination and all roads on the island are well used by visitors and local residents, which must be accommodated when planning for deer management and control.

Many of the FLS forests on Mull are contiguous land apart from Salen (Central Mull) and Quinish (North Mull) which are isolated forests. Whilst this is currently bounded by open space, planned woodland creation will eventually link native woodland habitat between Aintuim, Lettermore and the neighbouring Aros forest. Successful establishment of native broadleaf woodland will be highly dependent on achieving a significant reduction in herbivore pressure in the short – medium term.

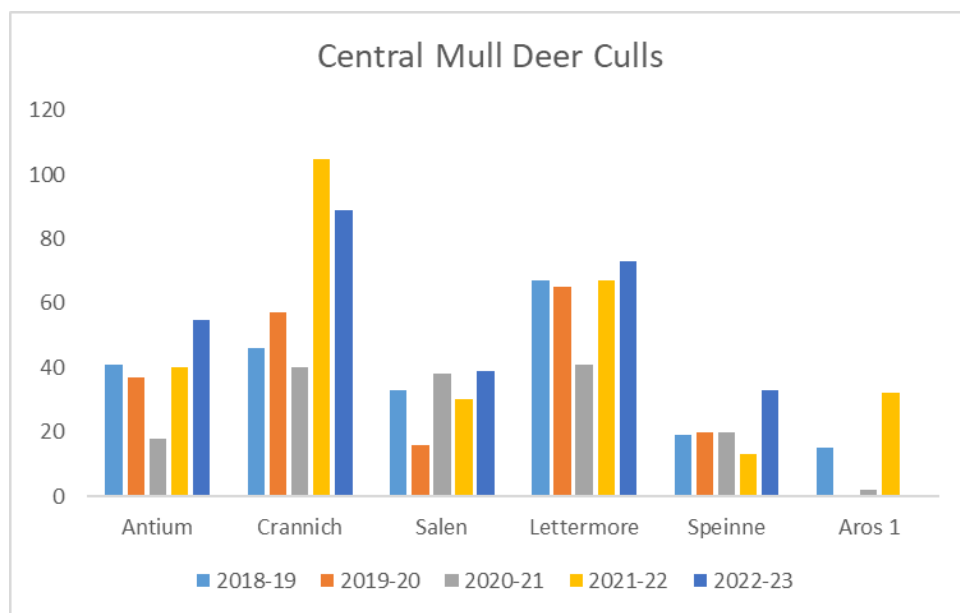
Deer Species (and other herbivores/feral pigs)

Red deer are the main deer species and remain at a high density. Fallow deer are present in low density in other parts of Mull and a single Sika stag has been found a few years ago. There are no Roe deer, feral goat or feral pig sightings in the Strategic Plan area.

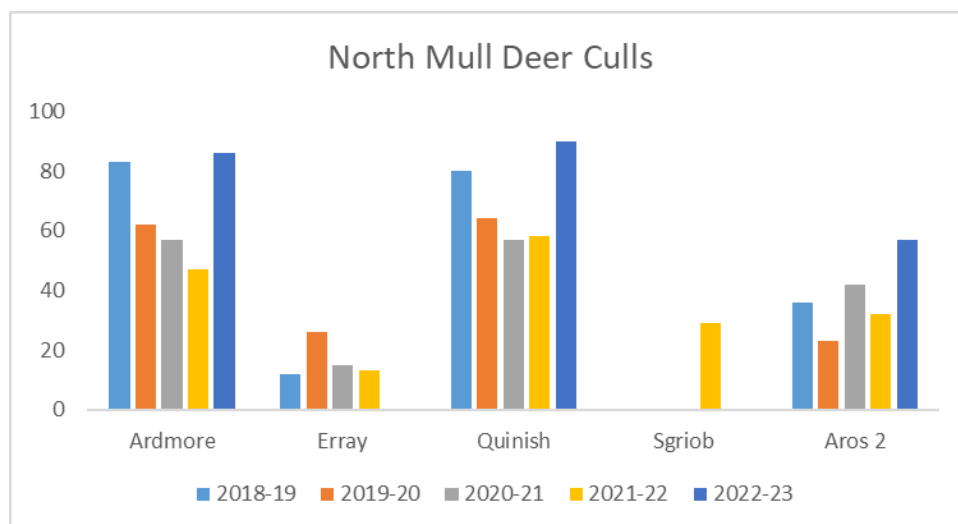
What have we done to date?

Cull over the last five year period:

	2018-19	2019-20	2020-21	2021-22	2022-23
Antium	41	37	18	40	55
Crannich	46	57	40	105	89
Salen	33	16	38	30	39
Lettermore	67	65	41	67	73
Speinne	19	20	20	13	33
Aros 1	15	0	2	32	0



	2018-19	2019-20	2020-21	2021-22	2022-23
Ardmore	83	62	57	47	86
Erray	12	26	15	13	0
Quinish	80	64	57	58	90
Sgriob	0	0	0	29	0
Aros 2	36	23	42	32	57



A DPA for the whole of Mull conducted in 2015 estimated populations around 30 deer/km². This had dropped to 17 by 2018 and it is estimated that figure is now around 12 deer/km². This is backed up by the population model which demonstrates there has been a significant reduction in numbers over the last ten years. However we are working towards reducing the number further to a level commensurate with our objectives within the LMP.

Population numbers in hot spots have increased in recent years, caused by in-migration from neighbouring landholdings. Deer density varies from medium to high on neighbouring land; from SNH deer count taken in 2019 by helicopter survey. But these figures do not show areas where deer are concentrated and it misses deer within forests. Where deer number are low enough, hotspots can be tolerated and can be prevented from spreading.

However, deer densities of under 5 deer/km² are necessary, to allow establishment of broadleaved trees and mixed conifer species. The data suggest that a cull of at least the upper recommended figure would be required if the native woodland restoration, native woodland creation and broadleaved restocking programmes proposed across the Plan area were to be wholly successful.

Have an evidence-based approach

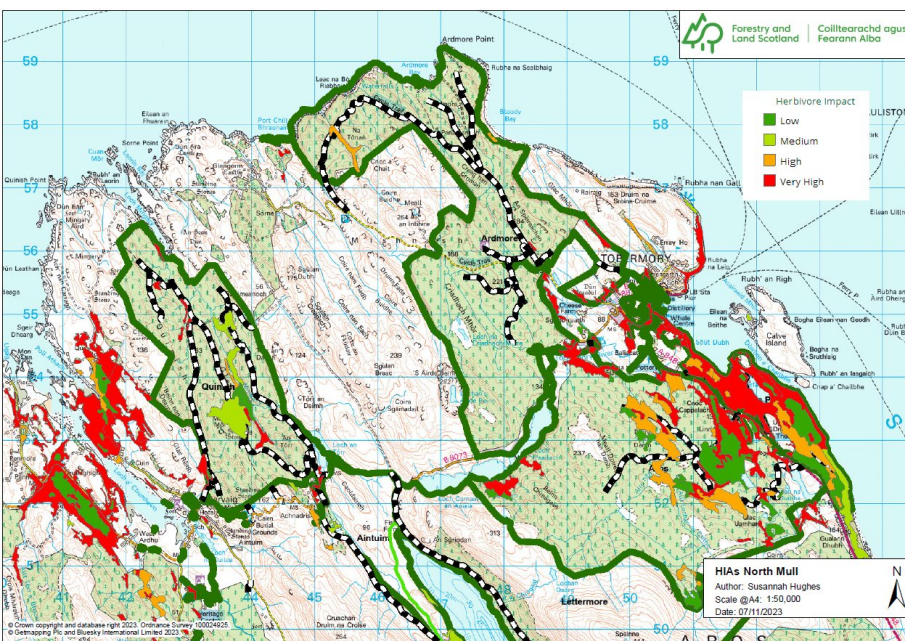
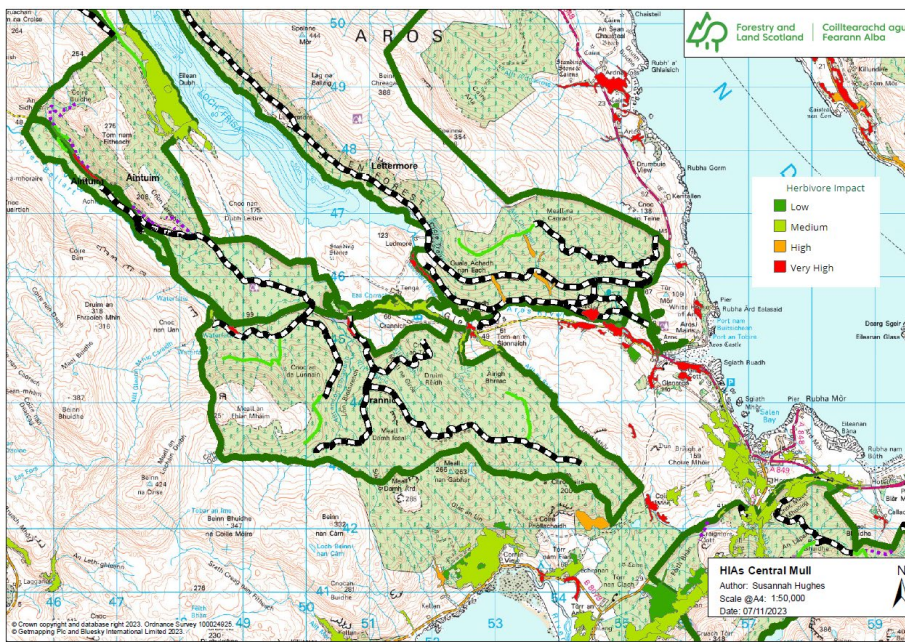
Deer Population Assessment surveys were undertaken by Strath Caulaidh in 2015 across the Mull Deer Management Group area using dung count methodologies (Faecal Accumulation Rate method and Faecal Standing Crop method). Although there are various caveats and weaknesses attached to these, they are standard methodologies commonly used for assessing deer population dynamics. These assessments resulted in an estimate of 30 deer/km²

Stocking Density Assessments: proportion of restock browsed at Year 5 has been assessed, primarily in Crannich where plots show that there are between 19 and 22 live trees found per plot.

Central Mull Appendices - Land Management Plan 2024 – 2034

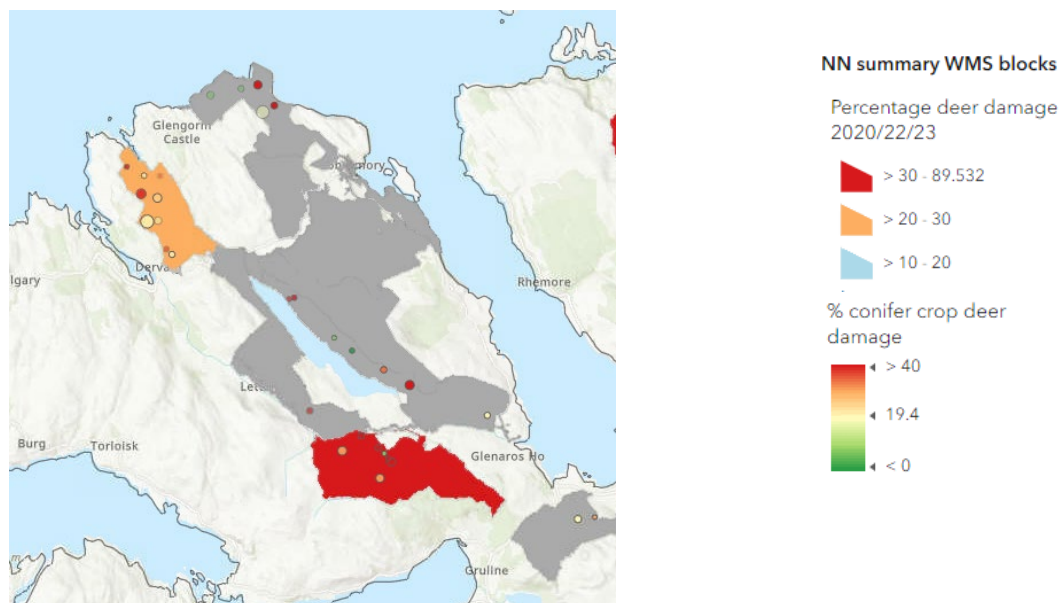
NatureScot Helicopter survey in 2019 indicated low numbers on FCS land and between 6 and 11 deer/km² on neighbouring land; however this does not show deer under tree cover, just deer present on the open hill at the time of the count.

Herbivore Impact Assessments as part of Native Woodland in Scotland Survey (NWSS) indicate very high to high browsing levels in Central Mull: around Lettermore, also in Crannich and the Aintuim face. However HIAs on the shores of Loch Frisa are currently medium impact as are large areas of Salen forest. For North Mull, areas within the internal fence at Quinish are low to medium but outwith the fence are very high. Ardmore has high levels of impact whereas a large area of Aros forest surveyed shows consistently very high and high impact.



Central Mull Appendices - Land Management Plan 2024 – 2034

Nearest Neighbour Results indicate there are issues with deer damage in crops varying from areas with more than 30% damage (especially Crannich and Quinish) down to less highly impacted sites around 20%. Some sites in Ardmore and Lettermore fall within less than 20% damage.



Nearest Neighbour surveys, Herbivore Impact Assessment and Natural Regeneration surveys will be carried out in relevant establishment coupes. Stocking Density Assessments assess tree crops in Years 1 and 5 following restock and include note of any herbivore damage. It is likely that deer population assessments based on dung counts will continue to be used but in future, drone surveys may be used to ground-truth these indirect methods.

Link to Deer Dashboard

Most of the data used to create this DMP can be found in the FLS Deer Dashboard.

Population Modeling and Future Culls

Financial Year (FY)	Popn at 1st April (Start FY)	Popn at 1st April (Start FY)	Total Popn	No per 100ha 1st April	Kid % of pop at 1st April	Recruit-ment Female	Recruit-ment Male	Total Recruit-ment	Female pop 31st Aug	Male pop 31st Aug	Popn 31st Aug	No per 100ha 31st Aug
2021	592	592	1184	15.0	30	89	89	178	681	681	1362	17.3
2022	583	521	1104	14.0	30	87	87	175	670	608	1278	16.2
2023	465	424	889	11.3	30	70	70	140	535	494	1029	13.0
2024	374	346	720	9.1	30	56	56	112	431	402	833	10.5
2025	301	281	583	7.4	30	45	45	90	347	327	673	8.5
2026	243	229	471	6.0	30	36	36	73	279	265	544	6.9
2027	195	186	381	4.8	30	29	29	59	225	215	439	5.6
2028	157	150	308	3.9	30	24	24	47	181	174	355	4.5
2029	127	122	248	3.1	30	19	19	38	146	141	286	3.6
2030	102	99	200	2.5	30	15	15	31	117	114	231	2.9

Central Mull Appendices - Land Management Plan 2024 – 2034

Financial Year (FY)	Set % Cull	Female Cull	Male Cull	Total Cull	% Cull Achieved	Female Pop at 31st March (End FY)	Male Pop at 31st March (End FY)	Total Pop 31st March
2021	30.0	98	160	258	18.9	583	521	1104
2022	30.0	205	184	389	30.4	465	424	889
2023	30.0	160	148	309	30.0	374	346	720
2024	30.0	129	121	250	30.0	301	281	583
2025	30.0	104	98	202	30.0	243	229	471
2026	30.0	84	80	163	30.0	195	186	381
2027	30.0	67	64	132	30.0	157	150	308
2028	30.0	54	52	106	30.0	127	122	248
2029	30.0	44	42	86	30.0	102	99	200
2030	30.0	35	34	69	30.0	82	80	162

Protection Options – cull/fence/tubes

Deer culling across the LMP area is carried out by a combination of direct FLS staff and contractor resource. The main challenge in these parts of Mull is not resident deer populations but a highly migratory population of transitory red deer moving across FLS forests. Deer estimates do not easily allow a full understanding of the full impact of these populations on the crop.

Priorities are to maintain existing livestock and deer fencing and to use contract culling to support the deer control undertaken directly by the FLS Wildlife Ranger team.

If increased deer culls do not result in the improvements to restock protection, new deer fences will also be required as per maps attached. An example of the success of this approach can be seen in South Mull where a strategic fence has allowed the remaining deer to be brought under control and has brought about successful regeneration across this forest. Some internal fencing will also be established as temporary regenerative plots primarily in Aros where establishment has failed to date.

Strategic deer fences such as Loch Frisa to Bellart are to be maintained. Any fences no longer required are to be removed as and when operational conditions allow.

Infrastructure

New tracks are to be constructed to facilitate wildlife operations. Tracks will also be integral to establishment of the proposed / potential woodland creation areas and these will be incorporated into the planting and natural regeneration proposals.

How will the objectives be met?

To prevent regulatory action, deer numbers need to be reduced in order to allow successful establishment of the increased amount of felled land.

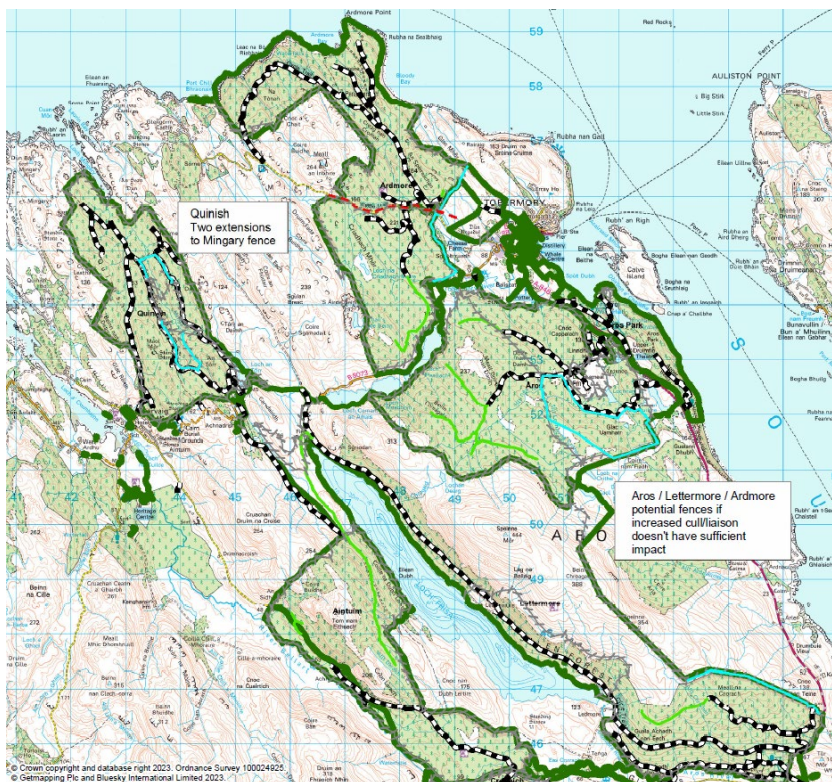
1. Use of both FLS wildlife team and contractor resource to achieve culls and continue to bring deer management under control.
2. Increase the contractor resource to assist in achieving this.
3. Drone count could be undertaken to update figures from the helicopter survey in 2019.
4. Temporary fencing will be used in Aros forest broadleaf areas using a series of 10 x 10 and 20 x 20 areas to encourage regeneration.
5. If no shooting rights are obtained in east of Salen, a fence must be erected fence between blocks.
6. An annual review will be held each August between the Wildlife, FM and Planning teams to monitor progress against targets and assess implications of any Nearest Neighbour / Beat up results collated through the year.
7. Improving access by increasing ATV tracks and new forest road network: these will be identified by Wildlife team e.g. at Lettermore and passed to the Planning team for permissions and thence construction. Two such tracks have Prior Notification permissions and can proceed in Aros forest.
8. Increased larder capacity will be explored for delivery within the next five years.

If no improvement to the success of establishment is found by the end of Year 2 of the plan and deer numbers are still above 10/km², the following measures will also be applied:

9. Use of extra FLS resource based on Mull as opposed to contractor resource to allow focus on lower volume of migratory deer causing failure of crop.
10. Strategic fencing will be renewed as per the attached maps if there is no solution found to the high number of migratory deer (short term priority and long term priority).

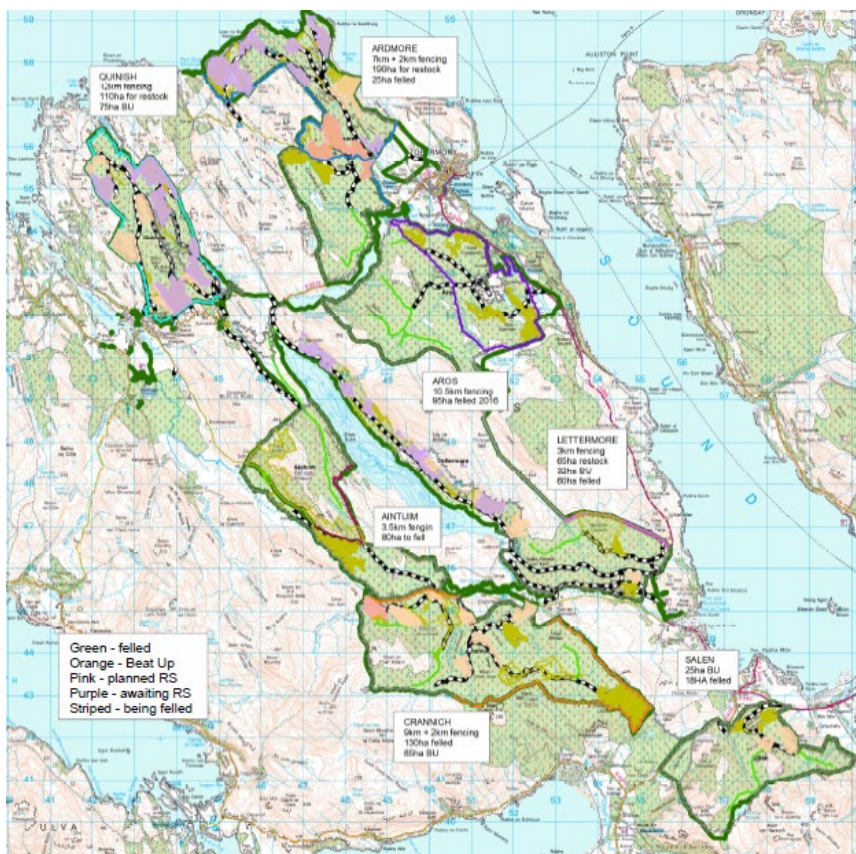
Although culls have regularly been met across the island, a significant increase in cull targets will be set; this will require a similar increase in resources. Given the unique challenges of working on an island, this increase in resources will be met through a combination of use of an Apprenticeship leading to submitting a business case for going back to a second full time ranger based on the island.

Central Mull Appendices - Land Management Plan 2024 – 2034



Areas in blue identified for fencing if deer numbers do not fall below 10/km² after two years.

If a landscape scale approach can be successfully adopted across North and Central Mull, a less intense annual cull would be sufficient to maintain deer numbers at sustainable levels; this is provided migratory deer numbers are also reduced by FLS neighbours.



Areas identified for strategic fencing if required in longer term.

Central Mull Appendices - Land Management Plan 2024 – 2034

Regular monitoring, including Nearest Neighbour surveys; Natural Regeneration surveys and Herbivore Impact Assessments will continue and if levels of damage remain high in particular areas then culls will increase in those areas, to be achieved by rearranging staff resources. Consideration is being made to include HIA surveys as part of the next deer management framework contract, which is due for renewal in 2024. Standard monitoring of fell/ restock and woodland creation sites will be undertaken, with additional monitoring sites included if required.

This DMP will be reviewed regularly, as a minimum at years two, seven and 10, to consider if the proposed actions have led to reductions in herbivore pressure and if these impacts are sufficient to promote acceptable growth of desired species.

Collaborative working opportunities

FLS undertakes landscape-scale deer management across its land in the LMP areas but opportunities to work more closely with partners across a wider area will be explored. As part of the Deer Working Group Recommendations, we will seek out opportunities where FLS can take a collaborative approach to achieving Deer Management Objectives.

FLS will continue to participate in the Mull DMG, also with immediate neighbours, to identify where there is a mutual benefit to cross boundary culling agreements.

FLS will continue to work with NatureScot to identify opportunities to address issues with neighbouring resident deer regularly migrating onto FLS land.

DMG present

The Mull Deer Management Group (DMG) covers all these forests. FLS is a member of this Group. No specific issues are identified within the DMG at present.

Venison

FLS subscribe to the Scottish Quality Wild Venison (SQWV) scheme. All venison is quality assured and sold to Highland Game. The Mull larder adjacent to the Aros office services the LMP areas.

Appendix VII: Provenance guidance chart

Species	Guidance
SS	Improved QSS standard throughout Alaska (ASS) provenance may be considered (if available) for its slower growing properties in specific locations. i.e Short Rotation Forestry (SRF) in Windfarm renewables developments.
VPSS	Limited use in best locations
SP	High rainfall type specified as standard. W20
NSP	From the nearest appropriate zone near CFR areas
LP	Only ALP being used in mixture with SS on poorer sites
DF	Seed stand or coastal origin
ESF	Czech or central European
NF	Registered seed stands
GF	Scottish registered seed stands
WH	Registered seed stands with low fluting
WRC	Scottish seed stands
NS	Seed stands, Eastern European or Harz
JCR	Northern Japanese range
NBL	Region of Provenance 10, Native Seed Zone 106
XC	PSSB will advise on any other minor species
<p>Notes: PSSB can provide the most up to date guidance on provenance selection including advice on best suited seed stands. Virtually all seed supplied by PSSB comes from registered seed stands and is based on geographic area compatibility. Use of VPSS has declined as seed orchard QSS improves and this also has a wider genetic base for resilience purposes.</p>	

Appendix VIII: Abbreviations used in the plan

Abbreviation	Meaning																						
FLS	Forestry and Land Scotland																						
LMP	Land Management Plan																						
ASNW	Ancient Semi-Natural Woodland																						
PAWS	Plantation on Ancient Woodland Site																						
ATV	All Terrain Vehicle																						
Ha	Hectare																						
MAI	Mean Annual Increment (Average annual growth a tree of stand of trees has experienced to a specific age)																						
MI	Minimum intervention (minimum level of management)																						
PEFC	Programme for the endorsement of forest certification																						
YC	Yield Class (Index of potential productivity of even-aged stands of trees. Measured in units of cubic metres per hectare per year)																						
LISS	Low Impact Silvicultural System																						
CCF	Continuous Cover Forestry																						
EIA	Environmental Impact Assessment																						
FSC	Forest Stewardship Council																						
UKWAS	UK Woodland Assurance Standard																						
UKFS	UK Forestry Standard																						
RBMP	River Basin Management Plan																						
UKBAP	UK Biodiversity Action Plan																						
SEPA	Scottish Environmental Protection Agency																						
SF	Scottish Forestry																						
ESC	Ecological site classification (based on soil and climate information)																						
DAMS	Detailed Aspect Method of Scoring (A modelled windiness score used to calculate the probability of damaging winds occurring)																						
SPA	Special Protection Area (birds)																						
SAC	Special Area of Conservation (habitats)																						
SPHN	Statutory Plant Health Notice																						
Species	<table> <tbody> <tr> <td>SS = Sitka Spruce</td> <td>NS = Norway Spruce</td> </tr> <tr> <td>HL = Hybrid Larch</td> <td>JL = Japanese Larch</td> </tr> <tr> <td>EL = European Larch</td> <td>XL = Larch</td> </tr> <tr> <td>NF = Noble Fir</td> <td>WRC = Western Red Cedar</td> </tr> <tr> <td>WH = Western Hemlock</td> <td>LP = Lodgepole Pine</td> </tr> <tr> <td>MCP = Macedonian Pine</td> <td>MC = Mixed Conifers</td> </tr> <tr> <td>AR = Alder</td> <td>CAR = Common Alder</td> </tr> <tr> <td>BI – Birch (downy/silver)</td> <td>HAZ = Hazel</td> </tr> <tr> <td>OK = Oak (robur/petreae)</td> <td>ROW = Rowan</td> </tr> <tr> <td>HAW = Hawthorn</td> <td>WCH = Wild Cherry / Gean</td> </tr> <tr> <td>GWL = Goat Willow</td> <td>MB = Mixed Broadleaves</td> </tr> </tbody> </table>	SS = Sitka Spruce	NS = Norway Spruce	HL = Hybrid Larch	JL = Japanese Larch	EL = European Larch	XL = Larch	NF = Noble Fir	WRC = Western Red Cedar	WH = Western Hemlock	LP = Lodgepole Pine	MCP = Macedonian Pine	MC = Mixed Conifers	AR = Alder	CAR = Common Alder	BI – Birch (downy/silver)	HAZ = Hazel	OK = Oak (robur/petreae)	ROW = Rowan	HAW = Hawthorn	WCH = Wild Cherry / Gean	GWL = Goat Willow	MB = Mixed Broadleaves
SS = Sitka Spruce	NS = Norway Spruce																						
HL = Hybrid Larch	JL = Japanese Larch																						
EL = European Larch	XL = Larch																						
NF = Noble Fir	WRC = Western Red Cedar																						
WH = Western Hemlock	LP = Lodgepole Pine																						
MCP = Macedonian Pine	MC = Mixed Conifers																						
AR = Alder	CAR = Common Alder																						
BI – Birch (downy/silver)	HAZ = Hazel																						
OK = Oak (robur/petreae)	ROW = Rowan																						
HAW = Hawthorn	WCH = Wild Cherry / Gean																						
GWL = Goat Willow	MB = Mixed Broadleaves																						

Appendix IX: Unexpired PN /EIA determination

PN APPROVALS

AN3 Aintuim new road Approved to 28/06/2026

APPLICATION: **23/00770/PAWAY**
APPLICANT: Forestry And Land Scotland
SITE AT: Aintuim Forest Dervaig Isle Of Mull Argyll And Bute
PROPOSAL: Formation of forest track (2300 metres in length)

CR22 Crannich west Approved to 004/05/2026

APPLICATION: **23/00761/PNWAY**
APPLICANT: Forestry And Land Scotland
SITE AT: Crannich Forest Block Dervaig Isle Of Mull Argyll And Bute
PROPOSAL: Formation of forest track (1490m in length)

CR21 Crannich south Approved to 13/06/2026

APPLICATION: **23/00686/PAWAY**
APPLICANT: Forestry And Land Scotland
SITE AT: Crannich Aros Isle Of Mull Argyll And Bute PA72 6JP
PROPOSAL: Formation of forest track

CR13 Crannich east Approved to 04/05/2026

APPLICATION: **23/00762/PNWAY**
APPLICANT: Forestry And Land Scotland
SITE AT: Crannich Forest Aros Isle Of Mull Argyll And Bute
PROPOSAL: Formation of forest track (1000 metres in length)

EIA APPROVALS

AN3 Aintuim new road Approved to 10/10/2027

CR21 Crannich south Approved to 13/05/2026

LT 101 Lettermore (previously LE101) Approved to 12/06/2028

Peat Glen Bellart Approved to 22/06/2027

Two Crannich roads already felled under EIA approval in previous plan (CR13, CR22) but construction not started yet so EIAs being reapplied for in this plan. Renewal of PN approval for LT101 currently under application.

Appendix X: Approval Documents for EIAs

CR21



Scottish
Forestry
Coilltearachd
na h-Alba

Perth & Argyll Conservancy
Upper Battleby
Redgorton
Perth PH1 3EN
forestry@gov.scot

Email: panda.cons@forestry.gov.scot
Tel: 0300 067 6005

Conservator Cameron Maxwell

Mrs Susannah Hughes
Forestry and Land Scotland, West Region
Millpark Road
Oban
PA34 4NH

13th May 2021

Dear Susannah,

The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017 Central Mull LMP, Crannich – Forest Road (3.5ha) required to facilitate SPHN fellings

I refer to your application at Central Mull LMP, Crannich near Salen, Aros, Isle of Mull for our screening opinion as to whether the work you are proposing 3.5 hectares of forest roads is an EIA project and will require EIA consent.

I can confirm that the work you propose will **not** require EIA consent.

The proposed infrastructure was previously consulted up through the Long Term Forest Plan process although EIA consent was not requested due to operational timings. The increase in SPHNs within the Crannich block has resulted in the requirement to screen the proposed roadline to expedite the removal of the larch from an area which is currently inaccessible.

The infrastructure is wholly in forest and therefore the positioning will mitigate any landscape issues and although the Crannich block is within the WTE range the Environment team has surveyed the area as part of a work plan process with no signs of activity being encountered. The roadline is to be constructed in accordance with all required guidelines to ensure that best practice and potential environmental issues are address and mitigated to ensure that any potential environmental impacts are mitigated.

This decision is valid for only 5 years from the date of this letter and shall cease to have effect beyond 13th May 2026. If you propose to carry out any of the work in your application after 12th May 2026 please inform us immediately. We will screen the proposals again to decide whether your proposals require EIA consent under these Regulations

Please note that if you intend to apply for grant funding for this work, you must wait until you get an approved contract from us before you start any of the work.

Yours sincerely

A handwritten signature in black ink that reads "Hazel Boyd".

Hazel Boyd
Woodland Officer – Argyll

Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulation

S e Coilltearachd na h-Alba a' bhuidheam-ghnìomha aig Riaghaltas na h-Alba a tha an urra ri poileasaidh, taic agus riaghladh do choilltearachd



Scottish Government
Riaghaltas na h-Alba
gov.scot

LT101



Perth & Argyll Conservancy
Upper Battleby, Redgorton
Perth, PH1 3EN
Tel: 0300 067 6005
panda.cons@forestry.gov.scot
Conservator: Cameron Maxwell

Susannah Hughes
Forestry and Land Scotland
West Region
Millpark Road
Oban
Argyll PA34 4NH

12 June 2023

Dear Susannah

The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017

I refer to your application for felling a road line and construction of a planned forest road in Lettermore forest, Isle of Mull, which contains proposals for, 1.5 hectares of forest roads.

We are required to provide a Screening Opinion under the above Regulations as to whether the work you are proposing is an EIA project and will require EIA consent.

I can confirm that the work you propose will **not** require EIA consent.

Although above the EIA threshold for a non-sensitive area, no significant impacts on the environment have been identified. In addition, information submitted in support by FLS has also not identified any likely significant effects that the project will have on the environment.

Work in relation to this forestry project is expected to start within 5 years and be completed within 10 years from the date of this letter. If you have not started any of the work identified in this screening opinion within 5 years from the date of this letter but still wish to proceed with the project, then please advise us. We will screen the proposal again to decide whether your project requires EIA consent under these Regulations.

Please note that if you intend to apply for grant funding for this work, you must wait until you get an approved contract from us before you start any of the work.

Yours sincerely

Cameron Maxwell
Conservator

Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulation



S e Coilltearachd na h-Alba a' bhuidheann-chòigeach aig Rìghdhaas na h-Alba a tha an urra ri poilasaidh, taic agus riaghladh do choilltearachd

AN3



Scottish
Forestry
Coilltearachd
na h-Alba

Perth & Argyll Conservancy
Upper Battleby
Redgorton
Perth PH1 3EN

Email: panda.cons@forestry.gov.scot
Conservator - Cameron Maxwell

Susannah Hughes
West Region
Forestry and Land Scotland

By email 10/10/22

Dear Susannah,

The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017 3.8HA Forest Road Central Mull-Aintuim – AN3

I refer to your application at Aintuim, Central Mull, NM 463 516 , near Salen for our screening opinion as to whether the work you are proposing which is 3.8 hectares of forest roads is an EIA project and will require EIA consent.

Careful consideration has been given to other potential options before proposing this roadline and this is detailed in the Screening Opinion Request (SOR) and supporting documents.

Biodiversity

Habitats- The proposal will support the removal of conifers from 56 ha of PAWS area which will then be restored. The roadline will also open up access to areas for potential woodland creation and peatland restoration as shown on *AN3 map opportunities* and *SOR*. These will result in a positive impact.

One small area of GWDTE is identified and is to be avoided with the surrounding hydrology protected by use of a floating road design.

Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulation

S e Coilltearachd na h-Alba a' bhuidheann-ghnìomha aig Riaghaltas na h-Alba a tha an urra ri poileasaidh, taic agus riaghladh do choilltearachd



Scottish Government
Riaghaltas na h-Alba
gov.scot

Central Mull Appendices - Land Management Plan 2024 – 2034

Species - Information has been provided particularly relating to raptors. Where required seasonal restrictions will be put in place as per the SOR.

Soil

There will be an inevitable impact on soil during and post construction of the roadline. 0.5ha of the 3.8ha of road proposed is on deep peat. A peat depth and habitat survey have been provided and both the route and road design have been carefully chosen to minimise any negative impact.

Water and soil impacts will be minimised by the use of a floating road design on wet or soft areas and these are detailed in the SOR. The road design has also been well considered and is included in the supporting documents *AN3 Loch Frisa EIA supplementary civils* and *AN3 WR_FLS_004 supplementary Geogrid construction*.

Water

Local hydrology is to be maintained by use of a floating road design and culverting as detailed in the SOR and *AN3 Loch Frisa EIA supplementary civils*.

Access

The roadline will support FLS's long term vision to improve access around the loch for tourists and residents. This has been highlighted in a Land Management Plan consultation in Nov 2021.

A short section of the public right of way will be used at the end of the road, diversions will be in place during construction and then access to route will be reinstated

The proposed road line links with the Loch Frisa Timber Haul Route and greatly reduce any need to use the fragile Dervaig – Salen public road, which will be a positive impact.

Landscape

Landscape has been considered in *AN3 Loch Frisa EIA supplementary screening landscape* and *AN3 Loch Frisa supplementary screening Visualisation*.

It includes a section on '*Mitigation of likely significant effects*' and it is expected that these mitigation measures are to be implemented

Mitigation

All road construction work will be UK Forest Standard compliant and follow the Forest and Water Guidelines (5th Edition). It will also be constructed in compliance with the SEPA CAR regulations in advance of operational activity. The design of the road will conform to both the Timber Transport Forum document “The design and use of the structural pavement of unsealed roads 2014” and SNH’s “Constructed tracks in the Scottish uplands – revised Sept 2015”.

In addition, specific mitigation detailed in the SOR and associated documents will be implemented.

After careful consideration, I conclude that the project will not have a significant effect on the environment and I can confirm that the work you propose will **not** require EIA consent. The SOR, supporting documents and mitigation described therein, provided on the 28th Sept 2022, should be considered as a component of the screening opinion determination.

Work in relation to this forestry project is expected to start within 5 years and be completed within 10 years from the date of this letter. If you have not started any of the work identified in this screening opinion within 5 years from the date of this letter but still wish to proceed with the project, then please advise us. We will screen the proposal again to decide whether your project requires EIA consent under these Regulations.

Yours sincerely



Elaine Jamieson

Operations and Development Officer

River Bellart



Scottish
Forestry
Coilltearachd
na h-Alba

Perth & Argyll Conservancy
Upper Battleby
Redgorton
Perth PH1 3EN

Email: panda.cons@forestry.gov.scot
Conservator - Cameron Maxwell

Susannah Hughes
West Region
Forestry and Land Scotland

By email 22.6.22

Dear Susannah

The Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017

River Bellart: Peatland Restoration-deforestation

I refer to your application at Aintuim, Central Mull, NM 467 474, near Salen for our screening opinion as to whether the work you are proposing which is 25.6 hectares of deforestation is an EIA project and will require EIA consent.

- The proposal will restore priority habitat flushed and unflushed BLANKET BOG, and UPLAND HEATH, both wet and dry types from conifer woodland of varying yield class. Peat bog and riparian restoration will improve water quality and chances of FWPM recruitment
- There is a WTE nest within the proposed restoration and information has been provided on use and success. FLS will apply for a licence to fell the nest as part of the operations.
- NatureScot are aware of and supportive of the project and have provided advice that on balance the landscape restoration of riparian zones will be positive and that the WTE has a number of alternative nesting options should the nest be felled.
- The proposal will result in a change of land use from forestry to open habitat. The project fits within the definition of Afforested deep peat sites with a presumption to restore' as per the Practice Guide Deciding *Future Management Options for Afforested Deep Peatland*. Evidenced by the provision of a landscape scale peat habitat map and peat depths.
- The presumption to restore to bog habitat reflects the potential indicators of acceptability given in the *Scottish Government's Control of Woodland Removal policy* for when deforestation would contribute to enhancing priority habitats and their connectivity.
- The overall impact will be to positive from the restoration of peat bog. However mitigation is required to prevent short term impacts from diffuse pollution and phosphate leaching, which may impact the FWPM population and the wider water environment during and after operations. With mitigation in place the impact from operations is low.

Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulation

S e Coilltearachd na h-Alba a' bhuidheann-ghnìomha aig Riaghaltas na h-Alba a tha an urra ri poileasaidh, taic agus riaghladh do choilltearachd



Scottish Government
Riaghaltas na h-Alba
gov.scot

Central Mull Appendices - Land Management Plan 2024 – 2034

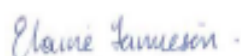
Mitigation measures

- Adherence to UKFS
- FES Env GN 5-Fresh-water Pearl Mussels FWPM
- Ditch blocking in advance of operations as per <https://www.researchgate.net/publication/322569918> Forest management and freshwater pearl mussels

I can confirm that the work you propose will not require EIA consent and the attached maps and supporting documentation should be considered as a component of the screening opinion determination. (Attached to this email).

Work in relation to this forestry project is expected to start within 5 years and be completed within 10 years from the date of this letter. If you have not started any of the work identified in this screening opinion within 5 years from the date of this letter but still wish to proceed with the project, then please advise us. We will screen the proposal again to decide whether your project requires EIA consent under these Regulations.

Yours sincerely



Elaine Jamieson

Operations and Development Officer

Central Mull Appendices - Land Management Plan 2024 – 2034