

Appendix XI:

SSSI Management Plan

Leanachan Designated Sites Management Plan

Designated Sites covered by this plan

Designated Site Name	Site Code	Site Type	Total Area of Designated Site (ha)	Area within this LMP (ha)	% in this LMP	% on NFE
Lon Leanachain	1092	SSSI	126.4	126.4	100	100
Parallel Roads of Lochaber	1272	SSSI	14496.39	326.85	2.25	14.45
Ben Nevis	192	SSSI	9539.73	185.90	1.93	1.93
Ben Nevis	8204	SAC	9316.12	184.20	1.98	1.98

Aims and objectives

Lon Leanachain SSSI

The main conservation focus of the plan is restoration of the blanket bog habitat within and surrounding the Lon Leanachain SSSI. The long term management aim is to bring the blanket bog back into favourable condition. At present, mature plantations of Sitka spruce and locally Lodgepole pine surround much of the SSSI, typically right up to the boundary, and in the centre of the site extending slightly onto the SSSI. Many of these are on deep peat, formerly blanket bog. These plantations are likely to be having an adverse impact on the wetness of the site through the presence of the trees and associated drainage ditches. They are also releasing conifer seeds onto the SSSI and non-native regeneration is now widespread in places.

This plan aims to fell all remaining mature planted conifers both in the designated area and within a considerable buffer surrounding SSSI. The area within the buffer will be restored to blanket bog where appropriate, with scattered birch woodland establishing on the drier knolls. This buffer should improve the

hydrology of the area and reduce non-native seed rain into the SSSI. A programme of non-native vegetation removal within the designated site will further address this issue.

Parallel Roads of Lochaber SSSI

The long term aim of the plan is to protect the key features of the Parallel Roads of Lochaber SSSI that are located within the Leanachan LMP area and maintain these features in favourable condition. Extensive felling of mature commercial conifers, and associated peatland restoration, within the designated area provides opportunities for improved mapping and identification of designated geological features. Due to the nature of the forest to bog restoration being exclusively targeted in areas of deep peat, designated geological features will be avoided.

Ben Nevis SSSI/SAC

The designated area within the Leanachan Land Management Plan is not directly affected by commercial forestry operations. The long term management aim is to improve qualifying features to favourable condition. The Land Management Plan aims to increase native woodland cover to the immediate north/northwest of the designated area. This will increase resilience and reduce the risk of non-native seed rain into the designated area from adjacent commercial conifer plantation. Over-grazing by deer has historically been an issue in the area. The construction of a new deer fence by Forestry and Land Scotland in 2021, and associated increased culls in the area aims to address this.

Features on the NFE and condition tables

Lon Leanachain

Site Type	Feature description	Feature category	SCM Condition (date assessed)	Condition on NFE
SSSI	Blanket bog	Upland habitat	Unfavourable Declining (06/01/2016)	Unfavourable

Parallel Roads of Lochaber

Site Type	Feature description	Feature category	SCM Condition (date assessed)	Condition on NFE
SSSI	Fluvial Geomorphology of Scotland	Geomorphology	Favourable Maintained (19/07/2022)	Favourable
SSSI	Quaternary of Scotland	Quaternary geology and geomorphology	Partially destroyed (19/07/2022)	Favourable

Ben Nevis

Site Type	Feature description	Feature category	SCM Condition (date assessed)	Condition on NFE
SAC	Western acidic oak woodland	Woodland	Unfavourable No change (27/05/2021)	Recovering due to management
SSSI	Upland oak woodland	Woodland	Unfavourable No change (27/05/2021)	Recovering due to management
SAC	Wet heathland with cross-leaved heath	Upland habitat	Unfavourable No change (03/10/2023)	Recovering due to management
SAC	Dry heaths	Upland habitat	Unfavourable No change (12/09/2023)	Recovering due to management
SAC	Plants in crevices on acid rocks	Upland habitat	Favourable Maintained (03/10/2023)	Maintained
SAC	Blanket bog	Upland habitat	Favourable Recovered (25/11/2023)	Maintained
SAC	Alpine and subalpine heaths	Upland habitat	Unfavourable No change (25/08/2023)	Recovering due to management
SAC	Montane acid grasslands	Upland habitat	Unfavourable No change (25/08/2023)	Recovering due to management
SSSI	Upland assemblage	Upland habitat	Unfavourable No change (25/11/2023)	Recovering due to management

Pressures and proposed actions

Lon Leanachain

Site Type	Feature description	Pressures	Proposed action	Timescale	Map highlighting work & other key limiting factors
SSSI	Blanket bog	Natural regeneration of non-native tree species	Manual felling of all regeneration of non-native conifers (SS, LP) throughout the SSSI to prevent modification of mire vegetation through shading and drying. Clearance of regeneration of non-native conifers from previously clearfelled and open wetland areas adjacent to the SSSI. Creation of buffer zone by removing non-native conifers around SSSI to reduce seeding and replacing with natural habitats such as bog or transitional woodland with some resilience to regeneration of non-native conifers.	Phase 1 Expected to be from 01/04/2024 to 31/03/2026	Other key features – priority open habitats, riparian zones etc. to be avoided
		Modification of site hydrology due to plantations and associated ditches	Hydrological assessment of drains within and around SSSI. Felling of plantations and blocking drains as necessary within and adjacent to SSSI to restore blanket bog.	Expected to be from 01/04/2025 to 31/03/2027	Other key features – priority open habitats, riparian zones etc. to be avoided
		Deer grazing and trampling	Continue deer monitoring/herbivore impact assessment and control to maintain low to medium browsing impact under the Woodland Grazing Toolbox method of assessment.	Throughout the LMP period	Access and ground conditions may be limiting factors to deer extraction

Parallel Roads of Lochaber

Site Type	Feature description	Pressures	Proposed action	Timescale	Map highlighting work & other key limiting factors
SSSI	Fluvial Geomorphology of Scotland Quaternary of Scotland	Dumping, spreading or discharge of any materials	Spoil generated during road / track construction to be placed in identified, agreed locations, by agreement.	By agreement	Other key features – priority open habitats, riparian zones etc. to be avoided
SSSI	Fluvial Geomorphology of Scotland Quaternary of Scotland	Extraction of minerals including sand and gravel, topsoil or sub-soil	No quarries to be opened within vicinity of designated features. Construction materials gained off-site where possible.	By agreement	
SSSI	Fluvial Geomorphology of Scotland Quaternary of Scotland	Construction, removal or destruction of tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground	Roads, tracks to be sited away from Parallel Road features wherever possible. All heritage and natural features to be undisturbed excepting identified road lines.	By agreement	Other key features – priority open habitats, riparian zones etc. to be avoided
SSSI	Fluvial Geomorphology of Scotland Quaternary of Scotland	Forestry operations – harvesting	Harvesting operations to use temporary brash mat forwarder tracks where possible. Timber stacks located away from designated features, in identified, agreed locations. Harvesting in vicinity of designated features to avoid heavy rainfall periods.	By agreement	Access, watercourses and ground conditions may be limiting factors
SSSI	Fluvial Geomorphology of Scotland Quaternary of Scotland	Forestry operations – ground preparation, peatland restoration	Minimum ground preparation to achieve successful establishment. Mounding and peatland restoration operations to be avoided in vicinity of designated features.	By agreement	

Ben Nevis

No current Pressures on FLS land since the fence installation. There has been a breach in the fence as a result of a landslip, however repair is planned imminently.

Operations within the LMP that could impact on the designated features on the NFE

Lon Leanachain

Operation Type	Detailed description of operation and method	Mitigation measures to be applied	Timing	Map reference & other relevant comments
Clear felling	<p>Coupes 31111, 31114 and 31118 are proposed for felling within the lifetime of the plan and are situated marginally within the designated area.</p> <p>Clear felling will be done by mechanical means. Brash mat forwarder tracks will be used preferentially over constructed forest roads to aid future peatland restoration. Efforts will be made to remove as much brash and woody material as possible from the site during felling operation to leave site in best possible condition for restoration operations.</p>	<p>Harvesting operations will go through the FLS work plan system. Environment team will check for key features prior to commencement of operations. Brash mats will be monitored and maintained throughout operations.</p> <p>UK Forestry Standard: Forests and Water guidelines and “FCPG25 – Managing Forest operations to protect the water environment” best practice will be strictly adhered to with measures put in place prior to harvesting to ensure sediment and other pollutants do not reach watercourses.</p>	All three coupes are to be felled in Phase 1 (year 1-5 of this plan).	Felling/road map

Operation Type	Detailed description of operation and method	Mitigation measures to be applied	Timing	Map reference & other relevant comments
Felling regenerated conifer trees	Non-native conifer regeneration will be manually removed from the designated area. A repeated programme of removal is expected to ensure the designated area is kept clear of non-native regeneration.	Non-native regeneration control operations will go through the FLS work plan system.	Throughout the LMP period	
Forest to bog Peatland restoration	Ditch blocking, stump flipping/ground smoothing within and outwith the designated area. Previously ploughed and planted areas will be re-wetted and restored to functioning bog habitat. Operations will be carried out by specialist contractors using wide-tracked, low ground pressure machinery.	Peatland restoration operations will go through the FLS work plan system. Environment team will check for key features prior to commencement of operations. Peat depth surveys have been conducted to inform appropriate management prescriptions. UK Forestry Standard: Forest and water guidelines and “FCPG25 – Managing Forest operations to protect the water environment” best practice will be strictly followed to ensure no sediment enters nearby watercourses.	Expected to be from 01/04/2025 to 31/03/2027	Restock/peat map
Deer management	Deer culling to maintain the population at a sustainable level. Extraction using ATV.	Following best practice and local Deer Management Plan. Herbivore Impact will need to be maintained at a level of low to medium as defined by the Woodland Grazing Toolbox.	Throughout the LMP period	

Parallel Roads of Lochaber

Operation Type	Detailed description of operation and method	Mitigation measures to be applied	Timing	Map reference & other relevant comments
Clear felling	<p>Coupes 31086, 31088, 31092, 31094, 31095 31107, 31109, 31111, 31114, 31118 are proposed for felling within the lifetime of the plan.</p> <p>Clear felling will be done by mechanical means. Parallel Road 'mound' features are located within the felling coupes, and will be crossed using temporary brash mat forwarder tracks. These designated features are already under plantation forestry.</p>	<p>Harvesting operations will go through the FLS work plan system. Environment team will check for key features prior to commencement of operations. Brash mats will be monitored and maintained throughout operations then reinstated after completion. Contract specification will highlight requirement to maintain mats adequately and reinstate; avoid timber stacks etc. in the vicinity of designated features and to protect all key features during all operations.</p>	<p>Harvesting of the following coupes is due to be completed in Phase 1 (year 1-5 of this plan): 31086, 31092, 31095, 31111, 31114, 31118.</p> <p>The following coupes are to be felled in Phase 2 (year 6-10 of this plan): 31088, 31094 31107, 31109,</p>	Felling/road map
Road construction/	New roads are required to access the felling coupes.	<p>Planned roads have been sited to avoid the Parallel Road features. All operations will be planned to avoid proximity to key features. Agreed locations will be identified for temporary spoil heaps. FLS Environment team will check proposed road line prior to works commencing. Contract specification will highlight the designated features.</p>	<p>LE16 - 2024/25 LE401 – 2024/25 TO 2029/30 LE110 – 2024/25 TO 2034/35</p>	Felling/road map
Restocking	Much of the designated area will not be restocked post harvesting as there is a significant element of forest to bog peatland restoration.	<p>Ground preparation will be minimised as far as possible in vicinity of the designated features. Mounding to be avoided near designated features.</p>	Following felling	Restock/peat map

Operation Type	Detailed description of operation and method	Mitigation measures to be applied	Timing	Map reference & other relevant comments
	<p>Natural regeneration of native species is planned for areas immediately adjacent to the restored peatland.</p> <p>Coupes 31094, 31092 and 31086 are planned for replanting with commercial conifers.</p>			
<p>Forest to bog Peatland restoration</p>	<p>Ditch blocking, stump flipping/ground smoothing within and outwith the designated area. Previously ploughed and planted areas will be re-wetted and restored to functioning bog habitat.</p> <p>Operations will be carried out by specialist contractors using wide-tracked, low ground pressure machinery.</p>	<p>Peatland restoration operations will go through the FLS work plan system.</p> <p>Environment team will check for key features prior to commencement of operations. Peat depth surveys have been conducted to inform appropriate management prescriptions. Groundworks will be avoided as far as possible in the vicinity of designated features. UK Forestry Standard: Forest and water guidelines and “FCPG25 – Managing Forest operations to protect the water environment” best practice will be strictly followed to ensure no sediment enters nearby watercourses.</p>	<p>Following felling</p>	<p>Restock/peat map</p>

Ben Nevis

No planned operations within the designated site under the new LMP other than deer management, fence inspection, maintenance and repair.