



## Slattadale Land Management Plan 2023 - 2033

Plan Reference No: 030-517-434

Plan Approval Date: 5th July 2023

Plan Expiry Date: 4th July 2033

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.



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**Forestry and Land Scotland, North Region, Tower Road, Smithton, Inverness IV2 7NL**

Property details	
Property Name	Slattadale
Grid Reference ( <i>main forest entrance</i> )	NG 8887 7150
Nearest town	Gairloch
Local Authority	Highland Council

Applicant's details	
Title / Forename	Mr. Christopher
Surname	Marsh
Position	Planning Forester
Contact number	0131 370 5187
Email	chris.marsh@forestryandland.gov.scot
Address	Forestry and Land Scotland, North Region, Tower Road, Smithton, Inverness
Postcode	IV2 7NL

Owner's Details (if different from Applicant)	
Name	n/a
Address	n/a

1. I apply for Land Management Plan approval for the property described above and in the enclosed Land Management Plan.
2. I apply for an opinion under the terms of the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017 for afforestation / deforestation / roads / quarries as detailed in my application.
3. I confirm that the scoping, carried out and documented in the Consultation Record attached, incorporated those stakeholders which Scottish Forestry agreed must be included. Where it has not been possible to resolve specific issues associated with the plan to the satisfaction of the consultees, this is highlighted in the Consultation Record.
4. I confirm that the proposals contained in this Plan comply with the UK Forestry Standard.
5. I undertake to obtain any permissions necessary for the implementation of the approved Plan.

Signed <i>Regional Manager</i>		Signed <i>Conservator</i>	
FLS Region	<i>North</i>	SF Conservancy	Highland & Islands
Date	<i>23<sup>rd</sup> Jan 2023</i>	Date of Approval	5th July 2023
		Date Approval Ends	4th July 2033



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# Objectives and summary

## 1.1 Plan overview and objectives

### 1.1.1 Location and context

See also Location and viewpoints map - **Map 1**.

Slattadale Forest lies on the western shores of Loch Maree, Wester Ross in the north-west Highlands. It extends to 462 hectares, encompassing remnants of genetically distinct, near-natural Caledonian pine woodland, ancient semi-natural broadleaved woodland modified by commercial forestry, stands of non-native conifers planted for timber production - with extensive areas clear-felled and currently 'fallowing' - and upland heath above natural and afforested treelines. Although the area has discrete areas of ancient semi-natural woodland, much of Slattadale Forest was originally planted and subsequently restocked with non-native conifers for timber production between the 1920's and 1990's. Management intended specifically to restore areas of remnant semi-natural woodland first began in the 1990's and subsequently – through proposals set out in the 2008 Slattadale Forest Plan - a strategic decision was made to restructure all stands of productive non-native forest to semi-natural woodland habitat over the longer term for environmental, amenity and landscape benefits.

A more detailed description of the Land Management Plan (LMP) area, its context, constituent habitats, flora and fauna is provided in **Appendix 1**.

### 1.1.2 The role of the Land Management Plan

A Land Management Plan (LMP) summarises the objectives of, and intended proposals for, management of a Forestry and Land Scotland landholding – presented along with underpinning rationale. It outlines forest and open ground management intentions for the next 20 years, with the first 10 years' plans described in detail, including any requirement for new or modified management infrastructure (e.g. quarries, roading, fencing etc.). The Land Management Plan document is used to:

- explain to stakeholders and communities how FLS intend to implement Scottish Government and FLS commitments;
- inform the timely scheduling of FLS' resources to deliver the Plan's programme of work;
- gain regulatory approval from Scottish Forestry as a 'long term forest plan'; and
- meet regulatory requirements for management planning documentation.

An LMP is reviewed after five years to ensure initial objectives are still appropriate in light of any change in conditions or management regulation. Management operations, both planned and completed, are also reviewed at this stage to ensure they remain pertinent to meeting stated objectives. There is also a review of the LMP's critical success factors (section 1.1.5).

To complement this overarching and strategic Plan, all consequent management operations are preceded by a more detailed and focused operational planning process. This is enshrined in FLS' Work Plan process which ensures relevant FLS teams (i.e. planners, managers, visitor services, civil engineers and environment/conservation staff etc.) provide and share detailed information relevant to the delivery the specific, planned operation. The Forest Works Manager is then able to deliver operations in light of the fullest and latest information or else make changes, or employ mitigation measures informed by this wider context, to minimise the potential for negative impacts on the forest environment, its visitors and other objectives of the LMP and its implementation.

This Plan revises and replaces the 2008 Slattadale Forest Plan which had an initial (and conventional) approval period of ten years however this was ultimately extended to March 2022. This was achieved through two consecutive applications to forestry regulator Forestry Commission Scotland (now Scottish Forestry) - initially in February 2015 and then February 2019.

### 1.1.3 Long term vision

#### 10-year vision

A further 62% of remaining, planted, non-native woodland has been felled - continuing the 40-year ambition to restructure the entire Slattadale Forest area from a primarily productive timber resource of predominantly non-native coniferous tree species to a naturalised mosaic of native woodland, riparian and open ground habitats managed primarily for conservation and amenity.

The capacity of native wood- and heathland habitat, and their component flora and fauna, to withstand the predicted increasing variability and extremes in climatic conditions is improving due to the flourishing, expanding and increasingly integrated and connected suite of native habitats. Programmes of routine 'cleaning' of non-native tree and invasive non-native shrub regeneration from areas of establishing native woodland are continuing to be an important aspect of ongoing management to secure this ecologically integrity and resilience.

The forest continues to be valued and enjoyed by locals and visitors alike with visitor experience improving over time as - where previously there was extensive clear-felled and fallowing ground – native woodland establishment and growth is beginning to soften the landscape and clothe it in vegetation more appropriate to the location and sympathetic to broader landscape character.

#### 50-year vision

With the last stands of non-native productive timber trees having been felled over 30 years ago now, Slattadale Forest is an extensive, interconnected mosaic of developing and maturing native woodland habitats. Indigenous Scots pine has become an increasingly dominant component of the woodland mosaic as naturally regenerating broadleaved native tree species have been enriched by programmes of supplementary planting of local provenance Scots pine transplants over the previous forty years. The management effort required to control regeneration of non-native trees has decreased to very infrequent, low level interventions as the non-native seedbed is exhausted, there are few (if any) remaining seed-bearing non-natives trees, and the maturing native woodland is itself now a moderating influence against any incursion of non-native tree and shrub species from external sources/factors.

Extensive ribbons of broadleaved woodland along natural watercourses have increased the dappled shade and structural diversity of riparian vegetation as well as quantities of recycling leaf litter which in turn has increased small mammal, amphibian, fish and invertebrate populations and abundance. Wet and dry heath communities have improved structure and species composition which – in tandem with the increasingly long term continuity and stability of these habitats – is benefiting ground nesting birds, lower plants, invertebrate and small mammal species as well as integrating sympathetically with neighbouring native woodland.

The forest sits naturally within the wider landscape with a full and healthy complement of locally characteristic, ecologically rich, self-perpetuating native wood- and heath land habitats. Threshold car parks, trails, interpretation and facilities continue to be maintained, offering visitors the opportunity to access, understand and enjoy the unique setting and qualities of Slattadale.

### 1.1.4 Management objectives

The management of Scotland's National Forests and Lands by Forestry and Land Scotland (FLS) is guided by the FLS Corporate Plan (2019), the FLS National Spatial Overview (2016) and the Scottish Forestry Strategy (2019) in compliance with the UK Woodland Assurance Standard and UK Forestry Standard (see **Appendix 8** – Key policies and publications). The specific objectives of this new Plan are derived from consideration of the Key Features, Issues and Challenges summarised and represented in Map 2, community and wider stakeholder feedback (see **Appendix 2** – Consultation Record) and a review of historic management to date. This process of considering and defining the management objectives is described in Section 3 – Analysis and Concept and represented in the respective Maps 3a and 3b.

- Continue the 40-year restructuring of Slattadale's non-native coniferous woodland - *managed primarily for timber production - to site-appropriate native woodland for environmental and amenity benefit.*
- Protect and improve water quality and associated riparian and loch-side habitat - *important contributory factors to the favourable status of designated Loch Maree.*
- Improve the scenic value of the landholding - *both for its visitors and to achieve a more sympathetic fit with the broader landscape character.*
- Continue to support and maintain public access to the Slattadale forest area.
- Increase the resilience of the landholding's native habitats to withstand the anticipated impacts of climate change.
- Remain responsive and considerate to approaches from external stakeholders seeking to contribute, collaborate or deliver current management objectives.

### 1.1.5 Critical success factors

- Deliver the stated programme of planned clear-felling of non-native woodland stands.  
*Monitored by adherence to felling schedule outlined in section 2.2. Assessed by comparison of tree species and habitat data at Plan outset with those datasets at mid-term review and full Plan revision in 2032.*
- Protect naturally regenerating and restocked native trees from levels of deer browsing likely to significantly (and adversely) impact the successful regeneration and establishment of native woodland.  
*Routine monitoring of PAWS and regenerating fallow sites to assess browsing impacts and, by association, the effectiveness of - and any need to alter or redirect - requisite deer control effort.*
- Undertake restocking in a timely manner where anticipated natural regeneration of native trees is proving limited and where the competitive threat of non-native seedbed regeneration is deemed high.  
*Monitored by adherence to restocking schedule outlined in section 2.5 and routine stocking density assessment of restocked and regenerating land.*
- Implement ‘cleaning’ interventions routinely to remove regenerating and establishing non-native trees in areas of establishing native woodland and on managed open ground.  
*Routine stocking density assessment undertaken across regenerating and establishing restocked areas will report on non-native tree recruitment, informing a prioritised cleaning programme.*
- Designated sites are actively protected from factors attributable to forest management that may negatively impact their extent and/or condition.  
*Controls and mitigation are identified and recorded through undertaking rigorous work planning to ensure adherence to UKFS in operational delivery. Site condition monitoring on designated sites reports on the condition, and trend in condition, of designated sites (5-yearly cycle) allowing consideration of potential causal link(s) between forest operations and any observed change in environmental quality.*
- Engineering and forestry works are carefully planned and delivered to avoid diffuse pollution adversely affecting soils, open ground habitats, watercourses and fresh waterbodies.  
*Proposed civil engineering and forestry works are defined and controlled through the Work Plan process and ultimately delivered through UKWAS- and UKFS-compliant FLS work practices.*
- Invasive non-native species (INNS) control measures are implemented frequently to minimise their presence, and capacity to spread, within the LMP area and wider landscape.  
*INNS presence monitored through routine PAWS survey and also reported through cyclical stocking density assessments on early regenerating, or establishing restocked, native woodland areas. Actively explore opportunities for collaborative working with neighbours and wider stakeholders to achieve invasive species control at a wider landscape scale.*

## 1.2 Summary of planned operations

Table 1

Summary of operations over the Plan period	
Clear felling (gross)	37.74 ha
Thinning (potential area)	57.17 ha
Restocking (gross)	151.61 ha
Afforestation	0 ha
Deforestation	0 ha
Forest roads (upgrade)	890 m
Forestry quarries	0 ha

This Land Management Plan was produced in accordance with a range of government and forestry industry standards and guidance as well as recent research outputs. A full list of current policies, standards and guidance used in the preparation and delivery of FLS Land Management Plans can be found in **Appendix 7**. The forest will be managed in compliance with the UK Woodland Assurance Standard – the standard endorsed in the UK by the Forest Stewardship Council and the Programme for the Endorsement of Forest Certification. Forestry and Land Scotland is independently audited to ensure that they are delivering sustainable forest management to this Standard.

## 2 Management Proposals – regulatory requirements

### 2.1 Designated sites/areas

The Plan area forms part of, includes, or is covered by the following designations and significant features:-

Table 2

Designations and significant features		
Feature type	Present	Note
Site of Special Scientific Interest (SSSI)	Yes	<p><i>Loch Maree. Qualifying features within LMP area (Eilean Ruairidh Mor &amp; loch shoreline):</i></p> <ul style="list-style-type: none"> <li>• Native pinewood</li> <li>• Oligotrophic loch</li> <li>• Beetles</li> <li>• Vascular plant assemblage</li> <li>• Black throated diver (breeding)</li> <li>• Dragonfly assemblage.</li> </ul> <p><i>Talladale Gorge SSSI (less than 120 m from LMP’s eastern boundary). Qualifying features:</i></p> <ul style="list-style-type: none"> <li>• Native pinewood</li> <li>• Upland oak woodland.</li> </ul>
National Nature Reserve (NNR)	Yes	<i>Beinn Eighe and Loch Maree Islands.</i>
Special Protection Area (SPA)	Yes	<p><i>Loch Maree.</i></p> <ul style="list-style-type: none"> <li>• Black throated diver (breeding).</li> </ul>
Special Area of Conservation (SAC)	Yes	<p><i>Loch Maree Complex. Qualifying features within LMP area (Eilean Ruairidh Mor &amp; loch shoreline):</i></p> <ul style="list-style-type: none"> <li>• Blanket bog</li> <li>• Dry heath</li> <li>• Otter</li> <li>• Alder Woodland on floodplains</li> <li>• Caledonian forest</li> <li>• Wet heathland with cross-leaved heath</li> </ul>
World Heritage Site (WHS)	No	
Scheduled Monument (SM)	No	
National Scenic Area (NSA)	Yes	<p><i>Wester Ross. Landscape character assessment (LCA) types within environs of the LMP area:</i></p> <p><u>Woodland Glens and Rocky Moorland</u> LCA – and bounded by <u>Rocky Moorland and Rugged Hills</u>, <u>Cnocan</u> and <u>Linear Loch</u> LCAs.</p>
National Park (NP)	No	
Deep peat soil (>50 cm thickness)	No	None identified within currently ploughed/artificially drained or afforested ground.
Tree Preservation Order (TPO)	No	
Biosphere reserve	Yes	<i>Wester Ross.</i>
Local Landscape Area	Yes	Bounded by two SNH/NatureScot-derived <b>Wild Land Areas</b> (see <i>Map 10</i> for overlap with LMP area)
Ancient woodland	Yes	Nature Conservancy Council’s Inventories of Ancient, Long-established and Semi-natural woodlands includes the following sites in the LMP area:- 23/2112 ( <i>An Doire</i> ); 24/2126 ( <i>Slattadale</i> ); 26/2113 ( <i>Eilean Ruairidh Mor</i> ); 28/2420 ( <i>Garbhaig-Talladale woodland</i> ).
Acid sensitive catchment	No	
Drinking Water Protected Area (Surface)	No	

**Map 2** illustrates the location of all designated areas and significant features apart from Landscape Designations (see Map 10 – Landscape Context). A Designated Site Plan is in place for FLS management as it relates to Loch Maree SSSI, the Loch Maree Complex SAC and the Loch Maree SPA and is presented as **Appendix 5**. In addition, a Habitat Regulation Appraisal has been carried out as to the potential impact of this LMP’s proposals on these same designated areas and component features and is presented as **Appendix 6**.



## 2.2 Proposed clear felling

Areas (coupes) proposed for clear felling within the period of the Plan are identified as either Phase 1 (to be carried out within the first five years of the Plan) or Phase 2 (in the second five years). These specific coupes are also identified on the Management map (**Map 4**) which also displays all areas of felling anticipated over the next twenty five years.

Table 3

Clearfell summary by phase and coupe number			
Phase	Coupe number	Fell year	Gross area (ha)
1	51300	2023/24	4.58
1	51310	2024/25	22.24
1	51515	2023/24	0.39
2	51320	2029/30	4.47
2	51330	2029/30	6.06
<b>Total</b>			<b>37.74</b>

Table 4

Clearfell by species													
Coupe Number	Fell Year	Net Area (ha) by main species (or Mixed Conifers, Mixed Broadleaves)											Coupe Total
		CP	DF	EL	HL	JL	LP	NS	SP	SS	MC	MB	
51300	2023/24									4.58			<b>4.58</b>
51310	2024/25		4.03	0.72	0.05		0.09	0.40		13.65	0.27		<b>19.21</b>
51515	2023/24									0.39			<b>0.39</b>
51320	2029/30		1.41			0.26				2.65			<b>4.32</b>
51330	2029/30					2.85		0.05		1.89	0.46	0.05	<b>5.30</b>
<b>Plan Area Total</b>			<b>5.44</b>	<b>0.72</b>	<b>0.05</b>	<b>3.11</b>	<b>0.09</b>	<b>0.45</b>		<b>23.16</b>	<b>0.73</b>	<b>0.05</b>	<b>33.80</b>

**NB:** Table 3 shows gross coupe areas (i.e. inclusive of open ground). Table 4 shows the net area of individual species per coupe.

Table 5

Scale of proposed felling											
Total LMP Area		461.61		ha							
Felling	Phase 1	%	Phase 2	%	Phase 3	%	Phase 4	%	Long Term Retention		%
Net Area (ha)	27.21	6	10.53	2.3	19.8	4.3	11.8	2.6	16.39		3.6

## 2.3 Proposed thinning

Potential sites for thinning within the Plan period are identified on the Thinning map (**Map 5**) and summarised in Table 6 below. This relates primarily to thinning prescribed in the vicinity of forest roads and threshold public areas - either to facilitate safe and effective forest management or to promote a safe and welcoming forest environment for visitors. Large forest trees growing within the vicinity of overhead powerlines and the underground hydro-electric scheme penstock at Garbhaig may also be routinely cleared to preserve the integrity of this infrastructure. Similarly non-native trees growing and regenerating within 15 metres of permanent watercourses will also be felled to promote (re)establishing native riparian woodland habitat. One loch-side coupe (51901) is identified for thinning solely for the purposes of felling and removal of its proportion of non-native coniferous trees (10% of coupe total area) in an otherwise native broad-leaved woodland area to be managed thereafter as Natural Reserve (see section 4.1.4).

Table 6

Coupe Number	Gross Area (ha)	Proposed Thin Year	Species	Prescription for Thinning	Monitoring Comments
51901	2.47	2024/25	DF/SS	Fell and extract all single and grouped non-native conifers (net: 0.26 ha) whilst minimising collateral impact on surrounding native woodland mosaic. Work undertaken in conjunction with adjacent clearfell (coupe 51310)	Work defined, controlled and monitored through Work Plan process.
51902	7.41	n/a	MC/MB	<i>Victoria Falls and Lochside Visitor Zones</i> : possible selective tree felling in the vicinity of access roads, car parks, signboards, trails and picnic area – to improve amenity and maintain the safety of visitors and infrastructure.	<i>See Visitor Zone management prescription proposals: Appendix 7</i>
51903	9.45	n/a	MC/MB	<i>Forest road corridors</i> : fell to recycle of any trees growing to infringe future access for forest management and informal public recreation.	
51904	1.94	n/a	MC/MB	<i>Hydro-electric penstock corridor</i> : fell to recycle of forest trees, within +/-10 m of underground pipeline, that may compromise the integrity of the pipe.	
51905	13.86	n/a	MC/MB	<i>Powerline wayleave corridors</i> : fell to recycle of any trees likely to compromise access, maintenance and integrity of overhead power lines and poles.	
51906	22.04	n/a	MC	<i>Riparian Zones</i> : fell to recycle of regenerating non-native conifers within +/- 15 m of permanent watercourses.	
<b>Total</b>	<b>57.17</b>				

## 2.4 Other tree felling in exceptional circumstances

FLS seek to map and identify all planned tree felling expected within the ten-year Plan period in advance through the LMP approval process. However, there may be circumstances requiring small-scale tree felling where it may not be possible, or impractical, to apply for and receive a separate felling permission due to risks or impacts incurred through delaying the felling.

Prior felling permission is therefore sought, for the approval period of the LMP, to cover the following circumstances:

- Individual trees, rows of trees or small groups of trees that are impacting on important infrastructure (as defined below\*), either because they are now encroaching on or have been de-stabilised or made unsafe by wind, physical damage, or impeded drainage.

*\*Infrastructure includes forest roads, footpaths, access routes (vehicle, cycle, horse, walking), buildings, utilities and services, and drains.*

The maximum volume of felling in exceptional circumstances covered by this approval is 75 cubic metres per calendar year for the Land Management Plan area.

A record of any timber volume felled in this way will be maintained and will be reported to the forestry regulator at the five-year Land Management Plan review process.

N.B. Trees can, and may, be felled without permission if they are:

- of less than 10 cm diameter at breast height (1.3 m above ground level);
- pose an immediate danger to persons or property;
- are completely dead; or
- are part of authorised Planning Permission works or wayleave agreements.

## 2.5 Proposed restocking

Proposed restocking – either by planting or natural regeneration - is presented in Table 7 and illustrated on the Future Habitats and Species map (**Map 7**). All mixed broadleaf restocking will be of native species only.

Table 7

Restocking								
Phase †	Coupe Number	Gross Area (ha)	Proposed Restock Year	Species	Method *	Minimum stocking density (stems/ha)	Note	
F1	51007 B	10.22	2027	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent riparian zone. Enrich with local provenance SP. (Bi/SP/XNB/OG: 50/10/20/20)	
F1	51009 A	1.75	2024	NBL & SP	R	1600	Upland birchwood species colonising from adjacent riparian zone. Beat up with local provenance SP. (Bi/SP/XNB/OG: 50/10/20/20)	
F1	51011 A	16.00	2024	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent native woodland. Enrich with local provenance SP. (Bi/SP/XNB/OG: 50/10/20/20)	
F1	51012 A	13.87	2025	NBL	NR	1600	Upland birchwood species colonising from adjacent riparian zone. (Bi/XNB/OG: 60/20/20)	
F1	51174 A	8.06	2026	NBL & SP	R	1600	Restock with upland birchwood species. Beat up with local provenance SP. (Bi/SP/XNB/OG: 40/20/20/20)	
F1	51309 A	0.68	2023	NBL	NR	1600	Upland birchwood species colonising from adjacent native woodland. (XNB: 100)	
F1	51404 A	10.41	2024	NBL	NR	1600	Upland birchwood species colonising from adjacent native woodland. (Bi/XNB/OG: 60/20/20)	
F1	51504 A	5.11	2023	NBL & SP	R	1600	Initial restock with W18 (pinewood) NBL species only. Beat up with local provenance SP. (Bi/SP/XNB/OG: 60/20/10/10)	
F1	51504 B	4.29	2023	NBL & SP	R	1600	Initial restock with W18 (pinewood) NBL species only. Beat up with local provenance SP. (Bi/SP/XNB/OG: 60/10/20/10)	
F1	51504 C	0.93	2027	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent riparian zone. (Bi/SP/XNB/OG: 50/10/20/20)	
F1	51510 A	9.78	2025	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent native woodland. Enrich with local provenance SP. (Bi/SP/XNB/OG: 50/10/20/20)	
F1	51510 B	3.03	2025	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent native woodland. Enrich with local provenance SP. (Bi/SP/XNB/OG: 50/<10/20/<30)	
F1	51510 C	0.38	2025	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent native woodland. Enrich with local provenance SP. (Bi/SP/XNB/OG: 50/<10/20/<30)	
F1	51512 A	13.46	2027	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent native woodland. Enrich with local provenance SP. (Bi/SP/XNB/OG: 50/10/20/20)	
F1	51522 A	3.30	2026	NBL & SP	R	1600	Initial restock with W18 (pinewood) NBL species only. Beat up with local provenance SP. (XNB/SP/OG: 50/40/10).	
F1	51527 A	0.93	2023	NBL	NR	1600	Upland birchwood species colonising from adjacent riparian zone. (NBL: 100)	
F2	51007 A	20.08	2032	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent riparian zone. Enrich with local provenance SP. (Bi/SP/XNB/OG: 50/10/20/20)	
F2	51007 D, I, J	3.71	2032	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent native woodland. Enrich with local provenance SP. (Bi/SP/XNB/OG: 50/10/20/20)	
F2	51012 B	1.58	2030	NBL	NR	1600	Upland birchwood species colonising from adjacent native woodland. (XNB/OG: 30/70)	
F2	51174 B	3.06	2031	NBL	NR	1600	Upland birchwood species colonising from adjacent native woodland. (Bi/XNB/OG: 70/20/10)	
2	51310 A & D	11.22	2030	NBL & SP	R	1600	W18 species (SP/Bi/XNB/OG: 20/60/10/10).	
F2	51401 A	0.43	2028	NBL	NR	1600	Upland birchwood species colonising from adjacent native woodland. (Bi/XNB/OG: 60/20/20)	
2	51405 A	1.10	2030	NBL & OG	R	1600	Restock with upland birchwood species. (NBL/OG: 20/80)	
F2	51504 D	0.64	2032	NBL	NR	1600	Upland birchwood species colonising from adjacent native woodland. (Bi/XNB/OG: 50/30/20)	
F2	51513 B	0.64	2033	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent riparian zone. (Bi/SP/XNB/OG: 50/10/20/20)	
F2	51513 C	0.40	2033	NBL & SP	R	1600	Initial restock with W18 (pinewood) NBL species only. Beat up with local provenance SP (Bi/SP/XNB/OG: 40/40/10/10).	
F2	51514 A	6.55	2029	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent riparian zone. (Bi/SP/XNB/OG: 50/10/20/20)	
3	51310 B & C	11.02	2035	NBL	NR	1600	Atlantic oakwood species colonising from adjacent native woodland. (Bi/SOK/XNB/OG: 50/20/20/10)	
3	51515 A	0.39	2034	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent riparian zone. Enrich with local provenance SP. (Bi/SP/XNB/OG: 50/10/20/20)	
4	51300 A	4.58	2039	NBL	NR	1600	Upland birchwood species colonising from adjacent native woodland. (XNB/OG: 70/30)	
4	51320 A	4.47	2041	NBL	NR	1600	Upland birchwood species colonising from adjacent native woodland. (Bi/XNB/OG: 60/30/10)	
4	51330 A	6.06	2040	NBL & SP	NR	1600	Upland birchwood species colonising from adjacent native woodland. Enrich with local provenance SP. (Bi/SP/XNB/OG: 50/10/20/20)	
<b>Total</b>		<b>151.61</b>	<b>for Phase 1&amp;2</b>					

† recently felled awaiting restock (F) / Phase 1 (1) / Phase 2 (2) \* replant (R) / natural regeneration (NR)

Currently there is a national moratorium on the planting of Scots pine, sourced from elsewhere, within Caledonian Pinewood areas (i.e. core pine areas and their buffer zones). Within the LMP area, Eilean Ruairidh Mor contains core Caledonian Pinewood (entitled 'Loch Maree Islands' in the Caledonian Pinewood Inventory) with the extent of its associated buffer zone displayed on **Map 6 Future Habitat and Species**. Whilst this buffer zone extends to a proportion of 'mainland' in the south east of the LMP area, FLS intend only to source and plant within the LMP area Scots pine that has originated from this, or the next (and contiguous) Caledonian pinewood area (Beinn Eighe) - on account of the apparently distinct and unique genetic make-up of these westerly Caledonian pinewood remnants that FLS seek to conserve and expand in extent into the future. Should FLS fail to have Scots pine transplants of this local provenance available in time for any prescribed W18 (Scots pinewood) woodland establishment then these transplants will be planted into these otherwise upland birchwood species-composed restock sites at beat up. Similarly enrichment with Scots pine will be undertaken on natural regeneration sites where Scots pine woodland would ordinarily be expected to successfully establish and dominate if a viable local seed source were available and where, without such, a W17 (Upland birchwood) woodland will become the climax habitat type.

If restocking by planting or natural regeneration fails to reach at least an average 1600 stems per hectare in any management coupe, it will be beaten up to at least this planting density. Stocking density assessments are assessed by year 10 after felling in areas anticipating natural regeneration, or year 5 after restocking - with required beat up by year 7.

## 2.6 Woodland management in Visitor Zones

There are two designated Visitor Zones in which access is actively encouraged and managed. These are indicated on both **Map 2** and **Map 5**. The general objectives of management in these areas is to remove single trees or small groups of trees only when necessary to protect facilities, infrastructure and trails (*Welcome Zone*); to enhance the setting of features (*Interactive Zone*), or to maintain existing external views (*Passive Zone*). Woodland in these zones may also be thinned, or trees re-spaced, for safety reasons - including increasing visibility and sight lines to ensure sites are welcoming and feel safe - and where there is potential to enhance the experience of the forest setting, through the development of large trees, or preferential removal of trees to favour a particular species. **Appendix 7** presents more specific management prescriptions envisaged for the access corridors and facilities at the two Visitor Zones within Slattadale LMP area.

Recreation is welcomed within the LMP area under the Scottish Outdoor Access Code. Core paths will be managed to maintain their accessibility (e.g. the Tollie Path). If, for safety or another reason, the path needs to be closed temporarily, FLS will liaise with the Highland Council's Access Officers to determine any required temporary mitigation measures. In 2022, some collaborative work between the council and FLS rangers led to some cross-drain cleaning work on the Tollie path and this local partnership working arrangement is expected to continue into the future as an effective participatory method of undertaking access maintenance work.

## 2.7 Summary of species diversity and age structure

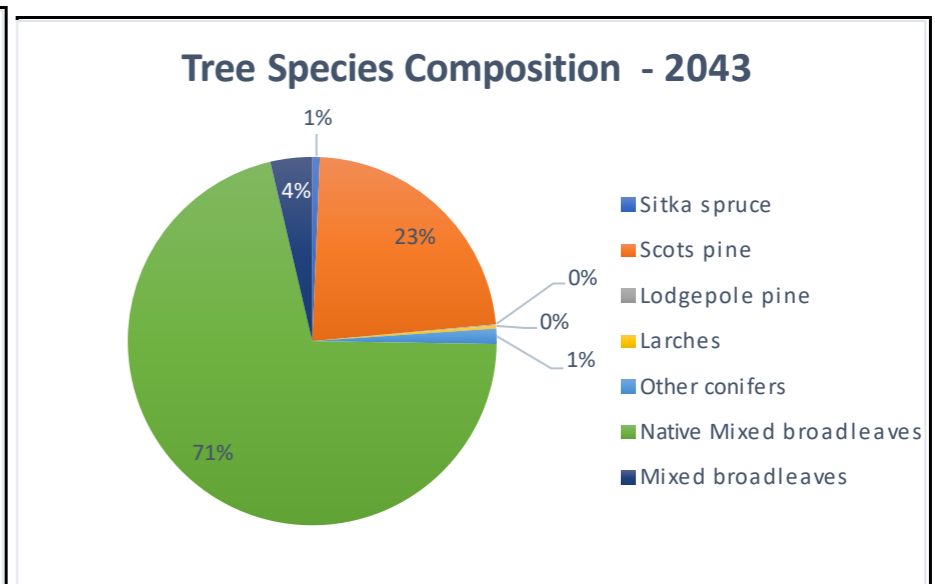
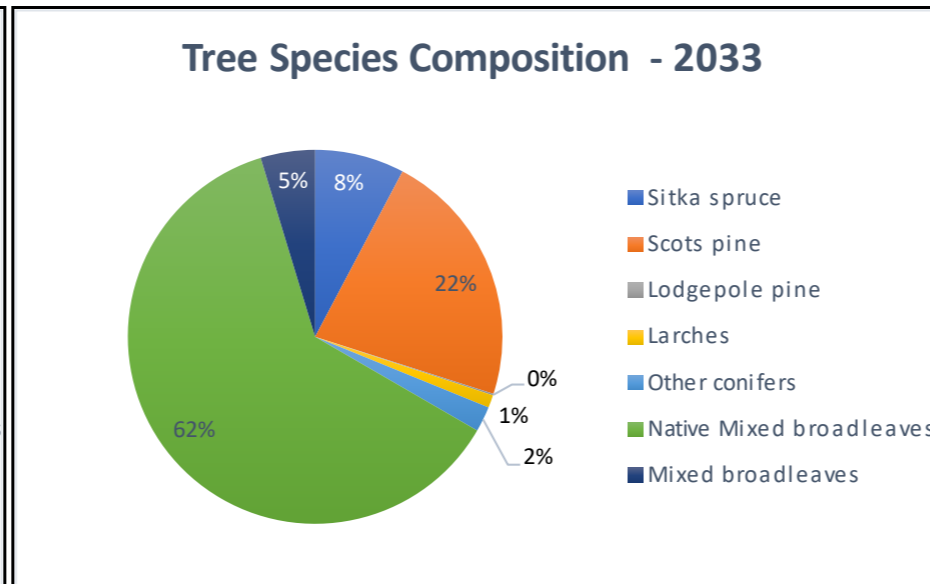
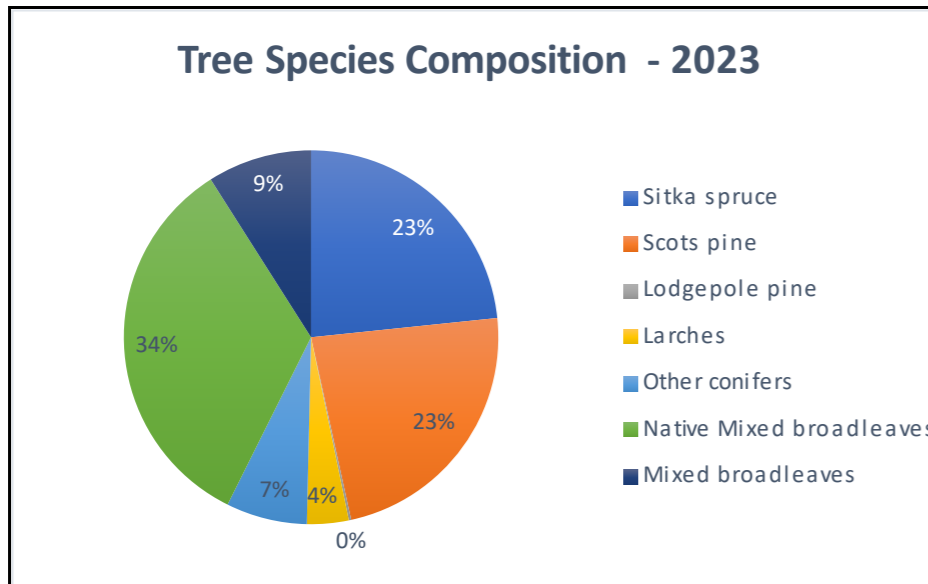
The following charts and tables show how the proposed management of the landholding is intended to achieve a more diverse tree species composition and age-class structure - as recommended in the UK Forestry Standard. The current tree species composition of the LMP area is illustrated on **Map 8** and the future woodland composition after the next 20 years in **Map 6** - illustrating the anticipated woodland composition after the final coupe of non-native plantation has been clear felled (Phase 4: 2038-2042). Table 8 below presents the area occupied by the main forest tree species (and some grouped tree species) in the current woodland, along with the percentage of the whole LMP area this represents. The accompanying pie charts similarly illustrate tree species' composition over time - but as a percentage of just the standing woodland area.

### Woodland Compositional Change

Table 8

Plan area by species								
Species	Area in 2007 (ha)	% of LMP Area (2007)	Area in 2023 (ha)	% of LMP Area (2023)	Area in 2033 (ha)	% of LMP Area (2033)	Area in 2043 (ha)	% of LMP Area (2043)
Sitka spruce	109	23	45.4	9.8	21.9	5	2	0.4
Lodgepole pine	48	10	0.4	0.1	0.4	<0.1	0.3	<0.1
Scots pine	53	11	45.1	9.7	62.9	14	69.5	15
Larch	21	4	7	1.5	3.1	0.7	0.8	<0.2
Other conifers	17	4	13.6	2.9	6.2	1.3	4.1	1
Native & other broadleaves	43	9	82.9	18	188.8	41	227	49
Fallow	-	-	133.5	28.9	43.5	9	22.1	5
Open ground	187	39	133.7	29	134.8	29	135.9	29
<b>Total</b>	<b>478 *</b>	<b>100</b>	<b>461.61 *</b>	<b>100</b>	<b>461.61</b>	<b>100</b>	<b>461.61</b>	<b>100</b>

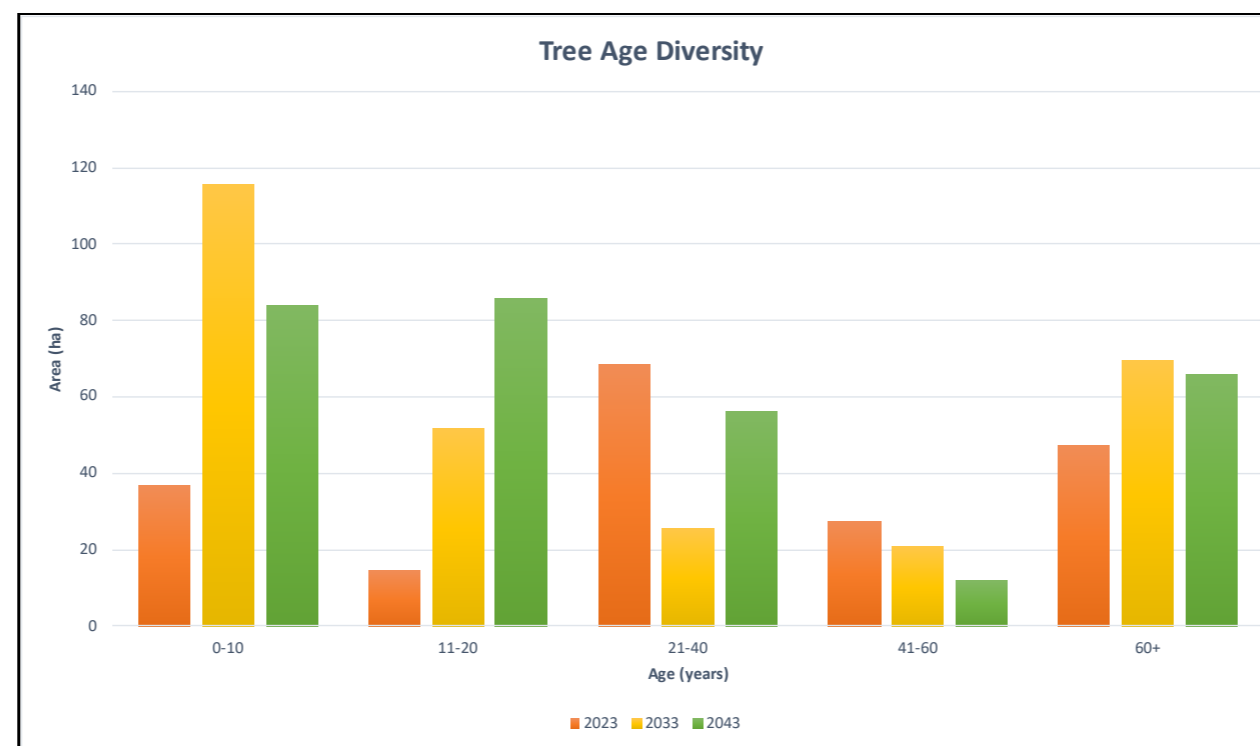
\* The change in total land area (2007 to 2023) is due to recalculation during formal Land Registration undertaken during the last Plan period and sale of an old steading (ex-outdoor learning) site.



Woodland Age Class Change

Table 9

Plan area by Age Age Class (years)	Current Area (ha)		Year 10 Area (ha)		Year 20 Area (ha)	
	Area (ha)	%	Area (ha)	%	Area (ha)	%
0 – 10	36.9	19.0	115.7		84	
11 – 20	14.4	7.4	51.7		85.9	
21 – 40	68.3	35.1	25.5		56.1	
41 – 60	27.6	14.2	20.7		11.9	
60+	47.2	24.3	69.6		65.7	
<b>Total</b>	<b>194.4</b>	<b>100</b>	<b>283.2</b>	<b>100</b>	<b>303.6</b>	<b>100</b>



## 2.8 Proposed roading operations, quarries and timber transport

There is no new forest road construction or new quarry establishment envisaged within the Plan period. Upgrade of an existing forest road (in Phase 1) and road realignment (Phase 2) are planned and outlined in Table 10 (below) and depicted on the Management map (**Map 4**). Construction specification and design detail for timber transfer stances to be constructed as part of the Phase 1 road upgrade works are given in **Appendix 4** with an Environmental Impact Assessment (EIA) Scoping Opinion Request form - a regulatory requirement to determine any prior need for EIA to inform approval. A Prior Notification process will also be undertaken with the Highland Council in advance of any proposed work. A separate EIA determination request will be submitted for Phase 2 realignment proposals at this Plan's mid-term review (year 5) as EIA determination consent has a five year expiration period. All transfer point construction and road upgrade works will be carried out using stone sourced from an existing in-forest quarry on the Coire Fearn forest road (NG 8986 7117). A presumption of retaining access provision for residential and emergency vehicles will be upheld throughout periods of road upgrade and transfer point construction unless minimal periods of temporary closure are otherwise mutually agreed with relevant parties.

Slattadale LMP area is bisected by the public road A832 (Gairloch - Kinlochleven) and consequently all timber exported from the forest will be hauled to and along this road to timber markets. The A832 is classified as an Agreed Route by the Highland Timber Transport Group and as such can be used for timber haulage without restriction (other than as regulated by the Road Traffic Act 1988).

Table 10

Forest road upgrades, re-alignments, new roads and new quarrying				
Phase	Name / Number	Length (m)	Year	Operation
1	Loch-side entrance roading upgrade	815 m	2023/4	<ul style="list-style-type: none"> <li>Upgrade of existing publicly-accessible forest road - from its threshold junction with A832 to the adjoining dis-used ex-public road (430 m): grading and re-surfacing to provide a nominal 3.4 m-width Category 1 specification unbound stone carriageway and re-instatement of associated roadside drainage.</li> <li>Upgrade of 385 m of currently disused (ex-public) road – from its junction with the A832 to its junction with the existing loch-side car park/picnic area access road: re-grading the road formation and re-surfacing to provide a nominal 3.4 m-width Category 1 specification unbound stone carriageway with associated ditching and existing culverts. This road section to be gated at both ends and locked to exclude public vehicular traffic outwith periods of active timber uplift and haulage.</li> </ul>
1	Loch-side entrance road transfer points	0.42 ha	2023/4	<ul style="list-style-type: none"> <li>Construction of two temporary timber transfer points (each 60 m long x maximum 35 m width): the stone sub-base built up from the existing forest floor and capped with an unbound stone wearing course to the level of the adjoining entrance road. The transfer points will provide timber stacking and lorry-loading platforms for the duration of timber uplift/export for Phase 1 clear-fell proposals in the adjacent forest.</li> <li>Both transfer points would be constructed in the year preceding timber harvesting (and gated whilst inactive) and de-constructed - following all timber uplift - to leave two separate and permanent vehicle passing places (each approximately 50 m length by max 5 m width) designed to relieve instances of congestion and vehicle impasse on this increasingly busy single-track access road to the loch-side car park and picnic area.</li> </ul>
2	'Fire road' re-alignment	75 m	2028/29	<ul style="list-style-type: none"> <li>To increase the area for roadside timber stacking and ease future loading and passage of timber lorries on this arterial forest road. The forest road is to be realigned by a maximum 15 m from its current curved path, for a length of 75 m located immediately north-west of an existing road culvert on Allt Innse Dubh (NG 8837 7024). This work will be facilitated, and preceded, by felling 0.05 ha of mature larch trees (a component of proposed Phase 2 felling coupe 51330 – see section 2.2) to accommodate the realigned road. An EIA Scoping Opinion Request Form will be submitted at the Plan's mid-term review to determine any EIA requirements and related mitigation measures and/or controls.</li> </ul>

## 2.9 Meeting UK Forestry Standard (UKFS) requirements

In revising the Slattadale Land Management Plan FLS has sought to comply with all requirements of the United Kingdom Forestry Standard and, in so doing, deliver the aims and objectives of the national strategies and corporate policies that derive from this (see **Appendix 7**).

## 2.10 Environmental Impact Assessment (EIA)

Operations proposed in the first five years of the Plan period and requiring an EIA determination are shown in the table below. The Screening Opinion Request Form associated with the EIA determination process is presented as **Appendix 4**.

Table 11

EIA projects in the plan area		
Type of project	Yes / No	Note
Afforestation	No	
Deforestation	No	
Forest roads	Yes	<i>Creation of temporary timber transfer stances on loch-side forest road – to be down-sized to permanent passing places post-felling.</i>
Forestry quarries	No	

## 2.11 Summary of additional regulations

Should any new, future management proposals fall out with the scope of Scottish Forestry approvals, the correct regulatory procedures will be followed to gain relevant permission(s). For the proposals presented within this Plan, this is limited to the Prior Notification planning process (undertaken with the Highland Council) in regard to the forestry-specific road works (see section 2.8). The Prior Notification process can result in the local authority stipulating that a formal Planning Permission application be submitted for this work.

## 2.12 Tolerance table

Working tolerances agreed with Scottish Forestry are shown in **Appendix 3**.

# 3 Analysis and Concept

## 3.1 Introduction

The land management planning process is initially informed by a review of the objectives of the previous Forest Plan and analysis of management delivered towards those objectives (section 3.2). This allows the production of an initial Key Issues and Features map (**Map 2**) which in turn is consulted upon by FLS staff (an “internal scoping” process) and then with local residents, community organisations and other key stakeholders (“external scoping”). The record of external stakeholder consultation is presented in **Appendix 2**.

Different management options for achieving this new Plan’s objectives were subsequently considered against constraints and opportunities identified during these review and scoping exercises. The preferred approach/management proposed to achieve these is then analysed and summarised in section 3.4 and on Analysis and Concept maps **Map 3a** and **3b**.

## 3.2 Analysis of previous Plan

The primary objective of the 2008 Slattadale Forest Plan was to “Create a forest focused on biodiversity and amenity in harmony with the surrounding area.” This was envisaged through a number of component objectives which are reviewed by theme (i.e. social, environmental and economic) in the table below:

Table 12

Review of delivery against Objectives of current (expired) Plan				
Theme	Sensitivity	Plan Objective	Progress to date	Proposed action (in this Plan)
Social	High (4 out of 5)	Create a resource for use by local schools and other educational establishments.	Old farm building maintained wind, water tight and with electricity. Roof of annex structure became dilapidated and was removed. An offer of sale of the buildings was made to the local authority (the local high school were sole users during the early Plan period). The offer was declined with the buildings ultimately being sold to a private party. Local high school representatives have subsequently begun exploration of a possible Community Asset Transfer (CAT) application for an alternative area of ground within the LMP area – with intentions of developing an outdoor education/field studies facility/resource.	FLS Region staff to maintain dialogue with local CATS steering group – responding to requests for information and ensuring pro-active notification of FLS plans/operations likely to impact upon the potential asset transfer area. FLS’ CAT Manager to support local steering group in their consideration of wider compliance and eligibility requirements of the CAT scheme.
		Maintain and improve access and interpretation.	Loch-side and Victoria Falls car parks re-designed and renovated. Toilet facilities installed at loch-side car park and picnic site. New circular trail constructed at Victoria Falls with renovated vantage point platform. Toilets at loch-side car park were closed for the foreseeable future in winter 2019 but ultimately re-opened from spring 2022. Significant increase in visitor numbers over Plan period and since the inception of tourism initiative ‘North Coast 500’. Similar marked increase in visits by kayakers: parking and accessing Loch Maree and islands from the loch-side car park. Increasing incidence of overnight camping at car parks and associated concern over (prohibited) fire lighting as well as potential for disturbance of sensitive, scheduled wildlife and habitat and potential for contamination of private water supplies. Routine inspection and monitoring of visitor facilities and trails currently contracted to NatureScot rangers.	The revised objectives of Visitor Services management are outlined in section 4.7.2 and prescriptions in Appendix 7. A multi-agency and local stakeholder working group – outwith the scope of this LMP – is currently active in considering changes to, or adaptation of, current provision and management of visitor facilities in light of increased visitor numbers and emergent patterns of use/misuse of facilities and wider environment.
Environmental	High (4 out of 5)	Restore areas of formerly native woodland and convert entire forest area to native woodland over a 40 year timescale.	3.14 ha fell-to-recycle and 10.16 ha clearfell of non-native plantation in former areas of ancient semi-natural woodland (PAWS). Gross area of non-native forest clear felled for native woodland restructuring: 123.2 ha.	Felling and ensuing native woodland restoration and restructuring objectives (for PAWS and native afforestation respectively) - and the timescale for implementation - to be perpetuated in the new Plan.
		Protect existing designated sites.	Appropriate working constraints pertinent to designated sites i.e. SSSI, SAC, NNR and NSA undertaken/implemented throughout delivery of 2008 Plan and subsequent amendments to the Plan. 1.67 ha of woodland originally designated as Natural Reserve in 2008 Forest Plan (1920’s beech, larch and spruce) was subsequently amended for clear felling during the Plan period. Immediate concern raised by	Consultation with regulatory authorities during drafting of new LMP proposals to ensure transparency and compliance of intended management with respect to designated features.



Review of delivery against Objectives of current (expired) Plan				
			neighbours at felling commencement (2020) resulted in this stand being retained with an FLS commitment to review and extend proposed felling timescale for these veteran non-native trees.	<i>FLS commitment to use UKFS-compliant forest work planning and delivery protocols is expected to conserve (extent and condition of) designated features.</i>
		Transition of productive forest to native woodland.	This principle has been upheld throughout delivery of the 2008 Forest Plan. 134.4 ha of forest felled within Plan period is currently managed for native woodland establishment by natural regeneration. 38.2 ha of clear-felled ground was restocked for native woodland establishment during Plan period.	<i>This objective (converting productive to native woodland) to be reiterated in the new Plan.</i>
<b>Economic</b>	Medium (3 out of 5)	Short term timber production.	Felled 61.28 ha of the Plan's 64 ha of approved Phase 1 and 2 felling coupes. Felled additional gross 44.4 ha (all projected Phase 3 coupes) by approved Plan amendment (2014): a pre-emptive measure to eliminate a tree disease risk ( <i>Dothistroma</i> needle blight) from susceptible host Lodgepole pine trees to adjacent, designated Caledonian pinewoods.	<i>The new Plan re-affirms the felling of all remaining stands of export-timber-yielding non-native trees by 2040 although only the initial 10 years' felling (i.e. 2023 to 2032) will secure regulatory approval through inception of this new LMP.</i>

### 3.3 Analysis of opportunities and constraints

The following table identifies the opportunities and constraints relative to each stated Plan objective (section 1.1.4). It therefore summarises the issues considered to inform the concept and ultimately the practical management activities and critical success factors (section 1.1.5). **Maps 3a and 3b** represent a spatial summary of this analysis process.

Table 13

Concept Analysis			
Objective	Opportunities	Constraints	Concept
<b>Native woodland restructuring</b> <i>- non-native woodland felling</i>	Significant areas of even-aged maturing non-native conifer woodland with good timber volume and quality for cost-effective removal to initiate restructuring.	Minimise windthrow from incremental felling by coupe design to encompass entire contiguous stands and/or schedule entire felling over short time-frame.	<ul style="list-style-type: none"> <li>• <i>Monitor felling delivery through Region's harvesting programme - reviewed formally at year 5 and at 10-year revision of LMP.</i></li> </ul>
	Public road is an Approved timber transport route with no constraints on timber haulage volumes or frequency.	Loch-side forest roading currently unsuitable for timber uplift and export haulage.	<ul style="list-style-type: none"> <li>• <i>Upgrade loch-side roading to allow timber export and minimise impacts on visitors and neighbours.</i></li> </ul>
	An increasing extent and connectivity of native habitats conserves and promotes indigenous biodiversity gains.	Continued felling of maturing conifer woodland reduces the proportion and extent of trees in this age class (i.e. structural diversity).	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Native woodland restructuring</b> <i>- restocking/regeneration</i>	Some following areas showing good levels of native tree recruitment validating emphasis on natural regeneration.	Some following areas, and coupes for felling within Plan period, have limited seed-bearing native broadleaves.	<ul style="list-style-type: none"> <li>• <i>Routine survey of regenerating woodland will monitor species diversity and efficacy.</i></li> <li>• <i>Enrich regeneration sites with Scots pine, oak and under-represented minor species.</i></li> <li>• <i>Scarify following sites where regeneration is expected yet lacking to encourage establishment success.</i></li> </ul>
		Restriction on restocking with Scots pine due to risks associated with <i>Dothistroma</i> needle blight.	<ul style="list-style-type: none"> <li>• <i>Investigate and establish supply of local provenance Scots pine compliant with potential DNB importation controls.</i></li> </ul>
		Clear felled, following sites can be easily colonised by invasive non-native species e.g. <i>Rhododendron ponticum</i> .	<ul style="list-style-type: none"> <li>• <i>Routine survey of regenerating woodland and restocking will monitor INNS presence and extent to inform control measures.</i></li> </ul>

Concept Analysis			
<b>Native woodland restructuring</b> <i>- deer management</i>	Clearfell areas create (short term) open areas to aid effective deer monitoring and control.	Successful establishment of (more palatable and slower growing) broadleaved woodland in the face of herbivore grazing pressure may be problematic.	<ul style="list-style-type: none"> <li>• <i>Manage deer population to enable natural regeneration and allow restocked sites to develop.</i></li> <li>• <i>Maintain/upgrade external fencing to assist in reducing additional grazing pressure.</i></li> <li>• <i>Continue to engage with local Deer Management Group and neighbouring estates to identify shared concerns and mutually beneficial or collaborative actions/management.</i></li> </ul>
	Good internal road and trails network with natural topography offering good vantage points for deer monitoring and control.	Large-scale native woodland regeneration with increasing extent of thicket- and pole-stage trees offers increasing cover for deer.	<ul style="list-style-type: none"> <li>• <i>Monitor deer population and site utilisation to inform and focus control effort in anticipation of subsequent years with reduced cull opportunities.</i></li> </ul>
<b>Protect and improve water quality</b>	Woodland regeneration on currently extensive fallowing ground will increase rainfall interception and ground percolation, reducing surface water run-off and smoothing peaks/troughs of watercourse flow.		<ul style="list-style-type: none"> <li>• <i>Site condition monitoring of designated Loch Maree will provide impartial assessment of its integrity and condition and indirect assessment of possible negative impacts of forest management.</i></li> </ul>
	Enhancing the ecological condition and function of watercourse catchments will in turn benefit (globally important) designated loch and its constituent species.		<ul style="list-style-type: none"> <li>• <i>Establish restock sites with a view to minimising ground disturbance for restocking (hinge mounding or screefing not ploughing or trench mounding).</i></li> <li>• <i>Manage restructured native woodland as Minimum Intervention to promote natural ecological inter-dependencies/cycles, maximise water regulation and soil formation processes.</i></li> </ul>
	Loch-side visitor facilities and/or shoreline native woodland will provide a buffer (no forest machine access or working) to the loch and shoreline.	Phase 1 clear felling proposed within 500 metres of freshwater loch with highest international designation for low nutrient status and high water clarity.	<ul style="list-style-type: none"> <li>• <i>Protect integrity of all watercourses and water bodies during management operations and into long term by applying measures outlined in UKFS Forest and Water guidance.</i></li> </ul>
<b>Improve scenic value</b>	Ability to use visualisation software to assess (and adapt) future felling proposals - and future woodland restructuring - for landscape impact.	Reliance on natural regeneration in restructuring gives less control in future forest design.	<ul style="list-style-type: none"> <li>• <i>Control tree regeneration on Managed Open to maintain integrity and visual character of upland heath.</i></li> </ul>
		Clearfelling of woodland has a negative impact on local aesthetic and negatively affects designated landscape quality.	<ul style="list-style-type: none"> <li>• <i>Accept compromise to landscape character over short to medium term as long term ambition will restore landscape-appropriate vegetation (type and composition).</i></li> </ul>
		Forest health issues may require unexpected tree felling to remove pathogens with no consideration for landscape impact.	<ul style="list-style-type: none"> <li>•</li> </ul>
		Removal of conifer woodland at scale and in vicinity of Visitor Zones will impact the special qualities of the local and wider landscape over the short to medium term.	<ul style="list-style-type: none"> <li>• <i>Develop and install new interpretation explaining the long-term restructuring objective and reason for short to medium term negative visual impact.</i></li> </ul>
<b>Support and maintain public access</b>	Already a popular visitor site - with picnic and toilet facilities and both short and long circular trail provision. A common North Coast 500 stop-off.	Visitor Zones are busy (with people and vehicle traffic) during height of tourist season, making tree felling and timber export operations problematic.	<ul style="list-style-type: none"> <li>• <i>Maintain access to the forests under Scottish Outdoor Access Code.</i></li> <li>• <i>Undertake road upgrade and timber harvesting outwith busy summer season to: alleviate traffic flow issues; minimise negative visitor experience; maintain felling and timber export efficiency.</i></li> <li>• <i>Provide diversions where required to maintain access.</i></li> </ul>

Concept Analysis			
		Some species and habitat vulnerable to human disturbance.	<ul style="list-style-type: none"> <li>• Develop site interpretation designed to inform and encourage positive behaviour towards wildlife/natural habitat.</li> <li>• Consider re-design of site facilities to reduce likelihood of misuse or disturbance.</li> </ul>
		Slattadale is comparatively remote from FLS outstations and so more resource-intensive to monitor and manage effectively.	<ul style="list-style-type: none"> <li>• Lease facilities maintenance and site safety inspections to more local and competent providers.</li> </ul>
		Misuse of site and visitor facilities - especially fire raising and littering - can have significant impacts on wildlife and habitats.	<ul style="list-style-type: none"> <li>• Ensure frequency of site inspection is proportionate to instances of misuse/anti-social behaviour.</li> <li>• Collaborate with wider partnership of tourist and public access providers to share good practice and direct visitors to more robust and accommodating sites for wildlife-sensitive activities.</li> <li>• Gate and lock temporary timber transfer stances when not in use to limit further expansion of unsolicited parking and possible misuse.</li> </ul>
		Increasing strain on forest roading used to access car parks & trailheads (surface wear, verge and vegetation control, sheer volume of traffic).	<ul style="list-style-type: none"> <li>• Integrate new passing places into loch-side access roading</li> </ul>
Stakeholder engagement	Building links and projects/working with local groups/organisations pursuing like-minded aims (i.e. conservation work, INNS control, trail maintenance) can help achieve objectives and may reduce costs.	Time and resource restrictions may limit ability to engage and the capacity to respond promptly and/or effectively and progress all invitations for collaboration.	<ul style="list-style-type: none"> <li>• Remain open to new approaches by local groups wishing to be involved in local management and to working in partnership.</li> </ul>
		Neighbouring domestic and tourism residences may be negatively affected by clearfelling e.g. visual impact, loss of shelter/privacy, increased exposure, loss of business.	<ul style="list-style-type: none"> <li>• Keep neighbours and local stakeholders apprised of intended management (timing, duration, controls and mitigation) and remain responsive to additional mitigation measures to alleviate unforeseen local concerns.</li> </ul>
Resilience	Increased genetic diversity and wider species and age composition through phased restock and regeneration of native woodland will increase habitat resilience to impacts of future climate change.		<ul style="list-style-type: none"> <li>• Continue to pursue 2008 Forest Plan objective of wholesale restructuring of all afforested areas to native woodland</li> </ul>
	Restructuring non-native conifer woodland to lower stature native woodland in the vicinity of overhead powerlines will increase resilience in the face of anticipated increased incidence of storm events.	Incremental and small-scale felling of mature, even aged plantation can increase windthrow on adjacent stands.	<ul style="list-style-type: none"> <li>• Design coupes to encompass entire contiguous stands and/or schedule felling over a relatively contracted timescale to minimise the potential for windthrow.</li> </ul>
	Bridges, culverts and drains associated with roading are routinely monitored and currently fit for purpose of conserving water quality, avoiding flow obstruction and fish migration for at least the LMP period.		<ul style="list-style-type: none"> <li>• Continue to routinely monitor built infrastructure for ability to tolerate changing climate (rainfall accommodation, resilience to storm events).</li> </ul>
	Primary objective of complete non-native woodland removal will inevitably remove all larch trees and the associated disease host risk.	Retention of woodland areas with larch is a potential disease risk ( <i>Phytophthora ramorum</i> )	<ul style="list-style-type: none"> <li>• All woodland with larch trees are readily accessible in the event of fungal infection and consequent requirement to fell.</li> </ul>

# 4 Management proposals and prescriptions

## 4.1 Silviculture/forest management proposals

### 4.1.1 Clear felling

Coupes for clear felling during the Plan period are detailed below and indicated on Management map (**Map 4**).

#### **Coupe 51310** (*Loch-side*) – 19.21 ha.

The largest felling coupe within the Plan period, comprising mid-1980's-planted non-native conifer woodland of predominantly Sitka spruce and Douglas fir but with a small proportion of European larch and Scots pine. The coupe is bounded on its western edge by two discrete sections of forest road requiring upgrading in the year prior to timber harvesting in order to increase its width and load-bearing capacity for timber uplift and as well as to construct two timber transfer platforms adjoining the southern portion of the coupe (see section 2.8 for more detail). Post-harvesting the timber transfer points will be deconstructed to become two permanent vehicle passing points on this section of publicly-accessible road. The northern half of upgraded forest road will be gated and locked at both ends to ensure public access is restricted to just pedestrian and non-motorised use into the future. The clear felling operations will also include felling of all non-native conifers from within the adjacent loch-side thinning coupe 51901 – to leave just the mature, native broadleaved component of woodland along this loch-side edge (see section 2.3). The underlying coupe terrain contains some remnant dykes and stone structures relating to an earlier farmed land use. These features will be located and marked during pre-harvesting Work Planning and working controls stipulated to conserve them from disturbance or interference throughout the felling and forwarding operations.

#### **Coupe 51515** (*Sitka Leftovers*) – 0.39 ha.

This small stand of Sitka spruce was inadvertently left behind during the clear felling and timber extraction of the adjacent - largely Lodgepole pine-dominant – coupe in 2015/16. Due to the limited extent and uniformity of this stand, there is insufficient timber of a quality or amount that would justify processing and extraction. Consequently a fell-to-recycle prescription is proposed – removing the future threat these trees pose for non-native tree seeding in an area anticipated to establish by natural regeneration as riparian native broadleaved woodland. There are no restrictions on pedestrian access for motor manual fell to recycle.

#### **Coupe 51300** (*Coire Fearnna mire*) – 4.58 ha.

The last area of non-native conifer afforestation undertaken within the landholding prior to the 2008 decision to initiate a solely native species restructuring prescription for the entire landholding's woodlands. This fragmented (four discrete sub-compartments) 2004-planted coupe of Sitka spruce is partially checked on account of limited nutrient availability and a partially waterlogged rooting environment. The western sub-compartment is also an increasingly conspicuous backdrop of non-native trees in the Passive Zone of the Victoria Falls public viewpoint and walking trails (see Map 2). Rather than fertilizing this coupe to try and achieve better growth and a future productive timber yield, the decision to fell to recycle this thicket-staged conifer stand will hasten the restructuring of a more naturalized native woodland/wet heath mosaic in the centre of the Coire Fearnna bowl. There are no restrictions on pedestrian access for motor-manual fell to recycle.

#### **Coupe 51330** (*P95 Sitka/Larch*) – 5.30 ha.

Contains over 40% of larch woodland present within the LMP area and consequently represents a significant area to remove in order to achieve compliance with FLS' Larch Strategy. The coupe is bounded on its lower edge by a section of old (currently disused) public road in a reasonable state of good repair and which will allow access for harvesting machinery as well as ample roadside timber stacking and follow-on haulage lorry access for uplift and timber export. The coupe includes an area of maturing conifer trees in close proximity to the overhead 33 kV electricity line and will require prior consultation with SSE to agree a suitable working timescale and methodology in the vicinity of this infrastructure as well as for consideration of scheduling local power outages (and/or deployment of temporary back-feed power generators) to allow all necessary felling in this coupe to proceed. A small, isolated stand of 1920's planted larch is included in this coupe felling as it's clearance is similarly supported by the Larch Strategy but will also allow the re-alignment of the existing forest road for ease of access for future management and timber harvesting over the next two decades.

#### **Coupe 51320** (*Steep OHPL strip*) – 4.32 ha.

Long, narrow coupe confined to a continuously steep slope between (upper edge) the internal forest road and (lower edge) 33 kV overhead powerlines – thus requiring a high proportion of winch extraction to roadside. Constituent trees are Douglas fir, Sitka spruce and Japanese larch, planted 1987-'89, in blocky mixtures. Insufficient stacking space in the forest road corridor above coupe requires some preliminary felling (in coupe 51330 - described above) and road re-alignment to create sufficient space for timber to be extracted to roadside stacks and uplifted/hailed from there. Felling operations will require timely prior notification and consultation with the utility company to agree a timescale and working methodology in the vicinity of powerlines including consideration of scheduled local power outages/back-feed generator deployment.

### 4.1.2 Thinning

There are no areas of existing woodland being managed by conventional thinning regimes. However section 2.3 (and **Map 5**) identify areas of the forest where thinning is prescribed to improve amenity, safety and/or the ecological integrity of the remaining woodland. Due to the limited scale and extent of intervention proposed, this will typically be implemented by motor-manual methods (i.e. by pedestrian chainsaw operators) except in coupe 51901 where a shortwood harvesting system will be applied i.e. harvester-based felling and processing with forwarder uplift and transfer of timber products to roadside for export.

A rolling programme of ‘cleaning’ – cutting of regenerating non-native saplings - is envisaged in areas where native woodland is being established either by natural regeneration or restocking after clearfell operations. This cutting is of young non-native trees, at early establishment upto thicket stage of development, constitutes “cleaning” rather than thinning and will be similarly undertaken by motor-manual methods with cut material broken up in situ to rot down (‘fell-to-recycle’). All such trees will have less than 10 cm stem diameters at breast height – the threshold above which formal felling approval is required. Similarly, clearance of small and young regenerating trees on, and within the immediate vicinity of, heritage features - to conserve structures and maintain a site’s heritage context - is a cleaning rather than thinning operation.

### 4.1.3 Low Impact Silvicultural Systems (LISS)/ Continuous Cover Forestry (CCF)

No continuous cover forestry management is proposed within the Slattadale LMP area within the Plan period.

### 4.1.4 Long term retentions, Minimum Interventions and Natural Reserves

Refer to **Map 4**.

In accordance with FLS Natural Reserves Guidance, the areas designated as **Natural Reserve** are existing, mainly semi-natural wooded areas where conservation of biodiversity is the primary objective and where there is an expectation that no (or minimal) intervention management is required in perpetuity to achieve this objective. Within Natural Reserves, natural processes will predominate and intervention is only envisaged to conserve those processes. The continuity of habitat within a Natural Reserve allows sedentary species to establish and thrive and provides a reservoir of permanent habitat from which more mobile species can expand into adjacent managed forests over time. Deer management and non-native tree/shrub removal (*Rhododendron ponticum* and isolated remnant, and self-seeded, conifers) are the only pro-active management foreseen in these areas (see section 4.2.7).

The classification **Minimum Intervention** includes all areas of Natural Reserve but also areas of land/woodland to be similarly managed, with minimal frequency or intensity of intervention, for environmental benefit but only for a prescribed period of time i.e. not necessarily in perpetuity. Only one non-Natural Reserve woodland area is classified as Minimum Intervention: a 3.18 ha native woodland strip occupying ground between the A832 public road and the two forest roads that connect this main road to the loch-side car park/picnic site. The requirement to manage this woodland primarily, and more routinely, for the benefit of public access and associated safety and aesthetic objectives precludes its classification as Natural Reserve.

**Long-term retentions** have been chosen where it is considered desirable to retain existing forest stands beyond economic maturity primarily for environmental benefit but where there is no long term imperative to retain these stands once their objective has been fulfilled. Within the Slattadale LMP area, this classification has been applied to several planted Scots pine stands in the north of the site (see **Map 4**) - established for timber production in the 1920’s and retained now as potential seed sources for the LMP’s native pinewood restoration objective – and two central stands of 1920’s Scots pine, Japanese larch and beech being retained as islands of veteran (albeit non-native) trees serving as an area long-established woodland (and ecological niches) within the Plan area until the regenerating native trees begin to provide equivalent habitat as woodland develops in stature, maturity and complexity.

### 4.1.5 Restocking by planting

Refer to **Map 6**.

Restocking is currently only considered where clear-felled and fallowing coupes do not (or will not) have sufficient quantity or variety of native, seed-bearing, trees in the vicinity to expect good levels of natural regeneration in comparison to (predictable) recruitment of seedbed-non-native tree regeneration. Restocking in such instances – always with local provenance native tree species – is envisaged after five years fallowing to allow *Hylobius* populations to peak and decline and transplants can be planted and established without pesticide application as a consequence.

On account of the lengthy fallowing period, and gleyed or podzolic soils underlying Phase 1 and 2 restock coupes, ground preparation will be by excavator-based mounding but – where sloping terrain limits extensive periods of waterlogging - mounds will be inverted and placed back into the mound holes: providing a clean, weed-free planting location into mixed, aerated soil horizons for good root establishment. For restocking envisaged in the vicinity the loch-side car park and picnic site, inverted mound ground preparation will create less negative visual impact and a more accessible woodland terrain during establishment years when access for non-native tree regeneration control is required.

Currently there is a moratorium on the planting of Scots pine - sourced and grown outside of a Caledonian Pinewood Inventory (CPI) area – within that area. Whilst the CPI zone at Slattadale relates to core pinewood occupying the Loch Maree islands, and does not extend to cover the adjacent ‘mainland’ area of Slattadale (see Map 2), FLS intend to uphold the principles of the moratorium for the entire landholding and only restock with Scots pine derived from local core pinewood as well as raised free of the risk of importing Dothistroma blight.

#### 4.1.6 Natural regeneration

Natural regeneration is the most prevalent method of restructuring envisaged within Plan period. **Map 7** – Future Habitats (Restocking) differentiates between coupes established by restocking and those by natural regeneration. Historically, natural regeneration has been anticipated on clear-felled and fallowing areas without any additional intervention (i.e. scarification and/or direct seeding) beyond deer control to ensure (palatable) young regeneration can establish within acceptable levels of browsing (less than 10% of the regenerating tree population).

Much of currently fallowing ground prescribed for natural regeneration is on peaty surface water gley soils with comparatively low fertility. Consequently establishment (to greater than 2 m growth) is taking upto 15 years to achieve. Where tree regeneration and recruitment is ultimately unsuccessful, or too limited to achieve at least 1,600 stems per hectare, scarification may be undertaken to recreate viable regeneration conditions for local native tree seed recruitment or else be restocked if regeneration evidence is deemed too patchy or insufficient to result in characteristic woodland distribution or composition.

#### 4.1.7 Woodland creation

There is no new woodland creation proposed.

#### 4.1.8 Restoration of peatland

There are no areas of afforested or forestry-cultivated ground that meet FCS criteria for a presumption of peatland restoration i.e. an overlying peat depth of 50 cm or greater and an overlying tree cover with a yield class of 8 or less. Consequently there are no peatland restoration proposals in this LMP.

### 4.2 Deer and herbivore management

Slattadale Land Management Plan area lies within the bounds of the Gairloch Conservation Unit Deer Management Group (DMG) and FLS are an active member, contributing to its agreed framework for the management of wild deer and habitat improvement at a regional scale in accordance with Scottish Government strategy (*Scotland’s Wild Deer: A National Approach*), the Code of Practice on Deer Management (2012) as well as FCS’ Deer Management on the National Forest Estate (2014). The DMG recognises and accepts that individual estates can (and do) have differing culling policies dependant on their unique circumstances and differing factors. The native woodland restructuring objectives - largely by natural regeneration - of the LMP area require FLS to maintain deer browsing impacts to less than 10% of recruited native tree species and using Stocking Density Assessments to monitor these impacts and cull effort adjusted accordingly i.e. by targeted control in localised impacted areas or broader population control to reduce more widely observed deer browsing impact. The extent and maintenance of deer fencing is detailed in **Appendix 1** – Background Information.

All deer control on the Slattadale landholding – undertaken under lease by a private contractor for much of the duration of the last Plan period – is now leased to Nature Scot whose ranger works across the Beinn Eighe reserve and FLS landholdings at Achnashellach and Slattadale – all of which are pursuing native woodland restructuring (or restoration) objectives where rigorous monitoring and control of herbivore browsing impacts is critical to their success.

There are no rabbits, hares or goats present within the landholding and no recorded incursions by farmed livestock.

### 4.3 Roads, quarries operations and timber haulage

**Map 4** shows the extent of existing forest road network in the Slattadale landholding and the main egress points with the public road A832. This public road is classified as an Agreed Route by the Highland Timber Transport Group and as such can be used for timber haulage without restriction (other than as regulated by the Road Traffic Act 1988). The map also illustrates the areas of proposed road upgrade work and **Appendix 4** includes an EIA determination request form detailing the Phase 1 proposal to create two temporary timber transfer points on an existing road (see also section 2.8 – Proposed roading).

## 4.4 Management of habitats and biodiversity

The UKFS guidance is to manage a minimum of 15% of any forest management unit with conservation and the enhancement of biodiversity as a major objective. The figure for this Plan is currently 87% and will rise to 95% by 2033 and the completion of this Plan’s felling proposals. This includes all areas designated as Natural Reserve, Long Term Retention, Minimum Intervention, Managed Open as well as all felled, currently fallowing, ground destined for native woodland establishment by natural regeneration.

### 4.4.1 Designated sites

Eilean Ruairidh Mor is part of a National Nature Reserve and is the only conservation-designated terrain within the LMP area. It’s management is defined and approved under a separate Management Plan (“The Management Plan for Beinn Eighe and Loch Maree Islands NNR 2015-2025”). For the purposes of Land Management Planning, the management objectives and actions relating to Eilean Ruairidh Mor are also drawn together as a discrete Designated Sites Plan and attached as Appendix 5. The Designated Site Plan will be reviewed as part of the LMP mid-term review at year 5 of Plan implementation. The National Scenic Area (i.e. landscape) designation is considered in section 4.8 – Landscape.

### 4.4.2 Native woodland

Native woodland restructuring of all afforested and fallowing areas is a fundamental objective of this (and the previous) Plan. FLS seeks to protect, enhance and expand all existing areas of native woodland within the LMP area. Control of herbivore browsing impacts on young and regenerating trees is seen as a critical management measure to protect existing native woodland and enhance the condition of the component trees and associated constituent shrub and plant species. Similarly, control of browsing is also fundamental to the successful establishment by natural regeneration of native woodland on all clear-felled and fallowing ground. Non-native natural regeneration (mostly Sitka spruce and Lodgepole pine) is common on most fallowing areas after clear felling of non-native conifers and the timely cleaning of this regeneration at least by pole stage development is planned.

### 4.4.3 Ancient woodland / Plantation on Ancient Woodland sites (PAWs)

It is FLS policy to restore a minimum of 85% of all sites classified as Plantations on Ancient Woodland Sites (PAWS) to native woodland. This is in addition to the protection and enhancement of existing ancient and semi-natural woodland remnants. Within the Slattadale LMP area, it is intended that all PAWS sites will be restored to native species. There are approximately 73.6 ha of PAWS within the Plan area and their location and extent is illustrated on the Current Woodland Composition map (**Map 8**). The table below also outlines the threat level based on the most recent survey information (Great Glen Ecology Ltd., 2020).

Table 14

Forest Area	Ancient Woodland ID	Area (ha)	Threat level	Action Proposed
An Doire	2112	3.9	Secure	Non-native tree/shrub regeneration will be removed as part of rolling programme.
Innis Dubh (SW)	2126	14.6	Threatened	Existing non-native trees still to be removed.
Innis Dubh (NE)	“	3.43	Secure	Non-native tree regeneration to be removed as part of rolling programme. Monitor for <i>Rhododendron</i> control follow up requirement.
Talladale (NW loch-side)	2420	1.8	Secure	Monitor for non-native regeneration and Invasive Non Native Species (INNS) removal.
Talladale (W))	“	10.8	Secure	Some roadside <i>Rhododendron ponticum</i> present. Monitor these and for other non-natives trees and INNS
Talladale (SW)	“	3.5	Secure	Remove INNS ( <i>Rhododendron</i> and Japanese Knotweed)
Talladale (centre)	“	5.3	Secure	Non-native tree/shrub regeneration as well as any INNS will be removed as part of rolling programme.
Talladale (SE)	“	10	Secure	Non-native tree/shrub regeneration as well as any INNS will be removed as part of rolling programme.
Talladale (NE)	“	20.3	Secure	Non-native tree/shrub regeneration as well as any INNS will be removed as part of rolling programme.

Ancient woodland ID 2126 (Innis Dubh – 18.0 ha) contains the only area of PAWS assessed as Threatened - on account of the presence of commercial conifers (12.2 ha). However the threat level is considered Low as there are comparatively few remnant ancient woodland features or associated ecological indicators present. 0.99 ha (or 8%) of these non-native conifers are scheduled for felling in Phase 1 (part of coupe 51310), 3.68 ha (30%) felled in Phase 2 (part of coupe 51320) and 5.39 ha (or 44%) scheduled as Phase 4 clear felling (2037-’42). The remaining 2.14 ha (18%) of non-native trees in this ancient woodland area are within a Long Term Retention coupe due for re-assessment for removal beyond Phase 3 when regenerating native woodland is more advanced in extent and maturity (see section 4.1.4).

Most PAWS will be restored using natural regeneration of existing native species after felling. A key principle of the restructuring programme is continuous control of browsing pressure to allow sufficient natural regeneration to establish coupled with timely cleaning of non-native trees arising from the legacy seed bed. Continual monitoring is required as *Rhododendron ponticum* is present at low, pioneering levels (but with considerable potential to colonise following clear-felled ground) along with a small area of Japanese Knotweed. Both have had control treatments historically but are likely to need repeated treatments to eradicate (see section 4.4.10 Control of Invasive Species). The incremental programme of clear felling of non-native tree stands adjacent to restoring PAWS and other native woodland is considered a significant contribution to the reduction of future incursion of non-native tree seed into these areas.

PAWS surveys are conducted on a regular basis (5 yearly) and management priorities can be changed to reflect survey findings.

#### 4.4.4 Protected and priority habitats and species

All forest management operations involve a Work Planning process prior to any work commencing. This includes walkover checks for wildlife (presence or activity), important natural habitat and terrain features. Details are recorded in a Work Plan document alongside control and/or mitigation measures prescribed to avoid any potential for disturbance or deterioration. Opportunities to further protect vulnerable species or enhance habitats may also be proposed through Work Plan input and subsequently incorporated into contracted operations or in conditions added to standing sale documentation.

The following table lists notable habitats and species recorded with the Plan area and the associated management actions prescribed to conserve these.

Table 15

Notable EPS and Scottish Biodiversity Strategy Species Priorities and Actions supported by this LMP		
Species	Objective	Actions
Pine Marten	Species present in LMP. Survey and protect.	<i>Integrate protection of the species during forestry operations if necessary by protection of den and trees/stumps in which they breed. Retain ancient trees with holes.</i>
Otter	Species present in LMP. Survey and protect.	<i>Integrate protection of holts during woodland management where necessary. Manage riparian margins to provide wetland vegetation as sheltered habitats.</i>
Dragonflies	Species present in LMP. Survey and protect.	<i>Work with partners to protect and expand sites.</i>
Black-throated Diver	Species present in LMP. Survey and protect.	<i>Pre-operational surveys will ensure protection of breeding sites from adjacent disturbance.</i>
Juniper	Species present in LMP. Survey and protect.	<i>Identify and protect existing plants. Restoration of native woodlands will provide opportunities for expansion of this species.</i>
Bats	Survey and monitor for species. Protect.	<i>Integrate protection of breeding/roost sites and of the species during woodland management where necessary. Generally protect ancient trees which have potential for bat roosts.</i>
Notable Scottish Biodiversity Strategy habitat priorities supported by this LMP		
Habitat	Objective	Actions
Blanket bog	Survey and record to identify location and protect/restore.	<i>Do not plant trees on deep peat, on active peat bogs or on areas of peat bog which can be restored as active. Undertake peat bog restoration where appropriate through removal of non-native trees, drain blocking to retain water within the site.</i>
Caledonian Woodland	Survey and record to identify location and protect/restore.	<i>Work within buffer zones of CPI to remove threats from non-natives, including tree disease.</i>
PAWS	PAWS restoration.	<i>Maintain a monitoring program. Complete the removal of non-native conifers from the PAWS areas.</i>
Other native woodland	Survey, protect, restore and enhance.	<i>Remove non-native trees within native woodland areas. Monitor Ancient and semi-natural woodland and natural regeneration of native trees on open/woodland areas. Encourage natural regeneration of native trees through deer management.</i>

Notable non-native species present within the Plan area with the potential to expand and negatively impact native habitats are listed in the following table:-

Table 16

Non-native Invasive Species within this LMP		
Species	Objective	Actions
<i>Rhododendron ponticum</i>	Remove from area.	Aim for complete removal on FLS land.
Piri-piri burr ( <i>Acaena novae-zelandiae</i> )	Remove from area.	Aim for complete removal on FLS land. Present at Victoria Falls. Work with partners and volunteers to eradicate.
Japanese Knotweed	Remove from area.	Aim for complete removal. Present in a small area at Talladale.



#### 4.4.5 Open ground

The majority of open ground habitat within the Plan area is upland heathland located toward the upper margins of the landholding – a mosaic of wet and dry heath communities, mire and localised bog interspersed with bare rock outcrops. FLS has a duty to protect these priority habitats and ensure their condition does not deteriorate. For the 10-year duration of this Plan, deer control undertaken primarily to reduce herbivore impacts on regenerating native woodland will also benefit the biota of heath habitats – allowing development in dwarf shrub stature and condition as well as component (often browsed) understorey plant/lower plants – without sufficient time elapsing for these dwarf shrubs to become rank/senescent or to begin to shade out constituent species dependent on the heath’s typically modest stature and open character to thrive. Non-native tree regeneration will be removed from these areas before their presence impacts the integrity of these habitats and prior to reaching coning/seeding age.

#### 4.4.6 Dead wood

Dead wood - of varying size, origin (branch, root, trunk etc), species and stage of decay - is a vital component of a healthy, fully functioning forest ecology as well as contributing to, and positively influencing, nutrient recycling and carbon storage. FLS use deadwood management practice guides (see **Appendix 7**) in forestry work planning to identify opportunities for retaining or creating deadwood during management operations and to at least meet minimum UKFS guidelines of 20 m<sup>3</sup> ha<sup>-1</sup>. Deadwood retention may not be at uniform volumes across the forest but instead favouring retention/creation in areas with greatest ecological potential such as in, or adjacent to, existing native woodland or Natural Reserve (see section 4.1.4) and in areas where native woodland has previously been recorded/identified (e.g. PAWS – see section 4.4.3). Areas of Natural Reserve also offer some of the best opportunities for the development of mature, large dimension standing and fallen deadwood - only being processed or removed where it presents a significant risk to the public or other forest users.

#### 4.4.7 Soils

There will be minimal soil disturbance and machine movement on these habitually wet sites to reduce the risk of compaction or damage to the soil structure. Brash mats (or alternative measures) will be used to protect sensitive soils where repetitive machine passes are planned (e.g. forwarder routes). Felling residue will usually be left on site to allow nutrient recycling, with consideration for the practicalities of restocking. Where restocking is prescribed (see Map 7) ground preparation will be by creation of discrete mounds as opposed to trench mounding or ploughing as these sites are already sufficiently well drained or sloping to limit periods of extensive waterlogging of establishing trees. The distribution of soil types across the LMP area is illustrated in **Map 9**.

#### 4.4.8 Deep peats

There are no significant areas of peat with greater than 50 cm depth within areas of the landholding that have been afforested or are currently following (i.e. with follow-on woodland anticipated) and – as a consequence- require consideration for peatland restoration. It is possible that there are deep peats present on existing areas of managed open ground within the landholding (these areas are generally in the upper margins of the site). However these areas have never been artificially drained or modified in the past and consequently do not require remedial actions to reinitiate natural peatland functionality.

#### 4.4.9 Freshwater habitat

Arctic charr and sea trout are both present in adjacent Loch Maree and its tributaries throughout their lifecycles. These species require clean, well-oxygenated waters and it is vital that diffuse pollution (i.e. sedimentation) is avoided both through careful planning of all civil engineering and forestry works and adherence to operational controls necessary to comply with Forestry and Water guidelines through the operational delivery phase. A presumption against the disturbance of any streambeds - which may otherwise lead to damage of potential spawning areas – will be enforced. Forest road construction and upgrade works, the maintenance and replacement of culverts, and any other operations that may contravene this principle, or that may create a new impediment to fish movement will undergo prior consultation with both SEPA and the Wester Ross Fisheries Trust to ensure proposals are designed and implemented to avoid adverse impacts on freshwater habitat and associated species.

Collaboration with Skye and Wester Ross Fisheries Trust (SWRFT) during the previous Plan period resulted in the planting of a variety of native tree and shrub species within the riparian corridor of Slattadale river and tributaries. Subsequent enquiries by SWRFT during 2021, intending to include FLS’ Slattadale landholding in a project to develop a number of ‘dragonfly ponds’ in the vicinity of this river, have been supported in principle by FLS as this would be expected to increase freshwater invertebrate populations and in turn species that feed on them such as trout and charr, amphibia and some bird species.

#### 4.4.10 Control of invasive species

Non-native invasive species identified within the LMP area include *Fallopia japonica*, *Rhododendron ponticum* and *Acaena novae-zelandiae*. All three species have been the subject of efforts to control, if not eradicate, them during the last Plan period. This has utilised glyphosate as a foliar spray on small plants and (for large *Rhododendron* bushes) cutting/dismantling and stem treatment of cut stumps with glyphosate. *Acaena novae-zelandiae* – fairly localised to the vicinity of Victoria Falls trails at present – has also had programmes of hand pulling and burning of mature plants prior to their seed ripening and dispersal phases. This control work has been carried out both under direct FLS contract but also through collaborative working with (then) Scottish Natural Heritage’s Beinn Eighe reserve staff and volunteer programmes. FLS maintain a regular dialogue with NatureScot staff at Beinn Eighe – who also manage FLS’ Eilean Ruairidh Mor and monitor public access infrastructure at Slattadale during the summer and implement FLS deer management across the landholding – and there is an mutual ambition to repeat previous collaborative control measures as these species still persist, albeit at reduced densities, and continue to pose a significant expansion risk. This control is in accordance with line with the Wildlife and Countryside Act 1981 (as amended by the Wildlife and Natural Environment (Scotland) Act 2012) and its corresponding Code of Practice for non-native species.

## 4.5 Management of historic sites

FLS' key priorities for archaeology and the historic environment are to undertake conservation management, condition monitoring and archaeological recording of significant historic assets; and where possible, to seek opportunities to work in partnership with others to help to deliver *Our Place in Time: the historic environment strategy for Scotland* (2014) and *Scotland's Archaeology Strategy* (2015). Significant archaeological sites are protected and managed following the *Forests and Historic Environment UKFS Guidelines* (FC, 2017) and the FLS policy document *Scotland's Woodlands and the Historic Environment* (FCS, 2008).

There are no scheduled historic sites within the Plan area. Appendix 1 – Background Information: *Historic Environment* presents a description of the recorded heritage features. There remains potential for future unmanaged native tree regeneration to colonise, obscure and ultimately damage features of the An Doire farmstead and enclosure dyke and consequently regeneration will be monitored and action taken to remove tree growth that may ultimately compromise these features. Additionally, any proposed forest management operations necessitates a pre-operational walkover survey – supplementing desk-based analysis of historic environment datasets (FLS' GIS data and local authority Historic Environment Record) - in order to identify all recorded features as well as any newly identified features. Features will then be suitably and clearly marked on the ground, and on operational maps, and appropriate control measures stipulated in work plans to protect against potential collateral damage through the delivery phase. Similarly on clear-felled and fallowing ground where tree restocking or natural regeneration of trees is envisaged, work plan prescriptions will exempt recorded historic environment features from ground disturbing operations, re-planting and/or tolerance of tree regeneration in compliance with *Forestry Commission's Forests and Historic Environment - UKFS Guidelines* (Third Edition, 2017).

## 4.6 Landscape

The landscape surrounding Slattadale is recognised as one of the finest in Scotland with the LMP area situated at the heart of the Wester Ross National Scenic Area and sandwiched between two extensive areas of designated Wild Land. The area is also on a very popular tourist route. In recognition of this, landscape protection and enhancement are core objectives of this Land Management Plan. This section considers the characteristics intrinsic to these landscape designations, as well as the landholding's additional landscape context, and how these ultimately inform forest design principles appropriate to its sense of place. This in turn has determined future land and forest management recommendations that align with these design principles. **Map 3b** illustrates the resultant design concept and **Map 10** displays the various Landscape Character types assessed for the forest and surrounding area.

### 4.6.1 Wester Ross National Scenic Area

National Scenic Areas (NSAs) identify Scotland's finest scenery and are so designated to ensure protection from inappropriate development. Wester Ross NSA is renowned for its scenic splendour and is frequently described as one of Scotland's few remaining areas of extensive 'wilderness' - containing some of its most iconic mountain peaks including Ben Damph, Beinn Eighe, Beinn Alligin, Slioch and A'Mhaighdean. A fragmented pattern of semi-natural woodlands – oak-, birch- or Scots pine-dominated – typically hugs the lower to mid-slopes of these otherwise craggy, rock-exposed uplands, often extending to occupy comparatively high altitudes when afforded shelter in the numerous deeply incised ravines. Individual hill ranges are interspersed with expansive tracts of heather moorland which themselves are commonly fragmented by discrete areas of flushed sedge- and bog-rich wetland, freshwater lochans, willow scrub or alder carr. Their comparatively sheltered and low-lying margins are often fringed with an intimate mosaic of small crofts, isolated modern dwellings amongst ruinous stone and turf dykes, still-worked and abandoned field patterns and remnants of old settlements from a bygone era of land occupation and use. Additionally, in the vicinity of Slattadale, Loch Maree - described as 'one of the most excellent of Scottish big inland waters' and 'the embodiment of what is called Highland Grandeur' – provides a tranquil and horizontal foil to the dramatic and rugged vertiginous peaks of Slioch and Beinn Eighe.

The special qualities of Wester Ross NSA that are relevant to the Slattadale area are:

- Scenic splendour
- Spectacular and magnificent mountains
- Recognisable mountain profiles
- Stark geology and rock
- Woodlands and trees that soften the landscape
- Great tracts of wild and remote land
- Abundance of water, a foreground to dramatic views
- Multiple layers of landscape, with visual continuity between coast/inland waterbodies, moorland and mountain
- Ever-changing weather and light, and
- Most iconic and recognisable landscapes - Loch Maree and Slioch.

As with the previous Forest Plan, management proposals are designed to enhance the contribution that Slattadale Forest makes to the inherent character of Wester Ross NSA, aiming to improve its integration with the wider landscape and strengthening the coherence of the NSA as a whole.

## 4.6.2 Wild Land Areas

Slattadale Forest LMP area lies outwith, but sandwiched between, two vast Wild Land Areas (WLA) with which it has a strong inter-relation: *Flowerdale - Shieldaig – Torridon WLA* to the south and *Fisherfield - Letterewe – Fannichs WLA* to the north of Loch Maree. In consequence, their qualities inform the setting of future land management objectives.

At present, the interior landscape of Slattadale Forest is at odds with key landscape qualities of Remoteness and Wildness embodied by the Wild Land Areas. This is primarily a legacy of large-scale afforestation effort undertaken there through the 20<sup>th</sup> century, the presence of its associated management infrastructure as well as contemporary land use elements: fences, forestry roads and tracks, provision of car parking and vantage point laybys, hydro-electric power scheme infrastructure, overhead power lines and (albeit at a sparse and widely distributed level) residential buildings. Despite this apparent contrast with the natural character however, the sheer scale and grandeur of the surrounding mountains and loch dwarf the visual significance of the planted forest reducing its visual impact to a relatively small interruption in wild land character rather than a significant detractor from it. In addition, to the visitor passing through the Slattadale Forest area, the variable interior landforms and foreground tree-scape acts to mask much of the man-made forest interior viewed from any particular location. As a result the grandeur of the external wild land pervades rather than the geometry and uniformity of the middle-distance forest interior. Similarly, to the hillwalker or mountaineer on high ground overlooking the area, the man-made forest appears dwarfed and insignificant in the grander scheme of things.

The islands within Loch Maree, including Eilean Ruairidh Mor which is a part of the Slattadale Forest landholding, are within the Wild Land Area on account of the strong sense of ‘naturalness’ afforded by their irregular shorelines, absence of human habitation, and seemingly unmanaged and undisturbed vegetation: a complex old-growth pine and heath/bog mosaic. The isolation of the islands within the expansive loch makes them seem even more remote and inaccessible, although they are increasingly visited by canoeists and other leisure craft.

Finally, the A832 public road and its passing traffic can be seen and heard fairly easily from the north shore of the loch, particularly in clear and calm weather conditions. This inevitably detracts from the remote and undeveloped qualities inherent in WLAs. Recent increases in visitor numbers travelling around the North Coast 500 route have only served to exacerbate this issue. Whilst it is recognised that choices as to how Slattadale Forest and its visitor facilities are managed are unlikely to influence future trends in traffic or noise along this main arterial road corridor, at a more intimate scale the Plan should aim to preserve the peace and tranquillity of the forest itself, balancing the provision of visitor facilities with the need to minimise potential for adverse human disruption and disturbance.

## 4.6.3 Landscape Character

The Landscape Character Assessment for Ross and Cromarty (NatureScot, 2020) identifies the internal landscape of the Slattadale Forest LMP area as of ‘*Wooded Glens and Rocky Moorland*’ landscape character type (LCT). It is adjacent to LCT ‘*Coastal Moorland*’ to the north-west, ‘*Cnocan*’ to the north, ‘*Rocky Moorland and Rugged Hills*’ to the south and ‘*Rugged Mountain Massif*’ to the north east. The specific qualities of each of LCT is described more fully in **Appendix 1** and depicted on **Map 10**.

This range of landscape character types, each with identifiably unique qualities, ultimately derive from the underlying and variable geology - determining its intricate topography as well as the wide-scale landscapes. The transition from one character type to another can be fairly abrupt in places - where there is marked change in ruggedness, slope gradient or at land/open water boundaries - but can also feel fairly integrated - where one dominant vegetation type grades or merges into another as at the margins of moorland, woodland and/or wetland.

Over the period of the previous Forest Plan, the process of restructuring – of felling planted, timber-producing forest and initiating native woodland re-establishment in its place - has been far more extensive than was originally envisaged. This was on account of an emergent (and urgent) requirement to clear large areas of non-native trees from the landholding and so minimise the threat of potentially fatal tree disease transmission to the local (genetically unique) old growth pine woodland. As a result, the original felling proposals for steady and incremental felling and fragmentation of plantation forest cover to initiate restructuring, was ultimately superseded by much larger and more rapid clear fell programmes. In consequence the resultant interior landscape, as viewed from the most publicly accessible vantage points, is dominated by large areas of felled plantation ground with a number of conspicuous and incongruous ‘islands’ of mature native trees retained as seed sources for regenerating native woodland. This is currently a fairly dramatically disrupted landscape. It is however a transient landscape and the processes of regeneration and restoration now becoming evident, if managed appropriately through the next Plan period, should result in a quicker reinstatement of more dynamic, seasonally-variable and semi-natural elements across the forest than previously planned – integrating sympathetically with its surrounding landscape.

## 4.6.4 Landscape Influences and Design Principles

The restructuring of Slattadale Forest will be guided by landscape design principles to ensure both the process and the future forest habitats contribute positively to the landscape’s special qualities.

Specific landscape influences on land management of Slattadale are:

- The visual dominance of Loch Maree;
- Resultant expansive and iconic views across the naturally wooded islands and Slioch hill range;
- Peace and tranquillity;
- Reflective qualities of the loch when still, but invigorating exposure when not;

- Expansive scale of landscape elements;
- Long distance views to uninterrupted rugged wild land;
- Ability to experience weather systems passing over - visible from elevated locations.

The table below identifies how each principle informs this Plan’s land management proposals.

Table 17

Design principle	Current	Recommendations for future management
Landform	Landform is a dominant feature of the landscape at Slattadale. It informed initial forest design but subsequent felling has yet to break down some imposed geometry of that productive conifer plantation.	<i>Continue to restructure through clearfelling the remaining productive timber coupes, ensuring edge alignments are windfirm and in keeping with landform principles - flowing up the gullies and down the ridges. The intention to remove all non-native and uniformly managed productive forest will ultimately dissolve the earlier (manmade and designed) forest geometry.</i>
Scale	Felling and regeneration areas are larger on the open, smooth slopes to the north where the forest abuts ‘Cnocan’ and ‘Sweeping Moorland’ LCTs. On other steep-sided slopes, the landscape scale is reduced by the enclosure the slope provides. Here the scale of felling and species distribution is more detailed.	<i>Future felling and forest restoration areas should continue to reflect the scale of the surrounding landscape. Felling adjacent to open hill can be larger, linking with the broader scale of the moorland beyond. Perceived coupe size should be reduced in the more rugged and enclosed locations and around human elements, such as visitor facilities- car park, loch-side, paths, where safe to do so. Coalescence and screening can assist with this.</i>
Diversity	Diversity of age structure and species is increasing with restructuring effort. The more mature afforested areas have limited species diversity although this is not out of character with the simple nature of the surrounding mountain landscape character.	<i>Aim to further increase diversity in balance with the surroundings through native oak-, birch- and pinewood regeneration. Maximise tree species for both climatic resilience and to provide appropriate, representative woodland around visitor facilities. Future management should look to ensure any additional enrichment planting reflects soil and topographic characteristics. Diversity in native woodland species and character should include a corresponding variety (“mosaic”) of open and forested areas. Expanding riparian woodlands that buffer watercourses will further naturalise integration with the wider landscape.</i>
Shape	Forest edges and internal margins are mostly in keeping with the rugged nature of the slopes. Lines of trees left along roadsides or the shore of the loch appear out of place.	<i>Shapes of felling edges, and future plantings should be asymmetric, and mimic patterns of natural vegetation spread. Smooth rounded shapes more appropriate on the lower shallow slopes. Shelter belts and single lines of trees along roads and loch sides should be removed as a priority to improve the landscape fit of the woodland.</i>
Unity	In the past the uniform, blanketing conifer plantation forest appeared at odds with its rugged setting. With the onset of restructuring its landscape fit has improved. Currently isolated clumps of pine on hillsides and lines along roadsides erode unity with the surrounds.	<i>As natural regeneration becomes established and native forest restored, the woodland will link more naturally with the surrounding moorland area as well as with woodland creation zones on neighbouring (higher) ground. Removal of narrow belts of conifers along the public road will increase unity and open up views from road to dramatic panorama of forest, hills, Loch Maree and Slioch. The establishment of riparian woodland around watercourses will also integrate the woodland into its surroundings.</i>
Spirit of place	Open, rugged, semi natural appearance of the hills around Slattadale engender landscape qualities which are highly prized. Designations demonstrate its value. The remaining spruce-dominant plantation arrests this character.	<i>Continued conversion to native woodland will help to strengthen the special qualities of landscape on the shores of Loch Maree. Recommend pacing of conversion at a rate that retains a significant proportion of residual woodland cover where possible until regenerative woodland infills clear felled tracts. Views to loch and wider mountains should be maintained from a number locations along the road and around the car parks and walks to provide orientation and allow visitors to appreciate the iconic landscape through which they travel. Spirit of the place is impacted by clear felling, but quickly recovers once an area revegetates with sympathetic ground cover and (ultimately) native woodland cover.</i>

## 4.7 People

### 4.7.1 Neighbours and local community

On account of Scottish Government's Covid-19 social distancing requirements throughout the duration of LMP revision, a solely online community consultation was used to canvass initial opinion and feedback from neighbours, known user groups and local community organisations (see Consultation Record – **Appendix 2**). Subsequently several neighbours expressed interest in discussing the new Plan in more detail and some face-to-face meetings were undertaken in effort to address concerns and/or accommodate ambitions for future management where these aligned – or did not significantly conflict - with the broader long term objectives of the Plan and UKFS compliance. Consideration of private water supplies is detailed in section 4.8.1.

The sale of old farm buildings and adjacent land curtilage to a neighbour during the previous Plan period did not include land occupied by waste water pipes and septic tank associated with the property (NG 8876 7190). The location of these infrastructure is recorded in FLS' Geographic Information System alongside all private water supply data and accordingly will be considered - and protection measures adopted - during the planning and delivery of operational works including timely notification of such intentions to their owner during the work planning phase.

No feedback was received from the community council (Torridon and Kinlochewe) – nor adjacent community council (Gairloch) - to the formal notification and invitation to engage with the LMP revision in summer/autumn 2021. Nearby Gairloch's community development trust and social enterprise, Gairloch and Loch Ewe Action Forum, recommended discussion with a local community group contemplating an asset transfer application (see Table 11, section 3.2). This group has already established lines of communication with FLS Community Asset Transfer staff as well as Visitor Services staff as the group's interests relate to an area of open ground within one of forest's Visitor Zones. A summary of the resultant dialogue is contained within the consultation record.

### 4.7.2 Public access

Visitors are welcome to explore FLS land and are only asked to avoid established trails or forest roads when proposed forest management work increases the potential for accident or injury (e.g. tree felling). Visitor Zones have been identified in areas of the forest where FLS specifically encourages and manages access and where woodland managed by FLS interacts with these popular visitor sites and associated access routes. These are illustrated on **Map 2**. The zones also appear on Thinning map (**Map 5**) as there may be routine management work carried out over the Plan period that may involve tree felling. Typically this work will relate to the removal of single or small groups of trees to protect facilities, infrastructure and access corridors, and to enhance the setting of features or maintain existing views. **Appendix 7** contains annotated aerial photographs illustrating how management is prescribed to meet these objectives for both the loch-side car park, trails and picnic site and Victoria Falls car park, trail and viewpoints.

The Land Reform (Scotland) Act 2003 ensures statutory access rights to most of Scotland's outdoors if exercised responsibly and with respect for privacy, safety, livelihoods and the environment. Equally, land managers have a duty to manage their land and water responsibly in relation to these rights. In consequence, FLS will only restrict public access where absolutely necessary, endeavouring to keep disruption to a minimum. The Tollie path (see **Map 2**) is a Core Path within the LMP area and as a consequence FLS is required to notify and work with local authority access officers to ensure management work does not adversely impact or disrupt access and ensure satisfactory mitigation measures are put in place to maintain alternate access provision. During 2022, a collaborative venture with Highland Council rangers resulted in local volunteer work parties undertaking renovation of path formation and drainage on the Tollie Path and FLS are keen to encourage and support this work into the future.

There has been a marked increase in visitors to Slattadale forest during the last Plan period. This has resulted in an increase in (unsanctioned) overnight vehicle parking and camping at the forest's car parks, incidences of (prohibited) fire-making as well as increased landings, camping and fire-making on Eilean Ruairidh Mor NNR. FLS' Visitor Services staff are actively working with other local landowners, government agencies and local tourism providers to determine new approaches to providing and managing public access whilst discouraging inappropriate behaviours and the potential negative impacts these can have on the forest, its wildlife and neighbours. This work is considered sufficiently specialised in focus (and delivery) to fall outside the scope of the Land Management Plan. However, the LMP revision process has remained alert to the early evolution of this work and understands that solutions under discussion include possible re-design of threshold facilities, new site- and web-based interpretation to inform visitors as to responsible site usage as well as an ambition for wider partnership approaches to communicating the Responsible Access message in the locale. The outcome(s) of this project will ultimately be enshrined in a new Recreation Management Plan for the forest to be shared with LMP stakeholders in due course.

### 4.7.3 Renewables, utilities and other developments

The current renewables and utilities infrastructure within the Slattadale LMP area are detailed in **Appendix 1** - Background Information: *-Renewable energy developments, utilities and other infrastructure*. These include several sections of (interconnected) 33kV overhead electricity line and the (underground) penstock for the Garbhaig hydro-electric power scheme. All forest management within the vicinity of overhead powerlines will comply with *FISA Safety Guide 804 – Electricity at Work: Forestry* with respect to prior notification and consultation with the Network Operator to agree safe working methodology.

### 4.7.4 Support for the rural economy

At a national level, FLS aims to support a sustainable rural economy by managing the national forests and land in a way that seeks to encourage sustainable business growth, development opportunities, jobs and investment. At Slattadale, support for the rural economy relates ostensibly to the employment sustained through contracted forest management work, export and processing of timber from productive woodland. In addition, the provision of visitor facilities (car parking, a picnic site, trails and site interpretation) attracts seasonal visitors and provides outdoor access and activities in the vicinity that in turn supports regional tourism through food and drink sales, accommodation provision, wildlife guiding and outdoor sports/activity supervision.

## 4.8 Water

### 4.8.1 Drinking water

All private drinking water supply points are recorded as a layer in the FLS Geographic Information System (and are indicated on **Map 2**). The presence of private water supplies is routinely considered during the preparation of specific forest management work plans and relevant neighbours are notified of proposed operations, and any intention for specific protection measures, to ensure proposed measures are mutually agreeable. Private water supply points, any associated supply pipes, as well as any waste water infrastructure will be clearly marked on all resultant contract maps and marked on the ground. Where private water supplies are in the vicinity of areas of frequent or high levels of public access, FLS will endeavour to manage vegetation to deter egress that may otherwise result in incidents of unsolicited littering or pollution of water supply intakes and their immediate catchment.

### 4.8.2 Watercourse condition

All forestry operations will be undertaken to meet the requirements of the UKFS with respect to conservation of water quality. Practical operational guidance to ensure compliance is given in Forestry Commission publications “*Forests & Water - UKFS Guidelines*” (Sixth Edition, 2019) and “*Managing Forest Operations to Protect the Water Environment*” (2019). As a designated freshwater body Loch Maree is sensitive and vulnerable to any instances of pollution, sedimentation or nutrient enrichment directly to, or derived from, contributory watercourses. Particular care will be taken in the planning and delivery of all road engineering and forestry works with potential to impact this waterbody and its tributaries to prevent any instances of diffuse pollution (i.e. sedimentation).

Currently there are no water bodies within or adjacent to the Plan area which are at less than “Good” ecological status/potential as a result of forestry activities (see **Appendix 1**: Background Information: Hydrology) and it is critical to maintain this status.

### 4.8.3 Flooding

There are no specific flood prevention considerations within the plan area at this time (see **Appendix 1** – Background Information: Hydrology (Flooding)).

The scale, location and timing of felling proposed in the forest over the Plan period, along with an increasing proportion of anticipated regenerating native woodland structure and diversity, is unlikely to have a detrimental impact on smoothing peaks and troughs in riparian water flow.

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