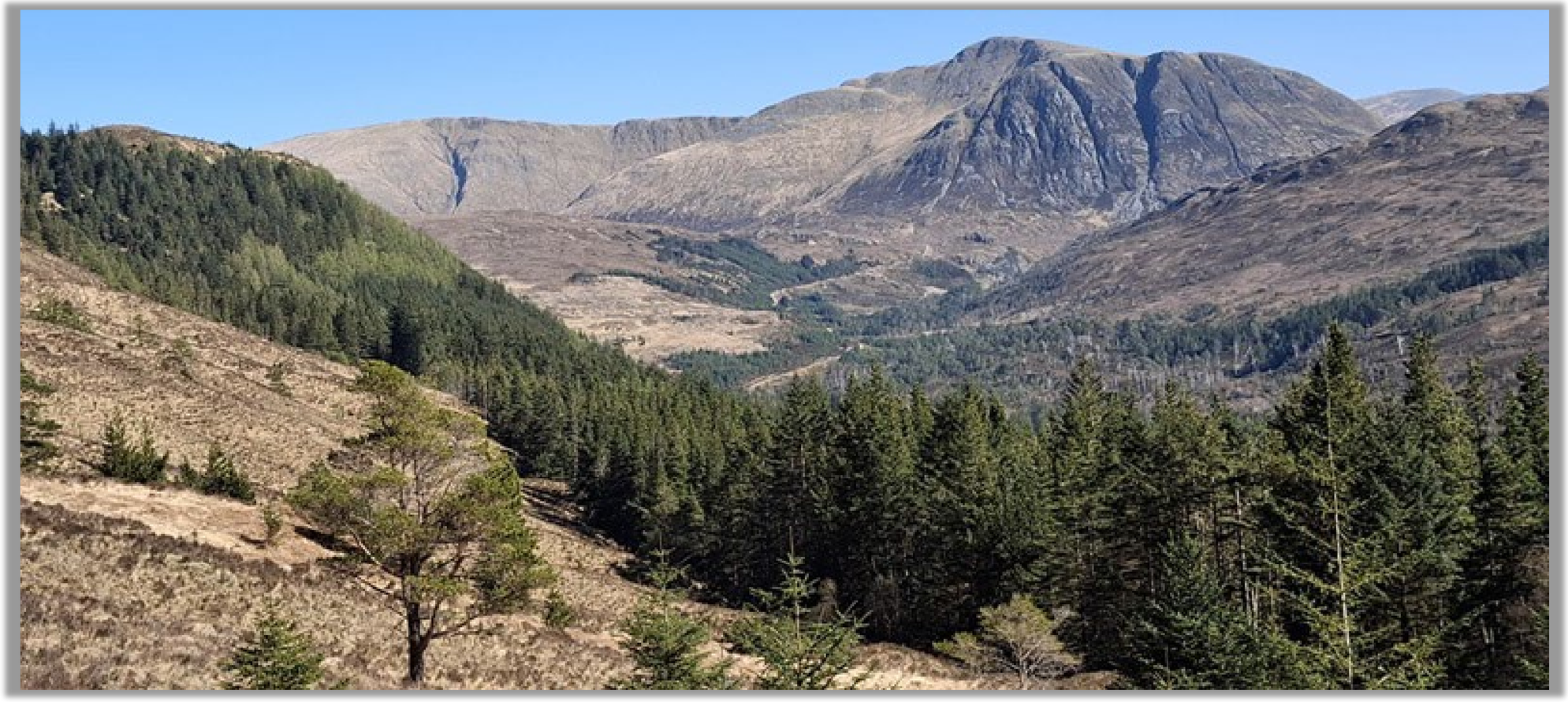
Forestry and
Land Scotland

Coilltearachd agus
Fearann Alba



Achnashellach Long Term Plan 2026 - 2036

Plan Reference No: **030-518-450**
Plan Approval Date: xx-yy-2026
Plan Expiry Date: xx-yy-2036

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

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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Property details	
Property Name	Achnashellach
Grid Reference *(main forest entrance)*	NH 0402 4920 *(Craig level crossing / forest road)*
Nearest town	Lochcarron
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 Long Term Plan approval for the property described above and in the enclosed Long Term Plan.
2. I apply for an opinion under the terms of the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017 for deforestation, afforestation, roads and 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 *Regional Manager*		Signed *Conservator*	
FLS Region	North	SF Conservancy	Highland & Islands
Date	*XXth September 2026*	Date of Approval	
		Date Approval Ends	

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Map 1 Location and viewpoints

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Map 7 Future Habitats & Species – Long term vision

Map 8 Future Habitats & Species – LTP Restocking/Regeneration

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Map 10 Afforestation & Deforestation

Map 11 Soils - *includes Peatland Restoration proposal*

Map 12 Key Water Features

Map 13 LTP Landscape Character Assessment

1 Objectives and summary

1.1 Plan overview and objectives

1.1.1 Location and context (see also Map 1)

FLS' Achnashellach landholdings cover 1,513.2 ha – of which 34% is currently afforested, 19% is felled and fallowing and the remaining 48% is open (heath- and grassland, bare rock, water, roading or powerline wayleaves). The LTP area occupies both north- and south-facing flanks of Glen Carron within the vicinity of the settlements of Achnashellach, Lair and Craig. It also occupies some areas of glen floor/riverside terrain.

Over the majority of the twentieth century the forests were managed primarily for timber production however in the last two decades an increasing amount of forest management has been prescribed and undertaken primarily for environmental conservation. The Plan area supports a number of protected wildlife species and contains several large areas of PAWS (Plantations on Ancient Woodland Sites) including several significant, yet fragmented, stands of old Caledonian pinewood (see Key Issues **Map 3** and section 4.4.3). Occupying ground within the catchment of river Carron, the forests and open ground habitats play an important role in conserving water quality as well as influencing surface water and watercourse fluctuation and flow. The forests are also a prominent, often dominant, feature in the local landscape - providing a backdrop as viewed from main (road and rail) transport corridors, interior settlements and from a number of external hill walking vantage points. A number of forest trails, and the internal forest road network, attract significant levels of year-round recreational interest – offering strategic access to notable 'munros' (north and south of Plan area) and integrate with a wider network of long-distance trails across the Wester Ross region. In the last fifteen years, three new (third party owned and managed) hydro-electric electricity schemes have been constructed outwith the landholding but with related infrastructure occupying/crossing FLS land.

A more detailed description of the Long Term Plan (LTP) area, its context, constituent habitats, flora and fauna is provided in **Appendix 1** – Background Information.

1.1.2 The role of the Long Term Plan

A Long Term Plan (LTP) summarises the objectives of, and 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 Long Term 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 LTP 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 initially-stated objectives. There is also a review of the LTP's critical success factors (section 1.1.5).

All consequent management operations derived from this Long Term Plan are preceded by a specific, more contemporary and focused, operational planning process. This is FLS' Work Plan system which ensures relevant FLS teams (i.e. planners, delivery foresters/staff, visitor services, civil engineers, environment/heritage conservation staff etc.) provide and share detailed information relevant to the delivery of a specific, planned operation. A Forest Works Manager is then able to deliver operations in light of the latest and fullest site analysis/information or else make changes, or employ measures informed by this wider context, to minimise the potential for negative impacts or on other stated objectives of the LTP.

This Plan revises and replaces the 2015-2025 Achnashellach Forest Design Plan - approved 16th November 2015 - which had a conventional ten-year approval period and expired 15th November 2025.

1.1.3 Long term vision

Section 1.1.4 (below) states the key management objectives for this Long Term Plan – many of which are replicated from the previous Plan on account of long term objectives and implementation being delivered over several decades.

10-year vision

The most conspicuous change experienced by local people and those familiar with the area, will be the steady incremental change that has been taking place along the steeply sloping ground along public roadsides and at settlement boundaries. Here, once extensive stands of often very large (but storm-susceptible) conifer trees have been - or are in the process of being - felled and replanted with native woodland species. As a result, the sense of permanence and grandeur provided by these older trees, present here over much of the last hundred years, is now replaced with young birch/hazel/willow woodland scattered throughout with oak and Scots pine – much still at an early establishment (pre-thicket) stage although some already beginning to assert a new, sympathetic and naturalised visual character, with its associated seasonal variety, along the major road and rail corridors and at popular trail thresholds/car park.

Terrain south of the road and railway -from riverside to treeline - will now be dominated by young native woodland of mainly birchwood composition interspersed by ravine and riparian woodland still occupied by veteran Caledonian pinewoods but also with establishing alder- and shrub willow-rich woodland. One last area (or coupe) of non-native conifer woodland at the western end of this southern flank will have been recently felled with its underlying terrain still fallowing prior to native woodland restocking which will complete the conversion of this entire area to native woodland for conservation (rather than productive timber) objectives.

50-year vision

South of the Carron river will be one continuous area of maturing native woodland – birch-dominant but with Scots pine in intimate mix within and adjacent to present day zones of veteran pine – but also with riparian alder/willow carr as well as more species-rich native woodland present along tributary watercourses and ravines. This composition will appear more developed and dense at lower elevations, grading naturally to lower densities towards a 'feathered' treeline above which heather moorland and exposed rocky crags will still be visible occupying the terrain below the mountainous skyline. The northern flank of the glen will also have solely native woodland tree species with oak woodland (with hazel and holly) a significant component of woods bordering road, rail and settlements. Scots pine - planted more uniformly on mid-contour terrain between bisecting riparian native woodland – will be the only areas where productive timber is still growing with most areas still establishing (less than twenty years old) but some beginning to reaching timber-yielding maturity.

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 11** – *Key policies and publications*). The specific objectives of this new Plan are derived from consideration of the Key Features, Issues and Challenges as summarised and represented in **Map 3**, community and wider stakeholder feedback (see **Appendix 2** – *Consultation Record*) and a review of historic management to date. This process of considering and defining management objectives is described in **Section 4** – *Analysis and Concept* and represented in summary on **Map 4**.

The over-arching objectives of this Long Term Plan are:-

- **Increase the resilience of the landholding to withstand impacts of anticipated climate change** – for native species/habitats, built features/infrastructure, forest health and productivity, slope stability, peatland restoration, water quality and public safety.
- **Continue landscape-scale restoration of native woodland across the Long Term Plan area** - a 50-year restructuring process, started in 2015, to conserve, expand and connect fragmented native woodland habitat.
- **Protect water quality, and enhance associated riparian habitat** - of river Carron, its wider catchment and upstream tributaries.
- **Manage and consolidate sustainable timber production** – optimising productive potential of existing forest and developing a future timber resource where suitable and practical in restructured native woodland.
- **Support and maintain public access** - to and through the landholding and maintain respectful communication with local communities and communities of interest.
- **Manage the forest sympathetically to landscape character** - to achieve greater sympathetic and integrated fit with broader landscape character.

1.1.5 Critical success factors

- Deliver the programme of productive woodland felling

  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 2036.
- Protect naturally regenerating and restocked native trees from levels of deer browsing likely to significantly (and adversely) impact successful regeneration and establishment of native woodland.

  Routine monitoring of PAWS, regenerating fallow and restocked 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 limited and where the competitive threat of non-native seedbed regeneration is 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 and shrubs in areas of establishing native woodland and restoring peatland.

  Routine stocking density assessment undertaken across regenerating and establishing restocked areas will report on non-native tree recruitment, informing a prioritised cleaning programme.
- Engineering works are carefully planned and delivered to provide access infrastructure allowing felling, restocking, peatland and environment programmes including restoration of PAWS sites.

  Proposed civil engineering and forestry works are defined and controlled through the Work Plan process and ultimately delivered through UKWAS- and UKFS-compliant FLS working practices.
- Invasive non-native species (INNS) control measures are implemented frequently to minimise their presence, and capacity to spread, within the LTP area and into the 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.

1.2 Summary of planned operations

Table 1

Summary of operations over the Plan period	
Clear felling (gross)	188.3 ha
Thinning (potential area)	0 ha
Restocking (gross)	297.7 ha
Afforestation	76.6 ha
Deforestation	53.0 ha
Forest roads (new)	1,290 m *(Phase 2 construction only)*
Forestry quarries (new)	0 ha

This Long Term Plan was produced in accordance with current government policies and forestry industry standards and guidance as listed in **Appendix 11.**

The Plan area will be managed in compliance with the UK Woodland Assurance Standard (UKWAS) – the standard endorsed in the UK by the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification(PEFC). Forestry and Land Scotland is independently audited to ensure that they are delivering sustainable forest management to this Standard.

The objectives of this LTP are also considered compliant with The Highland Council's '*Highland Forest and Woodland Strategy (2018)*' with particular emphasis on four of its eight principal themes:

- Achieving the economic potential of forest and woodlands;
- Developing resilience to climate change;
- Protecting and enhancing Highland's natural capital;
- Integrating with development and tourism.

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	No	
National Nature Reserve	No	
Special Protection Area (SPA)	No	
Special Area of Conservation (SAC)	No	
World Heritage Site	No	
Scheduled Ancient Monument (SAM)	No	
National Park	No	
Deep peat (>50 cm thickness)	**Yes**	Two significant areas of afforested peat with potential for restoration have been surveyed for peat depths. These areas are illustrated on **Maps 10** and **11** and restoration proposals outlined in section 2.6 and **Appendix 7**.
Tree Preservation Order	No	
Geological Conservation Review Sites	No	
National Scenic Area (NSA)	No	
Special Landscape Area	**Yes**	Strathconon, Monar and Mullardoch
Ancient woodland*	**Yes**	Nature Conservancy Council's Inventories of Ancient, Long-established and Semi-natural woodlands identifies 169 ha of ancient woodland and 108 ha of long-established woodland of plantation origin within the LTP area.
Acid sensitive catchment	No	
Drinking Water Protected Area (Surface)	No	

* **Map 4** illustrates the location of areas of ancient woodland and recorded Caledonian Pinewood Inventory.

2.2 Proposed clear felling

Areas (coupes) proposed for clear felling within the period of the Plan are detailed in the following table and identified as either Phase 1 (to be carried out within the first five years) or Phase 2 (in the second five years). These coupes are illustrated and labelled on Management **Map 5** which also displays all indicative felling anticipated over the next twenty five years, colour-coded in five-yearly increments.

Table 3

Clearfelling (Phase 1)								
Coupe Number	Gross Area (ha)	Sitka spruce (ha)	Scots pine (ha)	Lodgepole pine (ha)	Norway spruce (ha)	Larch species (ha)	Other conifer (ha)	Comments
09392	13.0	10.4	0.1			2.0		Craig Face (part 1 of 2) – steep gnd harvesting for long term slope resilience/NMB restock.
09214	21.5	4.5	5.4	0.2		6.7	2.4	Craig Face (part 2 of 2) – steep gnd harvesting for long term slope resilience/NMB restock.
09001	7.0	6.3					0.1	Station coupe – clearfell for road, rail & OHPL resilience and NBL restock/restructuring.
09012	38.5	20.6		2.7		0.6		Sgurr a' Gharraidh plateau - peatland restoration: fell-mulch, drain block & gnd smooth.
09100	1.9	1.1					0.2	Fell-to-recycle (FTR) non-native conifers & retain SP in Allt na Chonais CPI.
09321	1.4	1.3						FTR p56 SS remnants in and bounding Coire a Bhainaidh CPI.
09105	5.1	4.9						FTR irregular p94/98 SS in Golden Valley riparian zone for native woodland restructuring.
09016	24.8	10.8		0.2		0.2		FTR irregular p2001/05 SS for NMB/SP nat regeneration adjacent to Allt na Chonais CPI.
09026	1.5	0.5		0.4	0.1	0.4	0.1	FTR non-nat cons for railway resilience and native woodland restructuring by regeneration
09094	3.3	3.0						FTR mostly checked p2013 SS for native woodland restructuring by natural regeneration.
09052	17.7	13.4		2.1				Conventional clearfell with some FTR for peatland restoration & some native woodland restocking.
Totals	**135.7**	**76.8**	**5.5**	**5.6**	**0.1**	**9.9**	**2.8**	*Net area of phase 1 clear felling: 100.7 ha.*
Clearfelling (Phase 2)								
Coupe Number	Gross Area (ha)	Sitka spruce (ha)	Scots pine (ha)	Lodgepole pine (ha)	Norway spruce (ha)	Larch species (ha)	Other conifers (ha)	Comments
09063	4.3		0.8		2.6			Two separate river Carron-side stands of mature cons – retain any windfirm Scots pine.
09036	26.1	12.8	0.6			1.5	8.6	Last non-native conifer coupe south of river: for native woodland restructuring by restocking
09065	22.2	9.4	1.8	6.8	0.2	4.0		Clearfell p1920-50's non-native conifers – retain windfirm SP/NMBs for native woodland restocking
Totals	**52.6**	**22.2**	**3.2**	**6.8**	**2.8**	**5.5**	**8.6**	*Net area of phase 2 clear felling: 49.1 ha.*

Table 4

Scale of proposed felling										
Total LTP Area			1,513 ha							
Felling	Phase 1	%	Phase 2	%	Phase 3	%	Phase 4	%	Long Term Retention	%
Gross Area (ha)	135.7	**9**	52.6	**4**	28.5	**2**	0	**0**	0	**0**

NB: Table 4 shows gross coupe areas (i.e. inclusive of integral open ground, all areas of trees for felling and any native trees for retention for habitat continuity or as future natural regeneration seed source.

2.3 Proposed thinning

There are no areas (coupes) identified for thinning within the Plan area.

2.4 Proposed Low Impact Silvicultural Systems (LISS)

Areas (coupes) identified for LISS within the period of the Plan are detailed in the following table and illustrated on **Map 6**.

Table 5

1.5 Table of LISS (Phase 1 & 2)					
LISS/Thin Coupe No.	Area (ha)	Thin Year	Species (bold = FTR)	LISS Prescription	Monitoring Comments
09906	2.3	26/27	**SS/MC**/NMB	Selective fell all non-native conifers in riparian corridor to improve native woodland integrity and opportunity for NBL/SP regeneration i.e. biodiversity objectives.	Coupe added/included in routine natural regeneration monitoring to assess regen efficacy and species composition.
09911	1.5	26/27	SP/**SS**	FTR remaining p1924 non-native conifers (and associated natural regeneration) in core CPI zone (PAWS). Adjacent non-native conifer clearfell undertaken in early 2000's.	Coupe monitored routinely as PAWS.
09903	1.2	26/27	**MC**/NMB	Selective fell all non-native conifers in riparian corridor to improve native woodland integrity and opportunity for NBL/SP regeneration i.e. biodiversity objectives.	Coupe to be added/included in routine natural regeneration monitoring to assess regen efficacy and species composition.
09912	33.6	26/27	NMB/**SS**	FTR remaining checked p1960 SS stands/singletons and associated natural regeneration: remnants of initial PAWS restoration (of historic alder carr) by wholesale SS removal in 1980's.	Coupe monitored routinely as PAWS.
09914	27.6	26/27	NMB/SP/**MC**	FTR non-native conifer regeneration (some >10 cm dbh) in regenerating native pine/birch woodland (previously a non-native conifer coupe, clearfelled in early 2000's).	
09913	93.7	26/27	NMB/SP/**MC**	FTR regenerating non-native conifers and remnant singletons from early 2000's clearfelling. Maintaining and ensuring integrity of CPI core and regeneration zones for biodiversity.	Coupe monitored routinely as PAWS.
09990	467.5	26/27	OG/**MC**	This area comprises all Managed Open Ground/Upland Heath above the treeline. FTR of sporadic non-native conifer regeneration (some >10 cm) for open semi-natural habitat conservation.	
09936	26.1	26/27	**DF/SS/JL**/SP	Halo FTR (i.e. Selective Fell) of non-native cons around veteran SP scattered through productive non-native plantation. Note: coupe to be clearfelled in LTP Phase 2 (09036 in Table 3)	
09902	4.6	27/28	SP/NMB/**SS/LP**	Selective fell/extract of all non-native conifers in groups and intimate mix with SP and native broadleaves i.e. native woodland restructuring with primarily biodiversity objective.	Coupe to be added/included in routine natural regeneration monitoring to assess regen efficacy and species composition.
09904	24.8	27/28	OG/NMB/SP/**MC**	FTR checked p1996 SS and remnant non-native conifers in riparian gulleys (surviving remnants of 1980's forest fire) for native pinewood restoration by regeneration within CPI buffer zone	Coupe to be added/included in routine natural regeneration monitoring to assess regen efficacy and species composition.
09907	70.2	27/28	OG/NMB/**MC**	FTR all non-native conifers (resulting from sporadic natural regeneration over many decades) within main river Carron for long term biodiversity and water quality objectives.	
Roadside	n/a	n/a	n/a	Notional 5 m buffer along all forest roads defined to give felling approval of any >10 cm dbh tree regeneration impeding vehicle access necessary for forest management.	

2.5 Other tree felling in exceptional circumstances

FLS have sought to identify and map all tree felling expected within the ten-year Plan period to meet LTP objectives in order to secure felling approval. However, there may be circumstances where small-scale tree felling is required and where it may not be possible to apply for, and receive in advance, a specific felling permission on account of the unacceptable risks or impacts incurred through delay.
Prior felling permission is therefore sought, for the approval period of the LTP, 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, services and drains.*

The maximum cumulative volume of felling in exceptional circumstances covered by this approval is 75 cubic metres per calendar year for the Long Term Plan area.
A record of timber volume felled in this way will be maintained and will be reported to the forestry regulator at the Long Term Plan's mid-term review.

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

- of less than 10 cm stem 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.

2.6 Restocking proposals

Proposed restocking, by planting or natural regeneration, is illustrated on restocking **Map 8** and detailed in Table 6 (below). Restocking will be of native species only. A prescribed species composition is also detailed for each woodland type in **Appendix 5** to be read in conjunction with the long term Future Habitats illustrated on **Map 7**. The maximum post-clearfell fallowing period for restocking will be 5 years - to limit pine weevil impacts on untreated restocked plants. This approach aims to minimise the requirement for pesticide application to otherwise limit these potentially significant impacts (see also section 4.1.5).

The table includes proposed restocking of currently fallowing coupes (i.e. felled before this Plan period) and these are programmed either for restocking in the first two years of the Plan or, where prescribed for woodland re-establishment by natural regeneration, the table's Monitoring Comments column provides evidence of present (2025) regeneration efficacy and any supplementary actions (e.g. restock or enrichment intervention) or request for additional time to reach anticipated establishment density, composition and structure. **Appendix 6** gives additional detail on the 2025 regeneration monitoring survey, analysis of that data and consequent recommendations for follow-on management.

Finally the table includes Phase 3 restocking (i.e. to be undertaken beyond Plan period) - where felling is to be carried out in the final years of this Plan but follow-on restocking falls beyond this Plan's timescale.

If restocking is failing to achieve minimum target densities of 1,600 stems per hectare (conservation objectives) or 2,500 per hectare (productive timber objectives) at fallow year 3 or 4 stocking density assessment, the site will be beaten up to meet this minimum density by, or at, year 5 after felling. Areas prescribed for establishment by natural regeneration will be assessed by year 3 after felling with any contingency measures required to encourage regeneration recruitment (e.g. scarification and/or direct seeding) completed by year 5, or enrichment planting prescribed and undertaken to achieve establishment by year 7 after felling at latest. In general the anticipated minimum regeneration recruitment density will also be 1,600 stems per hectare – in line with SF Guidance *Restocking Density for Native Broadleaves (May 2021)*.

Any future intended deviation from these timescales or minimum stocking densities will require prior discussion and agreement with the forestry regulator before enacting.

Table 6

Coupe No.	Fell Year (felled or *future*)	Restock/ Regen Yr	Area (ha.)	SP (ha)	PBI/SBI (ha)	SOK (ha)	Other NMB (ha)	Open (ha.)	Restock Method *Restock (R)* *Nat Regen (FNR)*	Monitoring Comments (Including any reason not to restock)
09034 C & D	2005/06	2027	1.0	0.3	0.3		0.2	0.2	FNR	Survey Autumn 2026 (missed 2025). Update SCDB if established or 26/27 enrichment to 1,600/ha. CPI Regen. zone.
09027 A	2009/10	2027	14.6	4.4	4.4		1.5	4.3	FNR -> R	Monitored 2025. 715/ha – enrichment plant 26/27 to 1,600/ha.
09027 B	2009/10	2027	11.6	3.5	3.5		1.2	3.5	FNR	Monitored 2025. Lower areas: 4,378/ha, treeline zone: 675/ha. Attribute survey & SCDB update 2027.
09030 A	2009/10	2027	8.8				5.3	3.5	FNR	Monitored 2025. 1,372/ha. SCDB survey & update: 2027. Acceptable density for riparian zone (see App. 6)
09027 C	2009/10	2027	3.0	0.6	1.2		0.3	0.9	FNR	Monitored 2025. 1,800/ha (av. 3.2 m): Established. Attribute survey & SCDB update: 2027.
09028 A	2011/12	2027	28.2	8.5	8.5		5.6	5.6	FNR	Monitored 2025. Lower areas: 4,378/ha, treeline zone: 675/ha. Attribute survey & SCDB update 2027.
09028 B	2011/12	2027	21.8	6.5	6.5		4.3	4.3	FNR	Monitored 2025. Lower areas: 1,914/ha, treeline zone: 1,020/ha. Attribute survey & SCDB update 2027.

09028 C	2011/12	2027	3.6	1.1	1.1		0.7	0.7	FNR -> R	Monitored 2025. 715/ha: enrichment plant in 26/27 to 1,600/ha.
09024 A	2014/15	2027	5.0	0.5	2.0		1.0	1.5	FNR	Monitored 2025. 240 - 525/ha: enrichment plant in 26/27 to 1,100/ha (treeline)
09025 A	2017/18	2027	4.6	1.9	1.0		1.0	0.7	FNR	Monitored 2025, 825 – 2,548/ha. Established. Attribute survey & SCDB update 2027
09025 B	2017/18	2027	1.4	0.6	0.3		0.3	0.2	FNR	Monitored 2025. 2,880/ha (av. ht: 3.0 m): Established. Attribute survey & SCDB update 2027.
09034 A	2019/20	2032	8.2	1.6	3.3		0.8	2.5	FNR	Monitored 2025. 194/ha. Regulator request for additional 3 year regen recruitment (Appendix 6). Monitor 2028.
09034 B	2019/20	2027	3.9	0.8	1.6		0.4	1.2	FNR	Monitored 2025. 1,800/ha (av. ht.: 1.8 m): Established. Attribute survey & SCDB update 2027.
09029 A & B	2020/21	2030	2.4	0.5	1.0		0.2	0.7	FNR	Monitored 2025. 715/ha (SP/PBI) in upper treeline zone. Monitor 2028 for 1,100/ha or remedial enrichment.
09571 B, C, D	2020/21	2032	15.8	3.2	6.3		3.2	3.2	FNR	Monitor regen: 2026 for regen evidence or follow-on actions to achieve 2032 establishment.
09104 A	2020/21	2027	18.9	1.9	7.6		3.8	5.7	FNR -> R	Monitored 2025. 609-715/ha – mounded 2026, enrichment restock programmed: 26/27 to achieve min. 1,600/ha.
09905 B	2025/26	2027	2.5	0.8	0.8		0.5	0.5	FNR	Monitor regen: 2028/29 (Yr 3) for follow-on actions
09603 A	*2026/27*	2032	5.5	1.1	2.2		0.6	1.7	FNR	Monitor regen: 2028/29 (Yr 3) for follow-on actions
09911 A	*2026/27*	2032	1.5	0.5	0.5		0.3	0.3	FNR	Monitor regen: 2029/30 (Yr 3) for follow-on actions
09392 A & B	*2027/28*	2027/28	13.0	1.3	5.2	1.3	2.6	2.6	R	Hot plant. A890 slope instability coupe.
09016 A & B	*2026/27*	2032	24.3	2.4	9.7		4.9	7.3	FNR	Monitor regen: 2029/30 (Yr 3) for follow-on actions
09026 A	*2026/27*	2032	1.5	0.6	0.3		0.2	0.5	FNR	Monitor regen: 2029/30 (Yr 3) for follow-on actions
09094 A	*2026/27*	2036	3.3	0.7	1.3		0.3	1.0	FNR	Monitor regen: 2029/30 (Yr 3) for follow-on actions
09100 A	*2026/27*	2036	1.9	0.6	0.6		0.4	0.4	FNR	Monitor regen: 2029/30 (Yr 3) for follow-on actions
09105 A	*2026/27*	2036	5.1	1.0	2.0		0.5	1.5	FNR	Monitor regen: 2029/30 (Yr 3) for follow-on actions
09321 A	*2026/27*	2034/35	1.4	0.3	0.6		0.3	0.4	FNR	Monitor regen: 2029/30 (Yr 3) for follow-on actions
09214 A	*2028/29*	2028/29	17.3	1.7	6.9	1.7	3.5	3.5	R	Hot plant. A890 slope instability coupe.
09214 B	*2027/28*	2036	4.2	0.4	1.7	0.4	0.8	0.8	FNR	Monitor regeneration: 2030/31 (Yr 3) for any required follow-on actions.
09052 C & D	*2027/28*	2031/32	3.2	0.9	1.3		0.3	0.7	R	Conventional upland birchwood restock (some SP) for conservation & naturalised treeline
09001 A	*2027/28*	2030/31	7.0		3.5	1.4	0.7	1.4	R	Amenity & conservation restocking – conventional gnd prep & restock: NMBs with significant SOK & SP component.
09036 A	*2032/33*	2036/37	20.5	8.2	6.2		2.1	4.1	R	Conventional upland pinewood restock (conservation) – within CPI (SP: local, DNB-free cert. stock)
09065 A & B	*2033/34*	2036/37	22.2	6.7	6.7	2.2	2.2	4.4	R	Conventional productive SP restock (lower slopes), upland birchwood (conservation/visual amenity) to treeline
09036 B & C	*2032/33*	2037	5.1	0.5	2.6		1.0	1.0	FNR	Monitor regen: 2029/30 (Yr 3) for follow-on actions
09063 A	*2032/33*	2037	4.3				3.4	0.9	FNR	Monitored 2035 (Yr 3) for follow-on actions
		TOTAL	***297.7***	*63.6*	*100.6*	*7.1*	*54.4*	*72.3*		

2.7 Afforestation (by natural regeneration)

Several areas/sub-compartments of Open Ground (see Table 7), adjacent to established or establishing restocked/regenerating woodland sub-compartments, are currently being colonised by native broadleaved woodland tree species and as such will ultimately constitute afforestation. These areas are illustrated on **Map 10** and also considered in Appendix 3 (EIA Scoping Opinion Request form).

Table 7

Coupe No.	Established (LTP Phase)	Area (ha)	SP (ha)	PBI/SBI (ha)	SOK (ha)	Other NMB (ha.)	Other BLs (ha.)	Open (ha.)	Minimum Density (stems/ha)	Comments
09259 A	1	2.8	0.3	0.8		0.6	0.3	0.8	1,600	*Within CPI buffer and PAWS (ASNW) zones*
09009 A	1	4.3	0.4	1.7		0.8		1.3	1,600	*Riparian woodland. Partially within PAWS (LEPO) zone.*
09261 A,B,C	1	10.4	3.1	2.1	1.0	1.0	1.0	2.1	1,600	*10.4 ha OG including 6.1 ha Failed p1996 Sitka spruce. Within PAWS (LEPO) zone.*
09037 C	1	6.1	1.2	2.4		0.6		1.8	1,600	*Within CPI buffer zone.*
09037 D	1	2.7	0.8	0.8		0.3		0.8	1,600	*Within CPI regeneration and PAWS (ASNW) zones.*
09380 B	1	12.2	2.4	4.9		1.2		3.7	1,600	*Within CPI buffer zone*
09913 A	1	7.3	1.5	2.9		0.7		2.2	1,100	*Within CPI buffer zone.*
09913 D	1	3.3	1.0	1.0		0.7		0.7	1,600	*Partially within CPI regeneration and buffer zones.*
09011 B	2	2.3	0.7	1.2		0.0		0.5	1,600	
09879 C&D	2	1.1	0.1	0.4		0.3		0.2	1,600	*Riparian woodland. Partially within PAWS (LEPO) zone.*
09906 A	2	2.3	0.5	0.9		0.5		0.5	1,600	*Riparian woodland. Partially within CPI regeneration and buffer zones.*
09595 A	2	2.0	0.4	0.8		0.2		0.6	1,600	*Within CPI buffer zone.*
09032 A	2	5.8	2.3	1.7		0.6		1.2	1,600	*Within CPI regeneration zone.*
09037 B	2	8.4	1.7	3.4		0.8		2.5	1,100	*Within CPI buffer zone*
09819 A	2	4.5				3.6		0.9	1,600	*Riparian woodland. Within CPI buffer zone.*
09913 G	2	1.1	0.2	0.4		0.1		0.3	1,100	*Within CPI regeneration and PAWS (ASNW) zones*
	TOTAL	76.6	16.6	25.4	1.0	12.0	1.3	20.1		

2.8 Proposed deforestation: open ground and peatland restoration

Two areas of afforested ground have been identified for peatland restoration (Phase 1 clearfell coupes 09012 and 09052, see Table 3, section 2.2). **Appendix 7** presents site survey, analysis and decision-making undertaken following FC's Practice Guide 104 *Deciding future management options for afforested dep peatland* (2015). Management **Map 5** and Soils **Map 11** also illustrate these area. FLS will also undertake a Prior Notification process with the Highland Council in regard to these proposals, adhering to any conditions imposed in consented works. 3.2 ha of coupe 09052 is planned for native woodland restocking (conservation, treeline upland birchwood) on account of a small area of mineral soils surveyed on the steeper sloping southern margins of this coupe (illustrated on restocking **Map 8** – coupe 09052 C and D – and included in Table 6 above).

These proposals are also presented for consideration and EIA determination in **Appendix 3**.

2.9 Summary of species diversity and age structure

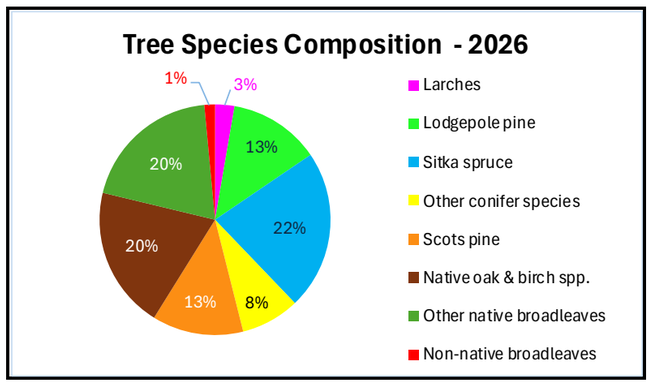
The following charts and tables show how proposed management is intended to achieve a more diverse tree species composition and age-class structure - as recommended in the UK Forestry Standard. The current tree species composition is illustrated on **Map 2** and the long term objective future woodland composition on **Map 7**. Table 8 details how areas occupied by native and non-native woodland tree species (and some grouped species) changes over time, along with the percentage *of the whole LTP area* this represents. The pie charts similarly illustrate tree species' composition over time - but as a percentage of *the total woodland area*.

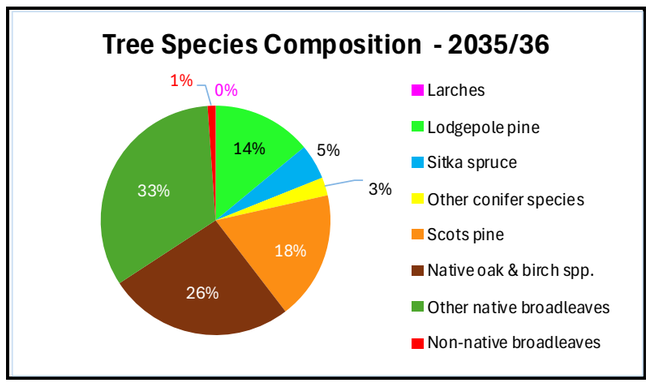
Land Use Compositional Change

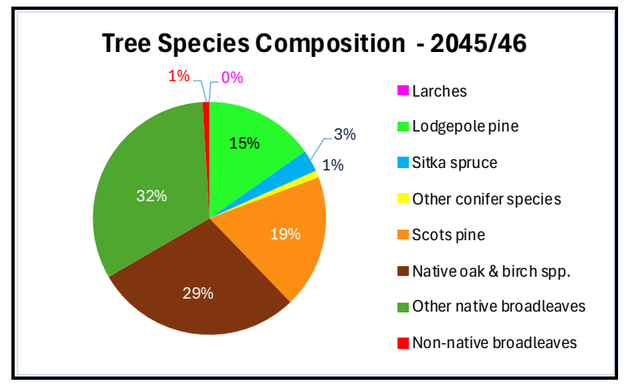
Table 8

Area by woodland or other land use						
Species	Area 2026 (ha)	% of LTP (2025)	Area in 2036 (ha)	% of LTP (2036)	Area 2046 (ha)	% of LTP (2046)
Native tree species	350	23	606	40	680	45
Non-native trees species	232	15	71	5	45	3
Felled/Fallowing/Failed	189	13	132	9	64	4
Open ground/Unplantable	715	47	677	44	697	46
Other (built/heritage/quarries/water)	27	2	27	2	27	2
Total	1513	100	1513	100	1513	100

Tree Species Compositional Change



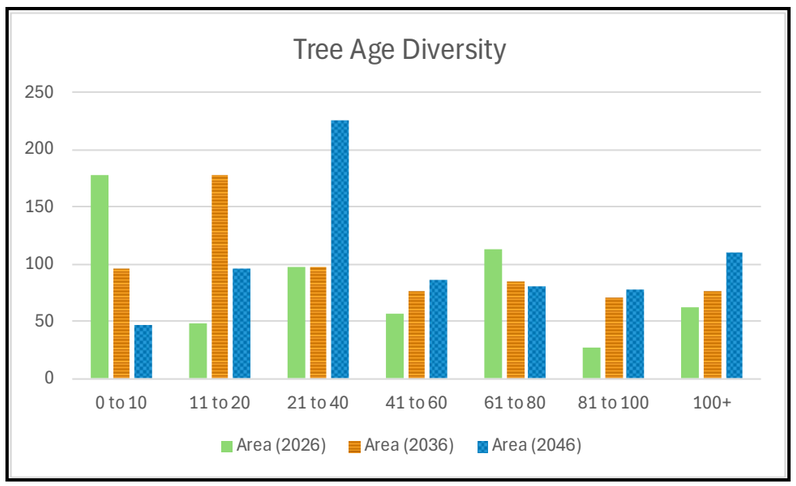




Woodland Age Class Change

Table 9

Woodland by Age						
Age Class (years old)	2026 (ha)	%	2036 (ha)	%	2046 (ha)	%
0 – 10	177	*30*	96	*14*	47	*7*
11 – 20	48	*8*	177	*26*	96	*13*
21 – 40	98	*17*	97	*14*	226	*31*
41 – 60	57	*10*	77	*11*	87	*12*
61 – 80	113	*19*	85	*13*	81	*11*
81 – 100	27	*5*	70	*10*	78	*11*
100+	62	*11*	76	*11*	111	*15*
Total	582		678		726	



2.10 Proposed roading operations and extractive sites

No new forest road construction is proposed within the first five year phase of the Plan. Two forest road spurs are proposed within the second phase. These are outlined in Table 10 and are depicted on the Management map (**Map 5**). FLS will submit an Environmental Impact Assessment Scoping Opinion Request in respect of these two new roads and their construction at LTP mid-term review. FLS also undertake a Prior Notification process with the Highland Council in advance of any proposed new road construction. Any planned road construction proposals – and all routine road maintenance works - are carried out using stone sourced from the existing in-forest quarries. The public road A890 is an Agreed route for timber haulage and consequently there is no requirement for prior consultation and agreement of haulage conditions with the local authority.

No new extractive sites are proposed within Plan period.

Table 10

Forest road upgrades, re-alignments, new roads and new quarrying				
Phase	Name	Length (m)	Year	Operation
2	Golden Valley spur west	250	2032/33	*A proposed roadline extension – following the footprint of an existing track for some of its initial length. To provide vehicular access for future harvesting and follow-on forest re-establishment & deer management in the most westerly coupe on the southern flank of the Carron river. Roadline still requiring detailed survey, definition and specification and so proposed for EIA determination at mid-term Plan review in 2031.*
2	Craig Flank spur east	1,000	2032/33	*A new road (Category A unbound stone carriageway) with associated side drain and timber stacking verge capacity -providing permanent vehicular access to afforested ground (Phase 2 clearfell coupe) west of Craig settlement. Roadline currently not surveyed to detailed specification and alignment and with entrance/threshold requiring engagement with council roads authority for suitability/dimensions/visibility splays. Proposed for EIA determination at mid-term Plan review in 2031.*

2.11 Meeting UK Forestry Standard (UKFS) requirements

In revising the Achnashellach Long Term Plan, FLS has complied with all requirements and good practice guidance of the UKFS to deliver the aims and objectives of the national strategies and corporate policies that derive from these (see **Appendix 11).**

2.12 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 3**.

Table 11

Phase 1 projects requiring EIA determination in the LTP area		
Type of project	Yes / No	Note
Afforestation	Yes	*76.6 ha new native woodland by natural regeneration (upland birchwood with SP) – see section 2.7 and* **Map 10***.*
Deforestation	Yes	*53.0 ha associated with peatland restoration – see section 2.8 and* **Maps 5** *&* **10***.*
Forest roads	No	*Two Phase 2 road construction projects will require EIA screening opinion at LTP mid-term review - see* **Map 5** *and section 2.10.*
Forestry quarries	No	

2.13 Summary of additional regulations

Should any new management proposals fall outwith 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) required in advance of peatland restoration or forestry-specific road works and for establishing agreeable timber haulage terms on public roads of consultation status (see section 2.10). The Prior Notification process can result in the local authority stipulating that a formal Planning Permission application is undertaken to formally seek approval for the proposed work.

2.14 Tolerance table

Working tolerances agreed with Scottish Forestry are presented in **Appendix 4**.

3 Analysis and Concept

3.1 Introduction

The Long Term Plan revision process is initiated by a review of the objectives - and management delivered towards those objectives – of the last Plan (section 3.2). This allows the production of an initial Key Issues and Features map (**Map 3**) which is consulted upon by FLS staff (internal scoping) and then with local residents, community organisations and other key stakeholders (external scoping). A record of these internal and external consultation stages is presented in **Appendix 2** – Consultation Record.

The management options ultimately proposed to deliver or support the new Plan's objectives are subsequently considered against the constraints and opportunities identified through the Plan review and scoping exercises. The final preferred approach/management proposed to achieve these objectives is then analysed and summarised on the Analysis and Concept map (**Map 4**).

3.2 Analysis of previous Plan

The key objectives of the last Land Management Plan were:

- Restoration of Caledonian pinewood, broadleaf woodland and open habitat within the Carron valley.
- Provide opportunities for sustainable rural development through small scale community renewables projects and wood fuel production.
- Manage the forest sympathetically to the landscape and improve the visitor experience.
- Timber production, optimise the productive potential of the existing forest and develop native timber production over the long term.
- Reduce risk to people and the environment through sustainable forest management, whilst building resilience for a changing climate.

Progress and issues resulting from management to achieve these objectives is presented below – summarised from 2021 mid-term review and discussion/feedback received during internal scoping undertaken in preparation of the new LTP.

Table 12

Review of delivery against Objectives of expiring Plan		
Plan Objectives	**Progress to date**	**Proposed action (in this Plan)**
Restoration of Caledonian pinewood, broadleaf woodland and open habitat within the Carron valley.	Undertook conventional clearfelling/timber recovery of three approved coupes of (predominantly) Lodgepole pine (gross area: 152.9 ha) south of river Carron and within CPI buffer (2018 to 2021) – removing risk of DNB spreading to core Caledonian pinewood from DNB-infected lodgepole pine. Undertook skyline clearfelling/timber recovery (2018) of one approved coupe (14.5 ha) from within CPI regeneration zone in Allt a Chonais ravine as well as fell-to-recycle of three coupes (gross 15.6 ha) of young, establishing Sitka spruce within same area. Regeneration of native woodland on the conventionally clearfelled ground/coupes south of river has been slow to colonise (i.e. insufficient extent of regeneration) and develop (slow establishment of regenerating seedlings on relatively impoverished soils) - noted at 2020 mid-term review. Construction works associated with a new hydro-electric scheme – including undergrounding of a new penstock through Sloc Mor, running parallel to Allt a Chonais, (completed 2015) had resulted in significant deer incursion into LMP area whilst the boundary fencing was breached by construction works. Deer control – subcontracted to NatScot – was insufficient/ineffective in early years of the Plan, however a new and better replacement contractor was proving more effective. Porosity of perimeter fencing had also been an issue but was fixed by LMP Year 5 (Note: impractical to construct and maintain fence across Allt a Chonais ravine). Three discrete coupes approved for fell to recycle of mature non-native conifers not progressed within Plan period (see Proposed Actions) A two-year programme of non-native removal has cleared regenerating non-native conifers from fallowing/regenerating coupes and from open ground above the treeline south of the river Carron.	*Restocking/Regeneration* A natural regeneration survey was commissioned and undertaken in 2025 to inform LTP review on progress of these fallowing coupes (see Appendix 6 and Map 9 for results) - with resultant management and interventions proposed and itemised in this LTP's section 2.6 and illustrated on Map 8 *Future Habitats – LTP Restocking & Regeneration.* *Non-native tree removal* *The programme of non-native tree regeneration removal will continue into the new Plan period with intentions of completing removal across all Open Ground and Fallowing/Regenerating native woodland areas.*

Review of delivery against Objectives of expiring Plan		
Provide opportunities for sustainable rural development through small scale community renewables projects and wood fuel production.	No further contact or correspondence received during Plan period with respect to any speculative future renewable schemes. Although keen to purchase timber for a community firewood enterprise at last Plan review (2015), Lochcarron Community Development Company subsequently undertook significant clearfell harvesting in Kirkton wood (LCDC-owned community woodland) during 2017-18 - with substantial stockpiling of timber/firewood. No requests for additional firewood supply or collaborative planning/working have been made with respect to Achnashellach LMP area. Delivery (ongoing) of multi-year non-native removal contracts (Scottish Rainforest Alliance project-funded) has allowed principal contractor to instigate new apprentice and skills training opportunities within the LMP area.	*Remain open to approaches from local community and other stakeholder groups for co-operation or collaboration where ideas/proposals align with the objectives and delivery of the Long Term Plan.* *Rainforest Alliance-funded projects set to continue in the early years of new LTP – offering further apprenticeship and skills training opportunities as well as work/income for Highland-based contractors.*
Manage the forest sympathetically to the landscape and improve the visitor experience.	All operations and management have been undertaken within the scope and objectives of the approved LMP including restocking to vary linear/geometric coupe shapes (as per Plan). All trails, visitor thresholds, gates and interpretation have been managed to maintain Scottish Outdoor Access Code principles. All trails have been maintained to allow unhindered pedestrian access across the landholding and onto adjacent open hill land and long distance trails. Visitor car park at Craig – planned for relocation (in last LMP period) - has not yet been undertaken.	*Continue to progress LMP-approved restructuring objectives and consider landscape visual impact of all new management proposals prescribed in the new Long Term Plan.* *Formal planning application was submitted (2025) for a re-located car park with associated proposals to provide a new trail linking this new facility with existing forest roads and trails south of the river Carron. (Note: this planning process is outwith the scope of this LTP).*
Timber production, optimise the productive potential of the existing forest and develop native timber production over the long term.	All Phase 1-approved coupes for clearfelling for timber production in the last LMP have been completed with follow-on restocking and/or regeneration to establish LMP's Future Habitats prescription. Three Phase 2-approved coupes for clearfelling were not undertaken before expiry of the LMP (November 2025): the two 'Craig Face' coupes (see explanation in row below) and the northerly 'Cowlin road' coupe (hybrid working: mixture of conventional harvesting/timber extraction and fell-to-recycle of checked crop areas)	*All coupes approved for clearfelling in the last Plan period are proposed for felling in this new LTP.*
Reduce risk to people and the environment through sustainable forest management, whilst building resilience for a changing climate.	The two LMP-approved clearfell coupes above Craig (the 'Craig Face' coupes) – prescribed to commence restructuring of woodland on steep, potentially instable slopes - were not clearfelled and restocked on account of two 'lost' operational years over the Covid pandemic and knock-on impact on availability of (limited) competent contractor resource to progress.	*New LTP to re-confirm plans to undertake this felling in order to remove risk to settlement and public transport corridors and to restock with native woodland for improved long term slope resilience.*
Other progress, developments & issues.	One additional clearfell coupe - approved by amendment (October 2016) – was felled in 2016/17 – to accommodate a proposed realignment of the A890 road. The council's plans were ultimately postponed indefinitely on account of budgetary constraints. The fallowing ground has re-established with LMP Future Habitat native woodland species (recorded in 2025 natural regeneration survey – see Appendix 6 and **Map 9**) by a combination of natural regeneration and enrichment planting.	

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). **Map 3** summarises this analysis process with respect to relevant geographical areas.

Table 13

Concept Analysis			
Objective	**Opportunities**	**Constraints**	**Concept**
Increase climate-related Resilience *(steep slope stability, built/public infrastructure, water quality, forest & open ground & peatland condition)*	• Felling mature forest stands that are a current windthrow risk to important access corridors (public roads, core paths, popular trails) • Felling of mature and over-sized conifers on steep slopes presents opportunity to replant with lower stature, non-productive native woodland with visual, environmental and slope stability benefits. • Post-fell tree stumps and root systems offer short- to medium term (c. 10 year) increase in slope stability (tree removal eliminates windthrow risk with soil disruption and slope stability concern) • Some checked and failed afforested areas currently occupying ground with deep peats where removal will create a peatland restoration opportunity. • Implementing FLS policy of restoring >85% of PAWS to native woodland composition, will result in landscape-scale native habitat restoration with conservation & resilience benefits.	• Some extremely difficult terrain (very steep and at close proximity to public roads & infrastructure) requiring specialist felling/recovery techniques and limited competent contractor resource. • Traffic management required in conjunction with steep slope felling above A890 will inconvenience public road and rail users and especially with additional volume of summer visitors. • Risk of enhanced surface water run-off until follow-on woodland is establishing. • Fertile, south facing slopes will revegetate quickly with restock-competing weeds/grasses. • Similar difficulty posed by very steep terrain to restocking operations and associated deer browsing control.	• *Prioritise felling of steep slope coupes, designing felling coupes to windfirm features within the forest where possible.* • *Specialist felling/extraction techniques to deliver steep slope felling of mature non-native conifers.* • *Felling methodology and timings to be discussed and mutually agreed with council roads authority and Network Rail to minimise transport disruption.* • *Restock steep slopes with minimum intervention native woodland species of predominantly lower stature to increase soil cohesion/slope stability and improve long term water regulation (rainwater interception, percolation and evapo-transpiration rates).* • *Undertake restocking operations on steep slopes, by pedestrian methods only, soon after felling phase to increase restock success over pioneer weeds/grasses.* • *Use effective manual screef ground prep techniques to create planting positions on steep slopes.*
Continue landscape-scale restoration of native woodland	• Expanding and connecting core pinewood and isolated remnant native woodland will increase ecological function and increase resilience of native habitats, species and their inter-dependencies to negative impacts of climate change. • Good representation and distribution of mature native woodland tree species across LTP area – to provide seed source for natural regeneration-based restocking in many areas.	• An increase in amount of more palatable, slower-to-establish broadleaved tree species will require rigorous deer control and monitoring to achieve success. • Establishing native woodland on old non-native conifer sites, or adjacent to still-standing seed-bearing non-native conifers, will result in unwanted conifer regeneration with potential to outcompete native trees/habitat establishment. • Over reliance on (solely) natural regeneration may result in species-poor seedling recruitment and woodland due to limited range of seed source species or regeneration efficacy.	• *Continue following best practice deer management, engaging with local Deer Management Group and neighbouring estates and directing third party deer control effort to achieve LTP objectives and in response to monitoring evidence.* • *Continue to monitor and control non-native regeneration and any new INNS incursion through native woodland establishment phase to ensure ecological integrity of restructured woodland.* • *Monitor fallowing and naturally regenerating sites to assess tree density and species diversity success. Implement enrichment planting where characteristic woodland tree species are absent.*
Manage and consolidate sustainable timber production	• Plan area contains two mature (i.e. beyond Mean Annual Increment growth) non-native coniferous woodland areas with no current adjacency concerns that might otherwise limit felling within new Plan period. • Both areas of mature conifers are located in areas where their felling will allow other LTP objectives to be progressed – i.e. addressing slope instability resilience and native woodland restructuring with the CPI buffer zone.	• Entire south-of-glen forest area is within a CPI buffer zone which limits restocking with (imported, certified DNB-free of non-local genetic origin) Scots pine to perpetuate timber production here. • Beyond the aforementioned mature coniferous woodland, all productive conifer woodland is under thirty years and comparatively slow growing – resulting in a probable greater than ten-year gap between this LTP's harvesting and the next.	•

Concept Analysis			
Support and maintain public access	• Relocating Craig car park gives an opportunity to improve visitor safety in respect of vehicle egress and parking (improved sightlines onto/off public road) and also safer pedestrian trail access (i.e. no requirement to cross public road and railway to reach southern trails from car park).	• Some mature, productive timber coupes are in close proximity to existing trails or to forest roads which form an important component of trail inter-connectivity and so future harvesting/timber export will conflict with this public access and use.	• *Ensure all forest operations are planned with consideration for forest users (recorded and implemented through work plan system), providing diversions where required to maintain access in accordance with FC practice note "Managing Public Safety on Harvesting Sites".* • *FLS visitor staff to continue to monitor and review trail network condition, opportunities & constraints with respect to LTP's intended programme of forest management operations – using on-site signage and recognised online walking/recreation sites to notify of any periods of deviation or interruption of access.*
Manage the forest sympathetically to landscape character	• The long term establishment of tree-line woodlands by natural regeneration will lead to a more natural visual transition from glen floor and mid-slope high forest to open hill habitats. • UKFS compliance with the principle of 'adjacency' will ensure a more fragmented, incremental – and visually acceptable - approach to felling is taken across afforested land ensuring sufficient re-growth on adjacent restocked coupes is achieved before further felling. • Opportunity to continue (from last Plan) and complete fell-to-recycle of small, discrete remnant stands of mature non-native trees - removing these conspicuous and incongruous features from the otherwise-naturalising LTP landscape. • Some areas of mature/maturing productive forest have limited or no vehicle access to allow felling, restocking and ongoing forest management.	• Specialist felling (skyline/winch working) needs to work at scale and directly up/down steep slopes which creates large felled coupes with straight edges – detracting from local aesthetic and in an area of Local Landscape designation. • Forest health issues (disease/pest presence and potential statutory requirement to fell trees) may result in changes to felling coupe shapes to remove pathogens rather than improve landscape aesthetics. • Compliance with UKFS adjacency principle is difficult to adhere to in continuous stands of very large trees on very steep slopes above A890 (windthrow & slope stability concerns) which may result in extensive and conspicuous areas of clear-felled ground.	• *Design felling coupes to windfirm edges and sympathetic to local topography where operationally feasible.* • *Accept that a pragmatic approach to coupe shapes may need to be taken in some very steep slope operations or instances of disease/pest outbreak.* • *Undertake 'hot planting' on very steep slopes i.e. restocking of clear-felled slopes without the more typical 1 to 3 year fallowing to hasten re-establishment of follow-on woodland.* • *Work with landscape architect in evolution of new felling/restocking proposals in new LTP and in planning new forest roading into remote timber coupes, and in design of the new car park.*

4 Management proposals and prescriptions

4.1 Silviculture/forest management proposals

4.1.1 Clear felling

Sites proposed for clear felling in the Plan period are identified as Phase 1 and Phase 2 management coupes on **Map 5** and itemised in Table 3 (section 2.2) along with pertinent details (e.g. rationale, objectives, operational constraints etc). All other planned tree felling (e.g. selective felling, felling of individual trees) is shown on **Map 6**, itemised in Table 5 (section 2.4) and LISS prescription rationale described in section 4.1.3.

Most clearfelling will employ conventional shortwood felling prescription: use of track-based harvester machinery to fell, sned and cross-cut trees into product lengths - these being uplifted and transported by tracked forwarder to forest roadside where resultant timber stacks are subsequently uplifted for road haulage by timber lorries. The LTP area has some very steep afforested slopes where harvester access is unsafe or impractical and where pedestrian-operated chainsaw felling in conjunction with cable-crane/winch assemblies will lift and bring felled trees to forest roadside for subsequent processing/cross-cutting and forwarding to roadside stacks for export haulage. Brash and branchwood arisings from roadside timber processing will be chipped and exported to biomass markets.

4.1.2 Thinning

No conventional thinning is envisaged within the Plan period.

4.1.3 Low Impact Silvicultural Systems (LISS)

All proposed LISS coupes are illustrated on **Map 6** and detailed in Table 5 (section 2.4).

Application of the term LISS in the Achnashellach LTP has been used to address silvicultural and open ground habitat management operations for biodiversity benefit rather than its more typical application (i.e. incremental felling to improve productive timber crops/stands). With the LTP objectives of restoring, expanding and increasing the resilience of native habitats at a landscape-scale, two specific LISS methodologies are being utilised:

- '*Selective Felling*' – approval for felling of >10 cm dbh sporadic and scattered non-native conifers that have established by natural regeneration on (otherwise open) upland heath habitat above the natural treeline. This is prescribed to maintain the integrity of this habitat; and
- '*Irregular Shelterwood*' – approval for felling of non-native conifers (singletons and some in intimate mix with native trees) from within established Scots pine woodland – remnants left on account of inaccessibility or limited economic value in previous timber harvesting operations over the last fifty years – now an unwanted seed-source and threat in pinewood and other native woodland habitat restoration.

4.1.4 Long term retentions, Minimum Interventions and Natural Reserves

Refer to **Map 5**.

In accordance with FLS Natural Reserves guidance, 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 predominate and the only intervention envisaged is to conserve and promote these processes. The continuity (and longevity) of habitat afforded within Natural Reserves conserves and promotes recovery of sedentary species and so they function as refugia of permanent habitat from which more mobile species can expand into adjacent sympathetically 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 currently foreseen in these areas. 2.5 % of the LTP area is Natural Reserve: one 23.5 ha contiguous area of veteran alder carr within the strath (cleared of non-native conifer plantation in the 1980's) and the remaining 15 ha comprising a number of disparate riparian and floodplain native woodland stands along the braided river Carron. All areas of Natural Reserve are illustrated on **Map 6** Low Impact Silvicultural Systems as there is an ongoing programme of selective felling of remnant and naturally regenerating non-native trees in these areas.

The classification **Minimum Intervention** includes areas of land/woodland to be similarly managed for environmental benefit, but with minimal frequency or intensity of intervention, for a prescribed period of time i.e. not necessarily in perpetuity. This is primarily ground within establishing native woodland restock or natural regeneration where only routine cleaning of non-native regeneration is anticipated during the establishment phase and in riparian native woodlands where adjacent non-native conifers have only recently been removed and seedbed regeneration is still anticipated and will require cleaning.

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 Achnashellach LTP area, this classification is applied to a total of 9 ha of woodland in three individual stands: a 5.8 ha of Norway spruce (p1923) in a steep sided PAWS-designated gully and two public roadside linear strips of sycamore-dominant mixed broadleaves serving primarily as a naturalised and aesthetic screen.

4.1.5 Restocking by planting

Refer to **Map 8**.

Restocking by planting is considered where productive non-native conifers are to be grown for timber in a subsequent rotation and in felled coupes prescribed for native woodland establishment where there is insufficient quantity or variety of native, mature (and therefore frequently seed-bearing) trees in the vicinity to expect satisfactory levels of natural regeneration. Restocking will be to achieve minimum stem density of 2,500 per hectare (productive conifers and broadleaves) and 1,600 per hectare (native woodland for conservation). Native species transplants will be of local provenance zone or nearest adjacent zone if unavailable. The method(s) of ground preparation in advance of restocking is assessed on a site by site basis to achieve the requisite density of planting spots (see Table 6, section 2.6) and in accordance with techniques stipulated in published UKFS-compliant Scottish Forestry guidance "*Cultivation of Upland Woodland Creation Sites – Applicants Guide (2021)*".

When restocking in areas where little clearfelling has been undertaken in recent years, a three year fallowing interval is typically applied. However a 5-year fallow period between felling and restocking may be adopted to allow for a natural reduction in *Hylobius* populations on a felled site where there has been a significant rise in local *Hylobius* populations. *Hylobius* monitoring will be carried out during fallowing in order to ascertain population levels and as a means of reducing the need for insecticide applications during restocking and the establishment phase. Given the drive to minimise the use of pesticides on FLS landholdings, delaying restocking operations is currently the most realistic option to establish the next generation of trees without reverting to chemical pesticides. Where a fallowing period is likely to exceed five years on account of persistent Hylobius populations, prior approval will be sought from Scottish Forestry and to satisfactorily address any adjacency issues introduced by such a delay. The preferred means of dealing with any adjacency issues will be through delayed felling, i.e. a coupe will not be felled until all surrounding restocked or regenerating woodland is at least 1.3 metres tall.

On steep slopes where there are slope instability concerns, and ground preparation machinery cannot operate safely, "hot" planting is undertaken i.e. restocking in the winter following felling with ground preparation limited to manual screefing of planting spots and notch/flat planting. Phase 1 clearfell coupes 09214 and 09392 on the slopes above the A890 are instances where this hot planting approach will be applied.

4.1.6 Natural regeneration

Natural regeneration is considered the most effective, low input method of establishing native woodland on felled terrain and in riparian corridors where there is considered to be sufficient quantity and variety of native, mature (and therefore frequently seed-bearing) trees in the vicinity to expect satisfactory levels of natural regeneration. These areas are also illustrated on **Map 8**. Regeneration is generally anticipated without requirement for preliminary ground preparation. Much of the currently fallowing ground prescribed for natural regeneration is on peaty surface water gley soils with comparatively low fertility. Consequently establishment of native broadleaves (to greater than 1.3 m growth) can take upto 10 years to achieve. Routine monitoring of regeneration will be undertaken by year 3 of fallowing in order that any factors restricting recruitment success are identified and any contingency actions to restock be programmed. Where tree regeneration and recruitment is proving unsuccessful, or expected to be too limited to achieve at least 1,600 stems per hectare by year 5 after felling, scarification may be undertaken to create more conducive regeneration conditions for local native tree seed recruitment. Alternatively enrichment planting with native tree transplants may be undertaken where regeneration evidence is considered insufficient in either density or species variety to achieve the prescribed future woodland habitat extent and composition by year 7.

4.1.7 Woodland creation

A gross area of 76.6 ha of open ground is anticipated to become afforested to minimum 1,600 stems per hectare within the Plan period. The component areas are detailed in Table 7 (section 2.7) and illustrated on **Map 10**. All areas are originally unplanted sub-compartments adjacent to afforested ground or long-established native woodland and were observed, at LTP revision, to have increasing levels of native tree recruitment. These will be formally surveyed in 2027 (Phase 1 establishment cohort) or 2032 (Phase 2) and incorporated into the Plan's sub-compartment database. Consideration of these areas of afforestation is included with **Appendix 3** EIA Scoping Opinion Request.

4.1.8 Restoration of peatland

FLS utilises a decision making protocol for consideration of potential peatland restoration sites: *FC Practice Guide 104 – Deciding future management options for afforested deep peatland (2015)*. Two areas are proposed for restoration within this Plan period (see section 2.8 and **Maps 5 and 10**. The underpinning rationale for their choice is outlined in **Appendix 7** and the deforestation that the restoration requires is considered in the EIA Scoping Opinion Request (**Appendix 3**).

4.1.9 Forest tree health

FLS has legal and Good Forestry Practice responsibilities under the UK Forestry Standard for monitoring tree health, with suspected pests and diseases reported to Plant Health Inspectors and forestry regulator (Scottish Forestry) and then compliance with any consequent biosecurity measures stipulated to eradicate or reduce its presence and/or potential further spread. There are several pests and diseases of national significance that are currently pertinent to the Achnashellach LTP area:

Dothistroma Needle Blight (DNB) in pine trees is monitored on a three-yearly cycle of aerial condition surveying in line with FLS' DNB Strategy (2017) with identified infected trees/stands subsequently visited (i.e. "ground truthed") and scored for severity of infection. National management strategy is to slow DNB spread, reduce inoculum levels in infected coupes to reduce risk of hybridisation of disease genotypes, and to minimise economic losses incurred through infection by prioritising felling of infected sites with low mortality and still of marketable value. Over 215 hectares of DNB-infected Lodgepole pine have been clearfelled in 2013-2021 on account of its proximity – and hybridisation threat - to CPI remnants in the Plan area.

Phytopthera ramorum is a fungus—like pathogen that infects larch species causing needle death, shoot dieback, bleeding cankers and ultimately tree death and as such is a major health and economic threat in UK forestry. The disease is notifiable by Special Plant Health Notice stipulating an earliest-possible felling obligation (with additional sanitation buffer zone) to eliminate risk of further spread of the disease from the newly infected trees. In response to incremental (north and westward) spread of this disease from early infection areas, FLS has adopted a strategy of pre-emptive felling to reduce potential onward disease spread. The Achnashellach LTP area lies within the strategy's 'Priority Risk Zone' where the following pre-emptive and – if required – reactive planning actions are to be employed:-

- Eradicate the disease by felling infected trees and areas of trees notified for felling by Scottish Forestry to the timescale enforced by Special Plant Health Notice;
- Decrease the area of larch woodland across the national forest by 20% (of a 2021 baseline) by April 2027;
- Construct access to greater than 80% of all larch coupes by April 2027;
- Fell all difficult and complex larch coupes by 2032.

Of the Plan area's current 18.1 ha of larch species, there will be a 99% reduction over the next ten years. 15.4 ha of larch is included within standard clearfell harvesting coupes/operations (see Table 3) and a further 2.4 ha will be felled as part of the non-native fell-to-recycle selective felling outlined in section 2.5. The remaining 0.26 ha (p2013 EL) is scheduled for felling beyond 2061 but located at no greater than 200 m from an existing forest road should access for SPHN felling be required in the interim.

Chalara Dieback in Ash (*Hymenoscyphus fraxineus*) has been established in the area for two decades now and causes the gradual decline and possible death of infected ash trees. FLS' response to the spread and impact of this disease is to only fell infected trees if they pose a safety threat to the public and forest users near publicly accessible places/spaces i.e. road- and trail-side trees (i.e. pre-emptive felling) as dieback can ultimately compromise a tree's structural integrity. No ash trees will be planted in native broadleaf restocking as currently there is a ban on the movement of ash trees and seed within the UK.

Large pine weevil (*Hylobius abietis*) is an insect pest affecting many species of young trees, including native broadleaves, but is especially destructive of pine and spruce seedlings and transplants. Weevil populations can build to high levels over several years after clearfelling of coniferous woodland (especially pine) and can consequently hinder the successful establishment of restocked and regenerating sites. Chemically treating transplants and young trees can kill weevils attempting to feed on vulnerable stems however the natural population dynamics of this pest sees a gradual but reliable decline in weevil numbers once felled ground is fallowed for more than three years and – by year five – weevil populations and their impact on untreated restocking can be tolerable.

Heterobasidion annosum or butt rot is a significant fungal risk to many timber-producing conifer species in the UK. The fungus can proliferate on fresh-cut stumps and favours warm, free-draining soils to spread and potentially infect follow-on conifer crops. Most afforested soils within this LTP are considered of High risk of infection for *H. annosum* and as a consequence the application of a urea solution onto fresh cut conifer tree stumps is advocated in all harvesting where a subsequent productive timber species is proposed for restocking to reduce potential infection rates.

4.1.10 Steep Ground assessment and management

An FLS-commissioned geotechnical survey of the LTP area (2012) provided an understanding of where the *hazard* of instable slopes - and associated *risks* posed to infrastructure, people and the environment - are and classifies these by severity. A map presented in **Appendix 1** – Background Information shows the individual geotechnical survey areas and their derived instability classification. This information allowed consideration of a programme of remedial restructuring work for delivery during the last Plan period, prioritised to address and alleviate the most serious hazard zone: on the northern side of the public road and railway in the vicinity of Craig settlement. This work was not progressed (see Table 12, in section 3.2. Analysis of the last Plan) and consequently remains a high priority for delivery in this LTP period. Two Phase 1 clearfell coupes are programmed here ('Craig Face' coupes 09392 and 09214, see section 2.2 Table 3).

FLS' Technical Guidance and Information Notes *for Long-term Management on Steep Slopes* (2015) is used to inform both the felling and appropriate re-establishment processes as well as species prescriptions to achieve long-term Minimum Intervention 'protection forest'.

4.2 Deer and herbivore management

FLS recognise that deer are capable of causing significant damage to forests and woodlands, mainly through browsing and bark stripping, and can also adversely affect biodiversity of both woodland and open ground habitats through over-grazing of ground flora and the suppression of regeneration and of characteristic structure. They are however a natural component of wood- and heathland ecosystems and can provide recreational sporting opportunities and venison - whilst the presence of deer can enhance the experience of visitors in the outdoor environment. The challenge of wild deer management is therefore to balance environmental, economic and deer welfare objectives on FLS land and within a wider context of neighbouring private landowners' objectives undertaking forestry, agriculture, sporting and other forms of land use beyond FLS' boundaries. **Appendix 9** presents a Deer Management Plan for the Long Term Plan area (including the approach to fencing and fence maintenance) and outlines how crops and habitats are to be adequately protected and contingencies for observed and/or monitored increases in levels of damage.

There are currently no other known, significant herbivore threats to the forest and land within the LTP area (e.g. hares, rabbits, goats, feral wild pigs or intruding farm livestock).

4.3 Roads, quarries operations and timber haulage

The LTP area is bisected by A890 public road, classified as an Agreed route by the Highland Timber Transport Group and can be used for timber haulage without restriction as regulated by the Road Traffic Act (1988).

Internal forest roads, bridges and quarries are constructed and maintained to, or within, specifications stipulated in the FLS *'Civil Engineering Specification (v1, 2020)*' and Forestry Commission's Operational Guidance Book 12 *'Managing Forest Roads'*. These documents also define planning consent protocols, the design and construction of ancillary roading infrastructure e.g. ramps, ditching and culverts as well as the competency assessment and oversight of third party contractors appointed for construction works. With respect to health and safety, all civil engineering works must be compliant with the Health & Safety at Work Act 1974, the Workplace (Health, Safety and Welfare) Regulations (1992 and 1999), the Quarries Regulations 1999 and the Construction (Design and Management) Regulations 2015 and Forestry Industry Safety Accord (FISA) Guidelines. Compliance is also upheld with the following environmental and water quality protection regulations: Water Environment (Controlled Activities) (Scotland) Regulations 2011, Pollution Prevention and Control (Scotland) Regulations and Forestry Commission's (2019) Forest & Water Guidelines – 6th Edition. Additional over-arching legislation is detailed in **Appendix 11** – Key policies and publications.

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 65% (990 ha) - and will rise to 93% (1,403 ha) by 2036 upon completion of the Plan's felling and restocking/regeneration 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 or by restocking.

4.4.1 Designated sites

There are no areas of environmentally designated land/habitat within the LTP area and consequently no requirement for a Designated Sites Plan or Habitat Regulations Appraisal.

4.4.2 Native woodland

FLS seeks to protect, enhance and expand all existing areas of native woodland within the LTP 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 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 clear-felled, fallowing ground. Non-native natural regeneration (predominantly Sitka spruce and Lodgepole pine) has been common on fallowing areas after clear felling of these non-native conifers and timely cleaning of this regeneration by pole stage is ongoing and will be required through Plan period for successful restock/regeneration of native woodland.

4.4.3 Ancient woodland / Plantation on Ancient Woodland sites (PAWs) and Core Pinewood Inventory Areas (CPIs)

FLS policy is 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 Achnashellach LTP area, there are approximately 178 hectares of ASNW (ASNW and LEPO areas illustrated on **Map 2**) with the vast majority now cleared of non-native plantation and in the Restoration phase (143 ha) or else proposed for non-native tree removal (3.9 ha) - to initiate restoration - by conventional clearfelling or thinning within this Plan period.

PAWS surveys are conducted on a regular basis (5 yearly) and management priorities changed to reflect these survey results. At 2024 survey, the majority of PAWS sites were assessed as Critical (see table below) with the presence of non-native plants (INNS and regenerating conifers) typically cited as a Critical concern as well as herbivore (deer) impacts that are suppressing regeneration and restoration. An estate-wide programme of non-native tree and INNS removal is ongoing (2024-2027) which is addressing the presence of all non-native species. The Deer Management Plan (**Appendix 9**) addresses the herbivore impacts and management (i.e. control) response being taken to address these.

Table 14

Location	AW ID	Ecological Value	Summary Threat Level	*Notes*	Area (Ha)
River Carron NE	2477	High	Critical	*'Critical' factors: Presence of INNS/non-native conifers and High herbivore Impacts.* *Very high density of veteran pines (including standing deadwood). All INNS/non-native cons removed (internal FTR 25/26, adjacent LP fell 20/21).*	14
Allt Dearg	2523	High	Critical	*'Critical' factors: Presence of INNS/non-native conifers and High herbivore Impacts.* *All non-natives removed (N of burn). Extensive mature NS (S-side): LTR due to very steep slopes with impractical, unsafe management access.*	11
Achnashellach Pinewoods N	2479	High	Threatened	*'Critical' factor: INNS and non-native conifers including regeneration. 'Threatened' factor: Medium Herbivore Impact.* *All non-natives and INNS removed since 2024 PAWS survey.*	20
Achnashellach Pinewood S	2478	High	Critical	*'Critical' factors: Non-native conifers (including regeneration) and INNS. 'Threatened' factor: Medium to High herbivore impacts.* *All non-natives and INNS removed since 2024 PAWS survey. Two remnant stands of non-native conifers planned for clearfelling (LTP Phase 1)*	51
Coire Bhainidh	2486	High	Critical	*'Critical' factor: Non-native conifers (including regeneration). 'Threatened' factor: Medium to High herbivore impacts.* *Most non-natives and INNS removed since 2024 PAWS survey. Remnant stand of non-native conifers planned for clearfelling (LTP Phase 1)*	44

Location	AW ID	Ecological Value	Summary Threat Level	*Notes*	Area (Ha)
Golden Valley	2487	Medium	Improving	*'Threatened' factors: INNS/non-nat conifer presence and Medium herbivore impact.* *All non-natives and INNS removed since 2024 survey.*	11
Carron Floodplain	2484 & 2482	High	Critical	*Critical factors: INNS/non-native conifers presence. High to very high herbivore impacts.* *INNS and conifers scheduled for removal (LTP Phase 1).*	20

4.4.4 Protected and priority habitats and species

All forest management operations are subject to a formal Work Planning process initiated prior to commencement. This includes walkover checks for wildlife (presence or activity), and the presence of any currently unrecorded and significant natural habitat and terrain features. Details are recorded in a Work Plan document alongside control measures prescribed to avoid 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 appended to standing sales. Additionally FLS will comply with FC operational guidance with respect to European Protected Species, otters, fresh water pearl mussels, white-tailed eagle and other birds (individual Guidance Notes listed in **Appendix 11**). This guidance includes the need for prior consultation with Nature Scot with regard to potential disturbance of Schedule 1 bird species and compliance with any consequent licensing requirement. Mitigation prescribed with respect to Black Grouse in proposed peatland restoration operations is also outlined in **Appendix 3.** The following table lists notable habitats and species recorded within the Plan area and associated management actions prescribed to conserve them.

Table 15

Notable EPS and Scottish Biodiversity Strategy Species Priorities and Actions supported by this LTP		
Species	Status	*Objectives*
Red Squirrel	Survey, monitor, protect.	*Survey sites prior to forestry operations. Diversification of tree species and age class will create a range of coning times and food availability. Preliminary Ecological Appraisals will identify and protect any dreys. Any felling of dreys will be in accordance with licensing from NatureScot with associated mitigation.*
Pine Marten	Survey and protect.	*Survey sites prior to forestry operations. Integrate protection of the species during forestry operations if necessary by protection of den and trees/stumps in which they breed. Retain ancient trees/deadwood with holes and increase the quantity of deadwood throughout the site.*
Badger	Survey, monitor, protect.	*Survey sites prior to forestry operations. Manage forestry operations to avoid disturbance of breeding badgers and damage to setts. Any felling of trees within proximity of setts will be in accordance with licensing from NatureScot with associated mitigation.*
Bats	Survey, monitor, protect.	*Survey sites prior to forestry operations. Integrate protection of breeding/roost sites and of the species during woodland management where necessary. Protect ancient trees which have potential for bat roosts.*
Otter	Survey and protect	*Survey sites prior to forestry operations. Manage forest operations to protect and enhance habitats and any operations will be carried out under license from NatureScot. Preliminary Ecological Appraisals will identify and protect otter breeding and resting sites.*
Water vole	Survey and protect	*Survey sites prior to forestry operations. Manage forestry operations to avoid disturbance of water voles. Existing habitat will be protected.*
Black grouse	Survey and protect	*New fences and existing fences will be marked where appropriate to prevent bird strikes. Counts will be conducted to inform status. Creation of variable age class and more native woodland and woodland/heath margins will create additional habitat.*
Sand martin	Survey and protect	*Survey sites prior to forestry operations. Manage forestry operations to avoid disturbance to sand martins. Existing habitat will be protected.*
Raptors	Survey and protect.	*Survey sites prior to forestry operations. Manage forestry operations to avoid disturbance of nesting and roosting birds.*
Atlantic salmon	Protect	*Protection and enhancement of watercourses and riparian habitats will deliver benefits to this species.*
Sea trout	Protect	*Protection and enhancement of watercourses and riparian habitats will deliver benefits to this species.*
Freshwater pearl mussel	Protect	*Protection and enhancement of watercourses and riparian habitats will deliver benefits to this species both directly and indirectly through improving conditions for salmonids.*
Juniper	Survey and protect.	*Identify and protect existing plants. Restoration of native woodlands/PAWS will provide opportunities for expansion of this species.*

Table 16

Notable Scottish Biodiversity Strategy habitat priorities supported by this LTP		
Habitat	Objective	*Actions*
Caledonian Pinewood	Protect and restore.	*Work within buffer zones of CPI to remove threats from non-natives, including tree disease. Control of grazing pressure will protect and continue to expand existing woodland. Options to enhance these forests with under-represented species will be examined.*
PAWS	PAWS restoration.	*Maintain a monitoring program. Favour the removal of non-native conifers from PAWs areas and monitor and remove ongoing regenerating non-natives. Because of the terrain it will not be possible to remove all non-native trees from PAWS sites. In such instances, we will aim to favour regeneration of native species to gradually move the site over to dominance by site native species.*
Other native woodland and Long Established Woodland of Plantation Origin (LEPO)	Survey, protect, restore and enhance.	*Remove non-native trees within native woodland areas where terrain is not an issue and iconic trees don't exist. 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.* *Retain best examples of LEPO as important habitat.*
Scottish Rainforest	Survey, protect, restore and enhance.	*The above woodland actions and removal of INNS (4.4.10) will protect and enhance rainforest habitats. This may be followed with direct interventions in areas requiring specific habitat/species conservation management.*
Blanket Bog	Site will be protected to maintain active peatland	*No current actions other than grazing (deer) management. Restoration of 53 ha of afforested blanket bog.*
Acid Grassland	Site will be protected to maintain habitat.	*Removal of non-native tree regeneration*
Upland Flush, Fen and Swamp	Site will be protected to maintain habitat.	*Removal of non-native tree regeneration*
Upland Heath	Site will be protected to maintain habitat.	*Removal of non-native tree regeneration*

Notable non-native, invasive species (INNS) present within the Plan area with potential to expand and negatively impact native habitats are listed in the following table. See section 4.4.10 for INNS management.

Table 17

Non-native Invasive Species within this LTP		
Species	Objective	Actions
Rhododendron ponticum	Remove from the Plan area.	*Aim for complete removal on FLS land.*

4.4.5 Open ground

The majority of open ground habitat within the Plan area is a mosaic of wet and dry heath, mire and localised bog interspersed with bare rock outcrops located toward the upper margins of the afforested slopes. 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. There is some scattered low level non-native tree regeneration present above the afforested tree-line and on heathland plateaus. These will be removed from areas where and when its presence and extent is considered a threat to the overall integrity of the open ground habitat types (as stated in Table 16) and prior to these trees reaching prolific coning/seeding age. Development of heath structure and regeneration of upland birchwood at and above existing the afforested tree-line is also of habitat benefit (shelter and forage) for black grouse – a Scottish Biodiversity Strategy priority species (see Table 15).

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 11**) in forestry work planning to identify opportunities for retaining or creating deadwood during management operations to at least meet minimum UKFS guidelines of 20 m^3 ha^{-1}. Deadwood retention may not be of uniform volumes across all areas of 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 and long term retention 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.

Opportunities for retaining or creating deadwood will be identified during the planning of all felling, favouring areas with the highest deadwood ecological potential. Valuable deadwood and deadwood areas will be marked on contract maps. Areas of minimum intervention and riparian corridors will offer some of the best opportunities for the development of standing and fallen deadwood. Where it is safe to do so, standing mature dead trees will be retained as these offer excellent potential for a range of species.

Branches and tree tops (lop and top) produced by felling and thinning operations are not considered waste in terms of this plan. Some material is incorporated into 'brash mats' that aid forest machine traction and flotation and thus protect fragile soils (section 4.4.7 Soils). Other material is distributed more widely during harvesting and *in situ* processing operations, contributing to the functional ecology of the woodland and an important source of nutrient recycling that will increase biodiversity and assist future woodland establishment. Where felling to recycle of non-native species occurs, arisings can protect vulnerable native tree regeneration from grazing mammals, can contribute to the functional ecology of the woodland and assist in conservation of lower plant species through the restructuring phase. On steep ground sites, where whole tree harvesting systems are employed, lop and top arisings are typically recovered, chipped and exported as leaving these accumulated arisings can smother (i.e. cover and shade out and/or eradicate) ground flora as well as render consequent restocking operations impractical and unsafe.

4.4.7 Soils and geology

The distribution of soil types across the LTP area is illustrated on **Map 11.** Soil is an essential component of forest and woodland ecosystems, helping to regulate ecosystem processes such as nutrient uptake, decomposition and water availability. In return, leaf litter and biomass from decaying trees create more soil material. The protection of soils has been written into guidance documents such as the Scottish Soils Framework, Scotland's Forestry Strategy 2019-2029 and the UK Forestry Standard and emphasise the principle of minimising soil disturbance and compaction that risk damaging soil structure and function. During mechanised harvesting operations, brash mats (or alternative flotation measures) will be used to protect sensitive soils where repetitive machine passes are planned (e.g. forwarder routes). Felling residues will usually be left on site to allow nutrient recycling, with consideration for the practicalities of restocking. Where restocking is prescribed (see **Map 8**) ground preparation will typically be by creation of discrete mounds – by excavator track-based machine - as opposed to trench mounding or ploughing as these sites are already sufficiently well drained or sufficiently sloped to limit periods of extensive waterlogging of establishing trees. On slopes too steep for machine-based ground preparation, manually screefed planting positions will be created at restock or – if hot planted – simple flat planting employed. This LTP's prioritisation of restructuring (from production to protection forest type) of afforested slopes most vulnerable to landslip is an additional pro-active soil conservation measure.

The LTP area does not contain any Geological Conservation Review areas.

4.4.8 Deep peats

Whenever trees are felled there is a presumption, supported by legislation, in favour of restocking. However, for woodland on deep peats, consideration of net carbon loss/gain and wider environmental implications of future management is more important than for other sites. For this reason, FLS can propose applications for felling without conventional restocking on peatland sites that are less suitable for second rotation forestry and where there is a clear benefit foreseen through restoration. FC Practice Guide 104 *Deciding future management options for afforested deep peatland* (2015) provides an assessment method designed to identify the most appropriate future management option for afforested peatland that is not already classed as having a presumption to restore (e.g. designated sites or where there is adjacent designated terrain where peatland is a qualifying habitat).

There is two areas proposed for peatland restoration in this LTP (see section 2.6 and **Appendix 7** for decision-making analysis and **Appendix 3** for EIA determination request relating to associated deforestation.

4.4.9 Freshwater habitat

The Water Framework Directive (2000/60/EC) sets out the provision for the protection of water as both a resource and an ecosystem. This was adopted in Scotland though the Water Environment and Water Services (Scotland) Act 2003. In Scotland the delivery of the objectives within this legislation is delegated to the Scottish Environment Protection Agency (SEPA). The objective of this legislation is to deliver good water status through the implementation of river basin management plans. FLS Long Term Plans have a role to play in meeting the objectives of the Water Framework Directive by ensuring any proposed forestry activities do not cause deterioration and, where appropriate, deliver improvements to the water environment. For example, any new proposed planting, forest restructuring and felling should not lead to any deterioration of any water bodies in or adjacent to the LTP area. All planting, felling and long term forest planning must comply with the UKFS Forests and Water Requirements (5th edition, 2023: Chapter 9) and The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) with respect to appropriate buffer strips between planting/restocking and water bodies.

FLS will consult with SEPA prior to commencing engineering works in, or in the vicinity of, inland surface waters to determine the levels of control and/or mitigation required. Site-specific mitigation for engineering works is not a matter for this Plan; however Forestry Civil Engineering will adhere to all planning protocols that apply at the time of project implementation.

Surface water drains will not discharge directly into the water environment. FLS will remediate legacy drains of this type to avoid siltation problems during and after forestry operations by using tree roots and other natural methods to install anti siltation devices during harvesting operations and addressing the drains permanently during subsequent ground preparation operations. When natural means are not available, plastic dams or semi-permeable netting might be used temporarily. When operations are finished these will be removed for re-use.

Where opportunities exist to deliver environmental improvement by the alteration or removal of inappropriately designed or redundant structures - for instance upgrading of a culvert to allow fish passage or removal of a redundant weir - this will be undertaken in consultation with the relevant stakeholders and we will register the operation on the SEPA website. Opportunities for morphological and ecological improvements may also be considered.

Flooding and private water supplies are described and considered in section 4.8 'Water' and **Appendix 8** Water and Catchment Management.

4.4.10 Control of invasive species

Forestry and Land Scotland will explore opportunities to work with local conservation organisations, adjacent landowners and stakeholders to achieve common objectives to protect and enhance priority species and habitats wherever possible. Control of invasive non-native species will be carried out as budgets and resource allocation allows with areas for control being identified and prioritised by FLS Planning and Environment staff on a regional basis.

Rhododendron ponticum is the sole, recorded invasive non-native invasive species (INNS) within the LTP area and has the capacity to be a significant potential ecological threat to native ground- and woodland flora and in particular within Caledonian core pinewood (areas of richest botanical diversity) and where native woodland restructuring (clearfelling and subsequent native woodland natural regeneration) offers an opportunity for the shrub to colonise and proliferate more quickly than the woodland. Within the last Plan period, control effort has been at localised levels in response to a statutory plant health notice requiring the species to be removed as it was serving as a host plant for notifiable plant disease Phytopthera ramorum. Since 2022, under the auspices of the national Atlantic Strategic Rainforest project, FLS have been undertaking further Rhododendron control measures across the entire LTP area in an effort to locally eradicate the species. This control effort is anticipated to continue for the early years of this new LTP period and is compliant 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 as well as environmental and water quality conservation legislation relevant to pesticide use, private water supplies, waterbodies and their buffer zones.

4.5 Management of historic sites

FLS' key priorities for archaeology and the historic environment are to undertake conservation management, undertake (or permit) 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 UKFS *Forests and Historic Environment Requirements* (5th Edition, 2023: Chapter 5) and FLS policy document *Scotland's Woodlands and the Historic Environment* (FCS, 2008).

There are no statutory designated – or 'scheduled' - historic sites within the Plan area and no features listed as Significant within FLS North Region's Historic Asset Management Plan and associated register. **Appendix 1** – *Background Description* lists all six known and notable historical sites recorded in the local authority's Historic Environment Record. This heritage relates mainly to settlement and associated features of historic agricultural land use and is located predominantly on the floor of the river valley (a series of modest farmsteads, enclosures and buildings remains) as well as associated remnant boundary walls/dykes still evident in places on the flanks of the glen.

In advance of any proposed forest management operations, FLS' Work Planning process includes a pre-operational walkover survey – supplementing a 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 identifiable ones within a proposed work plan area. Features are then suitably and clearly marked on the ground and on contract and operational maps, and appropriate control measures are stipulated in the work plan 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 UKFS *Forests and Historic Environment Requirements* (5th Edition, 2023 – Chapter 5).

4.6 Landscape

4.6.1 Landscape value and sensitivities

Achnashellach Forest lies within the northern extent of the **Strathconon, Monar and Mullardoch Special Landscape Area (SLA)**, designated by Highland Council. The SLA is contiguous with the **Wester Ross National Scenic Area (NSA)** to the north of the forest block. Relevant special qualities identified by Highland Council include:

- Reflection of the wider landscape qualities of the West Highlands
- Diversity of land cover within the strath
- Small but significant remnants of Caledonian pine forest
- Semi-natural woodland on riverbanks and steep-sided gullies
- Unfenced grassland
- Mature forests and policy woodland

The following key landscape sensitivities – as given for the SLA - are relevant to the LTP area:

- Road and track construction: potentially highly visible and liable to compromise perceived wildness
- New fences/ditches: risk of appearing inconsistent with the simplicity of open slopes

- Plantation outside the strath confines: risk of eroding the legibility of landform and the strath–slope transition

The LTP proposals are designed to enhance and align with these characteristics to ensure the forest complements its setting (see 4.6.3). **Map 13** illustrates these sensitivities (on a contoured aerial photography backdrop) in conjunction with the spatial arrangement of the different landscape character types present and an assessment of the LTP's intended management proposals within this overall context.

4.6.2 Landscape Character(s)

Landscape character across the LTP area varies. It occupies the steep side slopes of a glaciated valley incised through a mountain massif. In the north and east, the smooth hill slopes of Landscape Character Type (*LCT) 330: Rounded Hills and Moorland Slopes* (NatureScot, 2019) enclose the flat floor of the strath (*LCT 340: Strath – Ross and Cromarty*). Slopes to the west and north-west are more rocky (*LCT 333: Rocky Moorland and Rugged Hills*). The relevant characteristics of these individual Landscape Character Types is given in **Appendix 1** and Map 13 illustrates them spatially on a contoured aerial photograph backdrop.

Beyond the Plan area, higher ground forms a more expansive massif of varying ruggedness.

4.6.3 Assessment of LTP proposals within Landscape context

Infrastructure and Access

A new road is proposed in order to access mature forest on the northern slopes of the strath, close to the settlement of Craig. Detailed design work will be carried out at mid-term review of this LTP. Although its proposed route will be kept low down the slope, it has the potential to have a negative impact on the local landscape in the short term. Once trees are re-established on the slope, its visibility should reduce if aligned and constructed sensitively.

A new footpath, built using upland path techniques, will connect the public road to the forest road east of Craig near the railway. The route will be partially screened by retained trees. This proposal is outwith the scope of this Long Term Plan and subject of a separate Planning Application being lodged with the Highland Council for consideration.

No new fences are proposed. Upper woodland margins will be determined by slope characteristics rather than existing boundary fences.

Restructuring and Restocking

Remaining unnatural plantation on strath-side slopes will be felled at the end of rotation and replaced with native woodland, incorporating some productive components where compatible with landscape character and accessibility.

Commercial management areas (approx. 2,500 stems per hectare) will be confined to easily accessible ground where the slope allows safe and efficient crop management. Future re-planted forest coupe shape design is intended to harmonise with surrounding terrain and will transition to wider-spaced native trees with altitude and exposure.

Peatland and Upland Restoration

The removal of plantation from upper forest reaches to the north-east, followed by peatland restoration, will strengthen the sense of naturalness and improve the transition to adjacent designated Wild Land areas.

Felling Approach on Steep Slopes

Scale and landform will continue to inform felling shapes.

On the steepest ground, the need for skyline felling techniques and operational safety will necessitate straighter felling edges and a progression from east to west against the prevailing wind to reduce windthrow risk and consequent destabilisation high risk rocky soils above the public road and railway.

While this will temporarily compromise visual qualities during implementation, the restored woodland pattern is expected to result in a positive long-term outcome for landscape character and visual amenity.

Anticipated Landscape Effects

- The proposals will reinforce the SLA's special qualities, particularly the diversity of land cover, the expression of Caledonian pine elements, and the wildland setting created by rugged landform and perceived naturalness.
- Minimising need for new roads/fences and careful path design will protect the simplicity of open slopes and minimise visual intrusion.
- Over time, maturing native woodland will soften and screen existing roads, reducing their prominence.
- The restructuring of geometric forest blocks and replacement with native patterns that follow gullies and spurs will harmonise woodland with landform, improving unity with adjacent Wild Land areas.
- Temporary adverse effects may occur during felling on steep slopes; however, these are considered short- to medium-term and outweighed by long-term benefits.
- Overall effect: The LTP, if implemented as proposed, is assessed to have a moderate to high positive effect on landscape character, the special qualities of the SLA, and visual amenity.

Summary

- The plan reduces artificial plantation patterns and restores native woodland that fits the landform.
- No new fences and one sensitively designed footpath are proposed.
- Proposed new road to be designed and permission sought (including deforestation and EIA determination) at mid term review of this plan.
- Some productive forestry will remain where it can be managed safely and discretely.
- Peatland restoration at higher elevations will enhance wildness and the transition to adjacent wild land.
- Short-term visual effects from felling will give way to a more natural, unified landscape.

4.6.4 Visibility and strategic viewpoints for forest visualisation models

Six locations have been chosen to provide coverage of the LTP area from most commonly visited locations and where the land and forests are most conspicuous. These vantage point locations are illustrated on **Map 1** and computer modelling of the LTP's proposed felling, restocking and regeneration proposals has been undertaken to create future landscape visualisations of land and forest change (see **Appendix 10**).

4.7 People & stakeholders

4.7.1 Neighbours and local community

The Consultation Record (**Appendix 2**) provides a list of known community organisations as well as local and other stakeholders notified – and subsequently engaged with - during LTP development. A public consultation event was promoted and hosted at the Lochcarron Village Hall in June 2025 (meeting note included in Appendix 2) as this venue was deemed the nearest community venue in a settlement regularly frequented by Achnashellach and Lair residents. As a consequence of promotional correspondence and the meeting, several individual households made individual representations to FLS and were visited or corresponded with directly over specific issues raised.

Neighbours likely to be impacted by any Plan-approved and programmed forest operations are routinely visited by FLS delivery staff as part of the pre-operational work planning process. Residents with private water supplies are consulted, water supply infrastructure reviewed/ground truthed for contemporary changes, baseline water sampling undertaken and contingency plans (to maintain continuous potable water supply) discussed and agreed with consumers in the event that a diffuse or other pollution incident occurs.

4.7.2 Public access

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, 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. from tree felling) that might otherwise result from uncontrolled public access during operations. There are no Core Paths within the LTP area or connecting directly with trails crossing the LTP area. When forest operations are proposed in the vicinity of ScotWays Rights of Way and other established trails through the area (illustrated on **Map 2**), operations are planned and implemented in adherence with FC Practice Note *'Managing public safety on harvesting sites'* (2013). FLS' Visitor Services staff undertake routine safety checks of trails and associated features (e.g. gates, signs, overhanging trees etc) and undertake maintenance work (vegetation control, drainage improvements) in response to observed deficiencies or reports from the public of unacceptable access conditions.

At the time of Plan review (2025/26) an intention to relocate a public threshold car park to a separate and new public road-side location is being progressed through formal local authority planning permission application. The scope of this project falls outwith the bounds of forestry regulation and so the details of this project are not contained within this Long Term Plan.

4.7.3 Renewables, utilities and other developments

The renewable energy and utilities infrastructure present within the LTP area are detailed in **Appendix 1** - Background Information: *Renewables, utilities and other infrastructure*. These include underground and overhead powerlines (local electricity distribution by public utility and private renewables connectivity), undergrounded pipelines ('penstocks') associated with run-of-river private hydro-electric schemes as well as telecommunications masts. This infrastructure is supported by third party access leases for maintenance. Much of the infrastructure has been installed with associated and often mandatory warning signage (permanent marker posts, energy rating/prohibited activity signs) and FLS maintains databases which allow interrogation, inclusion and display of this infrastructure on GIS maps which are then drawn into the FLS Work Plan system when defining future forest operations and any associated constraints pertaining to proposed working methods (i.e. machine over-running of undergrounded cables/pipes or the designing appropriate woodland composition in and around different wayleaves). 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 and controls. Works proposed by public utility companies in respect to maintaining infrastructure and associated leased ground is handled by FLS' Forest Liaison Officers (FLO) who undertake internal consultation with FLS staff to ensure pre-operational checks and any necessary constraints (e.g. seasonality of working due to environmental interests, proximity of private water supplies) are identified and communicated in relevant permissions. This can include a stipulation to notify and/or consult with neighbours potentially impacted by the proposed works whether temporarily or permanently.

As stipulated in the Tolerance Table (**Appendix 4**), any felling required at short notice with respect to trees that may be impacting any important energy, water and public communications infrastructure – upto a threshold 75 metres cubed annual cumulative timber volume – is acceptable (and deemed 'Exceptional Felling') without requiring prior authorisation from Scottish Forestry to undertake this work. A record of this cumulative volume is maintained and reported to Scottish Forestry and both mid-term Plan review and at the ten-yearly full LTP revision.

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. For the Achnashellach LTP area, support for the rural economy relates ostensibly to employment sustained directly with FLS and through contracted forest management work (felling, restocking, surveying, fencing) as well as through the export and 'downstream' processing of timber from productive woodland. Indirectly, the management of existing car parks and recreational trails and FLS' promotion through printed, online and on-site interpretive materials provides an important economic resource – drawing visitors who may potentially stay (and spend money) locally as a result. The development of renewables and public utilities infrastructure within the landholding – and its accommodation through forest re-design and revised work scheduling – is an ongoing process and has allowed both public networks (for both local and national benefit) and private renewable schemes (for economic and climate change mitigation goals) to be delivered.

FLS endeavour to maintain a professional and considerate attitude towards approaches from local communities, utilities providers and other stakeholders looking to provide wider future social and economic benefit from the LTP area e.g. accommodating new water, telecommunications and power supply infrastructure, tourism initiatives etc.

4.8 Water

4.8.1 Drinking water

There are no Public Drinking Water Protected Areas (Surface Water) or public water abstraction sources within the LTP area – evidenced in Scottish Water's response to the Plan's external scoping exercise (see **Appendix 2** – Consultation Record) - however there a several private water supplies located within, and dependant on management of, the Plan area. It is a legal offence to contaminate a drinking water supply and FLS plan and manage their land to comply with the UK Forestry Standard in accordance with Scottish Forestry's published guidance *'Managing forest operations to protect the private water supplies (2025)'*. Consideration of individual private water supplies and catchment management is therefore assessed in detail in **Appendix 8** – *Water and Catchment Management* and illustrated on **Map 12** – *Key Water Features.* Scottish Water's scoping response also confirmed there are no other Scottish Water assets (including water supply and sewer pipes, water and waste water treatment works or reservoirs) in the Plan area.

4.8.2 Watercourses

All operations on Scotland's National Forests and Lands (NFL) are planned and managed to adhere to the '*UK Forestry Standard (2024), section 9 - Forests and Water'*, the Water Environment (Controlled Activities Scotland) Regulations (CAR) and the General Binding Rules published by Scottish Environment Protection Agency (SEPA). Compliance with these regulations is incorporated into guidance within the FC publication *'Managing Forest Operations to Protect the Water Environment'* (FC, 2025) and the Forest and Water Scotland Initiative booklet *"Know the Rules"* to which FLS adhere (and enforce with third party contractors) in all operational planning and delivery. Additionally, SEPA implements the Water Framework Directive (WFD) - the legal framework for the protection, improvement and sustainable use of all waterbodies in the environment across Europe – and FLS management is aligned with this framework. All water bodies in Scotland are routinely assessed for ecological and chemical status and catchment plans have been drawn up to ensure waterbodies are brought up to an acceptable level. Achnashellach LTP area lies within the Scotland river basin district and is currently covered by the third River Basin Management Plan (2021 – 2027). Details on all watercourses – and their current (all 'Good') monitored condition – is given in **Appendix 8**.

4.8.3 Flooding

The Flood Risk Management (Scotland) Act 2009 created a new framework for assessment and management of flood risk and new responsibilities for local and statutory authorities, including Forestry Commission Scotland, to consider and reduce flood risk as an integral and ongoing aspect of land management. FLS adhere to UKFS Practice Guide *"Designing and Managing Forests and Woodlands to reduce flood risk (2022)"* in forest planning and the consideration of flood risk through all management delivery. This document aligns with SEPA's 2nd cycle Flood Risk Management Plans which identifies priorities with respect to flood risk as well as any specific recommendations or conditions stipulated in Local Authority Local Plans. In particular it stipulates a threshold of no more than 40% of any watercourse catchment be clearfelled at any one time. Management operations prescribed within this LTP and its associated tributary watercourses complies with threshold. Additionally, none of watercourses emanating from, or flowing through, the LTP area flow onward to a SEPA-identified Flood Target Area i.e. there are no nationally important areas prone to flooding downstream of the LTP area.

4.9 Fire

UKFS stipulates forests should be planned to enhance their resilience and mitigate risks posed to their sustainability by the effects of climate change. Associated management should also enhance the potential of forests to protect society and the environment from these same effects. The potential risks from fire are a particularly important consideration in the context of climate change and landscape resilience as fire can not only result in significant habitat and wildlife loss, has the potential to spread to adjacent land and property but also can represent a substantial uncontrolled release of carbon from the landholding. Whilst it is not possible to prevent wildfires completely, wildfire resilience can be improved through good forest planning and management.

In the case of the Achnashellach LTP, wildfire resilience is considered best supported through:

- *reducing the likelihood of wildfire incidents* - through provision of precautionary signage at public thresholds, car parks and picnic areas where fire raising is likely or a proven concern;

- *reducing the potential extent of wildfire if it does occur* – through forest design – restoring peatland, planting, regenerating and conserving riparian – predominantly deciduous - native woodland that bisect/sub-divide coniferous plantation into smaller areas of higher fire risk (as deciduous woodland with humid, riparian understorey are less volatile and permeable to wildfire spread);
- *reducing the potential severity of damage and impacts on people and the environment if fire does occur* – managing native or mixed, amenity woodland around settlements (less combustible and permeable habitat than uniform coniferous plantation). FLS also instigate a year-round staff Fire Duty rota system providing pro-active fire reporting, site access and fire monitoring support to Scottish Fire and Rescue Service (SFRS) in the event of fire.

Currently the risk of wildfire *starting* on land within the LTP area is low: levels of public access are moderate and largely involving access for walking (short duration loop walks for habitual local use; or using the extensive forest roads and connecting hill trails for accessing Munros, summit vantage points or longer distance drove tracks. There is little wild camping historically within the landholding. FLS also relies on land-owning neighbours following the Muirburn Code which includes a legal requirement to both reducing the possibility of fire spreading by ensuring sufficient resources are available in instances of prescribed muir burn and giving notice in writing to all landowners within 1 km of any intention to muirburn at least seven days before commencement.

The risk of wildfire potentially *spreading* on FLS land is also deemed to be comparatively low on account of the prevailing climate (comparatively mild, habitually moist/humid conditions, ground and habitats). There is however a well-established pattern and occurrence of high risk conditions in early springtime when periods of dry, bright and breezy weather can persist for weeks and accumulations of dead vegetation quickly become tinder dry at a time when new lush grass/bracken has yet to re-emerge to reduce overall combustibility. Climate change modelling predicts an increasing incidence in periods of dry weather not only likely in springtime but also warmer summers with increased probability of prolonged dry periods. This will increase the capacity of the landholding's forests and open ground vegetation to burn if wildfire occurs. Native deciduous woodland is less volatile in both its dormant (leafless and wet) seasons and in summer "full leaf" (leaves with high water content and lower calorific value than conifer needles) and with a comparatively humid understorey. However the objective of restoring (by regeneration, expansion and conservation) Caledonian pinewood from existing ecologically-rich remnants of old-growth will inevitably increase the extent of this more combustible resource. This factor and planned trend/LTP objective are therefore acknowledged. FLS will remain conscious and vigilant to this, rather than aiming to reduce or restrict pinewood restoration. Again, the biodiversity gains anticipated from establishing (or conserving/promoting) expansive riparian networks of largely deciduous woodland over the next twenty years will in turn create some increased impenetrability to potential wildfire spread.

Finally, there is currently a large expanse of young restocked and regenerating woodland on the southern flanks of the glen as well as an overall trend across the whole LTP area - over the next twenty year period - for the forest age structure to move from its (current) predominantly middle- to mature-aged woodland to (2046) a greater proportion of young and establishing woodland structure (see section 2.8 age class table/bar chart). Areas of fallowing and young restocked trees can present a greater risk of combustion on account of higher amounts of accumulated ground vegetation amongst young trees – with a propensity to dry out comparatively quicker during warm, dry and breezy conditions than under mature woodland canopy. In consequence they can represent a greater, albeit transient, fire risk than posed by mature forest stands. Appendix 1 contains the current Fire Risk Assessment for the LTP area and FLS accept there is no allowance for complacency in monitoring, designing and managing for fire risk.

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