Forestry and Land Scotland
Coilltearachd agus Fearann Alba

Mearns

Land Management Plan 2026-2036 East Region

Plan Reference No:
Plan Approval Date: 2026
Plan Expiry Date: 2036

We manage Scotland's national forests and land 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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Applicant's Details	
Applicant:	Forestry and Land Scotland
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Agent's position:	Forest Planner
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I hereby apply for permission to fell the trees described in this application and I certify that:

- I have notified all stakeholders that may be affected by the felling in this application and sought their views prior to submitting this application.
- I am authorised to sign legal contracts on behalf of Forestry and Land Scotland.
- Any necessary consents from any other person(s) if required, have been obtained.
- I have made the necessary checks with the local planning authorities regarding Tree Preservation Orders and Conservation Areas.
- I hereby acknowledge that Scottish Ministers may process any of my personal data contained in or relating to this application in accordance with the terms of Scottish Forestry's Privacy Notice, a copy of which is available at www.forestry.gov.scot.
- Where applicable and appropriate I have submitted an EIA screening opinion form for operations contained within this application under the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017.
- I have read and understand this application fully and, to the best of my knowledge and belief, the information given in this application is complete, true, and accurate.
- I accept that any false or misleading information provided in this application constitutes an offence and may result in any felling permission based on this application being revoked at any time.
- I have read and understand Scottish Forestry's Privacy Notice, a copy of which is available at https://forestry.gov.scot/privacy-complaints-freedom-of-information-and-requests-for-information.

Signed, Pp Regional Manager		**Signed, Pp Conservator**	
FLS Region		SF Conservancy	
Date		Date of Approval	
		Date Approval Ends	
		Plan Ref. No.	

Section A. Description of Woodlands

A.1. Property Details

Forestry and Land Scotland (FLS) is the Scottish Government agency responsible for managing Scotland's national forests and land. We look after Scotland's forests and land, for the benefit of all, now and for the future. Our vision is for forests and land that Scotland can be proud of. The geographical location of Mearns can be found below in Table 1.

Table 1: Mearns Location details

Property Name:	Mearns
Grid Reference (main entrance):	NO 7903 8940
Nearest town or locality:	Stonehaven
Local Authority:	Aberdeenshire Council

A.2. Location and Background

See Location map 1.

The Mearns Land Management Plan (LMP) area constitutes of three blocks: Fetteresso, Glenfarquhar and Drumtochty. The forest is located to the west of Stonehaven with the area of South Drumtochty most prevalent in the landscape, due to it being observed from both the A90 and East Coast mainline railway. The forest lies in a north-east to south-west direction, extending from the A957 Slug Road to the B974 and the Old Military Road.

The first areas purchased by the Forestry Commission in 1926 and 1928, were North and South Drumtochty, with subsequent acquisitions in the 1940s and 1950s of Fetteresso and Glenfarquhar. The forest area is currently 6,666 hectares (ha) and forms one contiguous block (see Figure 1).

Figure 1: 1st edition OS map of Scotland gives an image of the forest prior to large scale planting. 1856-1891, 1 inch

Mearns forest is an upland environment with poorer soils which have been planted with commercial conifers, stocked with Sitka spruce, Larch, Scots pine and Lodgepole pine. This is one of the main production areas for FLS East Region.

Areas of Mearns forest did suffer from extensive windblow damage during Storm Arwen in November 2021 and in subsequent storms. The impact of this is still ongoing, as felling operations and restructuring of the forest continues. This restructuring provides scope to increase the broadleaf proportion within the forest, particularly along riparian areas to meet United Kingdom Forest Standard (UKFS) compliance.

In addition to commercial forestry, there are extensive areas of open ground, some of which may be suitable for peatland restoration. Riparian areas, particularly along the Cowie and Bervie form valuable habitat corridors, whilst in the older parts of the forest in North and South Drumtochty there are Plantation on Ancient Woodland Sites (PAWS). There is potential for enhancement of these areas. Among the wildlife of note is red squirrel, pine martin and newts. There are scheduled monuments in the block along with other national monuments.

There are several river catchments that the forest feeds into, including those downstream at Auchenblae, Stonehaven and the River Dee.

The forest hosts utility infrastructure from various sectors, ranging from electricity and gas providers to wind farms, and there is potential expansion of utilities infrastructure during the lifespan of this LMP. These proposed developments would require Planning Permission submission by the respective developer, and approval by Aberdeenshire Council Planning Department.

The forest is important to:

- Auchenblae Community Council
- Crathes, Drumoak & Durris Community Council
- Mearns Community Council
- Stonehaven and District Community Council

A.3. Existing Schemes and Permissions

The previous Land Management Plan (LMP) approval expired on 09 December 2024. There is an existing felling permission active until 04 December 2025 to enable the clearance of legacy windblow coupes, damaged by Storm Arwen, felling permission number: FPA-12038.

A further felling permission is in place to facilitate peatland restoration at Hill of Gothie and Goyle Hill and for habitat improvement in Fetteresso, felling permission number: FPA-12037.

The purpose of the LMP is to outline felling and thinning proposals over 20 years with the first 10 years (2026-2036) in detail along with restocking proposals for the whole plan area. This first 10-year period is particularly important because it relates to the part of the LMP that requires specific approval from Scottish Forestry (SF). Longer term management of Mearns is included in the plan but to provide an indication of the direction of travel and to provide context.

The plan will be reviewed after five years to ensure the objectives set out in the LMP are still appropriate for the management of the forest in the current conditions. All operations, both planned and completed, will also be reviewed to ensure they are still necessary to achieve the stated objectives.

The management of the woodland is certified and will always adhere to the UKFS Forestry and the UK Woodland Assurance Standard (UKWAS).

This LMP has been produced in accordance with a range of government and industry standards and guidance as well as recent research outputs. A full list of these standards and guidance can be found on our website.

A.4. Stakeholder Engagement

During the development of this LMP, we have consulted publicly, including with local community representatives and stakeholders known to have an interest in the forest.

There were two drop-in sessions held in Auchenblae Village Hall, the first in September 2024 and a second in March 2025. At the latter, our draft Mearns LMP plans were shared with the community for comment.

The Stakeholder Appendix summarises the issues that were raised during the initial, final, and face-to-face consultation.

A.5. Long Term Vision and Management Objectives

The aims detailed below outline the long-term vision for the plan area. They are driven by national policy drivers and are applicable to the whole plan area and underpin the Main Objectives and Secondary Objectives which are identified in Table 2 & Table 3.

Ecosystem services and additional public benefits

- Sustainable timber production
- Increased tree species diversification and improve habitat corridors for biodiversity
- Commence a transition to broadleaf planting around the Midhill Windfarm Development area with a long term aspiration to create an upland birchwood in the future
- Secure carbon sequestration through Continuous Cover Forestry (CCF)
- Support for small sawmills
- Maintenance of high-water quality of salmon rivers
- Minimise downstream flood risk in catchments through designing strategic felling phases and appropriate restocking
- Peatland restoration to reduce the impact of climate change on open areas of unforested open ground
- High recreation use of Scotland's National Forest and Land (SNFL) contributes to increased health and well-being
- Protection of Public and Private Water supplies

Other national commitments

- Investment in silvicultural practices
- Management of tree disease

Contribution to financial sustainability

- High quality timber crops
- Diversity of softwood species
- Utility Infrastructure expansion and development on National Forest Estate for energy security

Over the next 20 years, commercial crops will shift towards the greater use of nurse crop mixtures. Predominately, these will be either Sitka spruce and Lodgepole pine, or Sitka spruce and Scots pine. There are some restock sites where Alder will be selected as a nurse crop alongside Sitka spruce, given Alder's ability to fix nitrogen into nutrient poor soils. This move towards greater use of nurse crops is due to the poor performance of second rotations crops, where nitrogen deficiency is a key limiting factor in crop performance.

Tree species will be selected that are suitable for the site conditions and will be thinned where appropriate to improve timber quality. Silvicultural systems other than clear-felling and replanting will be used where they are appropriate to meet the plan objectives.

There will be some areas of restored peatland on open areas. Additionally, riparian habitat enhancement via the planting of mixed native broadleaves will improve habitat for aquatic species.

Table 2: Management Objectives

MAIN OBJECTIVES	
Objective (what we want to achieve)	**Critical Success Factor**
1. **Maintain and Promote Sustainable Production:** Mearns is a production focused forest and management should focus on supporting production.	Sustainable harvesting and restocking programme developed. Completion of planned thinning and felling programme during the plan period to increase the quality of the timber extracted.
2. Utility Infrastructure: accommodate the increasing number of overhead powerlines lines (OHPLs), wayleave expansions, existing wind turbines, sub-station and other proposed utility infrastructure developments.	Work with utility companies to reduce the impact of infrastructure expansion leading to fragmentation of the forest. Minimise the risk of windblow from expanded wayleaves and sub-station development.
3. UKFS – Broadleaves: increase native broadleaf cover to at least 5% to meet UKFS compliance.	By the expiry of the new LMP in 2035, the area of native broadleaves in Mearns forest will be planted and protected to meet the minimum UKFS compliance target of 5%.
4. Flood Resilience: ensure forest operations do not increase flood risk. Design riparian habitats to reduce the risk of flooding in Auchenblae and Stonehaven.	Felling phases and coupe design factors in potential flood risk. The rate of felling in at risk catchments is designed to limit flood risk. Where flood risk is deemed higher, the fallow period may be reduced dependent on other factors, such as plant pest pressures.
5. Second rotation crop quality: assess struggling crops and investigate interventions.	Improved performance of second rotation crops with less observations of nutrient deficiency. Increased use of nurse crops such as Lodgepole pine and Scots pine to enable better crop nutrition.
6. Continuous Cover Forestry (CCF): continue to develop a timely thinning programme to maintain and increase CCF.	Successful first thinning programme established, and stronger thinning programme developed across the 10 years of the LMP, including in LISS coupes. This will help reduce DNB risk.
7. Climate change: respond to predicted impacts of climate emergency.	Increased diversity of tree species selection where soils and climate allows. Better protection of riparian areas for fish and invertebrate populations.

Table 3: Secondary Objectives

SECONDARY OBJECTIVES	
Objective (what we want to achieve)	**Critical Success Factor**
1. Steep ground: maximise current productivity of steep ground coupes.	Bring into the felling programme harvesting coupes which have historically been unfelled, as they are more challenging to fell and extract timber from.
2. Access: work out priorities for felling, thinning, planting and maintenance to establish hierarchy of road network required.	Review existing roads and planned roads network. Build new forest roads or forwarder tracks, only where existing road network is not sufficient or connected.
3. Local Landscape Area (LLA): ensure coupes are of a suitable scale and fit into the landscape.	Felling coupes designed to size and shapes to fit the landscape of the Local Landscape Area.
4. Regen management: keep on top of unwanted regeneration in riparian areas, open areas, and PAWS areas.	Areas designated as open ground should proactively be managed as open ground, with regen removed. Well managed open areas can act as a fire break in addition to the provision of biodiversity benefits.
5. Environment & Peatland restoration: scope for peatland restoration, PAWS/LEPO reversion, riparian expansion, protection of scheduled monuments and rhododendron control. Create a mosaic of habitats for biodiversity.	Degraded peatland areas on designated open ground restored where assessment deems the peat viable for restoration. The total area of PAWS which has undergone species change and restoration increases from the current baseline. Enhance the riparian network with native broadleaf planting, prioritising the Bervie, Cowie and Finglennie. Condition of Scheduled Monuments maintained. Programme of rhododendron removal commenced.
6. Recreation: liaise with local user groups to support recreational use of the forest.	Continue to work with existing recreational users such as cyclists, walkers and equestrian users to support access to the forest under Scottish Outdoor Access Code (SOAC). Work with other recreational users such as the Grampian Rally.
7. Public & Private Drinking Water supplies: review and understand where operations may impact drinking water supplies.	Protect private and commercial water supply points and pipelines where these could be impacted by forestry operations. Mapping of these, so forestry operations do not have a negative impact on Private Water Supplies.

A.6. General Site Description

A.6.1. Topography

The topography is primarily comprised of rolling hills and valleys which form a ridge running north-east to south-west, with some upland moor and steep gullies present. This ridgeline forms the spine above the flat farmland below, in the Howe of Mearns. In the east of the forest towards Stonehaven, the hills are less dramatic as they gradually fall towards the coast. The elevation ranges from 465m at Goyle Hill in the west of the LMP area, down to around 100m in the north-east.

A.6.2. Geology and Soils

See Soils map 14.

According to the British Geological Survey Geological Map of the UK the forest plan area is underlain by several rock types which include igneous rocks (Silurian and Devonian periods), aranaceous/argillaceous schists (Dalradian period), metamorphic rocks (Dalradian period) and sandstones (Palaeozoic era/Devonian period).

A.6.3. Climate

The climate data for Mearns is obtained from the Ecological Site Classification system (ESC). The results of interrogating this system gave the following data presented in Figure 2: Climate data for Mearns.

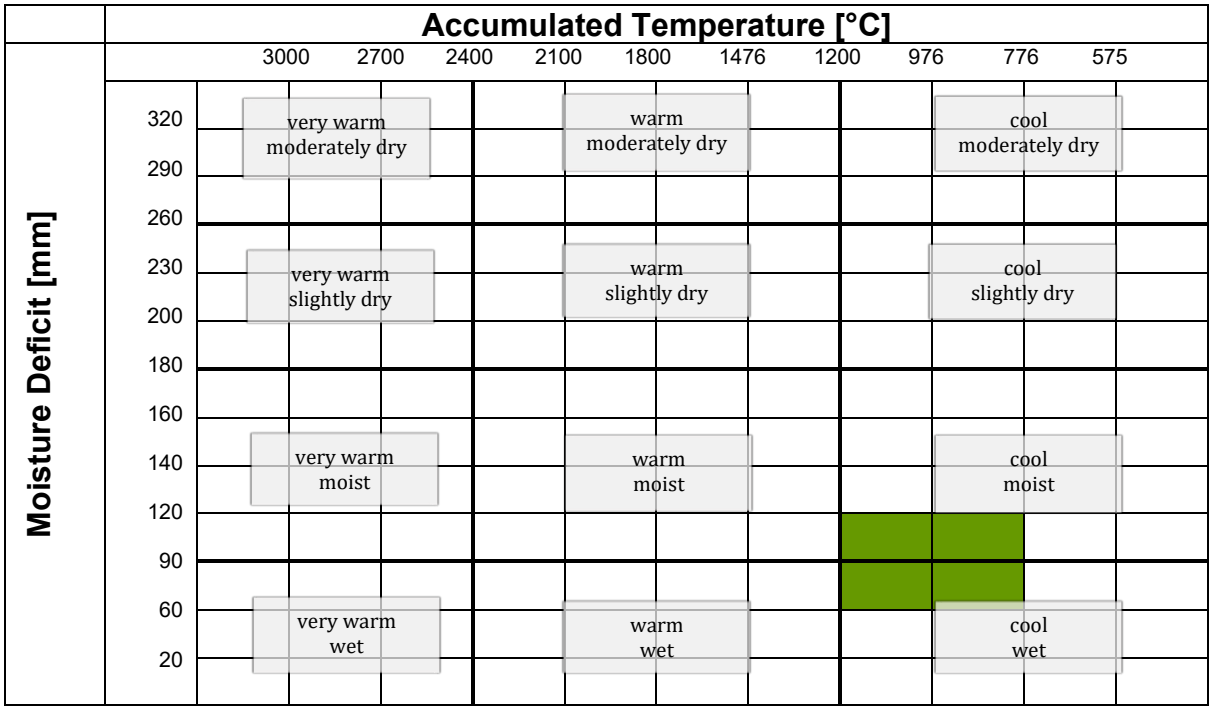


Figure 2: Climate data for Mearns

AT5 (Accumulated Temperature) is the accumulated total of the day-degrees above the growth threshold temperature of 5º, which provides a convenient measure of summer warmth. The results for AT5 place the block in the cool zone.

MD is the Moisture Deficit for the area. Moisture deficit reflects the balance between potential evaporation and rainfall and therefore emphasises the dryness of the growing season (rather

than the wetness of the winter or entire year). These results place the block in the wet / moist zone.

Each tree species has tolerances for these, and other factors and they can be used to identify species suitable for the site conditions. The results above will be used to help assist in the choice of tree species for restocking in this plan.

Further information on these criteria and the application of ESC can be found in Forestry Commission Bulletin 124 - An Ecological Site Classification for Forestry in Great Britain.

A.6.4. Hydrology

The Mearns LMP area falls within seven of SEPA's Waterbody catchment areas. The Water Framework Directive assessment for the water quality of these waterbodies varies according to a wide range of factors, such as the percentage of the forest with hydrological connectivity to each waterbody catchment, and the area and type of non-forestry sector land uses beyond the National Forest Estate:

1. Cowie Water – Fetteresso Forest – high status
2. Carron Water – poor status
3. Bervie Water -upper catchment – poor status
4. Water of Dye – Spital Burn – high status
5. Luther Water – Source to Dowrie Burn Confluence – moderate status
6. Devilly Burn – good status
7. Ducat Water – moderate status

The Carron catchment has historically been associated with flood issues around Stonehaven, whilst the Luther Water is a catchment which poses a risk of flooding to areas of the village of Auchenblae. Mearns forest covers over 40% of the Luther catchment , so potentially there is a risk of FLS harvesting operations increasing flood risk, if harvesting and restocking operations are not undertaken at a measured and sustainable rate to minimise risk. This has been a key objective in the felling design for this area of the forest; as FLS address the extensive Storm Arwen windblow recovery, so we can re-afforest to increase moisture capture and retention to reduce peak flows during storm events (**See Auchenblae Flood Risk map 13a)**.

FLS manages 28% of the Carron Catchment. This is a catchment which has had historic flooding in and around Stonehaven. The principle flood risk is associated more with the lower lying areas in the catchment, away from the afforested ground. However, FLS do own and manage Durris Forest, and the combined land use of Mearns and Durris is 39.9%. **(See Stonehaven Flood Risk map 13b)**.

Tributaries of the forest lead to the Dee and Carron Rivers and together with the Cowie and Bervie these watercourses are important for salmon, where the Esk and Dee fishery board are keen for ecological improvements to be made where possible. Typically, this involves restructuring conifer plantations, increasing species diversity, increasing the broadleaf element and the opening of watercourses as per the forest and water guidelines. The Stonehaven and District Angling Association would like to see removal of self-seeded conifers and more riparian planting with native trees.

A.6.5. Windthrow

The wind throw risk is measured by the DAMS score for the forest area. DAMS is the Detailed Aspect Method of Scoring. This represents the amount of physically damaging wind that forest stands experience in the year. The range of DAMS within Mearns is 7 – 19 and this wide range indicates that, as you would expect, the areas at the tops of Mearns are most exposed and therefore more liable to wind throw but the valley bottoms have limited risk of damage from wind events.

DAMS is categorised as follows: <13 sheltered, 13-16 moderately exposed, 16-19 highly exposed, 19-22 severely exposed and >22 too exposed for commercial forestry.

This information will be used when felling coupes are planned and LISS prescriptions are to be implemented to reduce the potential impacts.

A.6.6. Landscape and Adjacent Land Use

The Mearns forest block is a large-scale commercial forest located within the southern edge of the Summits and Plateau Landscape Character Type (LCT), lying to the north of Laurencekirk and west of Stonehaven. The edge of the LCT is defined by the eastern end of the Highland Boundary Fault line (HBF), marking the boundary between Highlands; in the north-west; and the Lowlands to the south-east.

To the north of the HBF, the landscape typically reflects the Summits and Plateaux landscape as described in the NatureScot landscape character assessment and is described below. To the south, at lower elevation, the lowland landscape comprises of open, large scale rolling farmland with smoothly rounded ridges and shallow valleys.

Summits and Plateaux (Aberdeenshire) Landscape Character Type

Key characteristics of the Summits and Plateaux LCT in the vicinity of Mearns:

- An expansive upland plateau with a smooth rolling landform and rounded hill summits. Landform is more complex along the Highland Boundary Fault.
- Foreground to the Cairngorm massif and Cairngorms National Park
- Backdrop in views from the east from Stonehaven and scattered settlements in the lowlands south of the Highland Boundary Fault
- Regionally prominent hills
- Coniferous forested lower hills, particularly extensive in the north-east. Wind farm development also present in this area.
- A patchwork of green pasture extends high into narrow valleys on the fringes of these uplands
- Unexpected pockets of farmland and isolated farms and estate buildings associated with lower ground in parts of the core of these uplands
- Derelict grey stone cottages are occasional features amidst open moorland
- Numerous old routeways popular with walkers and these, and the B974 Cairn o'Mount road, offer commanding views to the Howe of Mearns and the coast, and to Deeside
- Dramatic juxtaposition of the steep scarp slopes of these rugged uplands with the expansive low-lying farmed and settled Howe of the Mearns

Within the forest block, the landscape is large scale, complex, consisting of an intricate array of broad rounded ridges interspersed with numerous incised water courses. Main watercourses in

the forest are the Cowie Water to the east and the Bervie Water in the west of the forest. The Luther Water and Devilly Burn flank the Drumtochty area of the forest.

The combination of elevation and intricate landform creates a landscape which is primarily inward looking and has limited visibility from the surrounding landscape. The complexly folded landform on the periphery of the forest block; as shown by the ridgelines on the **Concept Map 4a, 4b & 4c - Landscape Analysis**; largely hides the full scale of the forest, resulting in the fringes being intermittently visible along the northern skyline as shown by the dashed red line on the **Concept Map 4c - Landscape Analysis**. Extensive views of the forest edge from the low-lying farmland to the south are limited due to the low ridges and hills which screen many long-distance views and compartmentalise the landscape – therefore only short sections of the forest on the skyline are visible at any time from most public roads and residential properties within the lowlands within close and medium proximity of the forest edge. Sequential and long-range views of the forest edge are obtainable from views to the south where it forms a thin and barely discernible dark line along the skyline.

The proposals for the forest block for the short and medium term are like the existing land use and do not change the existing character. However it is anticipated that the southern forest edge on the skyline would become marginally more visible in localised areas as the existing forest coupes along the southern edge of the forest mature over the next 10 – 20 years.

A.6.7. Public Access and Recreation

Recreation in Mearns Forest was scaled back following rationalisation 15 – 20 years ago. However, some recreation facilities were retained, with the Drumtochty Glen car park near the castle being maintained. Whilst there are no Core Paths in the forest, there are several Claimed Rights of Way **(See Glenfarquhar and Drumtochty, and Fetteresso Issues maps 2a & 2b)**, which we aim to keep clear of obstructions such as windblown trees.

Primarily, recreational access is focused on North and South Drumtochty, in part due to the historic formal recreational facilities, but also due to this area being a focus of mountain bike usage. Equestrian usage also takes place in this area of Mearns forest. Walkers, often from Auchenblae, will use the forest roads and rides around Drumtochty too.

Hill of Swanley in the east of Mearns forest is another key area where recreation is taken. Nearby stables use this area, as do mountain bikers.

Ramblers groups are known to use the wider forest, as are the local schools and scout groups. The former uses the forest for Duke of Edinburgh awards and sponsored walks; the latter use the area for gaining skills badges.

FLS grant annual permissions for a wide range of activities in Mearns – these include: the likes of environmental surveys, Police 4x4 training, Community Offroad Transport Action Group COTAG rescue training. The forest also hosts marathons, half marathons, the Grampian Rally, Drumtochty Motorbike Enduro, and the MSBH Cycling Sportive also takes a route through the forest.

There is an issue with unapproved mountain bike trail building in the forest and FLS have developed a good working relationship with Aberdeenshire Trail Association (ATA), who operate under a permission to maintain and make safe adopted mountain bike trails. These are trails that the ATA have identified along with FLS to be sustainable, and any additional works to these trails will be conducted under license. The idea of the adopted trails is to give these mountain bike routes a higher level of protection during standard operations and if this is not possible it then

allows the ATA to go in and maintain the trails so they can re-open. The majority of the trails in Drumtochty North and South are illegal builds and are not sanctioned by FLS.

A.6.8. Historic Environment

See Context Map 3 & Heritage Map 15.

Our key priorities for archaeology and the historic environment are to undertake conservation management, condition monitoring and archaeological recording at our significant historic assets; and to seek opportunities to work in partnership to help to deliver Our Place in Time: the Historic Environment Strategy for Scotland and Scotland's Archaeology Strategy, as outlined in Table 4 - FLS Archaeology and the Historic Environment Management. Significant historic environment features will be protected and managed following the UK Forestry Standard (2023) via the FLS Heritage management strategy.

Harvesting coupes, access roads and fence lines will be surveyed prior to any work being undertaken to ensure that upstanding historic environment features can be marked and avoided. At establishment and restocking, work prescriptions remove relevant historic environment features from ground disturbing operations and replanting. Where appropriate, significant historic assets are recorded by archaeological survey, allowing active conservation management and these may be presented to the public with interpretation panels and access paths. Opportunities to enhance the setting of important sites and landscapes will be considered on a case-by-case basis (such as the views to and from a significant designated site).

Table 4: FLS archaeology and historic environment management

Objective	Opportunities	Constraints	Concept
Caring for the Historic Environment	We will ensure positive conservation management at significant historic assets, undertaking scrub control, condition monitoring and archaeological recording where necessary.	We will undertake suitable work practices on operational sites with known historic assets (and those discovered during operations).	We will ensure that historic assets (both designated and un-designated) are included within our land management and operational plans and are managed in line with UKFS.

The Regional Historic Asset Management Plan includes conservation management intentions for those designated historic assets in Scotland's national forests. Details of all known historic environment features are held within the Forester Web Heritage Database (built using national and regional historic environment records) and included within specific operational Work Plans to protect these assets.

Fetteresso Forest is the site of two Scheduled Monuments (or parts of Scheduled Monuments). These are designated under the Ancient Monuments and Archaeological Areas Act 1979.

SM6437 Cowie Line - pillbox and earthworks NO 7639 8728.

The monument is the remains of a Second World War anti-invasion 'stop-line' dating from 1940. It is visible as a steep earthwork bank forming an anti-tank defence along the south bank of the Cowie Water, formed by scarping the natural slope of the stream into a steeper slope, 2m high and impassable to tanks and other vehicles. It is overlooked by a concrete pillbox. A forest track, likely to be used for access and timber extraction for felling operations, crosses the scheduled area from north to south. The Cowie Line was a stop line to prevent movement of troops southwards in the event of an invasion.

SM4857 Clochanshiels - cairns, houses and field systems NO 8033 8772.

The monument comprises of a variety of prehistoric round houses and field systems preserved as low earthworks. The eastern part of the monument is in private ownership, with the western part on FLS land. The areas are separated by a deer fence.

- **Designated historic assets** (*see Heritage Map 15*) will be actively managed in open space with regen removed from relevant features and marked out and protected during forestry operations. An unplanted 20 m buffer zone around the scheduled area will be maintained.
- Relevant **heritage features** (using information held in *Forester Web Heritage Data* and associated archaeological reports) will be marked out and protected during forestry operations.

There are a wide range of unscheduled sites across the forest, with the majority having been known of for a considerable time and others discovered more recently through pre-operation site checks and surveys conducted by a local archaeologist.

A record of the Heritage Features recorded in Mearns forest can be found in **Appendix D.3. – Mearns Archaeology**.

A.6.9. Biodiversity

To support the Scottish Biodiversity Strategy, FLS are focusing on the following:

- Forest and woodland management will have led to **sustainable natural regeneration**; a greater **diversity of woodland species**; **increased woodland cover** with a healthy understorey, **enhanced woodland connectivity**; and improved integration of trees into other land uses.
- Ensure that productive forests and woodlands are designed and managed in ways that deliver **increased biodiversity and habitat connectivity** whilst sustaining timber production and carbon sequestration to meet the climate crisis and reduce their vulnerability to climate risks.
- There are areas of deep peat in Mearns. However, these are mainly associated with existing open ground areas. At Hill of Gothie and Goyle Hill, there are future proposals to restore the peat on this area of open ground.

The Scottish Biodiversity List is a list of animals, plants, and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland. Biodiversity List species and FLS Key Species which are recorded in Mearns include:

- Red Squirrel is recorded throughout the forest, along with records of Badger setts.
- Wildcat, Pine Marten and Otter

Within Mearns, there are areas of both Plantation on Ancient Woodland Sites (PAWS), and of Long-established Woodlands of Plantation Origin (LEPO). This is interpreted as plantation from

maps of 1750 or 1860 and continuously wooded since. These sites have developed semi-natural characteristics, especially the oldest ones, which may be as rich as Ancient Woodland.

Areas not considered for commercial management will include permanent woodland, riparian areas, viewpoints, and managed open habitats. There will also be an expansion in a network of small ponds which will benefit invertebrates and amphibians.

A.6.10. Invasive Species

The main species of concern in Mearns Forest is Rhododendron (*Rhododendron ponticum)*, which smothers ground flora. There are areas of South Drumtochty where this invasive species is taking a hold and will need to be controlled, as it is impacting a PAWS site.

A.6.11. Utilities, Renewables, and other developments

A.6.11.1. Midhill Windfarm

Midhill Windfarm is located within Glenfarquhar, the western area of Mearns Forest. The first windfarm was granted an extension in 2013, and this renewable energy development is now made up of Midhill I and Midhill II. There are 33 turbines in total and the majority of these are built on the National Forest Estate, with turbines ranging from 110m – 125m in height from base to turbine tip. Currently Midhill generates up to 75.9MW.

Over the course of the Mearns LMP, there may be further development of Midhill windfarm, as approval was granted in 2022 to develop Fetteresso Wind Farm in Aberdeenshire. More information can be found on: Scottish Government - Energy Consents Unit - Application Search

A.6.11.2. Public Water Supplies and Associated Pipelines

The Mearns LMP falls partly within a Drinking Water Protected Areas (DWPA). Scottish Water information and FLS GIS data indicates the Scottish Water Drinking Water Catchment Inchgarth, bounds the western and northern boundary of Mearns Forest. Most of the area of the catchment located within the forest forms a water protection buffer zone; with only a very small area of Mearns forest draining into the Inchgarth (River Dee) catchment.

Scottish Water have stated “The majority of the proposed activity will take place outside of the catchment boundaries, with only a small area within catchment boundaries. This Water Resource Zone (WRZ) is currently in surplus. The proposed area of new forestry covers 0.148km2 with 0.062km2 lying within the River Dee catchment. The proposed felling which lies within the catchment boundary represents <0.04% of the total catchment area and would have a negligible effect on yield. Therefore, this is a low-risk development with regards to water resources.

Scottish Water have advised FLS that the only Scottish Water Drinking or Wastewater assets present within the block boundary is a short section of trunk main of 1,100m, of which 900m is protected by broadleaves and managed as a Long Term Retention coupe. Any operations in the vicinity of this trunk main will be consulted on with Scottish Water 3 months prior to operations and further consultation with the Scottish Water Highway Authorities and Utilities Committee taken when Scottish Water deem this required.

A.6.11.3. Private Water Supplies and Associated Pipelines

Private water supplies (PWS) are located within the forest. They are a combination of Type A or Type B supply; each being governed by separate legislation. Mearns at 6,666 ha, is the largest forest operation in the FLS East region. Given the size and scale of the forest, to develop a greater knowledge of the location of private water supplies, a letter was sent out to over 200

households and land holdings to allow those on potential PWS to provide information to FLS regards their PWS and the type of supply. If recipients responded stating they had a PWS, this was followed up by FLS sending a questionnaire and a map, so we could clarify the type of water supply and the location. This has allowed us to update our records on our mapping system.We also updated our records of PWS using the latest information provided by Aberdeenshire Council.

The management of these will be addressed in a confidential appendix submitted separately to Scottish Forestry (**Appendix D.4 – Private Water Supplies - Confidential**).

A.6.11.4. Electricity Lines

There is existing utility infrastructure in Mearns Forest, this includes an existing sub-station which is currently undergoing expansion. Additionally, there is a 275kV line OHPL which feeds into this sub-station which is currently undergoing an upgrade to 400kV.

This infrastructure will require some high voltage utility wayleaves being expanded to facilitate upgrades to the voltage capacity of some power lines, but also to reduce the risk of events such as Storm Arwen causing prolonged power outages by trees falling onto power lines.

At the point of submission of this LMP, there are further proposals which SSEN are currently consulting on prior to submission for Planning Consent. These include the Kintore – Tealing powerline proposal and the Hurlie sub-station development, the latter a new 400kV sub-station to facilitate wind generated energy. The latter has been submitted to Aberdeenshire Council for planning approval.

Additionally, SSEN are currently commencing public consultation on a new 132kV OHPL connection from Glen Dye windfarm to connect with Fetteresso sub-station in Mearns.

A.7. Woodland Description

See Current Species map 5.

Mearns Forest is a mature forest with planting from the 1970s and 80s now reaching maturity and Maximum Mean Annual Increment (MMAI). In addition to the timber from the era reaching maturity, the impact of Storm Arwen has led to extensive areas of Mearns being felled in Phase 2 of the previous LMP. This is reflected in the Age Class profiles presented below in Table 5: Change in Age Class over the next 20 years (2026-2046) and Figure 3 - Current (2026) and Future (2046) Age Class of Mearns. The percentage of crops at establishment during 2026 increases, as restocking is undertaken following the felling of previously planned felling and the additional Storm Arwen windblow restocking. By 2046 the proportion of Old High Forest reduces, with much of this remaining in LISS coupes.

Table 5: Change in Age Class over the next 20 years (2026-2046)

Age Class	Current Year (2026) Area (ha)	Year 20 (2046) Area (ha)
Establishment (0-10 years)	1,037.4	836.1
Thicket (11-20 years)	697.8	1,170.5
Pole Stage (21-40 years)	1,346.6	1,509
Mature High Forest (41-60 years)	779	878.1
Old High Forest (61+ years)	1,223.9	524.1
Total	**5,084.7**	**4,917.8**

*Note the change in current total area between 2026 & 2046 in part due to utility expansion

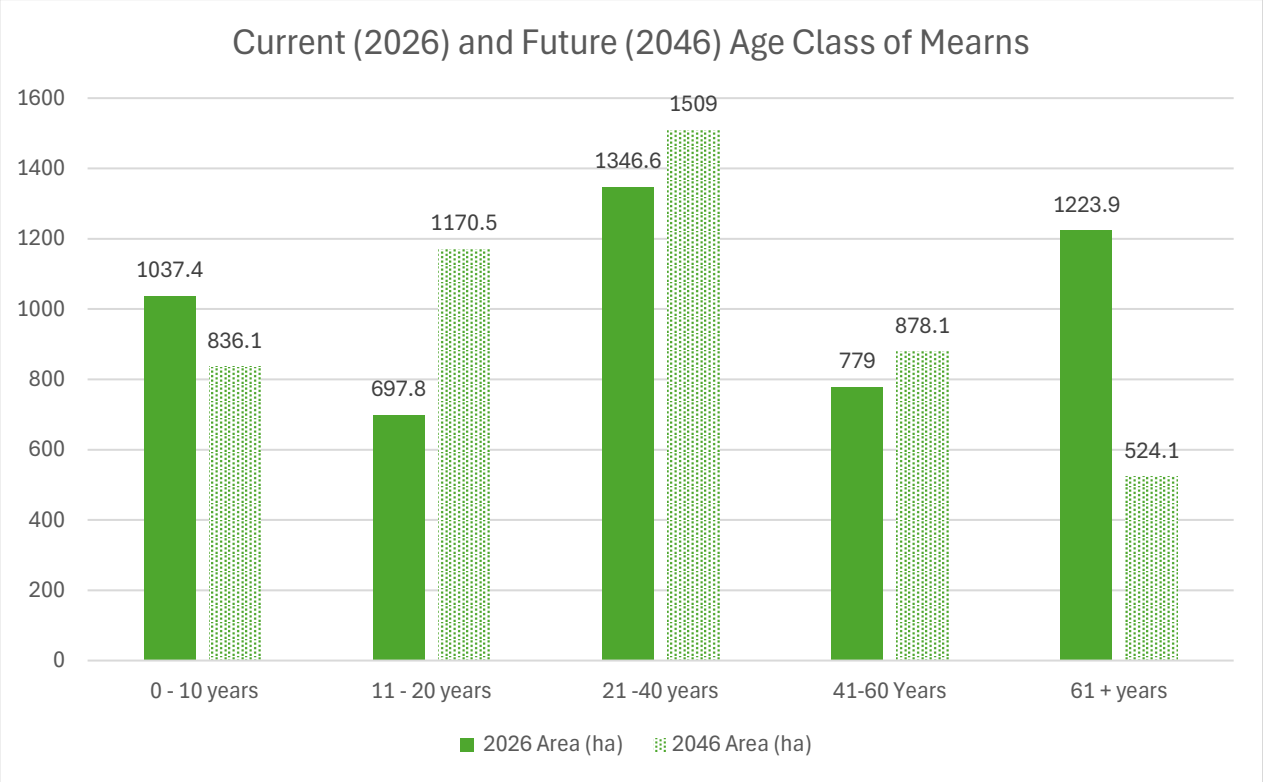


Figure 3 - Current (2026) and Future (2046) Age Class of Mearns

Table 6 and Figure 4 below, show the changes in species in Mearns between 2026 – 2046 at ten-year intervals. In summary, Sitka spruce, Larch and Scots pine are the three largest species components in Mearns, currently making up 60% of the forest. Over the next 20 years, these three main tree species will reduce to 54%. Whilst the area of pure Sitka spruce stands will be reduced, note that many Sitka coupes will now be planted alongside a nurse crop. For this reason, the proportion of Scots pine will increase in the 2026 - 2046 period, to help promote better nutrient uptake in second rotation Sitka spruce crops. Lodgepole pine will also be planted as a nurse crop in stands at higher elevations. There will be a gradual reduction in larch as FLS do not proactively restock larch due to the risk of *Phytophthora ramorum*, which is impacting areas further south in Scotland. There will be scope to accept Larch regen, dependent on the progress of *P. ramorum* across the country and the strain of this fungal tree pathogen.

The percentage of broadleaves currently falls below the UKFS requirement (less than 5%), though this will transition over the next 20 years to 8.6%.

Table 6: Change in Species Composition over the next 20 years (2026-2046)

Tree Species	Current (2026) Area ha	Current (2026) %	Year 10 (2036) Area ha	Year 10 (2036) %	Year 20 (2046) Area ha	Year 20 (2046) %
Sitka spruce	3,022	45.33	2,630.5	39.46	2,504.8	37.58
Larch	576.3	8.65	453.2	6.80	419.2	6.29
Scots pine	401	6.02	594	8.91	676.1	10.14
Lodgepole pine	311.6	4.67	298	4.47	247.1	3.71
Norway spruce	215.9	3.24	263	3.95	256.6	3.85
Douglas fir	128.8	1.93	114.5	1.72	131.9	1.98
Mixed Conifers	105.7	1.59	110.2	1.65	112.9	1.69

Tree Species	Current (2026) Area ha	Current (2026) %	Year 10 (2036) Area ha	Year 10 (2036) %	Year 20 (2046) Area ha	Year 20 (2046) %
Mixed broadleaves	178.5	2.68	189.9	2.85	195.9	2.94
Native mixed broadleaves	74.8	1.12	181.8	2.72	196.3	2.94
Birch (downy/silver)	70.3	1.05	159.1	2.39	177.3	2.66
Open	1,581.1	23.72	1,671.8	25.08	1,747.9	26.22

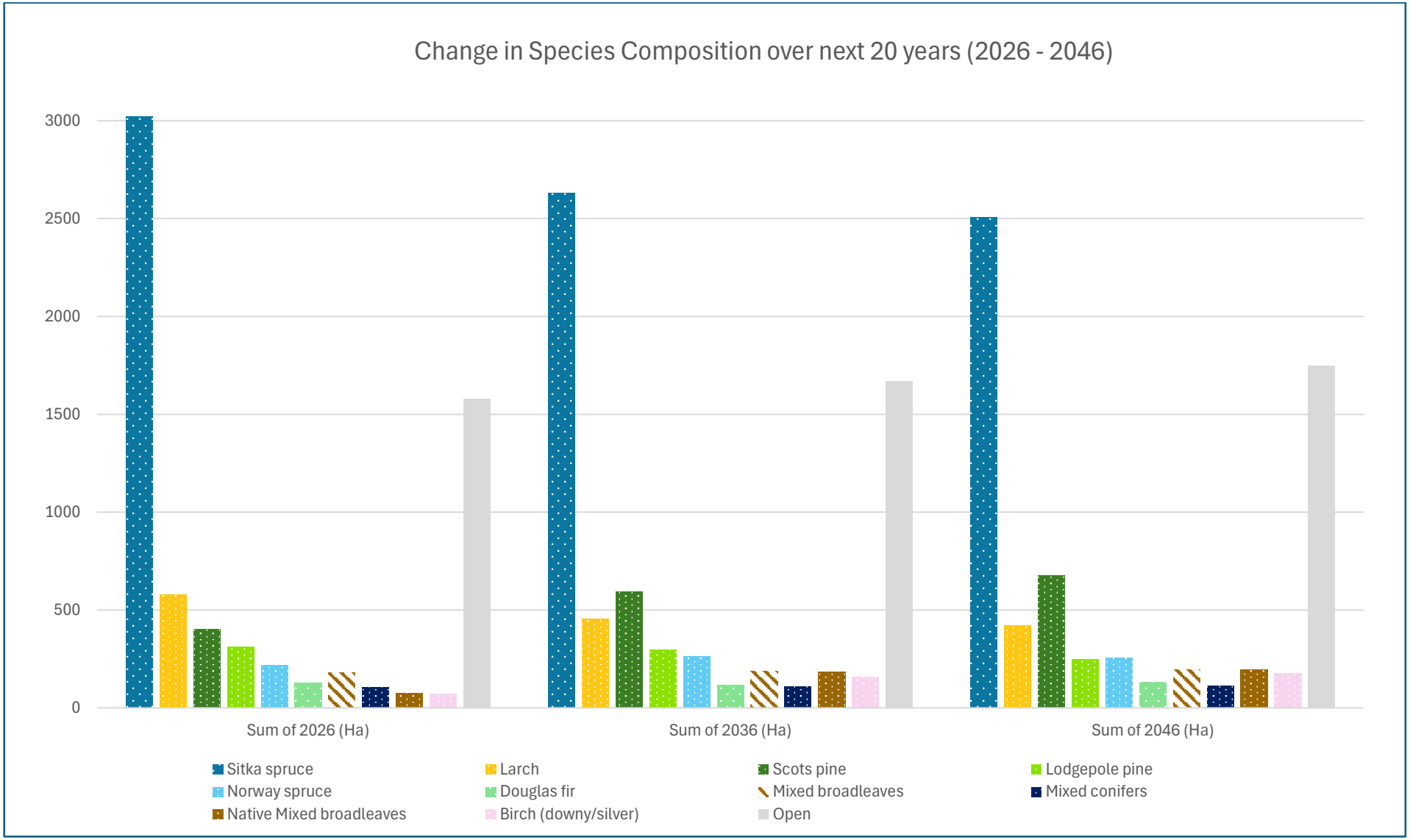


Figure 4 - Change in species composition over the next 20 years (2026-2046)

The majority of land use in Mearns is currently High Forest (76.28%) in 2026. The data presented in Table 7 and Figure 5 shows that whilst there is a decrease in High Forest over the 2036 and 2046 period, the afforested area does not fall below 79% once the area felled and awaiting restock is accounted for. The data highlights that there is no land use change been sought in this LMP submission.

Table 7: Land use change over 20 years (2026-2046)

Land Use	Current Area (%) 2026	Year 10 Area (%) 2036	Year 20 Area (%) 2046
Felled awaiting restock	6.64	4.66	5.96
Open other	1.25	0.40	0.40
Managed Open Land	19.55	20.02	19.86
High Forest	72.56	74.92	73.78
Total	100	100	100

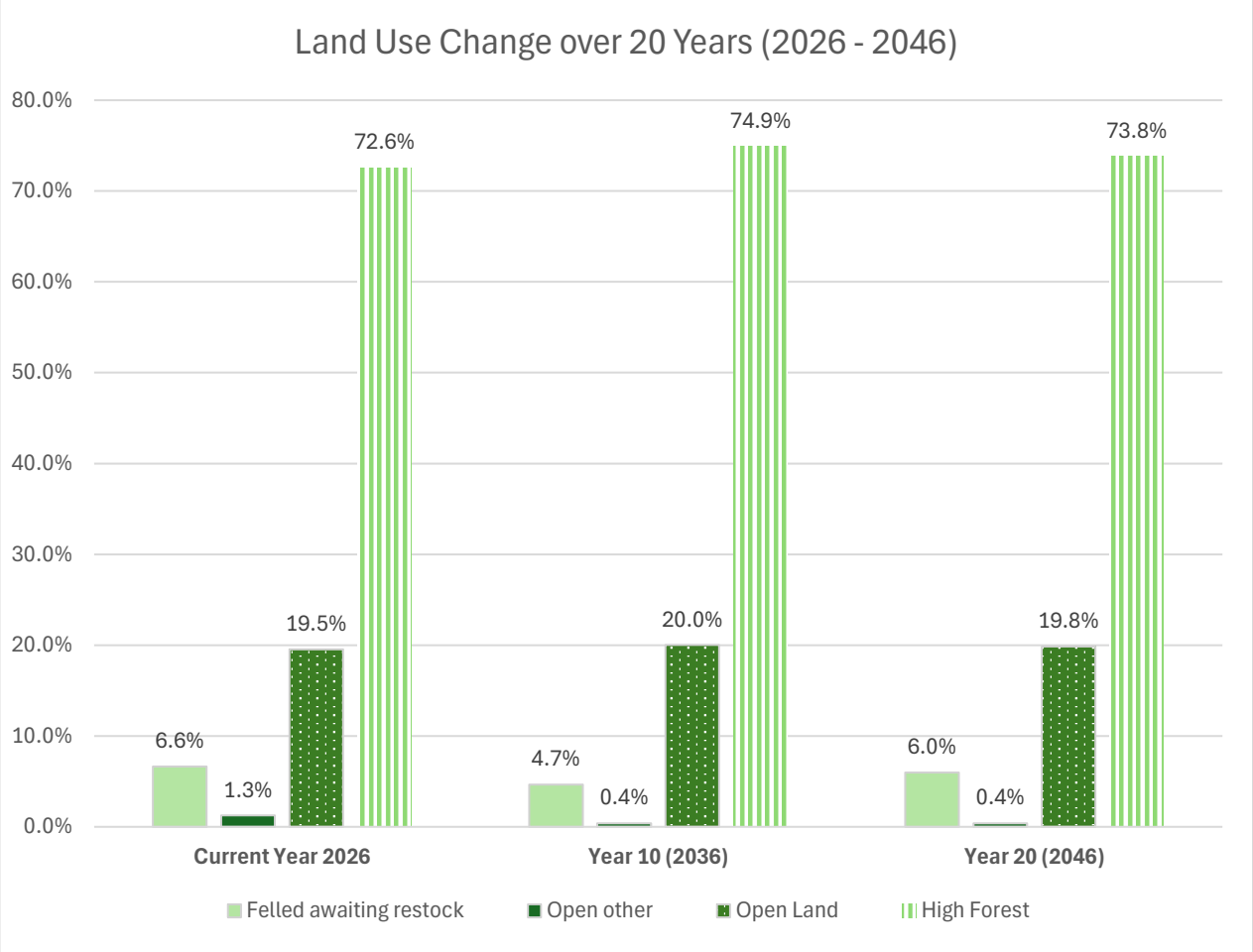


Figure 5: Land use change over 20 years (2026-2046)

A.8. Plant Health

A.8.1. Dothistroma Needle Blight (DNB)

DNB, first found in the UK in 1954, is the major threat and damaging agent for pine species. It causes premature needle defoliation, resulting in loss of timber yield and, in severe cases, tree death. It is also known as red band needle blight because of the symptoms it shows on pine trees and the needles. Moisture is required for natural dispersal of the fungus, and long-distance dispersal is thought to occur in moist winds and mists.

A.8.2. Large Pine Weevil (*Hylobius abietis*)

The Large Pine Weevil (*Hylobius abietis*) can cause extensive feeding damage to young trees used to restock clearfell sites, but damage is often highly variable. This species lays its eggs in deadwood/stumps on clearfell sites and the emerging adults feed on the bark of young trees, often with devastating effect on newly planted conifer crops.

The Hylobius Management Support System (HMSS) is based on a simple monitoring protocol using billet traps to measure Hylobius numbers on individual clearfell sites. The numbers recorded are used, with other information and entered into the HMSS software, to determine the best way to manage clearfell sites for successful, cost-effective and environmentally friendly restocking. This Support System will be used along with past results and experience to determine the optimal time to restock while minimising the use of chemicals.

Restocking has traditionally taken place within two years of sites being felled. However, many seedlings were damaged or killed by the *H. abietis*. To reduce the use of insecticides, where feasible, restocking is planned to take place at the end of year two. Restocking may take place up to four years following felling if monitoring, using HMSS shows that it is expected that there will be an elevated level of *H. abietis* present. Any delay in restocking will be based on adherence to the thresholds set out in the Scottish Forestry Tolerance Tables, in conjunction with the HMSS data.

A.8.3. Ash Dieback

Ash dieback is an aggressive fungal disease and is caused by *Hymenoscyphus fraxineus* (previously *Chalara fraxinea*). The disease causes leaf loss and crown dieback in affected trees and usually leads to tree death. There will be no planting of ash trees as there is currently a moratorium on its planting within FLS woodlands to try and help slow the spread of the disease. However, as this disease is endemic to the wider environment no action will be taken regarding mature established trees that contract the disease beyond felling for safety reasons in areas with high recreation use.

A.8.4. Fungal plant pathogen *Phytophthora ramorum*

P. ramorum is a fungus-like plant pathogen which attacks a wide range of tree and shrub species. European and Hybrid Larch are particularly susceptible to *P. ramorum,* but current evidence indicates that the impact of the disease is greatest on Japanese Larch, which can die within one to two seasons, with consequential economic, environmental and amenity impacts. Therefore, there is currently a moratorium on the planting of Larch within FLS woodlands, to try and help slow the spread of the disease. We will try to retain existing Larch stands where it is practical to maintain the species diversity within Mearns.

Section B. Analysis of Information

B.1. Main Objectives: Constrains and Opportunities Analysis

See Concept maps 4a, 4b & 4c.

Following internal and external consultation, the objectives for Mearns have been split into categories defined as Main Objectives, see Table 8 and Secondary Objectives as outlined in Table 9. These tables detail the key objectives of the LMP within different areas of Mearns forest and the opportunities and constraints identified. From this, we have developed the concept which provides information on how the objectives will be achieved in practise.

Table 8: Main Objectives - opportunities, constraints, and concept

Objective (what we want to achieve)	Opportunity	Constraint	Concept (how we are going to do it)
Maintain & Promote Sustainable Production: Mearns is a production focused forest and management should focus on supporting production.	• Enhance both crop quality and volume in second rotation crops • Increased tree species diversity • Nurse species can self-thin reducing operational costs • Improved stand stability, thus reducing windthrow risk • Potential acceptance of Sitka spruce regen for some pure stands of crop, reducing soil disturbance • Enhance and increase connectivity of	• Variable soil quality for growing high quality timber, with some areas of poor soils • Second and subsequent rotation crops will not be subject to the same inputs (e.g. fertiliser) as previous rotations • Crop production is without artificial enhancement e.g. drains and ploughing • Managing a commercial forest	• Select the most appropriate management system for each coupe to maximise timber potential • Use appropriate species where nurse crops are required • Plan management interventions to create flexibility for future silvicultural decision making • Use natural re-generation where species are appropriate. Monitor regen to assess re-spacing requirements • Where site conditions are not suitable for commercial forestry, look for alternative environmental benefits

Objective (what we want to achieve)	Opportunity	Constraint	Concept (how we are going to do it)
	watercourses and the wider catchment	with utility expansion and recreational demands • Newly established crops are vulnerable to browsing by deer • Managing Sitka spruce regeneration-requirement for more pro-active management and early assessment of crop quality	
Utility Infrastructure: accommodate the increasing number of overhead powerlines lines (OHPLs), wayleave expansions, existing wind turbines, sub-station and other utility infrastructure developments.	• Reduction in Red-Zones during felling operations • Potential funding for environmental projects and riparian enhancement • Utility company proposing to plant broadleaves along the edge of some electricity wayleaves to soften the impact of expanded wayleaves	• Increased fragmentation in the forest • Reduced stand stability in crops adjacent to wayleave expansion and sub-station developments • Managing existing forest areas may be more challenging around utilities • Visual impact of additional power lines	• Liaise with utility companies to minimise impact • Encourage utility provider to focus associated projects related to environmental gain, to be in Mearns Forest.

Objective (what we want to achieve)	Opportunity	Constraint	Concept (how we are going to do it)
		on the forest from viewpoints • Recreational users will be impacted by utility expansion	
UKFS – Broadleaves: Increase native broadleaf cover to at least 5% to meet UKFS compliance.	• Creation of habitat corridors • Increased habitat types will benefit biodiversity • Improved soil structure and reduction in soil loss in broadleaf areas • Riparian corridors with broadleaves will improve the aquatic environment and help to reduce predicted impacts of future climate change on water temperatures	• Risk of herbivore grazing impacting tree establishment • Need to proactively manage both trees and weeds • Establishment of non-native conifer on open ground and in riparian areas which requires management	• Increase the area planted with native broadleaves, predominately focusing on riparian areas • Plant native broadleaves at scale, as they are easier to protect and manage • Some areas may require fenced enclosures and/or tree tubes to protect trees during establishment
Flood Resilience: ensure forest operations do not increase flood risk. Design riparian habitats to reduce the risk of flooding in Auchenblae and Stonehaven.	• Some steep ground coupes will be retained for slope stability, with trees retained beyond MMAI, providing habitat and deadwood potential	• *H. abietis* risk may require longer fallow periods, therefore increasing the period between felling and restocking • Natural regeneration may take longer to	• Shorter fallow periods may be used where flood risk is high • LMP Phase 1 and 2 felling coupes have been reviewed against flood risk to assess flood resilience • Riparian planting can have a limited ability to reduce overland flow rates

Objective (what we want to achieve)	Opportunity	Constraint	Concept (how we are going to do it)
	• Felling operations planned and timed to reduce risk in the wider catchment • Restocking via either hot-planting or soon after felling will improve the volume output of the forest - as it is more efficient use of the land • Planting promptly, rather than relying on natural regen can improve crop quality • Improved riparian areas can provide public recreation opportunities • Review flood risk and promote earlier restocking in high risk catchments	establish well depending on seed source and underlying soil type. Therefore, acceptance of natural regeneration should be considered in conjunction with the flood risk in that catchment.	
Second rotation crop quality: assess struggling crops and investigate interventions.	• Increased species diversity by using nurse mixtures • Self-thinning mixes reduce operational costs • Increased biodiversity value • Wider environmental benefit, particularly water	• Nurse species can be more palatable to deer species • Requires suitable planting design to reduce complexity for tree-planters and subsequent management	• Plant commercial crop in conjunction with either Lodgepole pine or Scots pine to act as a nurse crop • Alder will be used in some locations to fix nitrogen and improve N availability to the main Sitka spruce crop

Objective (what we want to achieve)	Opportunity	Constraint	Concept (how we are going to do it)
	quality, as no inorganic fertiliser used to support a tree crop which might otherwise have struggled to establish		
Continuous Cover Forestry (CCF): continue to develop a timely thinning programme to maintain and increase CCF.	• Improve final tree crop quality • Increased forest management options for future foresters • CCF can help to reduce DNB risk and the impact of any future *P.ramorum* outbreaks by promoting airflow in the crop	• Post Storm Arwen, perceptions of thinning risk have increased among some FLS staff • Wind risk hazard post thinning • Thinning needs to prioritise first thin coupes, but some of these may be too mature for a first thin	• Successful first thinning programme established • Stronger thinning programme developed across the 10 years of the LMP, including in LISS coupes • Subsequent thinning operations which financially cover the associated operational cost • Improved final tree crop volume and quality
Climate change: respond to predicted impacts of climate emergency.	• Increased diversity of tree species selection where soils and climate allows. Better protection of	• Environmental conditions are a limiting factor: diversity will be focused in	• Increase tree species diversity where site conditions allow • Greater species diversity will reduce risk

Objective (what we want to achieve)	Opportunity	Constraint	Concept (how we are going to do it)
	riparian areas for fish and invertebrate populations • Potential to reduce risk from future pest and disease outbreaks by increasing tree species diversity	Drumtochty and Glenfarquhar • Historic research plots in the forest have highlighted that tree species diversification at higher elevations is limited	

B.2. Secondary Objectives: Constrains and Opportunities Analysis

Table 9: Main Objectives - opportunities, constraints, and the resulting concept that addresses these

Objective (what we want to achieve)	Opportunity	Constraint	Concept (how we are going to do it)	Area
Steep ground: maximise current productivity of steep ground coupes.	• Plan and programme the harvesting of coupes which are challenging to fell and extract timber from • Riparian planting opportunities in steep narrow valley sides, post felling	• Contractor availability • Associated cost of steep ground operations • Increased operational planning requirements in Work Plans	• Actively fell some of the coupes which have been historically taken out of felling programmes due to complexity • Recent Storm Arwen damage has shown the ability of the local team to address difficult felling coupes	Forestry: Mearns - all

Objective (what we want to achieve)	Opportunity	Constraint	Concept (how we are going to do it)	Area
			• Contractors with skylines may be required	
Access: work out priorities for felling, thinning, planting and maintenance to establish hierarchy of road network required.	• Rationalise existing roads and planned roads network • Some historically planned roads may no longer be required • Build new forest roads or forwarder tracks only where existing road network is not sufficient or connected • Create better access for restocking	• Some coupes have poor access which needs upgraded • Capital cost associated with harvesting some poor, windblown crops • There are coupes where watercourses and steep ground will prove challenging for access	• Civils engineering and harvesting team have reviewed access • Use of forwarder tracks where site conditions allow, so less requirement for new built forest roads • Planning several years in advance where complex crossing of watercourses is required	Forestry: Mearns - all
Local Landscape Area (LLA): ensure coupes are of a suitable scale and fit into the landscape.	• Reassess existing coupe design	• Surrounding coupes and felling phase alignment may be challenging for restructuring	• Consider landform in coupe and planting design • Most coupes in the LLA are already well designed due to landform	Forestry: Drumtochty
Regen management: keep on top of unwanted regeneration in riparian areas, open areas, and PAWS areas.	• Areas designated as open ground should be proactively managed	• Associated cost of management • Difficultly in accessing some open ground	• Identify where non-native conifer regen is establishing on open ground and manage	Environment & Forestry: Mearns - all

Objective (what we want to achieve)	Opportunity	Constraint	Concept (how we are going to do it)	Area
	• Can act as a fire break in addition to biodiversity benefits • Create and manage habitat corridors • Protect integrity of PAWS sites • Potential to remove non-native conifer from areas of peat soils	• Protection of native broadleaves from browsing herbivores and competition from non-native conifer species	• Review of open ground may require change of land use via future amendments to Scottish Forestry • Ensure opportunities are created for Wildlife Managers to access riparian areas for herbivore management	
Environment and Peatland restoration: scope for peatland restoration, PAWS/LEPO reversion, riparian expansion, protection of scheduled monuments and rhododendron control.	• Degraded peatland areas on designated open ground • Scope to restore where assessment of depth and peat condition deem restoration viable • Enhance the riparian network with high density native broadleaf planting, prioritising the Bervie, Cowie and Finglennie • Programme of rhododendron removal commenced • Potential broadleaf corridor shrub planting	• PAWS restoration requires on-going management of non-native regen • Budgetary constraints associated with delivering environmental projects • Rhododendron control may require several interventions	• The total area of PAWS which has undergone species change and restoration will increase from the current baseline in 25/26 • Condition of Scheduled Monuments maintained • Investigate external funding opportunities from utility expansion to fund invasive species control • Potential broadleaf corridor shrub planting along wayleave corridors funded by utility company	Environmental: Mearns - all

Objective (what we want to achieve)	Opportunity	Constraint	Concept (how we are going to do it)	Area
	along wayleave corridors			
Recreation: liaise with local user groups.	• Continue to work with existing recreational users such as cyclists, equestrian users and walkers to support access to the forest under Scottish Outdoor Access Code (SOAC) • Work with other recreational users such as the Grampian Rally • Identify other future recreation usage	• Recreation is no longer a core priority for Mearns forest • Utility expansion will impact some user groups of the forest	• Continue on-going engagement with user groups to promote responsible access	Recreation: Mearns - all
Public & private drinking water supplies: review and understand where operations may impact drinking water supplies.	• Protect and map private and commercial water supply points and pipelines so forestry operations do not have a negative impact on PWS • Establishment of native broadleaves along riparian corridors will reduce future risk by	• Not all PWS holders record their abstraction points with the Local Authority • Groundwater abstractions are more challenging to understand in terms of connectivity	• Engage with Local Authority so locations of PWS can be mapped • Follow Soil and Water Guidelines during forestry operations • Ensure active water infrastructure buffered as per UK Forestry Standard	Forest management: Mearns -all

Objective (what we want to achieve)	Opportunity	Constraint	Concept (how we are going to do it)	Area
	removing these areas from future felling operations, helping to protect PWS			

Section C. Management Proposals

C.1. Silvicultural Practices

This plan has been designed in accordance with sound silvicultural and environmental principles within the framework outlined by the UK Forestry Standard and the UK Woodland Assurance Scheme.

The plan area has been divided into a series of coupes to reflect the varying management strategies being applied. The precise system of management for each coupe will be tailored to suit the current and subsequent species in the rotation. Details of proposed woodland and roading management prescriptions are detailed below in Table 10 and Table 11

Table 10: proposed management operations 2026-2036

Proposed Operations	Area	Area (%) of Mearns
Felling	960.9 ha	14.3
Thinning	2,482 ha	37.2
Restocking	1,400.1 ha	21.0
Deforestation	0	0
New woodland creation	0	0.0
New Road Construction	0.68 km	N/A

Table 11: proposed civils management operations 2026-2036

Phase	Road Construction (m)	Forwarder Track Construction (m)	ATV track Construction (m)	Road Upgrade (m)	Forwarder track upgrade (m)	ATV Track Upgrade (m)
Phase One	680	1,090	0	0	720	0
Phase Two	0	0	0	0	0	0

C.2. Prescriptions

C.2.1. Felling

See Management map 6 (Felling).

Between 2026 and 2036, a total of 959.9 ha is scheduled for felling during Phase 1 and Phase 2.

The focus of felling operations in Mearns during the 10-year lifespan of the LMP is the following:

- timber production.
- clearance of remaining storm damage trees, post Storm Arwen
- felling poorly performing Sitka spruce to allow planting of broadleaves around Midhill windfarm

Stands of trees adjoining felled areas will be retained until the restocking of the first coupe has reached a minimum height of 2 m. For any future clearfell coupes where compliance with the

guidance on adjacency is not possible to be met, and there is no exemption under the Scottish Forestry Act, an amendment will be discussed and agreed with Scottish Forestry before the coupe is felled.

C.2.1.1. Felling of Trees in Exceptional Circumstances

FLS will normally seek to map and identify all planned tree felling in advance through the LMP process, as per Table 12 and Table 13 below. However, there are some circumstances requiring small scale tree felling where this may not be possible and where it may be impractical to apply for a separate felling permission due to the risks or impacts of delaying the felling. Felling permission is sought for the LMP approval period 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 destabilised or made unsafe by wind, physical damage, or impeded drainage.

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

The maximum volume of felling in exceptional circumstances covered by this approval is 75 cubic metres per LMP per calendar year. A record of the volume felled in this way will be maintained and will be considered during the five-year LMP review.

Trees may be felled without permission if they are of less than 10 cm diameter at breast height (1.3 m); pose immediate danger to persons or property; are completely dead; or are part of Authorised Planning Permission works or wayleave agreements.

Table 12: Summary of felling by phase and year (2026 – 2046)

Felling Phase and Year	Area (ha)	Area (%)
Phase 1 (2026-2030)	489.3	7.3%
Phase 2 (2031-2035)	471.6	7.1%
Phase 3 (2036-2040)	299.2	4.5%
Phase 4 (2041-2045)	459.6	6.9%
Area out with of the 20-year plan period	4,946.3	74.2%
Total	**6,666**	**100%**

Table 13: detailed felling for Phase 1 and 2

Felling Phase	Felling Year	Coupe Reference	Birch (ha)	Douglas fir (ha)	Larch (ha)	Lodgepole pine (ha)	Mixed broadleaf (ha)	Mixed Conifer (ha)	Norway spruce (ha)	Open	Scots pine (ha)	Sitka spruce (ha)	Total (ha)
Phase 1	26/27	38022	-	-	-	-	-	-	-	-	-	2.9	**2.9**
Phase 1	26/27	38084	-	-	2	1.3	-	7.5	-	-	1.7	4.3	**16.8**
Phase 1	26/27	38094	-	-	0.3	-	0.1	-	-	-	-	0.7	**1.1**
Phase 1	26/27	38097	-	-	1	-	0.2	-	-	0.1	-	0.2	**1.5**
Phase 1	26/27	38104	-	-	2.2	1.8	-	-	-	-	-	5	**9**
Phase 1	26/27	38112	-	-	1.9	1.4	-	-	0.4	0.6	-	5.1	**9.4**
Phase 1	26/27	38114	-	1.7	0.2	-	0.1	-	-	-	0.8	0.5	**3.3**
Phase 1	26/27	38130	-	1.2	5.3	3.7	0.7	3.2	-	0.6	0.6	19.9	**35.2**
Phase 1	26/27	38178	-	-	0.6	1.3	-	3	-	0.2	-	0.8	**5.9**
Phase 1	26/27	38187	0.3	-	1.2	-	0.9	-	0.6	0.7	-	-	**3.7**
Phase 1	26/27	38199	-	-	1	-	-	0.6	-	-	-	0.2	**1.8**
Phase 1	26/27	38302	-	-	-	0.4	-	2.3	1.9	-	0.6	11.2	**16.4**
Phase 1	26/27	38305	-	1.1	-	-	-	-	-	-	-	-	**1.1**
Phase 1	26/27	38309	-	0.3	-	-	0.2	0.6	-	0.1	-	0.4	**1.6**
Phase 1	26/27	38325	-	-	3.5	-	-	0.5	-	0.2	-	1.2	**5.4**
Phase 1	26/27	38498	-	-	-	-	-	0.9	-	-	-	-	**0.9**
Phase 1	26/27	38521	-	-	-	-	-	-	6.6	-	-	-	**6.6**
Phase 1	26/27	38541	-	-	2.5	6.2	-	-	-	-	-	23.8	**32.5**
Phase 1	26/27	38544	-	-	1.1	2.1	-	-	3.7	1.2	10.2	6.7	**25**
Phase 1	26/27	38549	-	-	-	-	-	-	0.6	0.1	-	-	**0.7**
Phase 1	26/27	38551	-	11	-	-	3.7	-	-	0.6	-	12.4	**27.7**
Phase 1	26/27	38573	-	-	-	-	0.2	-	-	0.4	1.4	10.4	**12.4**
Phase 1	26/27	38596	-	-	-	-	-	-	0.1	-	-	3.2	**3.3**

Felling Phase	Felling Year	Coupe Reference	Birch (ha)	Douglas fir (ha)	Larch (ha)	Lodgepole pine (ha)	Mixed broadleaf (ha)	Mixed Conifer (ha)	Norway spruce (ha)	Open	Scots pine (ha)	Sitka spruce (ha)	Total (ha)
Phase 1	26/27	38614	-	-	0.4	-	-	-	1.6	-	-	-	**2**
Phase 1	26/27	38628	-	-	0.5	-	0.5	0.6	0.1	-	-	1.9	**3.6**
Phase 1	26/27	38637	-	-	11.5	10.4	-	2.3	0.4	0.5	2.6	3.3	**31**
Phase 1	26/27	38648	-	-	-	-	-	-	-	-	0.7	4.7	**5.4**
Phase 1	26/27	38685	-	-	-	0.7	-	-	-	0.2	-	-	**0.9**
Phase 1	26/27	38745	-	-	-	-	-	-	0.9	-	-	7.1	**8**
Phase 1	27/28	38293	-	-	0.6	2.1	-	-	-	-	-	1.2	**3.9**
Phase 1	27/28	38473	-	-	-	-	-	0.7	-	-	-	2.4	**3.1**
Phase 1	27/28	38533	0.7	2.7	3.7	-	0.3	-	2.2	0.3	-	0.4	**10.3**
Phase 1	27/28	38902	-	-	-	-	-	-	-	-	-	7	**7**
Phase 1	27/28	38904	-	-	-	-	-	-	-	-	-	2.3	**2.3**
Phase 1	27/28	38905	-	-	-	-	-	-	-	-	-	1.6	**1.6**
Phase 1	27/28	38920	-	-	-	7.6	-	-	-	1	-	57.8	**66.4**
Phase 1	27/28	38983	-	0.5	6.8	3.4				0.8	2.6	8.4	**22.5**
Phase 1	27/28	40099	-	0.4	-	-	-	-	-	-	-	-	**0.4**
Phase 1	27/28	40944	-	0.6	0.9	-	-	-	0.1	-	-	-	**1.6**
Phase 1	28/29	38525	-	-	0.1	2.3	-	2.3	-	-	-	64.4	**69.1**
Phase 1	29/30	38189	-	-	7.5	-	-	-	-	0.1	9.2	6.4	**23.2**
Phase 1	29/30	38303	-	-	-	2.4	-	-	-	0.4	-	-	**2.8**
Phase 2	30/31	38031	-	-	-	-	-	3.2	1.3	-	-	0.4	**4.9**

Felling Phase	Felling Year	Coupe Reference	Birch (ha)	Douglas fir (ha)	Larch (ha)	Lodgepole pine (ha)	Mixed broadleaf (ha)	Mixed Conifer (ha)	Norway spruce (ha)	Open	Scots pine (ha)	Sitka spruce (ha)	Total (ha)
Phase 2	30/31	38065	-	-	-	0.6	1.3	-	-	0.1	0.5	2.1	**4.6**
Phase 2	30/31	38120	-	1.7	-	-	-	-	-	-	-	3.6	**5.3**
Phase 2	30/31	38159	-	-	4.2	5.4	-	-	-	0.4	3.1	10.9	**24**
Phase 2	30/31	38232	-	-	1.4	5	-	1	-	1.1	0.9	19.9	**29.3**
Phase 2	30/31	38464	-	-	0.2	-	1.2	-	-	-	5.8	1.1	**8.3**
Phase 2	30/31	38552	-	-	-	3.8	-	-	1.3	12.3	1.7	23.1	**42.2**
Phase 2	30/31	38619	0.2	-	7.7	0.1	-	-	0.3	0.6	9	25.2	**43.1**
Phase 2	30/31	38762	-	1.1	0.9	-	-	-	-	-	-	-	**2**
Phase 2	30/31	38766	-	-	-	-	-	-	-	1.6	-	0.5	**2.1**
Phase 2	30/31	38801	-	-	1.2	-	-	-	-	0.2	0.2	57.4	**59**
Phase 2	30/31	38933	-	1.7	-	-	0.1	0.4	8	0.2	-	-	**10.4**
Phase 2	30/31	38995	-	-	11.4	0.9	-	0.4	0.6	0.3	13.8	11.6	**39**
Phase 2	31/32	38900	-	1.2	0.3	-	-	-	-	0.1	-	-	**1.6**
Phase 2	32/33	38272	-	0.2	5.8	0.8	1.4	-	-	0.6	1.3	11	**21.1**
Phase 2	33/34	38208	-	1.4	1.4	-	1.3	-	-	3.9	-	13.8	**21.8**
Phase 2	33/34	38301	-	-	-	-	-	-	-	-	-	9.7	**9.7**
Phase 2	33/34	38556	-	-	2	16.9	-	-	0.3	0.3	3.4	15.2	**38.1**
Phase 2	33/34	38580	-	-	-	-	0.1	1.8	-	0.7	-	3.1	**5.7**
Phase 2	33/34	38916	-	0.5	0.1	-	-	-	0.5	-	-	2.3	**3.4**
Phase 2	34/35	38123	-	-	1.4	-	2.9	-	-	-	-	29.8	**34.1**

Felling Phase	Felling Year	Coupe Reference	Birch (ha)	Douglas fir (ha)	Larch (ha)	Lodgepole pine (ha)	Mixed broadleaf (ha)	Mixed Conifer (ha)	Norway spruce (ha)	Open	Scots pine (ha)	Sitka spruce (ha)	Total (ha)
Phase 2	34/35	38144	-	-	-	0.5	-	-	-	0.4	1.1	21.1	**23.1**
Phase 2	34/35	38391	-	-	4.9	1.9	-	-	1.7	1.6	3.2	3.3	**16.6**
Phase 2	34/35	38606	-	0.7	1.3	-	-	-	-	-	-	1.6	**3.6**
Phase 2	34/35	38714	-	-	3.5	-	0.9	-	3.9	0.5	9.4	0.4	**18.6**
Total			**1.2**	**28**	**102.5**	**83**	**16.1**	**31.3**	**37.1**	**33**	**83.8**	**544.9**	**960.9**

C.2.2. Thinning

See Thinning Coupes and Thinning Approvals maps 8 & 9.

We will maximise the area managed through thinning in the plan area. FLS policy assumes that all productive conifer crops will be thinned except where:

- Thinning is likely to significantly increase the risk of windblow.
- A single thinning operation is likely to require an unacceptably large initial investment in relation to the potential benefits due to access or market considerations.
- Thinning is unlikely to improve poorly stocked or poor-quality crops.

All thinning decisions will be guided by Operational guidance Booklet No 9 'Managing Thinning.' 2,482 ha of the crop will be thinned between 2026 and 2036 (see Table 14).

Thinning will normally be conducted at, or below, the level of marginal thinning intensity (i.e., removing no more than 70% of the maximum Mean Annual Increment (MAI), or Yield Class (YC), per year). Higher intensities (no more than 140% of maximum MAI, or YC, per year) may be applied where thinning has been delayed, larger tree sizes are being sought or as part of a LISS prescription. In all cases work plans will define the detailed thinning prescription before work is conducted and operations will be monitored by checking pre and post thinning basal areas for the key crop components.

Table 14: thinning in the plan period, by species

Tree Species	Phase 1 (2026-2030) ha	Phase 1 (2026-2030) %	Phase 2 (2031-2035) ha	Phase 2 (2031-2035) %
Larch	322	4.8%	423	6.3%
Lodgepole pine	94	1.4%	114	1.7%
Mixed Conifer	96	1.4%	65	0.9%
Norway spruce	36	0.5%	54	0.8%
Scots pine	135	2.0%	179	2.6%
Sitka spruce	1,397	20.9%	1,647	24.7%
Total	**2,080**	**31.0%**	**2,482**	**37.0%**

C.2.3. Low Impact Silvicultural Systems

See Management map 6 and Map 7 LISS Coupes.

Currently 544 ha (8.2%) of Mearns forest is managed under Low Impact Silvicultural Systems (LISS) prescriptions. There is less scope to develop LISS in upland environments. Given the current crops and site conditions there will be no emphasis on trying to introduce new areas of LISS. However, where crop and site conditions allow, areas currently with a LISS designation will continue to be managed in that way. Any opportunities to increase the area managed under LISS will be taken as the crops and site conditions allow.

LISS prescriptions will be appropriate for the species present, utilising group selection systems for light demanding species and unform shelterwood for shade tolerant species.

C.2.4. Long Term Retentions, Minimum Interventions, Natural Reserves

See Management map 6.

4.4 % of Mearns is managed as Long-term Retention. This is where individual, stable stands and clumps of trees are retained for environmental benefit significantly beyond the age or size adopted by commercial woodland enterprise.

1.6 % is managed as Minimum Intervention (MI), this is where these is no systematic felling or planting of trees to develop semi-natural habitats that could transition into Natural Reserves over time.

There are four Natural Reserves in the forest, with a total area of 0.5% of Mearns. Natural Reserves are areas where biodiversity is the primary objective, and we are prepared to commit the area of land in question to minimum intervention management in perpetuity.

C.2.5. Restocking Proposals and Natural Regeneration

See Future Habitats and Species map 10 (Restock).

Where required, the choice of ground cultivation technique will consider the short-term benefits for establishment against any long-term side effects on tree stability, access for future forest operations and the environment. There will be a preference for the least intensive technique, considering soil and water impacts, whilst ensuring successful crop establishment.

Conifer restocking will be established at 2,700 stems per ha to achieve 2,500 stems per ha once established.

Broadleaf restocking will be achieved through the following stocking densities, and will be protected by exclosures and planting tubes where appropriate, in addition to deer control:

- Riparian habitats will be restocked with a mixture of suitable native broadleaved species and planted at a density to achieve 1,600 stems per ha. This will increase levels of dappled shade and woody debris to enhance the aquatic environment and help to cool water temperatures in summer, thus increasing Dissolved Oxygen (DO) levels.
- Environmental broadleaf planting will be restocked with a mixture of suitable native broadleaved species planted at a density of 1,600 stems per ha with a mosaic of open ground. This will allow for open space that will re-generate naturally to create habitat diversity.
- There is scope for natural regeneration on the PAWS sites once these have been clear-felled of softwood conifers. The success of PAWS restoration will be dependent on the management of non-native conifer regen, principally Sitka spruce regeneration and the removal of this.

Any broadleaf planting will be native to the area and will complement existing naturally growing scrub and woodland to give the most ecological value.

All areas identified for restocking by natural regeneration will be recorded and programmed for inspection at year four. At inspection, an assessment will be made to establish if the natural regeneration is, or is likely, to achieve the objectives for the site. If it is decided that the objectives are not being met, then replanting with an appropriate species will be undertaken. If natural regeneration is occurring but not yet at the required density, then the option to review the site in a further five years may be taken with permission from Scottish Forestry.

Enrichment planting will be used to ensure the target stocking density is reached if there is insufficient natural regeneration. The native species to be selected in the PAWS restoration sites will be appropriate to the NVC classification. It is expected that W11 will dominate along Drumtochty Glen, with some birch and rowan regen, though this may require supplementary planting with Sessile Oak and some Hazel. In gullies and hollows, W7 / W9 woodland classifications will likely require the planting of alder, hazel, and hawthorn in the W7, and supplementary planting of hazel in the W9.

FLS is following a chemical reduction strategy and the Restocking Strategy for Scotland's National Forest Estate explains that we will minimise chemical usage in restocking (insecticides and herbicides) by considering options at the site scale and using techniques such as delayed planting to achieve this. To allow this strategy to be followed the Hylobius management support system will be applied and the minimum recommended fallow period used prior to restocking. This reduced fallow period will also reduce the potential need for herbicide applications to restocked areas.

The choice of ground preparation for each site will be decided at the operation planning stage by the relevant establishment forester. Ground preparation techniques can vary, even across individual sites, so the most up to date advice will be applied at the time of the operation. This will help ensure that soil structure and water quality are both protected, whilst also providing an optimal environment for establishment, depending on the species and site conditions. Forest and Water Guidelines, UK Forest Standard and UKWAS can all be used to help with the decision-making process, along with: FLS Guidance on Ground Cultivation for Forestry and Land staff, and internal FLS guidance related to making decisions related to ground preparation

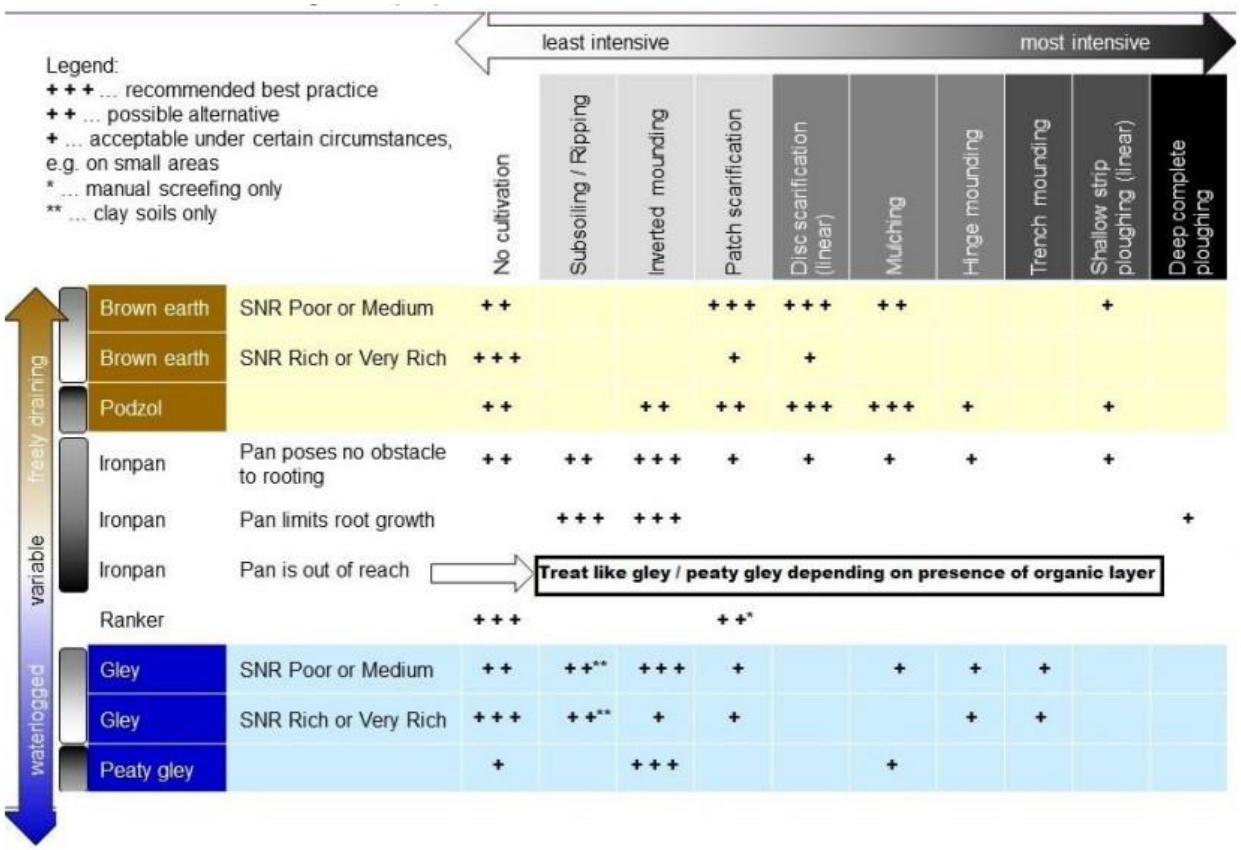
Given the scale of the forest, there are a wide range of soil types. Predominately, these are peaty podzols / podzolic ironpan, surface water gleys, blanket bog and brown earths.

Forest Research's **Field Guide to Soil Cultivation** (Jens Haufe, 2019) and Scottish Forestry's **Cultivation for Upland Productive Woodland Creation sites** will be referenced where necessary to help aid in the specific choice applied across any restock sites.

Table **15** below is a good indication of what ground preparation techniques will be applied, with the "Best Practice" option the target if possible. The majority of restock operations within the plan period take place on intergrade soils, with Ironpans, Podzols and Surface-water Gleys all present, best practice options set out below:

- **Ironpans:** Inverted mounding or no cultivation if site conditions suitable.
- **Podzols:** Disk scarification or mulching if weed competition is high, no cultivation if site conditions suitable.
- **Surface water gleys:** Inverted mounding or no cultivation, depending on nutrient availability on individual sites.

Table 15: recommended ground preparation techniques based on soil type, Dr Jens Haufe, 2019



The species choice for restocking has been guided by the ESC results for the climatic area and soil types. This has shown that the climate and site conditions make a range of species suitable for restocking. This range will be utilised where possible, provided they will meet the objectives of the plan.

One of the aims of the restocking will be to increase the species diversity within the plan area while also retaining timber productivity. To achieve this, alternative conifer species such as Scots pine, Norway spruce and Lodgepole pine will be added and there will be in an increase in the use of nurse crop mixtures. This will provide environmental benefits, increase resilience to pests and diseases, and ensure there is a sustainable crop of timber in the future.

Restocking and/or planting in PAWS will use native broadleaves of local origin (201/202) unless these cannot be sourced within the required time-frame, in which case alternative sources will be discussed with Scottish Forestry. Out with these areas, native broadleaves of local origin such as birch, aspen, oak and willow will be preferred if available. If not available then trees from an alternative origin will be used provided this origin makes them suitable to grow and thrive in the prevailing site conditions. Where Sitka spruce is to be used for restocking, we will endeavour to

use improved SS transplants, provided the nursey is able to supply them in sufficient quantities. If appropriate sites present themselves, i.e. good soils, low risk of Hylobius attack and the potential of yield class 14 or higher crops, then VPSS will be used if available. Over and above this, only certified material will be used for species covered by the Forest Reproductive Material Regulations.

If natural regeneration is found to be occurring but at insufficient levels at the time of the assessment, then a discussion with Scottish Forestry will be required and an agreement reached over whether a time extension is suitable or immediate restocking is required

C.2.5.1. Restock Coupes in LMP – including Phase 1 & Phase 2

Currently, **442.8 ha** of ground in Mearns is Felled Awaiting Restock. Through the LMP review process we have identified several coupes which have not been restocked historically. Now these have been identified, we are proactively taking a strategic approach to restocking these historically felled areas. In addition to showing the restock species for the Phase 1 and Phase 2 coupes which will be restocked between 2026 - 2036, Table 16 also includes details of those coupe which are felled and awaiting restock.

Table 16: detailed restock for Phase 1 and 2

Species abbreviations: SS = Sitka spruce, SP = Scots pine, LP = Lodgepole pine, DF = Douglas fir, NS = Norway spruce, MC = Mixed Conifer, NBL = Native Mixed Broadleaves, MB = Mixed broadleaves, BI = Birch, OK = Oak

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Felled awaiting restock	07/08	38351	Commercial	0.4	-	-	-	-	-	-	0.1	-	-	-	**0.5**
Felled awaiting restock	08/09	38550	Commercial / Environmental	-	2.7	-	-	-	-	3.2	-	2.7	-	1.1	**9.7**
Felled awaiting restock	09/10	38462	Commercial	0.4	-	-	-	0.1	-	-	-	-	-	-	**0.5**
Felled awaiting restock	10/11	38013	PAWS restoration	-	-	-	-	-	-	-	-	-	1.4	0.1	**1.5**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Felled awaiting restock	10/11	38229	Commercial / Environmental	-	-	-	-	-	-	0.5	-	0.5	-	-	**1**
Felled awaiting restock	10/11	38237	Commercial	1	-	-	-	-	-	-	-	-	-	-	**1**
Felled awaiting restock	10/11	38553	Environmental	-	-	-	-	-	-	-	-	0.5	-	-	**0.5**
Felled awaiting restock	10/11	38673	Commercial	0.7	-	-	-	-	-	-	-	-	-	-	**0.7**
Felled awaiting restock	11/12	38359	Environmental	-	2	-	-	-	-	4.9	-	2	-	-	**8.9**
Felled awaiting restock	12/13	38004	Commercial	-	-	-	-	2.3	-	-	-	-	-	-	**2.3**
Felled awaiting restock	12/13	38100	PAWS restoration	-	-	-	-	-	-	0.8	-	-	-	-	**0.8**
Felled awaiting restock	12/13	38261	Commercial	-	-	-	0.7	-	-	-	-	-	-	-	**0.7**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Felled awaiting restock	12/13	38320	PAWS restoration	-	-	-	-	-	-	0.2	0.8	0.5	-	-	**1.5**
Felled awaiting restock	13/14	38035	Commercial	2.4	-	-	-	-	-	-	-	-	-	-	**2.4**
Felled awaiting restock	13/14	38072	Commercial	1.4	-	-	-	-	-	-	-	-	-	-	**1.4**
Felled awaiting restock	14/15	38531	Commercial	1.9	-	-	-	2.5	-	-	-	-	-	-	**4.4**
Felled awaiting restock	15/16	38038	Environmental	-	-	-	-	-	-	2.2	-	-	-	0.6	**2.8**
Felled awaiting restock	15/16	38281	Commercial	-	0.7	-	-	-	-	-	-	-	-	-	**0.7**
Felled awaiting restock	16/17	38137	Commercial / riparian	-	-	-	2.2	-	-	1.4	-	1.4	-	0.1	**5.1**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Felled awaiting restock	16/17	38147	Commercial	-	-	-	-	-	19	-	-	-	-	-	**19**
Felled awaiting restock	16/17	38175	Environmental / riparian	-	-	-	-	-	-	7.2	-	-	-	-	**7.2**
Felled awaiting restock	16/17	38672	Environmental	0.5	-	-	-	-	-	-	-	4.6	-	-	**5.1**
Felled awaiting restock	17/18	38590	Environmental	-	-	-	-	-	-	15.1	-	-	-	-	**15.1**
Felled awaiting restock	19/20	38141	Environmental / riparian	-	1.2	-	-	-	-	1	-	2.3	-	-	**4.5**
Felled awaiting restock	19/20	38265	Environmental	-	1.4	-	-	-	-	3.3	-	-	-	-	**4.7**
Felled awaiting restock	20/21	38015	PAWS restoration	-	-	-	-	-	-	1.2		1	-	-	**2.2**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Felled awaiting restock	20/21	38276	PAWS restoration	-	-	-	-	-	-	7.8	-	-	-	-	**7.8**
Felled awaiting restock	20/21	38307	Commercial	3.8	-	3.8	-	-	-	1.3	-	1.3	-	-	**10.2**
Felled awaiting restock	20/21	38923	Commercial	1.2	-	-	-	-	-	-	-	-	-	-	**1.2**
Felled awaiting restock	21/22	38069	Commercial	1.3	-	-	-	-	-	-	-	-	-	-	**1.3**
Felled awaiting restock	21/22	38196	Environmental	-	-	-	-	-	-	-	-	0.5	-	-	**0.5**
Felled awaiting restock	21/22	38211	Commercial	1.9	-	-	-	-	-	-	-	-	-	-	**1.9**
Felled awaiting restock	21/22	38574	Commercial / riparian	9.3	0.8	-	-	-	-	1.2	-	-	-	0.3	**11.6**
Felled awaiting restock	21/22	38633	Environmental	-	-	-	-	-	-	-	-	1	-	-	**1**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Felled awaiting restock	21/22	38879	Commercial / riparian	25.5	13.9	-	-	-	-	1.9	0.3	-	-	-	**41.6**
Felled awaiting restock	21/22	38997	Environmental	-	-	-	-	-	-	0.7	-	-	-	-	**0.7**
Felled awaiting restock	23/24	38148	Commercial	1.4	-	-	0.4	6.6	0.4	-	-	-	-	-	**8.8**
Felled awaiting restock	23/24	38162	Commercial	6.3	-	-	-	-	-	-	-	0.3	-	-	**6.6**
Felled awaiting restock	23/24	38286	Commercial	0.1	2.8		4.7		1.9	-	-	-	-	-	**9.5**
Felled awaiting restock	23/24	38304	Commercial / Environmental	-	32.1	-	-	-	-	17.5	-	-	-	-	**49.6**
Felled awaiting restock	23/24	38593	Environmental	-	-	-	-	-	-	2.4	-	-	-	-	**2.4**
Felled awaiting restock	24/25	38009	Commercial	-	-	-	-	5.2	-	-	-	-	-	-	**5.2**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Felled awaiting restock	24/25	38121	Commercial	-	-	-	0.2	0.1	-	-	-	-	-	-	**0.3**
Felled awaiting restock	24/25	38134	Environmental / riparian	-	-	-	-	-	-	4.8	-	-	-	-	**4.8**
Felled awaiting restock	24/25	38140	Commercial	-	5.8	-	-	-	-	-	-	-	-	-	**5.8**
Felled awaiting restock	24/25	38181	Commercial	7.5	6	-	-	-	-	-	-	1.2	-	-	**14.7**
Felled awaiting restock	24/25	38201	Commercial	-	23.7	-	-	-	-	-	-	-	-	-	**23.7**
Felled awaiting restock	24/25	38214	Commercial	-	-	-	-	-	15.5	1.4	-	-	-	-	**16.9**
Felled awaiting restock	24/25	38252	Commercial / riparian	4.8	3.5	4.8	-	-	-	3.5	-	-	-	-	**16.6**
Felled awaiting restock	24/25	38259	Riparain / Environmental	-	-	-	-	-	-	8.4	-	-	-	-	**8.4**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Felled awaiting restock	24/25	38311	Commercial / riparian	6.6	3.3	-	-	-	-	-	1.7	-	-	-	**11.6**
Felled awaiting restock	24/25	38313	Commercial	1.6	7.9	-	5.4	8.2	1.2	-	-	1.8	-	-	**26.1**
Felled awaiting restock	24/25	38318	Commercial	2	-	-	-	-	-	-	-	-	-	-	**2**
Felled awaiting restock	24/25	38346	Commercial	9.3	-	-	-	-	3.1	-	0.6	-	-	-	**13**
Felled awaiting restock	24/25	38474	PAWS restoration	-	-	-	-	-	-	6.7	-	-	-	-	**6.7**
Felled awaiting restock	24/25	38484	Commercial	5	1.3	2.1	-	-	-	-	-	-	-	-	**8.4**
Felled awaiting restock	24/25	38527	Commercial / Environmental	8	3.5	-	-	-	-	0.7	3	-	-	1.5	**16.7**
Felled awaiting restock	24/25	38831	Environmental	-	-	-	-	-	-	0.3	2.7	-	-	-	**3**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Phase 1 (2026 - 2030)	26/27	38022	Commercial	-	-	-	2.9	-	-	-	-	-	-	-	**2.9**
Phase 1 (2026 - 2030)	26/27	38057	Riparian	-	-	-	-	-	-	-	0.6	1.3	-	0.2	**2.1**
Phase 1 (2026 - 2030)	26/27	38084	Commercial	0.2	15	-	-	-	-	-	-	1.6	-	-	**16.8**
Phase 1 (2026 - 2030)	26/27	38094	Commercial	1.1	-	-	-	-	-	-	-	-	-	-	**1.1**
Phase 1 (2026 - 2030)	26/27	38097	Broadleaf / managed open	-	-	-	-	-	-	-	0.7	-	-	0.8	**1.5**
Phase 1 (2026 - 2030)	26/27	38104	Commercial	6.3	-	2.7	-	-	-	-	-	-	-	-	**9**
Phase 1 (2026 - 2030)	26/27	38112	Commercial / riparian	-	7.7	-	-	-	-	1.3	-	-	-	0.4	**9.4**
Phase 1 (2026 - 2030)	26/27	38114	Broadleaf / riparian	-	-	-	-	-	-	-	3.3	-	-	-	**3.3**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Phase 1 (2026 - 2030)	26/27	38130	Commercial	16	4.3	-	4.5	-	10.2	-	-	-	-	0.2	**35.2**
Phase 1 (2026 - 2030)	26/27	38178	Commercial	-	5.9	-	-	-	-	-	-	-	-	-	**5.9**
Phase 1 (2026 - 2030)	26/27	38187	PAWS restoration	-	-	-	-	-	-	3.7	-	-	-	-	**3.7**
Phase 1 (2026 - 2030)	26/27	38199	Environment	-	-	-	-	-	-	-	-	1.8	-	-	**1.8**
Phase 1 (2026 - 2030)	26/27	38302	Commercial	6.1	6.1	-	-	-	4.2	-	-	-	-	-	**16.4**
Phase 1 (2026 - 2030)	26/27	38305	Commercial	-	-	-	1.1	-	-	-	-	-	-	-	**1.1**
Phase 1 (2026 - 2030)	26/27	38309	Riparian	-	-	-	-	-	-	0.6	0.5	-	-	0.5	**1.6**
Phase 1 (2026 - 2030)	26/27	38325	Commercial	-	-	-	-	-	4.1	-	-	-	-	1.3	**5.4**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Phase 1 (2026 - 2030)	26/27	38521	Commercial	6	-	-	-	-	-	-	-	-	-	0.6	**6.6**
Phase 1 (2026 - 2030)	26/27	38544	Commercial	4.9	14.1	-	-	6	-	-	-	-	-	-	**25**
Phase 1 (2026 - 2030)	26/27	38549	Riparian	-	-	-	-	-	-	-	0.7	-	-	-	**0.7**
Phase 1 (2026 - 2030)	26/27	38551	Commercial / riparian	10.1	-	-	-	7	-	-	3.2	6.5	-	0.9	**27.7**
Phase 1 (2026 - 2030)	26/27	38573	Commercial / riparian / Non commercial - soil protection	3.8	0.2	-	-	5.4	-	3.7	-	0.8	-	3.9	**17.8**
Phase 1 (2026 - 2030)	26/27	38596	Commercial	-	-	-	-	-	3.3	-	-	-	-	-	**3.3**
Phase 1 (2026 - 2030)	26/27	38614	PAWS restoration	-	-	-	-	-	-	2	-	-	-	-	**2**
Phase 1 (2026 - 2030)	26/27	38628	PAWS restoration	-	-	-	-	-	-	3.5	-	-	-	0.1	**3.6**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Phase 1 (2026 - 2030)	26/27	38637	Commercial	5.2	23.2	2.2	-	-	-	-	0.2	-	-	0.2	**31**
Phase 1 (2026 - 2030)	26/27	38685	Environmental	-	0.6	-	-	-	-	-	-	0.3	-	-	**0.9**
Phase 1 (2026 - 2030)	26/27	38745	Commercial	5.6	-	2.1	-	-	-	-	-	-	-	0.3	**8**
Phase 1 (2026 - 2030)	27/28	38293	Commercial	3.9	-	-	-	-	-	-	-	-	-	-	**3.9**
Phase 1 (2026 - 2030)	27/28	38473	Environment	-	-	-	-	-	-	-	-	3	-	0.1	**3.1**
Phase 1 (2026 - 2030)	27/28	38533	Environment / riparian	-	-	-	-	-	-	-	-	10.3	-	-	**10.3**
Phase 1 (2026 - 2030)	27/28	38902	Environment	-	0.7	-	-	-	-	3.5	-	1.4	-	1.4	**7**
Phase 1 (2026 - 2030)	27/28	38904	Environment	-	0.2	-	-	-	-	1.1	-	0.5	-	0.5	**2.3**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Phase 1 (2026 - 2030)	27/28	38905	Environment	-	0.2	-	-	-	-	0.8	-	0.3	-	-	**1.3**
Phase 1 (2026 - 2030)	27/28	38944	PAWS restoration	-	-	-	-	-	-	1.6	-	-	-	-	**1.6**
Phase 1 (2026 - 2030)	27/28	40099	PAWS restoration	-	-	-	-	-	-	0.4	-	-	-	-	**0.4**
Phase 1 (2026 - 2030)	28/29	38525	Commercial	34.6	-	34.5	-	-	-	-	-	-	-	-	**69.1**
Phase 1 (2026 - 2030)	28/29	38920	Commercial	31.7	22.4	2.5	-	4.6	5.2	-	-	-	-	-	**66.4**
Phase 1 (2026 - 2030)	28/29	38983	Environment	-	2.4	-	-	-	-	-	-	19.5	-	0.6	**22.5**
Phase 1 (2026 - 2030)	29/30	38189	Commercial	-	19.6	-	-	3.6	-	-	-	-	-	-	**23.2**
Phase 1 (2026 - 2030)	29/30	38303	Commercial	-	-	-	-	2.8	-	-	-	-	-	-	**2.8**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Phase 1 (2026 - 2030)	29/30	38541	Commercial	8.1	-	3.4	-	17.3	-	-	2.2	0.7	-	0.8	**32.5**
Phase 2 (2031 - 2036)	30/31	38031	Environment	-	-	-	-	1.5	-	1	-	-	2.4	-	**4.9**
Phase 2 (2031 - 2036)	30/31	38065	Commercial	3.6	-	-	-	-	-	-	1	-	-	-	**4.6**
Phase 2 (2031 - 2036)	30/31	38120	Commercial	-	5.3	-	-	-	-	-	-	-	-	-	**5.3**
Phase 2 (2031 - 2036)	30/31	38159	Commercial / soil protection	8.4	11.7	-	-	-	-	-	-	0.6	-	3.3	**24**
Phase 2 (2031 - 2036)	30/31	38232	Commercial	6	10.4	5.6	-	-	-	-	1	6	-	0.3	**29.3**
Phase 2 (2031 - 2036)	30/31	38464	Commercial	-	6.6	-	-	-	-	-	-	1.7	-	-	**8.3**
Phase 2 (2031 - 2036)	30/31	38552	Commercial	18.5	5.1	-	-	-	-	12.2	-	4	-	2.4	**42.2**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Phase 2 (2031 - 2036)	30/31	38619	Commercial	18.4	14.0	7.8	-	-	-	-	0.7	2.2	-	-	**43.1**
Phase 2 (2031 - 2036)	30/31	38762	PAWS restoration	-	-	-	-	-	-	2	-	-	-	-	**2**
Phase 2 (2031 - 2036)	30/31	38766	PAWS restoration	-	-	-	-	-	-	2.1	-	-	-	-	**2.1**
Phase 2 (2031 - 2036)	30/31	38801	Commercial	28.6	-	28.6	-	-	-	0.9	0.3	-	-	0.6	**59**
Phase 2 (2031 - 2036)	30/31	38933	Commercial	-	-	-	0.8	9.2	0.4	-	-	-	-	-	**10.4**
Phase 2 (2031 - 2036)	31/32	38900	Commercial	-	-	-	0.9	-	-	-	0.4	-	-	-	**1.3**
Phase 2 (2031 - 2036)	31/32	38995	Commercial	-	22.2	-	-	-	-	-	-	16.8	-		**39**
Phase 2 (2031 - 2036)	32/33	38272	Commercial	0.3	20.8	-	-	-	-	-	-	-	-	-	**21.1**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Phase 2 (2031 - 2036)	33/34	38208	Commercial	17.3	1.4	-	0.5	-	-	-	2.6	-	-	-	**21.8**
Phase 2 (2031 - 2036)	33/34	38301	Commercial	4.9	4.8	-	-	-	-	-	-	-	-	-	**9.7**
Phase 2 (2031 - 2036)	33/34	38556	Commercial / Environment	6.8	-	6.3	-	8.8	-	-	4.2	4.3	-	7.7	**38.1**
Phase 2 (2031 - 2036)	33/34	38580	Environment	-	-	-	-	-	-	-	5.6	-	-	-	**5.6**
Phase 2 (2031 - 2036)	33/34	38916	PAWS restoration	-	-	-	-	-	-	-	3.2	-	-	-	**3.2**
Phase 2 (2031 - 2036)	34/35	38123	Commercial / riparian	13.7	-	13.7	-	-	-	-	4.9	-	-	-	**32.3**
Phase 2 (2031 - 2036)	34/35	38144	Commercial	11.9	11.1	-	-	-	-	-	-	-	-	0.1	**23.1**
Phase 2 (2031 - 2036)	34/35	38391	Commercial / riparian	-	11.2	-	-	-	-	-	0.7	2.3	-	0.3	**14.5**

Felling Phase	Felling Year	Coupe Reference	Restock Description	SS	SP	LP	DF	NS	MC	NBL	MB	BI	OK	Open	Total
Phase 2 (2031 - 2036)	34/35	38606	Commercial	-	-	-	3.3	-	-	-	-	0.2	-	0.1	**3.6**
Phase 2 (2031 - 2036)	34/35	38714	Commercial	0.2	8.5	-	-	3.8	-	-	4.8	-	-	1.3	**18.6**
Total				**386.5**	**368.3**	**120.1**	**27.6**	**95**	**68.5**	**140**	**50**	**107.7**	**3.8**	**32.6**	**1,400.1**

C.2.6. Protection

Wild deer on the SNFL are managed in accordance with the Scottish Government's strategy "Scotland's Wild Deer a National Approach" and under the auspices of the Code of Practice on Deer Management.

The strategy and Code of Practice takes recognition of the fact that wild deer are an asset, an integral part of Scotland's biodiversity and provide healthy food and recreational opportunities. The challenge of managing wild deer originates in a need to balance the environmental, economic and deer welfare objectives of the Scottish nation with the objectives of private landowners for forestry, agriculture, sporting, and other forms of land use.

The principal legislation governing the management of deer in Scotland and hence on the SNFL is the Deer (Scotland) Act 1996.

It is therefore FLS deer policy to:

- Prevent adverse deer impacts on commercial tree crops and the wider habitat. In doing so to carry out deer culling in an exemplary and humane way.
- Work closely with relevant organisations and neighbours to make sure that there are integrated deer management plans which seek to recognise the interests of all parties.
- Take opportunities to optimise income from venison from sporting where this does not conflict with our primary objective of maintaining deer impacts at an acceptable level, in line with Quality Meat Scotland accreditation in the form of The Scottish Quality Wild Venison (SQWV) Assurance Scheme
- Take all practicable steps to slow down the expansion of deer species into areas where they are not currently present.

All deer management will be conducted in accordance with Operational Guidance Booklet (OGB 5) - Deer management. The aim is to manage deer density safely and humanely at a level which is consistent with acceptable impacts on forests and other habitats. This is likely to be at a density level of 5 deer per 100 hectares or per km^2.

Refer to **Appendix – Mearns Deer Management Plan** for further detail.

Deer cull plans are prepared for each Deer Management Unit and are the responsibility of the Wildlife Ranger Manager (WRM). Cull figures fluctuate but predicted culls are based on Estimated Deer Utilisation (EDU) conducted by an FLS Wildlife Ranger. The EDU number for Mearns is currently at 6 -12 deer per km^2. This would be considered, medium density (see Table 17).

In addition to deer control, some species will be given additional protection from herbivore grazing by the utilisation of tree tubes and exclosures to aid tree establishment.

Table 17: woodland deer density indicators

Evidence	Low Density (0-6 deer per km^2)	Medium Density (6-12 deer per km^2)	High Density (12+ deer per km^2)
Tracks	Difficult to find deer slot marks or defined paths.	Defined paths: slot marks easy to find in areas of soft ground.	Many well-defined tracks and paths often black with constant use.

Evidence	Low Density (0-6 deer per km^2)	Medium Density (6-12 deer per km^2)	High Density (12+ deer per km^2)
Dung	Difficult to find with just the odd isolated pellet group.	Pellet groups relatively easy to find, particularly on woodland edges and good feeding areas.	Pellet groups very easy to find. Highly concentrated on favoured feed areas.
Browsing of Vegetation	Natural regeneration of broad-leaved trees taking place with no or little damage to current year's incremental growth	Broad-leaved saplings present but showing significant damage.	No seedlings growing above dominant vegetation height. Often well-defined browse lines on established shrubs and plants.

C.2.7. Fence Erection/Removal

Within Mearns it is expected that for the establishment of conifer species and restoration of peatland, deer will be managed via culling. However, for the coupes to be planted/regenerated with broadleaves fencing may be required. This decision will be made jointly by the WRM and the delivery forester. If deemed necessary, this will be maintained for the period required to achieve successful establishment and subsequently removed. Fencing installation and removal will adhere to the following FLS guidance:

1. Any fence erection will not impinge on access, and gates will be installed to facilitate this if required. FLS policy is to specify conventional tree tubes and guards where appropriate, record their location, and budget and programme for their removal and recycling
2. Bio-plastic products may be used if there is local sensitivity, but their use will be recorded and their removal planned into appropriate recycling schemes
3. FLS Regions will record all tree tube and guards deployed within the new "Tubes" layer in Forester Web GIS– this will be input at the time on the Sub Compartment Database (SCDB) update for planting or on identification of existing tubes

C.2.8. Road Operations

See Civils maps 11a & 11b & Haulage Map 12.

There will be 0.68km of new road required in Mearns. A program of maintenance will be undertaken to ensure existing roads are suitable for forest operations. Agreed timber haulage routes are used without restriction as regulated by the Road Traffic Act 1988.

Mearns forest is well served by Agreed Routes for haulage. There are no consultation routes accessing the forest. Consultation Routes are recognised as being key to timber extraction but are not up to Agreed Route standard. Given the size of the forest there are different haulage routes for different areas of the forest:

C.2.8.1 Fetteresso haulage

The main access/egress point to the public road network will be via:

- Slug Road at NO 7911 8932
- Hill of Swanley at NO 8174 8815

- Hill of Quitthel at NO 7740 8554

C.2.8.2 Glenfarquhar and North Drumtochty haulage

- Chapelton at NO 7347 8329
- West Lodge at NO 6971 7983

C.2.8.3 South Drumtochty haulage

- East Lodge at NO 7120 7969
- Upper Coullie at NO 7165 7739
- West Cairnbeg at NO 6944 7653

C.2.8.4 Utility expansion and haulage

Whilst it will be determined via the Local Authority Planning Process, FLS and SSEN are in discussion regarding the Hurlie sub-station development, and the haulage of timber which may be felled to accommodate construction of this. This felled timber would be hauled via existing FLS haulage routes at Slug Road and onto the A957.

Documents relating to the infrastructure development for Hurlie can be found at:

Hurlie 400kV substation - SSEN Transmission

Via Aberdeenshire Council – Planning Application: APP/2024/195

C.2.9. Public Access and Recreation

See Management map 6 (Felling) and Future Habitats and Species map 10 (Restock).

Visitors are welcome to explore FLS land and will only be asked to avoid routes while certain work is going on that will create serious or less obvious hazards for a period (e.g., tree felling). Scotland's outdoors provides great opportunities for open-air recreation and education, with great benefits for people's enjoyment, and their health and well-being. The Land Reform (Scotland) Act 2003 ensures everyone has statutory access rights to most of Scotland's outdoors, if these rights are exercised responsibly, with respect for people's privacy, safety, and livelihoods, and for Scotland's environment. Equally, land managers must manage their land and water responsibly in relation to access rights, and FLS will only restrict public access where it is necessary and will keep disruption to a minimum.

There are no Core or Promoted paths in Mearns forest, and as there are no formal access routes promoted or managed directly by FLS, we will not be actively upgrading or improving paths during the plan period.

C.2.10. Historic Environment

Our key priorities for archaeology and the historic environment are to undertake conservation management, condition monitoring and archaeological recording at our significant historic assets; and to seek opportunities to work in partnership to help to deliver Our Place in Time: the Historic Environment Strategy for Scotland and Scotland's Archaeology Strategy. Significant historic environment features such as Scheduled Monuments or Regionally Important Monuments will be protected and managed following the UK Forestry Standard (2023). Harvesting coupes, access roads and fence lines will be surveyed prior to any work being undertaken to ensure that upstanding historic environment features can be marked and

avoided, with a 20 m buffer applied. At establishment and restocking, work prescriptions remove relevant historic environment features from ground disturbing operations and replanting. Where appropriate, significant historic assets are recorded by archaeological survey and may be presented to the public with interpretation panels and access paths. Opportunities to enhance the setting of important sites and landscapes will be considered on a case-by-case basis (such as the views to and from a significant designated site).

The Regional Historic Asset Management Plan includes conservation management intentions for those designated historic assets in Scotland's national forests.

Details of all known historic environment features are held within the Forester Web Heritage Data and included within work plans for specific operations to ensure damage is avoided. Environment staff will use this, PastMap and all other available datasets to inform mitigation. Significant historic environment features will be depicted on all relevant operational maps. Pre-operations surveys will be undertaken in advance of all forest operations to note any new features and to ensure all sites are marked on the ground and on constraints maps to ensure their protection in line the UK Forestry Standard guidelines.

There are two scheduled monument sites which are of national importance. There are also archaeological features of regional importance present within the plan area. (see **Appendix D.3. - Mearns Archaeology**).

C.2.11. Biodiversity

See Future Habitats and Species (Restock) map 10.

Areas not considered for commercial management will include permanent woodland, riparian areas, viewpoints, and managed open habitats. These areas will be restored, enhanced, and managed, with monitoring to ensure they deliver the required objectives. Non-desirable species, such as non-native conifer regeneration, will be removed if it threatens to prevent the objective of the area being met.

Scots pine and broadleaf species will increase during the LMP period, enhancing forest structure and the composition of habitats. FLS have a Deadwood policy and an increase in deadwood will provide a valuable habitat for both invertebrates and avian species. There are areas of scrub in Mearns which will be retained for its biodiversity value and there is scope to increase scrub habitat along watercourses and expanded utility wayleaves.

Areas designed as permanent open space are chosen to help diversify the woodland edges; to enhance riparian areas and complement areas of broadleaves or where there are other biodiversity benefits. They will also require regular management to maintain their integrity and value as potential wildlife corridors. Some areas will be 'managed open' whilst others will be 'unmanaged open ground,' to create diversity in open habitat structure.

The Scottish Biodiversity List is a list of animals, plants, and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland. Scottish Biodiversity List species and FLS Key Species are recorded in Mearns, these include:

- Blanket Bog is present in Mearns and there are peatland restoration proposals on existing unforested open ground on the western boundary.
- Red Squirrel is present in the woods in and around Mearns, operational practice will be undertaken to benefit red squirrels. This will include planning forest operations to minimise damage to red squirrel dreys and populations, including survey work to locate dreys prior to felling operations and the planning of the forest structure and composition

specifically to suit red squirrels. LISS will be utilised where appropriate to enhance the habitat for red squirrels.

C.2.12. Plant Health

C.2.12.1. Dothistroma Needle Blight (DNB)

There has been a reduction in the levels of DNB identified in Mearns, this is due to a thinning programme being undertaken to control the DNB risk in the previous LMP, 2015 – 2025. It is up to the forest manager to define the final management prescriptions at the forest block and management coupe level through the FLS workplan process, prior to management operations commencing. This particularly includes the thinning of stands of pine trees in accordance with good silvicultural practice to promote air circulation in the tree crowns. This will help to reduce humidity levels in the crowns, thereby making conditions less conducive to fungus development. Although this will not prevent infection, it can help to reduce the impact. No-thin regimes and delayed first thinning have been shown in public forests to lead to significant numbers of tree deaths from DNB.

C.2.12.2. Large Pine Weevil (*Hylobius abiatis*)

The large pine weevil (Hylobius abiatis) is likely to be the only major tree health issue encountered in this plan. The Hylobius Management Support System (HMSS) will be used to determine the best way to manage clearfell sites for successful, cost effective and environmentally friendly restocking. This system will be used along with past results and experience to determine the optimal time to restock while minimising the use of chemicals. Restocking will take place after felling as soon as possible, with two years being the usual fallow period, but this could be delayed up to five years following the Scottish Forestry tolerance table stipulations.

C.2.13. Invasive species

Rhododendron is present in the forest, predominately in South and North Drumtochty in proximity to the PAWS, and the FLS Environment Team have plans to control this invasive species. Due to rhododendron having a thick dense foliage it smothers light, thus preventing native ground flora from establishing, which will impact PAWS restoration.

FLS staff are vigilant to the presence of invasive species, and should they be identified a management strategy for control and eradication will be developed.

C.2.14. New Planting

There are no areas of new or proposed woodland creation in Mearns.

C.2.15. Other

C.2.15.1. Wildfire

FLS continues to work closely with Scottish Fire and Rescue Service (SFRS) to prevent and tackle wildfires that threaten Scotland's National Forests and Land. FLS support SFRS in their lead role for fire prevention and suppression through creating annual fire plans, maintaining a duty rota, and providing additional logistical support. FLS's primary objective is always to protect people's health, safety, and wellbeing. Wildfire management plans do not form part of this LMP as they are co-ordinated at a regional scale across multiple forest blocks.

C.2.15.2. Soils

Brash mats (or alternative measures) will be used to protect sensitive soils. Soil disturbance will be kept to a minimum via reduced machinery movement and ground disturbance on sites with peaty soils, thus reducing the risk of compaction or damage to the soil structure. Felling residues will usually be left on site to allow nutrient recycling, with consideration for the practicalities of restocking. Where required, the choice of ground cultivation technique will consider the short-term benefits for establishment against any long-term side effects on tree stability, access for future forest operations and the environment. There will be a preference for the least intensive technique.

C.2.15.3. Midhill III Windfarm

The Scottish Government Energy consents unit granted permission for an extension to the existing Midhill I & II windfarm. FLS will work with the developer on this project, as it continues to progress. There is a likelihood that during the course of this LMP, 2026 – 2036, FLS or a third party will have to fell some standing productive conifer crop for the creation of tracks, and for turbine installation. Permissions for this would be sought by the developer through the Local Authority Planning Process, and Scottish Forestry would be a consulted over this proposal.

C.2.15.4. Water Supply Infrastructure

As part of consultation, Scottish Water confirmed there is **no public water supply infrastructure** within Mearns Forest.

However, Private water supplies (PWS) are located within the forest. They are a combination of Type A or Type B supply; each being governed by separate legislation.

- Type A supplies – serving more than 5 people or used as part of a commercial or public activity (e.g. holiday accommodation). Such supplies are subject to wider reaching statutory controls and must be risk assessed by the local authority every 12 months.
- Type B supplies – All other private water supplies being the large majority of those on land managed by FLS. These supplies are subject to different Regulations and whilst they should be registered with the local authority, it is not a statutory requirement for them to be risk assessed.

Duty of care extends to all PWS including those not registered.

The beneficiaries of a PWS owe a duty of care to themselves to safeguard the PWS through adequate and effective maintenance, repair, and renewal. However, where a registered PWS is on land managed by FLS we share a duty of care to protect the original water source and the supply network (pipes, tanks, lades etc...) to safeguard the quality and quantity of water.

FLS is required to comply with good practice water and PWS management standards set out in the following:

- UK Forestry Standard (UKFS)
- Confor: Forest and Water Scotland Initiative and Know the Rules 2nd Edition.

As per Managing Forest Operations to Protect The Water Environment, and Scottish Forestry guidance Managing Forestry Operations to Protect Private Water Supplies, all PWS will be protected by a 50 m buffer as a minimum. Water pipelines will be protected by either a 20 m (10 m either side) or 10 m (5 m either side) operational buffer, with these areas managed as open ground, though some PWS buffers with have 20% native mixed broadleaves planted within them for biodiversity reasons, including habitat connectivity. PWS that is either surface fed or shallow

(spring fed) will have a catchment identified, machine trafficking and brash heaps will be minimised within the catchment boundary.

C.2.15.5. Electricity Lines

As previously referenced, there are several electricity projects which are at varying stages of development. These are:

- An upgrade of the existing 275kV OHPL to 400kV
- New Kintore -Tealing 400kV OHPL
- Expansion of the existing Fetteresso sub-station
- Hurlie – new sub-station development
- New Glendye - Fetteresso 132kV OHPL

Additionally, for resilience the utility company have widened the wayleaves along the existing 275kV OHPL. This is being done whilst the powerline work to upgrade the existing 275kV OHPL to 400kV is undertaken.

FLS will ensure that should any felling be completed within 2 tree lengths of the network, then SSEN will be informed prior to operations.

C.3. Environmental Impact Assessment and Permitted Development Notifications

C.3.1. Environmental Impact Assessment

This LMP submission does propose the building of a short area of new roads (see Table 18). However, given that the new road construction is below 1 ha is size, there is no requirement for an Environmental Impact Assessment Screening Opinion Request (SOR).

Table 18: Total area (hectares) for each project type and details by site sensitivity

Type of Project	Sensitive Area	Sensitive Area	Non-sensitive Area	Non-sensitive Area	Total (ha)
Afforestation	-	-	-	-	-
Deforestation	-	-	-	-	-
Forest Roads	-	-	-	-	-
Quarries	-	-	-	-	-

C.3.2. Permitted Development Notifications

Roads and tracks formed for forestry purposes have been subject to Prior Notification (PN) since 2014. These access routes already have permitted development rights, but the process of PN allows the Planning Authority to ensure that the proposed roads really are for forestry purposes and gives them the opportunity to comment on their alignment or method of construction. PN applies to roads and tracks that are new or being altered when the proposal is to 'form' or

‘construct’ the road or associated drainage. It does not apply to the maintenance of existing tracks and roads.

C.4. Tolerance Tables

Table 19: sets out the standard limits for key work activities within the plan

	Map Required (Y/N)	Adjustment to felling period *	Adjustment to felling coupe boundaries **	Timing of restock	Change to restocking species	Changes to roadline	Designed open ground ***	Windblow clearance ****
SF approval not normally required	N	Felling date can be moved within 5 year period where separation or other constraints are met	Up to 10% of coupe area	Up to 2 planting seasons after felling	Change within species group e.g. evergreen conifers or broadleaves	-	Increase by up to 5% of coupe area	-
SF approval by exchange of email and map	Y	-	Up to 15% of coupe area	Between 2 and 5 planting seasons after felling subject to the wider forest and habitat structure not being significantly compromised	-	Additional felling of trees not agreed in plan. Departures of more than 60m in either direction from centre of road	Increase by up to 10% Any reduction in open ground within coupe area	Up to 5 ha
SF approval by formal plan amendment may be required	Y	Felling delayed into second or later 5 year period Advance felling into current or 2nd 5 year period	More than 15% of coupe area	More than 5 planting seasons after felling subject to the wider forest and habitat structure not being significantly compromised	Change from specified native species Change between species groups	As above, depending on sensitivity	More than 10% of coupe area Colonisation of open areas agreed as critical	More than 5 ha
Tree Felling in Exceptional Circumstances	FLS will normally seek to map and identify all planned tree felling in advance through the LMP Process. However there are some circumstances requiring small scale tree felling where this may not be possible and where it may be impractical to apply for separate felling permission due to the risks or impacts of delaying felling. Felling permission is therefore sought for the LMP approval period to cover the following circumstances: Individual, rows or small groups of trees that are impacting on important infrastructure (ie. Forest roads, footpaths, access routes (vehicular, cycle, equestrian or pedestrian), Buildings, Utilities and services and drains) either because they are now encroaching on or have been destabilised or made unsafe by wind, physical damage or impede drainage. The maximum volume of felling in exceptional circumstances covered by this approval is 75 cubic metres per Land Management Plan per calendar year. A record of the volume felled in this manner will be maintained and will be considered during the five year LMP review.							

* Felling sequence must not compromise UKFS in particular felling coupe adjacency. Felling progress and impact will be reviewed against UKFS at 5-year review.

** No more than 1 ha, without consultation with SF, where the location is defined as 'sensitive' within the Environmental Impact Assessment (Forestry) 1999 Regulations (EIA).

*** Tolerance subject to an overriding maximum of 20% designed open ground

**** Where windblow occurs, SF must be informed of extent prior to clearance and consulted on clearance of any standing trees

Section D. Appendices

D.1. Visualisations

See separate appendix D.1. Visualisations

D.2. Stakeholder Engagement

See separate appendix D.2. Stakeholder Engagement summarising the issues and FLS response.

D.3. Archaeology

See separate appendix D.3. Mearns Archaeology and the **Context map 3**.

D.4. Private Water Supplies

See separate appendix D.4. Mearns Private Water Supplies.

D.5. Deer Management Plan

See separate appendix D.5. Mearns Deer Management Plan.