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## Section A – Introduction and Background Description

### A.1 Property Details

Caithness Land Management Plan covering 8242.12 Ha, comprises the following blocks:

- Stroupster 426.96 hectares
- Stanstill 84.41 hectares
- Newtonhill 24.6 hectares
- Rowens 404.6 hectares
- Achairn 1790.87 hectares
- Toftgun 1041.19 hectares
- Rumster 1396.23 hectares
- Halsary 831.42 hectares
- Sibster 356.95 hectares
- Dale & Spittal 164.09 hectares
- Braehour 1587.60 hectares
- Achnamoine 133.19 hectares

The Land Management Plan area is managed by Forestry and Land Scotland on behalf of Scottish Ministers and is part of North Region.

The Planning Forester responsible for drafting this LMP is Neil McInnes MICFor based at The Links, Golspie, KW10 6UB

### A.2 Location and Context (see Map 1)

The LMP area is located across the northern county of Caithness and the primary forest entrance grid references are as follows:

- Stroupster ND 3546 6363
- Stanstill ND 2750 5999
- Newtonhill ND 3411 4958
- Rowens ND 2476 4743
- Achairn ND 3231 4852
- Toftgun ND 2630 4299
- Rumster ND 2059 3944
- Halsary ND 1747 4912
- Sibster ND 1549 5983
- Dale & Spittal ND 1321 5333
- Braehour ND 1187 4910
- Achnamoine ND 1769 5389

### **A.3 Existing Permissions**

The LMP area was previously covered by two Land Management Plans; East Caithness 030/516/404 which expires on 24<sup>th</sup> September 2025 and Braehour 030/516/275 which expires on 28<sup>th</sup> February 2023. This LMP revision brings these plans together a little ahead of schedule. This reflects some significant changes in management proposals that have resulted from Scottish Government's drive to address the climate and nature emergencies declared in 2019. Scottish Forestry (SF) have issued the new number 030/516/426 for this LMP. It is a relatively large area for one LMP however much of the plan area is not complex and so we believe that scale and pattern of land holding are appropriate to the LMP area.

### **A.4 External Stakeholder Engagement**

A full record of external scoping conducted for this LMP is available in *Appendix 1 – External Scoping Record*. Full public consultation was undertaken including attendance at the Caithness Agricultural Show and online using Caithness.org and the FLS website. The primary stakeholders were approached directly at scoping and at final draft consultation and where responses were received these are recorded in appendix 1.

In broad terms stakeholders are very supportive of plans to restore peatland and native woodland at a landscape scale. Some concerns were recorded about deforestation and the loss of productive timber reserves however these were generally withdrawn when the nature of these poor quality forests were explained.

More specifically the community in Halkirk would like to see a pedestrian link between the western edge of Sibster Forest and the village established and FLS is very happy to work with local landowners and groups to achieve this over the coming plan period. Caithness ornithologists expressed some concern that riparian woodland proposals would deter Hen harrier foraging however FLS believe that the significant areas of restored open habitat and scrubby native woodland will ameliorate any impacts. The RSPB asked that woodland edge effect be taken into account across the LMP area and the LMP future habitat proposals comply with current SF guidance to apply a buffer of 100 to 800 meters to the high sensitivity squares and SPA boundary, using the edge effect model of 2012. This was later on revised based on advice by SF as removal of buffers around high sensitive squares was not in line with 'The Scottish Government's Policy on Control of Woodland Removal'.

Unfortunately the LMP was revised during the Covid19 pandemic and so the process was more drawn out than would usually be the case but the final consultation tied initial work and final thoughts together to produce an LMP that reflects stakeholder views and delivers significant public benefit.

## **A.5 Long Term Vision and Management Objectives**

The management of Scotland's National Forests and Lands (NFL) by Forestry and Land Scotland (FLS) is guided by the FLS Corporate Plan (2019), the FLS National Spatial Overview (2016) and the Scottish Forestry Strategy (2019) in compliance with the UK Woodland Assurance Standard (UKWAS) and UK Forestry Standard (UKFS).

The United Nations have declared 2021 – 2030 as the Decade of Ecosystem Restoration, “*to restore degraded and destroyed ecosystems*”. In April 2019, following publication of climate change projections by the Intergovernmental Panel on Climate Change, the Scottish Government (SG) declared a climate emergency. A month later, the Highland Council declared a climate and ecological emergency as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) published the Global Assessment on Biodiversity and Ecosystem Services which drew the clear conclusion that biodiversity on earth is threatened by human activities. In December 2020 Scottish Government published updates to key climate change and biodiversity policies committing FLS to urgent action in the drive to restore peatlands, increase woodland area and address the deterioration of biodiversity (nature).

In direct response to these declarations, the Caithness Land Management Plan (LMP) lays out our vision for delivering local economic, social and ecological objectives for the area (i.e. sustainable land management) but particularly through prioritisation of extensive land use change to deliver landscape-scale habitat restoration and renewable energy production - supporting these new national and regional policies.

There are a number of key strategic drivers guiding our proposals for the Caithness LMP.

- The SG Peatland Strategy calls for restoration of blanket bog at landscape scale, setting ambitious targets for climate change mitigation and nature conservation.
- The SG Scottish Forestry Strategy (2019) sets key objectives of making Scotland's forests more productive and more resilient. The need to redress the environmental impacts of inappropriate 20<sup>th</sup> century afforestation is also acknowledged.
- The SG Environment Strategy for Scotland (2020) states that the natural environment is central to our identity as a nation and our greatest national asset and

details specific outcomes for wild Atlantic salmon, peatlands, native woodland and productive forests.

**FLS' National Spatial Overview describes the character and overarching strategic direction for the NFL in Caithness and Sutherland as follows:**

General Description:

- Gently undulating landform, low hills, extensive areas of peat and lochan
- Can be exposed and windy; predicted to become drier, especially in Caithness; short growing season; soils can be fertile, although there are extensive peat moorlands and blanket bog;
- NFL land use includes establishing second rotation conifer crops on low hills and more elevated moorland areas; crops are variable due to deep peat, although poor quality lodgepole pine largely now removed; some open ground; extensive bog and restored peatland; low percentage of broadleaf; wind farms and utility networks; agriculture
- Extensive areas of highly designated wetland
- Timber markets are relatively distant, although some access by sea

Most significant contributions to Corporate Priorities, Aims and Objectives

- *Ecosystem services and additional public benefits* – restoration of peatland and blanket bog habitats likely to significantly increase carbon sequestration and improve water quality; improving water quality in river systems; sustainable timber production
- *Other national commitments* – Partnership working with others on continuous management of adjacent extensive conservation sites and projects; improving water quality to support conservation of freshwater pearl mussel
- *Contribution to financial sustainability* – wind energy; small round wood timber crops; biomass

Focus of effort and investment challenges

- *Continue to work with others to maximise peatland restoration at a landscape scale.* Peatland is a high priority habitat that is also highly successful at sequestering carbon. Programming conservation and restoration work with other agencies and partners maximises benefits of contiguous and cooperative management of high quality habitat. This will optimise the benefits of large scale interconnecting peatland and peatland edge woodland habitats, and continue to develop expertise in this area
- *Accommodate the increasing number of overhead power lines proposed to cross the NF&L,* alongside continued wind farm development. Challenges include planning roads and

efficient felling patterns within a more fragmented forest area, ensuring on going 'resilience' of infrastructure and timescales involved with construction

- *Shape the future forest area.* The woodland here is moving towards second rotation, and the forest area has been reduced by wind farm development and peatland restoration.

There is an opportunity to identify where woodland can thrive and expand, and what species choice, spatial pattern and timber products are most appropriate to deal with exposure and maintain timber productivity

- *Continue to develop an efficient roading programme.* Road stone is scarce and expensive. The future forest area should include establishing an efficient and pragmatic road network that reflects the future timber outputs.

FLS submit this Land Management Plan (LMP) to seek approval for a ten year period of operations, divided into two five year phases but our vision extends well beyond this first decade.

Our vision is that by the end of this first decade all of the diseased and windblown forest of non-native conifers will have been removed. The initial restoration actions for blanket bog adjacent to designated sites will have been completed, with trees removed and hydrology altered. These areas will have been maintained as open with tree regeneration removed. Bog vegetation will be in the initial phases of recovery and where soils are suitable native riparian woodland will be establishing itself on the banks of the burns, rivers and lochs. Native woodlands of willows, birch, aspen and rowan will be establishing and we will see the establishment of the next rotation of smaller scale, mixed species productive coupes of conifers, predominantly at Rumster, Stanstill and Achairn. The new forests of Sibster, Dale and Spittal will be well established with some coupes approaching first thinning having had some formative pruning.

The renewables developments at Achairn, Halsary, Stroupster, Golticlay and Toftgun will be contributing wind energy to help fuel the 'green recovery' and contribute to SG generation goals. Newtonhill Woodland and Sibster will continue to play a part in the social lives of many residents and visitors and recreational use of the wider forest will be growing. The starter farm at Achnamoine will continue to provide opportunities for new entrants to agriculture.

Populations of wetland waders will be recovering, Osprey will breed regularly across the forests and water quality will be improving. The open habitats on the more fertile areas will be providing valuable links for insects like the endangered Great yellow bumblebee.



Beyond this first decade our vision for Caithness LMP area is of small scale structurally diverse forests within wide landscapes of restored blanket bog and native woodland.

The next rotations of productive conifers and broadleaves will be maturing with some felled a little early and some being retained longer to provide age diversity. Sphagnum mosses will have colonised the peatland restoration sites and the bogs will be functioning at near natural levels.

Riparian woodland will be well established along suitable watercourses providing shade and nutrients for the freshwater habitats. The drainage patterns of the mid-20<sup>th</sup> Century will be completely gone and the forest will be better adapted to the wetter and windier climate. This network of riparian habitat will provide a permanent forest structure within which coupes of productive woodland can flourish.

The forest road network will be complete. The impact of climate on species choices will perhaps be more evident and so flexibility will be an important aspect of forest planning. Planning for wildfire may be a more important aspect of land management and fully functioning blanket bog will play an important role in that.

The generation of renewable electricity will continue to play a key role.

It's almost certain that the climate will be radically changed within a century. Summers will be hotter and drier with increased drought, temperature extremes and heat waves. Autumns and winters will be milder and wetter with more intense storms and flooding but much less frost and snowfall. Sea level rises may have affected transport links perhaps changing the emphasis to more local timber utilisation needs. The range of tree species available to the Forester of the 22<sup>nd</sup> Century and beyond will be very different and the systems of silviculture will need to be adapted to a world of more extreme weather events. Successive generations of natural riparian woodlands will have developed a field layer of vegetation that will have a positive impact on flood events. Perhaps the forests will be used more for seasonal food production and local energy needs and so the structures we put in place today may help facilitate that.

Whatever the difficulties of forecasting what the medium and long term future may hold in terms of climate and ecology, the vision for this LMP area is to create robust and resilient ecosystems that can be managed to provide benefits for current and future generations and retain enough flexibility to cope with the challenges of new pathogens, extreme weather and give those who follow flexibility in their options.

**The management objectives for this LMP are described below and were agreed at the LMP meeting held at North Region Office on 15<sup>th</sup> January 2019 and through subsequent public and stakeholder consultations:**

1. We will optimise the productive potential of the forests at Stanstill, Rumster, Achairn and Braehour by removing poor quality crops and then matching restock species to site conditions to create resilient forests for future productivity.
2. We will improve the young broadleaf crops at Sibster, Dale and Spittal by identifying a programme of maintenance and formative pruning and replacement of diseased ash.
3. We will identify afforested deep peat sites with the greatest conservation potential, securing them by woodland removal, hydrological works and creation of a protective broadleaf woodland buffer between open peatland and productive woodland that is restricted to mineral soils on suitable topography.
4. We will protect and enhance the identified heritage environment features across the LMP area for future generations to enjoy.
5. We will continue to support and encourage public access across the National Forests and Land and specifically at Newtonhill and Sibster.
6. We will work with Scotland's Environmental and Rural Services and our neighbours to develop a sustainable, landscape scale approach to deer management and promote the NFL as an exemplar of best practice.
7. We will continue to make the land within the NFL available to windfarm and hydro scheme development and to work with developers to deliver projects of maximal environmental and economic benefit.
8. We will enhance the integrity of all freshwater and wetland habitats during management operations and into the long term by applying measures outlined in UKFS Forest and Water guidance, SEPA guidance and FCS FWPM Guidelines and we will establish riparian and native woodland to enhance habitat connectivity and to provide areas of minimum intervention where nature can thrive.

## **A.6 General Site Description**

The landscape appraisal including detailed descriptions of landscape character can be found in section D and map 17 of this plan. In general the LMP area lies between 50 and 200 meters above sea level and is between 2 kilometers and 20 kilometers from the north and east coasts occupying often exposed locations in the most north easterly corner of the Scottish mainland. The transport hubs at Wick and Scrabster harbour and Wick airport are within easy reach although road timber transport is somewhat constrained by poor local road infrastructure beyond the A9 trunk road leading south and the A836 leading west.

The majority of the land holding within the Caithness LMP is Calluna-Eriophorum blanket bog, wet heaths and surface water gleys with an underlying geology of Caithness Flagstone of the Old Red Sandstone supergroup. Mean annual temperatures lie between 5 and 9 degrees centigrade, annual rainfall is around 800 mm to 1000 mm and growing season length is typically around 240 days. The James Hutton Institute's Land Classification for Forestry shows that most of the NFL in this LMP area lies within 'Land with very limited flexibility for the growth and management of tree crops'. Appendix 2 and maps 4, 5a and 5b provide further detail of geology and soils. Appendix 3 and maps 6 and 14 provide further detail of LMP area climate. Map 8 details the zones for the JHI Land Classification for Forestry.

The LMP landholding is on the eastern periphery of the area now known as 'The Flow Country' – a candidate World Heritage Site at the time of this LMP preparation. The Caithness and Sutherland Peatlands Natura sites with many associated Sites of Special Scientific Interest lie adjacent. The Flow Country is the focus of considerable conservation effort to restore blanket bog and associated habitats and is thought to store around 400 million tonnes of carbon, roughly equivalent to twice the amount of carbon stored in all Britain's forests and woodlands. Appendix 9 details key habitats, appendix 10 details key species and 12 and 13 provide further detail of the proposed management of designated sites. Maps 2b provide further information on Environmental issues and objectives.

Caithness is also renowned for its many well preserved sites of cultural heritage from brochs and hut circles of the iron age to clearance settlements and more recent times when the county supported a much higher farming population. Section C.4.1 provides further detail of the heritage sites within the LMP area, appendix 7 lists all known scheduled monuments with details about inspections and work proposed and map 18 shows the historic environment sites across the LMP area.

## **A.7 Woodland Description**

Although planting of areas like Rumster Forest began in the 1960s most of the afforestation of the Caithness LMP area took place in the 1980s and 1990s. The planting at Sibster, Dale and Spittal is the notable exception as a more recent acquisition of better quality land between 2011 and 2013. As such the majority of the LMP area is a product of a time when planting was targeted at habitats with very low nutrient regimes like blanket bog and adjacent poor wet heath. This offers significant challenges for growing productive timber in a sustainable way without reliance on inorganic fertilisers and intensive cultivation. These habitats are also recognised as globally important areas for nature conservation when restored, as noted above.

Tree species at initial planting was generally Lodgepole pine or a mixture of Lodgepole pine and Sitka spruce where gleyed mineral soil was more prevalent. Occasionally Japanese larch was used to provide fire breaks. Native broadleaves such as Rowan or Downy birch were planted in small numbers for some species diversity but these often failed, leaving a predominantly conifer forest. The lack of species diversity, driven largely by site conditions, proved costly as *Dothistroma* needle blight badly affected many large areas.

The planting at Sibster, Dale and Spittal between 2011 and 2013 was primarily of broadleaved species. Productive coupes of Sessile oak, Wild cherry, Ash, Beech and Sycamore were planted within a framework of protective shelterbelts comprising Downy birch, Rowan, Hawthorn, Hazel, Goat willow, Wych elm and Holly. Limited areas of Sitka spruce and Norway spruce were also planted where the soils became poorer. At the northern edge of Sibster Forest Research established 4.4 hectares of willow species hybrids to study the potential for biomass production. The Ash components of the crops at Sibster have been badly affected by *Chalara* infection and will be replaced over the period of this LMP. The rationale for establishing broadleaves on this scale was that they are, in general, less susceptible to wind throw in the fairly shallow soils and leaf litter will help to develop a carbon rich forest soil more effectively than conifer monocultures. Sycamore and Beech are also both noted to have grown reasonably well in the maritime climate of Caithness in past decades.

Species provenance has generally been selected to thrive at around 58N latitude in the past however within the next rotation of timber crops guidance suggests looking for provenances from 5 degrees further south, which for Caithness will mean looking at species and provenances currently suitable for North Wales and the English Midlands.

## **A.8 Summary of Forest Management Proposals**

Full details of the felling, thinning and restocking proposed for the LMP period are recorded in appendix 16 Coupe Summary Tables and summary tables of the impacts of restructuring and detailed critical success factors are contained in section E.1 and E.2.

## **A.9 Summary of Other Land Management Activities**

The Caithness LMP landholding is an area where public benefit from land management other than forestry is a key component. Windfarms at Halsary, Stroupster, Achairn and Toftgun will have a generating capacity of approximately 88.6 Megawatts producing around 230,000 MWh per year once fully operational in 2022. There is a small agricultural holding at Achnamoine which contributes to the wider FLS Starter Farm initiative and facilities at Sibster provide recreation and education opportunities for residents and visitors. Newtonhill on the outskirts of Wick has become a busy community woodland with many activities and developments driven and managed by the Friends of Newtonhill Woodland. Section C.2.8 and map 15 contain further information about recreation for the LMP area.

Peatland restoration is a key land management activity. Forest to bog restoration including tree harvesting and ground smoothing has been undertaken previously at Braehour, Achairn, Rowens, Stroupster, Halsary, Golticlay and Toftgun. The former peat workings at the west side of Braehour, originally started to provide fuel for the Braehour Power Station, have undergone some initial restoration work including bund construction, drain blocking and tree regeneration removal although the site was severely depleted and will need a number of interventions to complete restoration. Areas of previously unplanted bog at Rumster, Golticlay, Achairn and Braehour have undergone enhancement including the removal of non-native conifer regeneration and the re-profiling of peat hags to stop further erosion.

## **A.10 Standards and Guidance on Which This LMP is Based**

This is a strategic indicative LMP and, in accordance with UKFS, states the objectives for our sustainable land management. The LMP describes how these will be achieved with reference to relevant guidance and appropriate best practice and also identifies these management proposals spatially. The LMP provides a means of communicating our proposals to neighbouring communities and stakeholders – as a transparent and agreed statement of intent against which implementation can be checked and monitored.

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 [here](#).

#### **A.11 Meeting United Kingdom Forestry Standard Requirements**

The Caithness LMP seeks to comply with all requirements of the United Kingdom Forestry Standard and in designing these proposals we do not believe that there are any departures from UKFS requirements.

A 5-year fallow period between felling and restocking is adopted across the LMP area to allow a natural reduction in *Hylobius* populations. Population monitoring will be carried out prior to restocking in order to ascertain population levels as a means to reducing the use of insecticide applications during subsequent restocking and establishment phase. The rise in local *Hylobius* populations in recent years, following large scale DNB-related harvesting, is a concern. Given the drive to minimise the use of pesticides on the NFL, delaying restocking operations might be the only realistic option to establish the next generation of trees. Where and when this happens outside tolerance limits agreed with SF, an approval from SF will be sought to deal with adjacency issues through delayed restocking.

The preferred means of dealing with any adjacency issues will be through delayed felling, i.e. a coupe will not be felled until all surrounding crops are at least 2 metres tall. Forest within the Caithness LMP area suffered from DNB infection and wind damage and are planted on peatland scheduled for swift restoration. As a result extensive areas are proposed to be felled within the next 10 years. As delaying felling of those areas isn't an acceptable option (from the economic, ecological or landscape perspectives), delaying of restocking is the only opportunity left to create any age diversity (although on a very limited scale).

Where management proposals fall out with the scope of Scottish Forestry approvals the correct procedures will be followed to gain the relevant permissions. For this LMP that will be limited to the Prior Notification process for forestry specific roads, tracks and associated borrow pits and full planning applications to Highland Council for any other developments not related specifically to forestry operations and management in that context.

#### **A.12 Environmental Impact Assessment Regulation**

Appendix 14 is our request for an EIA scoping decision in relation to the deforestation proposed in this LMP. Appendix 15 is our request for an EIA scoping decision in relation to the new forest roads and quarries proposed in this LMP.