# North Region
# Glen Affric Land Management Plan

**Plan Reference No: 030/517/428……**

**Plan Approval Date: ……02/02/2021……**

**Plan Expiry Date: ……01/02/2031……**

We manage Scotland's National Forest Estate to the United Kingdom Woodland Assurance Standard – the standard endorsed in the UK by the international Forest Stewardship Council® and the Programme for the Endorsement of Forest Certification. We are independently audited.

Our land management plans bring together key information, enable us to evaluate options and plan responsibly for the future. We welcome comments on these plans at any time.

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# 1.0 Summary of Proposals

## 1.1 Vision

### 50 Year Vision (2070)

Caledonian Pinewoods will be restored by removal of all non-native tree species. All mature non-native conifers will be removed from the core pinewood by 2030 and from the buffer zone by 2040- see map 20 showing Caledonian Pinewood and buffer zones. A structured, survey based programme of non-native regeneration removal will be complete with only occasional trees regenerating from the seed bank. This will create a mixture of native tree species including Scots pine, birch, rowan, mountain willows, juniper and aspen. Targeted land management will have advanced the restoration and development of a near-natural native woodland and open habitats to thoroughly complement the scenic qualities of the area.

It is predicted that the climate will have milder winters and wetter summers. Overall temperatures will increase and there will be more extreme weather events such as floods, wildfire and droughts. A diverse species and age forest will have increased resilience against climate change and increased risk of pests and diseases. Flood risk will be reduced by reducing clearfelling and  increased water retention within the Glass and Enrick catchments through peatland restoration.

Important open habitats such as wet and dry heath will be restored and improved and in peatland areas sphagnum bogs will be regenerating.

Glen Affric will continue to be valued and enjoyed by a wide range of people. High quality recreation access and facilities will be maintained and promoted at a level consistent with preserving and enhancing the special qualities of the area, with an emphasis on ‘quiet enjoyment’.

### 300 Year Vision (2320)

Caledonian Pinewoods will reach a truly natural and regenerating condition with a varied age and species structure. Map 19- 300 Year Vision shows the expected extent of different tree species based on National Vegetation Classification (NVC) within the LMP area. Natural processes such as wind, snow and fire will create gaps and allow regeneration to occur and deadwood to be created.

*“The aim should be say over a century , to build up gradually a reasonable balance of age-classes, old and young, so that there will always be a succession of trees of different ages. The structure should be semi-irregular as it is today in some of the larger and better preserved woodlands, a mosaic of groups and stands of varying extent up to a few acres, each consisting of trees of about the same age and together providing a range in age from the youngest to the oldest, but not necessarily a continuous range of age or any mathematical balance in age or size class, which is unusual in natural pinewoods as a whole. […] Such a forest would also preserve its associated natural non-tree flora and fauna, and come closer to what the natural pinewoods were like some two to three centuries ago before heavy exploitation took place.”*
Stephen and Carlisle 1959

Native tree species will be allowed to reach their natural biological altitude without the need for fencing. Golden Eagle and Osprey will continue to nest and breed and the overall biodiversity will be improved. Deer populations will reach a level where native vegetation and tree species can establish and deer can benefit from forest cover. Populations of native species such as wildcat, black grouse, red squirrel, adders, mountain willows and twinflower will be strong and stable.

Peatland habitats will become wetter, allowing sphagnum to be laid down. Vegetation will be rich with butterwort, cotton grass, sundew, fungi, liverworts and lichens. Wet woodland and riparian woodland will establish with alder, willow and aspen creating dappled shade for upland watercourses to reduce summer water temperatures and improve habitat for invertebrates and therefore birds and fish.

## 1.2 Background

Glen Affric is one of the largest and finest examples of Native Caledonian Pinewood that once covered a large proportion of Scotland. It is a highly designated forest for its rare habitats, species and scenic value. It has a long history of habitat restoration. For many, it is a spiritual place that combines a unique blend of the physical and natural environment to create an experience of wildness in an iconic landscape.


Digging a cross drain through ploughed land in preparation for planting. 1974, Beinn na sparra, now being felled at Knockfin.

Scotland's National Forest Estate (SNFE) in Glen Affric was bought from private landowners over the period from 1935 (Plodda and Lower Guisachan) to 1978 (Upper Guisachan). The majority of the landholding was planted with Sitka spruce, lodgepole pine and Scots pine (from local seed sources) in the 1960's.

Since the 1980's non-native conifers have been felled and removed from the glen to return it to native tree species. Considerable areas of non-native conifers still remain in the forest to be removed over the next two decades.

## 1.3 Land Management Principles

Because of the scale and nature of Glen Affric it is important that there are overarching principles of how Glen Affric will be managed. These are summarised below (not in order of importance).

- Restore Caledonian Pinewood, peatland and other habitats to natural extent
- Maintain and enhance visitor experience without detriment to the wild experience.
- Develop good relationships and partnership working with stakeholders.
- Low intensity and less prescriptive management using natural processes as much as possible once restoration work is complete
- Achieve favourable condition on designated sites
- Increase resilience of forest and other habitats to climate change

We are committed to sensitive stewardship to maintain, protect and enhance or restore:

- The unique character of Glen Affric
- Natural habitats including pinewoods through natural processes and less intensive management
- Access opportunities and high quality recreation facilities that are in keeping with providing a wildness experience and sense of place

Whilst also:

- Removing or mitigating features that detract from the wildness experience
- Working in partnership with communities and neighbours
- Maintaining a presumption against new developments which would have a negative impact on special qualities, designations and the wildness experience.
- Moving towards favourable status for environmental and landscape designations on land that we manage.

## 1.4 Recreation

Glen Affric's stunning landscape is world famous. The combination of pinewoods, lochs, rivers and mountains means that many people say it is the most beautiful glen in Scotland. The glen is very popular with visitors, including many overseas visitors. From just enjoying the view, photography and wildlife watching to challenging hill walks and the 44 miles Affric Kintail Way, the Glen Affric offers a wider range of recreation opportunities. The All Forests Survey of 2013 estimated visitor numbers to the Upper Beauly area to be 113 000 per year; the popularity of the area has increased considerably since then. The challenge for managers is to facilitate access and enjoyment whilst preserving the sense of wildness which visitors come to enjoy.

Most people visit Glen Affric by private motor vehicle, though a substantial number visit in minibuses and coaches. FLS manages car parks at Dog Falls (approximately 35 spaces), Loch Beinn a'Mheadhoin (approx. 20 spaces), Chisholm Bridge (approx. 26 spaces), River Affric (approx. 60 spaces) and Plodda Falls (approx. 30 spaces).

There are toilets provided at River Affric (seasonal) and at Dog Falls (seasonal plus a year round compost toilet).

There are many opportunities to explore the glen along gravel paths, forest roads and hill tracks. FLS promotes a number of waymarked and graded trails from the main car parks as introductory experiences for visitors; no map reading skills are needed to safely follow these paths. Access is promoted via FLS webpages, a dedicated leaflet for Glen Affric and information / interpretation panels in the main car parks.

River Affric and Alltbeithe Youth Hostel on the Affric Kintail Way

**Waymarked Trails in Glen Affric**

| Trail Location | Trail Name | Length | Grade |
|---|---|---|---|
| Dog Falls | Viewpoint trail | 1 ¾ miles / 2.9 km | Strenuous |
| | Dog Falls trail | 2 miles / 3.2 km | Strenuous |
| | Coire Loch trail | 2 ¾ miles / 4.5 km | Strenuous |
| River Affric | Am Meallan Viewpoint trail | ¼ mile / 0.6 km | Moderate |
| | River trail | ½ mile / 0.9 km | Moderate |
| Plodda Falls | Falls trail | ½ mile / 1 km | Moderate |
| | Tweedmouth trail | 1 ½ miles / 2.4 km | Moderate |

### Managing Recreation in Glen Affric

We celebrate the popularity of Glen Affric and recognise the importance of good quality recreation opportunities to the health and wellbeing of our visitors, and the local tourism economy. We will maintain and where possible enhance recreation and access opportunities in Glen Affric, whilst respecting the unique spirit of place. We will work with partners and the local community to find sustainable ways of doing this. As well as ongoing maintenance, specific future projects include a review of facilities and access around Dog Falls, seeking to improve the safety and quality of the visitor experience. This will include roadside safety, the river crossings and seeking a better alternative to the current compost toilet.

## 1.5 Stakeholders

Glen Affric has a wide range of stakeholders with varying objectives such as:

- Local tourism businesses
- Communities of Tomich and Cannich villages and residents in the forest
- Event organisers
- Neighbouring sporting estates
- Forestry contractors and timber processors
- Conservation organisations
- Regulatory bodies
- Wide range of recreation users
- Renewable developers

Forestry and Land Scotland (FLS) consults with all stakeholders to negotiate management proposals that will meet FLS objectives, benefit stakeholders where possible and minimise negative impacts.

## 1.6 Deer Management

Objective -

To have a healthy deer population within an improved and sustainable landscape of native habitats.

Deer are a vital component of the natural environment.  Red and roe deer are our only large wild, free-roaming native herbivores, and when in balance with the habitat they have a positive role to play in the local ecosystem.
The deer holding capacity of any habitat is dictated by the quality of that habitat. Deer are essentially a woodland species and benefit most from this preferred habitat.

In order to meet the vision for restoring and improving native habitats on the National Forests and Land in Glen Affric current experience indicates that the deer herd needs to be managed at a population of between 850 – 1000 deer which equates to approximately 5 deer per 100ha. At this density improvements in both the habitats and deer health (body weight, high fecundity and low winter mortality) will be measurable. We will continue to be an active member of the Affric-Kintail Deer Management Group. Map 16 and appendix 14 detail the deer management plan.

# 2.0 FCS Regulatory Requirements

## 2.1 Activity Summary and Monitoring Table

| 1.1 Table of Clearfelling (Phase 1) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Coupe No.** | **Total Area (Ha)** | **Spp by Ha (SS)** | **Spp by Ha (SP)** | **Spp by Ha (LP)** | **Spp by Ha (NS)** | **Spp by Ha (Larch)** | **Spp by Ha (X con)** | **Spp by Ha (BLeaf)** | **Open Land by Ha** | **Restock Year** | **Monitoring Comments** |
| 01549 | | | | | | | | | | | Felled as part of the previous LMP, some SP retained but not much |
| 01025 | 35.5 | 7.49 | 11.24 | 0.7 | 10.1 | 0.52 | 0 | | 5.46 | 2026 | |
| 01028 | 25.78 | | 11.25 | 14.53 | | | | | 0 | 2027 | |
| 01182 | 8.3 | | 7.98 | 0.36 | | | | | 0 | 2027 | |
| 01165 | 6.2 | | 0.29 | 4.51 | | 1.31 | | | 0.1 | 2028 | |
| 01156 | 8.0 | | 2.16 | | 0.51 | 2.9 | 2.39 | | 0 | 2026 | |
| 01175 | 0.5 | | 0.47 | | | | | | 0 | 2026 | |
| 01102 | 7.9 | 0.61 | 1.83 | | 0.01 | 2.8 | 1.87 | 0.02 | 0.76 | 2026 | |
| 01190 | 0.57 | 0 | 0.38 | 0.02 | | 0 | 0 | | 0.17 | 2026 | |
| 01303 | 11.77 | 0.17 | 7.41 | 0.15 | | 0 | 0 | | 4.04 | 2026 | |
| 01493 | 10.25 | 0.65 | 0.26 | | 2.38 | 3.63 | 0.39 | | 2.94 | 2026 | |
| 01991 | 63.97 | 8 | 29.17 | 15.66 | | 9.24 | 0 | | 1.9 | 2026 | |
| 01084 | 28.86 | 3.64 | 11.5 | 3.48 | 3.56 | 0.72 | 0.1 | 0.01 | 5.85 | 2027 | |
| 01109 | 11.64 | 0.4 | 3.31 | 0.34 | 0.07 | 1.02 | 5.56 | 0.27 | 0.69 | 2027 | |
| 01110 | 79.78 | 32.26 | 7.41 | 15.45 | 5.84 | 0.75 | 8.86 | 0.31 | 8.9 | 2027 | |
| 01862 | 13.51 | 5.83 | 0 | 0.01 | 1.41 | 3.39 | 0 | 0.05 | 2.82 | 2027 | |
| 01134 | 18.16 | 2.52 | 2.67 | | | 0 | 0 | | 12.97 | 2028 | |
| 01149 | 54.14 | 0.03 | 1.1 | 39.94 | 0.07 | 0 | 0 | | 13 | 2028 | |
| 01184 | 1.77 | | 0.86 | 0.03 | | 0 | 0 | 0.03 | 0.85 | 2028 | |
| 01212 | 30.66 | 0.68 | 0.86 | 25.49 | 0 | 0 | 0 | | 3.63 | 2028 | |
| 01067 | 140 | 0.79 | 35.92 | 63.33 | 1.69 | 1.79 | 0.28 | 2.16 | 34.04 | 2029 | |
| 01143 | 32.66 | 0.01 | 7.78 | 12.27 | | 2.89 | 0 | | 9.71 | 2029 | |
| 01189 | 32.27 | 0.01 | 29.92 | 0.08 | 0.01 | 0.02 | 0 | 0.31 | 1.92 | 2029 | |
| 01199 | 1.6 | | 0.7 | | 0.6 | | | | 0.3 | 2024 | |
| 01233 | 41.74 | 16.49 | 3.62 | 16.75 | | 1.62 | 0 | | 3.26 | 2029 | |
| 01993 | 26.24 | 4.96 | 5.28 | 8.04 | 0.58 | 3.11 | 0 | 0.1 | 4.17 | 2029 | |
| 01288 | 29.16 | 4.48 | 13.15 | 4.85 | | 0.48 | 2.5 | | 3.7 | 2030 | |
| **Totals** | **720.94** | **89.02** | **196.52** | **225.99** | **26.83** | **36.19** | **21.95** | **3.26** | **121.18** | | |
| **1.2 Table of Clearfelling (Phase 2)** | | | | | | | | | | | |

| Coupe No. | Total Area (Ha) | Spp by Ha (SS) | Spp by Ha (SP) | Spp by Ha (LP) | Spp by Ha (NS) | Spp by Ha (Larch) | Spp by Ha (X con) | Spp by Ha (BLeaf) | Open Land by Ha | Restock Year | Monitoring Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01195 | 5 | 0.94 | 3.44 | 0.53 | | 0 | 0 | | 0.09 | 2031 | |
| 01114 | 54.71 | 1.86 | 24.83 | 9.01 | 3.1 | 0.13 | 2.14 | | 13.64 | 2032 | |
| 01129 | 48.91 | 3.47 | 3.03 | 28.83 | | 0.32 | 0 | | 13.26 | 2031 | |
| 01311 | 31.74 | 2.15 | 15.18 | 4.18 | 2.46 | 2.63 | 0 | | 5.14 | 2032 | |
| 01133 | 38.96 | 8.72 | 15.23 | 5.68 | 0.17 | 0.98 | 5.02 | 0.13 | 3.03 | 2033 | |
| 01137 | 40.96 | 5.48 | 16.6 | 0.92 | 0.34 | 5.61 | 9 | 0.5 | 2.51 | 2034 | |
| 01185 | 36.73 | 4.09 | 3.7 | 2.48 | 16.7 | 4.54 | 2.66 | 0.01 | 2.58 | 2035 | |
| 01923 | 58.28 | 1.11 | 32.73 | 0.3 | 0.78 | 0.25 | 0 | 0.46 | 22.65 | 2035 | |
| 01491 | 25.78 | 1.28 | 11.1 | 2.56 | | 2.8 | 7.43 | | 0.61 | 2034 | |
| 01941 | 144.5 | 21.36 | 43.85 | 52.38 | | 19.85 | 0 | | 7.06 | 2035 | |
| **Totals** | **485.57** | **50.46** | **169.69** | **106.87** | **23.55** | **37.11** | **26.25** | **1.1** | **70.57** | | |

**1.3 Table of CCF Felling (Phase 1)**

| Coupe No. | Total Area (Ha) | Volume ($M^3$) | Spp by Ha (SS) | Spp by Ha (SP) | Spp by Ha (LP) | Spp by Ha (NS) | Spp by Ha (Larch) | Spp by Ha (X con) | Spp by Ha (BLeaf) | Open Land by Ha | Silv.Method | Monitoring Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01009 | 328ha | 13000 | 99 | 67 | 3.2 | 33 | 64 | 36 | 25 | | Irregular Shelterwood | |
| | | | | | | | | | | | | |
| **Totals** | | | | | | | | | | | | |

**1.4 Table of CCF Felling (Phase 2)**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **Totals** | | | | | | | | | | | | |

**1.5 Table of Total Felling for Approved Plan Period**

| Method | Total Area (Ha) | Total Volume ($M^3$) | Spp by Ha (SS) | Spp by Ha (SP) | Spp by Ha (LP) | Spp by Ha (NS) | Spp by Ha (Larch) | Spp by Ha (X con) | Spp by Ha (BLeaf) | Open Land by Ha | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Clearfell** | **1206.51** | **324050** | 139.48 | 366.21 | 332.86 | 50.38 | 73.3 | 48.7 | 4.36 | 191.75 | |
| **Thinning** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **No standard thinning planned** |
| **CCF** | **328** | 13000 | 99 | 67 | 3.2 | 33 | 64 | 36 | 25 | **0** | Irregular Shelterwood |
| | | | **Grand Total of Felled Timber Proposed for Plan Period** | | | | | | | | |

**1.6 Table of Restocking**

| Coupe No. | Total Area (Ha) | SP (Ha) | MB (Ha) | BI (Ha) | Open (ha) | Year | Restock Method & Density (Restock/Nat Regen/Alt Area/Coppice/Open) | Monitoring Comments (Including any reason not to restock) |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 01006B | 4.0 | | 1.2 | - | 2.8 | 2026 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01023A | 15.8 | | 9.5 | - | 6.3 | 2019 | Natural regeneration of native broadleaves at a minimum of 1600 sph | |
| 01025A | 35.5 | 14.2 | 14.2 | | 7.1 | 2026 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01026A | 84.4 | 33.7 | 33.7 | | 16.9 | 2025 | Natural regeneration of native broadleaves at a minimum of 1600 sph | |
| 01029A | 42.2 | 16.9 | 16.9 | | 8.4 | 2025 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01029B | 2.8 | | 0.8 | - | 2.0 | 2025 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01030A | 10.2 | 4.1 | 4.1 | | 2.0 | 2026 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01067A | 130.5 | 52.2 | 52.2 | | 26.1 | 2029 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01067B | 9.5 | | 5.7 | - | 3.8 | 2029 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01070A | 85.8 | 34.3 | 34.3 | | 17.2 | 2029 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01070B | 5.8 | | 1.7 | - | 4.1 | 2026 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01084A | 19.6 | 7.8 | 7.8 | | 3.9 | 2027 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01084B | 9.3 | | 2.8 | - | 6.5 | 2027 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01101A | 10.0 | | 6.0 | - | 4.0 | 2025 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01102A | 7.2 | | 5.0 | - | 2.2 | 2026 | Mounded and planted native BLs at 1600sph (PAWS) | |
| 01109A | 11.2 | | 7.8 | - | 3.3 | 2027 | Natural regeneration of native broadleaves, will be surveyed to assess species and stocking to achieve at least 1600 sph at 2027. (PAWS) | |
| 01110A | 64.5 | 25.8 | 25.8 | | 12.9 | 2027 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01110B | 15.3 | | 9.2 | - | 6.1 | 2027 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 01111A | 2.9 | | 2.0 | - | 0.9 | 2027 | Natural regeneration of native broadleaves, will be surveyed to assess species and stocking to achieve at least 1600 sph at 2027. (PAWS) | |
| 01132A | 1.6 | | 1.1 | - | 0.5 | 2026 | Mounded and planted native BLs at 1600sph (PAWS) | |
| 01134A | 18.2 | | 10.9 | - | 7.3 | 2028 | Remaining areas of non-native conifer in Glen Cannich will be felled to recycle and allowed to regenerate with native broadleaves. Will be surveyed to ensure a minimum of 1600 sph is established by 2028. | |
| 01149A | 54.1 | 16.2 | | 21.7 | 16.2 | 2028 | Natural regeneration will be enriched with native broadleaves to ensure a minimum of 1600 sph established at 2028. | |
| 01151A | 25.7 | 23.1 | | - | 2.6 | 2022 | Mounded where possible to establish productive Scots pine at 2500 sph. | |
| 01156A | 10.6 | | 10.6 | - | - | 2026 | Steep ground, will regenerate well with native broadleaves as per adjacent coupe to the south. Will be surveyed to ensure a minimum of 1600sph established by 2026. | |
| 01158B | 6.0 | | 1.8 | - | 4.2 | 2026 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01167D | 1.8 | | 1.1 | - | 0.7 | 2026 | Natural regeneration of native broadleaves at a minimum of 1600 sph | |
| 01182A | 12.3 | 4.9 | 4.9 | | 2.5 | 2025 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01184A | 1.8 | | | | 1.8 | 2028 | Will be left open to allow expansion of the Knockfin quarry- see EIA scoping form | |
| 01185B | 7.0 | | 2.1 | - | 4.9 | 2029 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01188A | 75.0 | 30.0 | 30.0 | | 15.0 | 2026 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01188B | 8.0 | | 2.4 | - | 5.6 | 2026 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01212A | 29.4 | 11.8 | 11.8 | | 5.9 | 2028 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01212B | 1.3 | | 0.8 | - | 0.5 | 2028 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01233A | 34.0 | 13.6 | 13.6 | | 6.8 | 2029 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01233B | 7.7 | | 4.6 | - | 3.1 | 2029 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 01267A | 4.3 | 1.7 | 1.7 | | 0.9 | 2026 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01284A | 3.1 | 0.9 | 0.6 | | 1.5 | 2026 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01288A | 29.2 | 11.7 | 11.7 | | 5.8 | 2030 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01303A | 11.7 | | 11.7 | - | - | 2026 | Will be left to regenerate with native broadleaves, will be surveyed to ensure established at 1600 sph by 2026 | |
| 01398A | 2.7 | 1.1 | 1.1 | | 0.5 | 2026 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01493A | 10.3 | | 6.2 | - | 4.1 | 2026 | Will be left to regenerate with native broadleaves, will be surveyed to ensure established at 1600 sph by 2026 | |
| 01549A | 26.7 | 10.7 | 10.7 | | 5.3 | 2025 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01549B | 5.1 | | 3.1 | - | 2.1 | 2025 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01563A | 6.8 | 2.7 | 2.7 | | 1.4 | 2026 | Remaining areas of non-native conifer in Glen Cannich will be felled to recycle and allowed to regenerate with native broadleaves. Will be surveyed to ensure a minimum of 1600 sph is established by 2028. | |
| 01646A | 1.3 | 0.9 | | - | 0.4 | 2023 | Mounded and planted with Scots pine at 2500 sph | |
| 01759A | 28.8 | 11.5 | 11.5 | | 5.8 | 2025 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01819A | 38.7 | 15.5 | 15.5 | | 7.7 | 2025 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01819B | 9.4 | | 2.8 | - | 6.6 | 2025 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01828A | 9.8 | 3.9 | 3.9 | | 2.0 | 2026 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |
| 01828B | 1.4 | | 0.8 | - | 0.6 | 2026 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01862A | 13.5 | 5.4 | 5.4 | | 2.7 | 2027 | Mounded and planted native BLs at 1600sph with the assumption of additional Scots pine regeneration | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 01923B | 10.3 | | 3.1 | - | 7.2 | 2029 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01926A | 12.1 | | 7.2 | - | 4.8 | 2025 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 01926B | 6.2 | 2.5 | 2.5 | | 1.2 | 2025 | Will be left to naturally regenerate with native broadleaves and Scot's pine. Will be surveyed to ensure it establishes a minimum of 1600 sph by 2025. | |
| 01956A | 15.7 | 11.0 | | - | 4.7 | 2025 | Mounded and planted with Scots pine at 2500 sph | |
| 01991A | 57.0 | 17.1 | 22.8 | | 17.1 | 2026 | Mounded and planted with native broadleaves and Scot's pine on the drier knolls. To achieve a net stocking of at least 1600sph. | |
| 01991B | 7.0 | | 2.8 | - | 4.2 | 2026 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 02400A | 64.4 | 25.8 | 25.8 | | 12.9 | 2021 | Hand screefed, with native broadleaves and Scot's pine planted on the drier knolls to achieve a net stocking of at least 1600 sph. 2400B will be left open for wetland habitat and peatland retsoration | |
| 02934A | 4.0 | | 1.6 | - | 2.4 | 2023 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| 02996A | 3.3 | 1.0 | 1.3 | | 1.0 | 2023 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| **Total** | **1244** | **412** | **493** | **22** | **317** | | | |

**1.7 Table of New Planting**

| Coupe No. | Total Area (Ha) | SP (Ha) | MB (Ha) | BI (Ha) | Open (ha) | Year | Planting Method & Density (Planting/Nat Regen) | Monitoring Comments |
|---|---|---|---|---|---|---|---|---|
| 01104B | 258 | 103.2 | 103.2 | | 51.6 | 2026 | New enclosure will allow planting and mounded where possible to achieve 1600 sph at year 5 | |
| 01104D | 210 | 84 | 63 | | 63 | 2029 | These are areas already enclosed that could be planted up to increase forest cover in the enclosures. They will be flat planted to achieve 1600 sph at year 5. | |
| 01104E | 130.1 | 39.0 | 39.0 | | 52.0 | 2024 | Further planting of montane willow species and native broadleaves, will be mounded and planted but phased over 3 years to achieve 1600 sph at year 5 | |
| 01104H | 42.6 | 17.0 | 17.0 | | 8.5 | 2026 | Glean na ciche new enclosure to be mounded and planted to achieve 1600 sph at year 5 | |
| 01104M | 16.3 | | 6.5 | - | 9.8 | 2026 | Riparian woodland, hand screefed and planted at 1600sph net but with groups and open space. | |
| **Total** | **657** | **243** | **229** | | **185** | | | |

| 1.8 Table of Civil Engineering (See Map 21) | | | | |
|---|---|---|---|---|
| **Proposed Activity (Road/Quarry)** | **OS Grid Reference** | **Forest/Coupe** | **Description (Length/Area/Construction)** | **Monitoring Comments** |
| New Quarry- Upper Guisachan | NH 32702478 | Affric Coupe 01728 | 0.75ha new quarry, currently open with no trees to be felled. Roadstone required for new road at Upper Guisachan. | |
| Quarry Expansion- Burnside | NH30853012 | Affric Coupe 01029 | Existing quarry of 0.53ha to be extended a further 0.55ha. Currently a felled coupe, this area will not be restocked to allow the quarry expansion. Roadstone needed for new road at Fasnakyle. | |
| New Road- Fasnakyle 4 and 5 | Start of road NH25862766 | Affric Coupes 01923, 01185, 01189, 01993 | New road required to access non- native conifers. Approx 1200m long. | |
| New Road- Upper Guisachan | Start of road NH33102480 | Affric Coupe 01941 | This is a potential new road required to access timber from coupe 01941. Approx 1500m long. | |
| New Road- Knockfin | Start of road NH27002571 | Affric Coupe 01129 | New road to access non-native coupes 01129 and NH 01195. Approx 2000m long. | |
| New Road – Garbh Bridge | Start of road NH26902250 | Affric Coupe 01067 | Spur road and stacking facilities required to harvest the coupe. Approx 100m long. | |
| New Road – Farmers wood | Start of road NH28002290 | Affric Coupe 01067 | Road required to access the coupe. Approx 1000m long. | |

| 1.9 Table of Environmental Operations | | | | |
|---|---|---|---|---|
| **Proposed Activity** | **OS Grid Reference** | **Forest/Coupe** | **Description (Length/Area/Construction)** | **Monitoring Comments** |
| Fell to recycle | NH 3173 2341 | 01143 | 32.66ha to be felled to recycle to remove non-native conifers that were left from previous operation. Coupe includes a ride to allow access to extract the timber if possible. | |
| Fell to recycle | NH 2911 3337 | 01134 | 18.16ha to be felled to recycle without access | |
| Non-native regeneration removal | Whole Plan Area | Whole plan area | Non-native tree regeneration will be removed in a programme of removal. This will be in a structured, survey based approach as a follow on operation once mature non-natives have been felled and extracted. | |

| | | | | |
|---|---|---|---|---|
| Peatland restoration | NH 2124 2608 | Beinn a Mheadhoin | Drain blocking and hag re-profiling. This will prevent further erosion of peatland. | |

| **1.10 Table of Community and Visitor Services Operations (Details on map 17 and appendix 18)** | | | | |
|---|---|---|---|---|
| **Proposed Activity** | **OS Grid Reference** | **Forest/Coupe** | **Description (Length/Area/Construction)** | **Monitoring Comments** |
| Replace hornbeam pedestrian bridge | NH 2893 2834 | Dog Falls Gorge | Refurbish and upgrade the bridge. Urgently required for safety. Inspections have suggested life of bridge is limited. Could be included in the Dog Falls project. | |
| Dog falls access project | NH 2893 2834 | Dogs fall trail | Scoping and investigation of funding streams to improve safety of the dog falls trail | |
| Visitor Zone thinning | See Map 17 and appendix 18 for all visitor zones | All car parks and waymarked trails | Thinning around car parks and trails to remove unsafe trees, open up views and prevent the facilities from becoming too dark. | |
| Re-route the Affric –Kintail Way | See Map 17 and Appendix 18 | Kerrow east block | Opening up a new path to take the Affric-Kintail way off the main road. Partnership project with Strathglass Marketing Group (SMG). SMG are delivering the project overseen by FLS. | |
| Path maintenance and upgrade | See Map 17 and Appendix 18 | Waymarked trails | Waymarked trails will be maintained so they are safe and functional. Upgrades will be required on some paths, detailed in Appendix 18. | |

**Other 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 a separate felling permission due to the risks or impacts of delaying the felling.

Felling permission is therefore 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, horse walking) routes, buildings, utilities and services, and drains.

The maximum volume of felling in exceptional circumstances covered by this approval is 40 cubic metres per Land Management Plan per calendar year.

A record of the volume felled in this way will be detailed below during the five year Land Management Plan review:

| **1.11 Table of Other Felling** | | | | |
|---|---|---|---|---|
| **Date** | **Forest/Coupe** | **OS NGR** | **Volume** | **Comments** |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## 2.2 Tolerance table

| | Adjustment to felling coupe boundaries | Timing of restocking | Change to species | Wind throw or environmental response | Adjustment to road lines |
|---|---|---|---|---|---|
| **Scottish Forestry Approval not normally required (record and notify FC)** | <10% of coupe size | Up to 5 planting seasons after felling (allowing fallow periods for Hylobius). | Change within species group<br>E.g. Scots pine to birch,<br><br>Non-native conifers e.g Sitka spruce to Douglas fir,<br><br>Non-native to native species (allowing for changes to facilitate Ancient Woodland policy). | | Departures of up to 60m from the centre of the roadline |
| **Approval by exchange of letters and map** | 10-15% of coupe size | 5 years + | Change of coupe objective likely to be consistent with current policy (e.g. from productive to open, open to native species). | Up to 5 ha | Departures of greater than 60m from the centre of the roadline |
| **Approval by formal plan amendment** | >15% of coupe size | | Major change of objective likely to be contrary to policy,<br>E.g. native to non-native species, open to non-native, | More than 5 ha | As above, depending on sensitivity |

## 2.3 Departure from UKFS Guidelines

Restocking in the Caledonian Pinewood will be primarily by natural regeneration. These sites will be monitored every 3 years to assess success of establishment. Given the site type and climate in Glen Affric natural regeneration is slow to establish. Appendix 9 fixed point photography shows that it may take 17 years or more to establish forest cover. Given many of the Caledonian Pines are over 200 years old, an establishment period of 20 years is not unreasonable. This means that where sites are establishing via natural regeneration they will be monitored with the understanding that it may take 20 years to become an established crop. This will mean that where adjacent coupes are felled the normal adjacency guidance will not apply. This is so that the non-native conifers can be cleared over a sensible time period.

10 years following felling if there are no signs of natural regeneration we will undertake enrichment planting or undertake ground preparation to encourage natural regeneration.

# 3.0 EIA Screening Determination for forestry projects

## 3.1 EIA scoping form (please see Appendix 19)

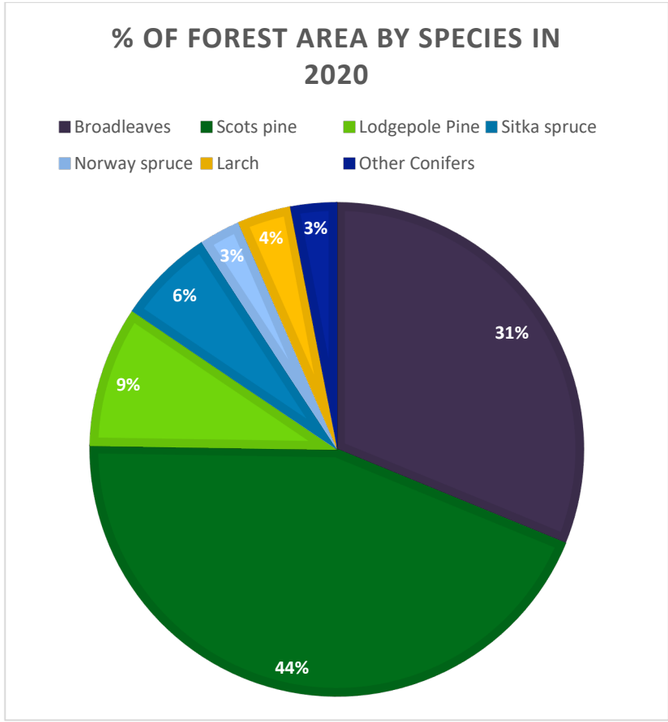
# 4.0 Introduction

Map 1 shows the location of the Land Management Plan Area. It includes Glen Affric, Glen Cannich, Cougie Glen and the Kerrow blocks. The plan area includes the villages of Cannich and Tomich and stretches to the head of Glen Affric including a number of Munros.

## 4.1 The existing land holding

The Glen Affric land holding is 17,600ha, of which 5341ha is forested and 12,259ha is open ground. The open land is a mixture of wet and dry heath and bog. The open habitats are detailed in Appendix 6-HRA appraisal. The table and pie chart below shows the species groups, areas and percentage of forest area. Map 2 shows the key issues for Glen Affric.

| Species | Area 2020 (ha) | % |
|---|---|---|
| Broadleaves | 1667 | 31% |
| Scots pine | 2353 | 44% |
| Lodgepole Pine | 491 | 9% |
| Sitka spruce | 338 | 6% |
| Norway spruce | 144 | 3% |
| Larch | 188 | 4% |
| Other Conifers | 161 | 3% |
| | | |
| Total | 5341 | 100% |




## 4.2 Setting and context

The whole land holding covers three glens of Glen Cannich, Glen Affric and Cougie Glen. The access to these glens is on small single track roads through the villages of Tomich and Cannich. Currently all timber extracted from the forest is hauled on these roads.

The land holding is surrounded by multiple estates owned by private individuals and also Royal Society for Protection of Birds (RSPB) and National Trust for Scotland (NTS). The majority of the neighbouring estates are sporting estates that are managed to maintain stag numbers for stalking.

The block is highly designated for Caledonian Pinewood (CPI) habitats, Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) for native woodland and upland habitats, Special Protected Area (SPA) for Golden Eagle. It is also a National Nature Reserve (NNR), is part of a National Scenic Area (NSA) and Wild Land Area (WLA). Please see https://sitelink.nature.scot/map showing all designations for the LMP area.

Map 20 shows the Caledonian Pinewood Areas. Large parts of the LMP area also Plantations on Ancient Woodland Sites (PAWS) see map 23.

The bedrock in the whole land holding is mostly psammite in the bottom of the glens (a medium grain metamorphic sandstone of quartz, feldspar and mica). The more resistant quartzite (a medium grain metamorphic sandstone of mostly quartz) makes up the ridges north of Cougie and Fasnakyle. See Map 4- geology.

The underlying deposits across the whole land holding are glacial deposits of sand and gravel with fluvial deposits along the River Affric and River Dheabhag in Cougie Glen. Where topology and drainage create an area where ground water collects and the climate is cool enough peat deposits have been laid down. These are mostly in Upper Guisachan, Loch an Eang, Fasnakyle Hill and Glean na ciche and Beinn a Mheadhoin.

The geology and sediment deposits have resulted in the bottom of the glens being mostly podzolic soils with gleys on the slopes and a variety of peat soils at higher altitude. See Map 5- soils.

The climate over the whole land holding varies from cool, wet and moderately exposed in the bottom of the glens becoming highly exposed over 350m altitude. Above 450m altitude the climate becomes sub-alpine, wet and highly or extremely exposed. Map 6 shows the climate model.

## 4.3 LMP Presentation

The total land holding for this Land Management Plan is 17,600 ha. Because of the size and complexity the plan area has been broken down in to 10 management zones, the boundaries of which are identified on Map 3- Management Zones. Each zone has different objectives, constraints and opportunities. These are detailed in section 6- Analysis and Concept.

# 5.0 (Whole) Plan Objectives

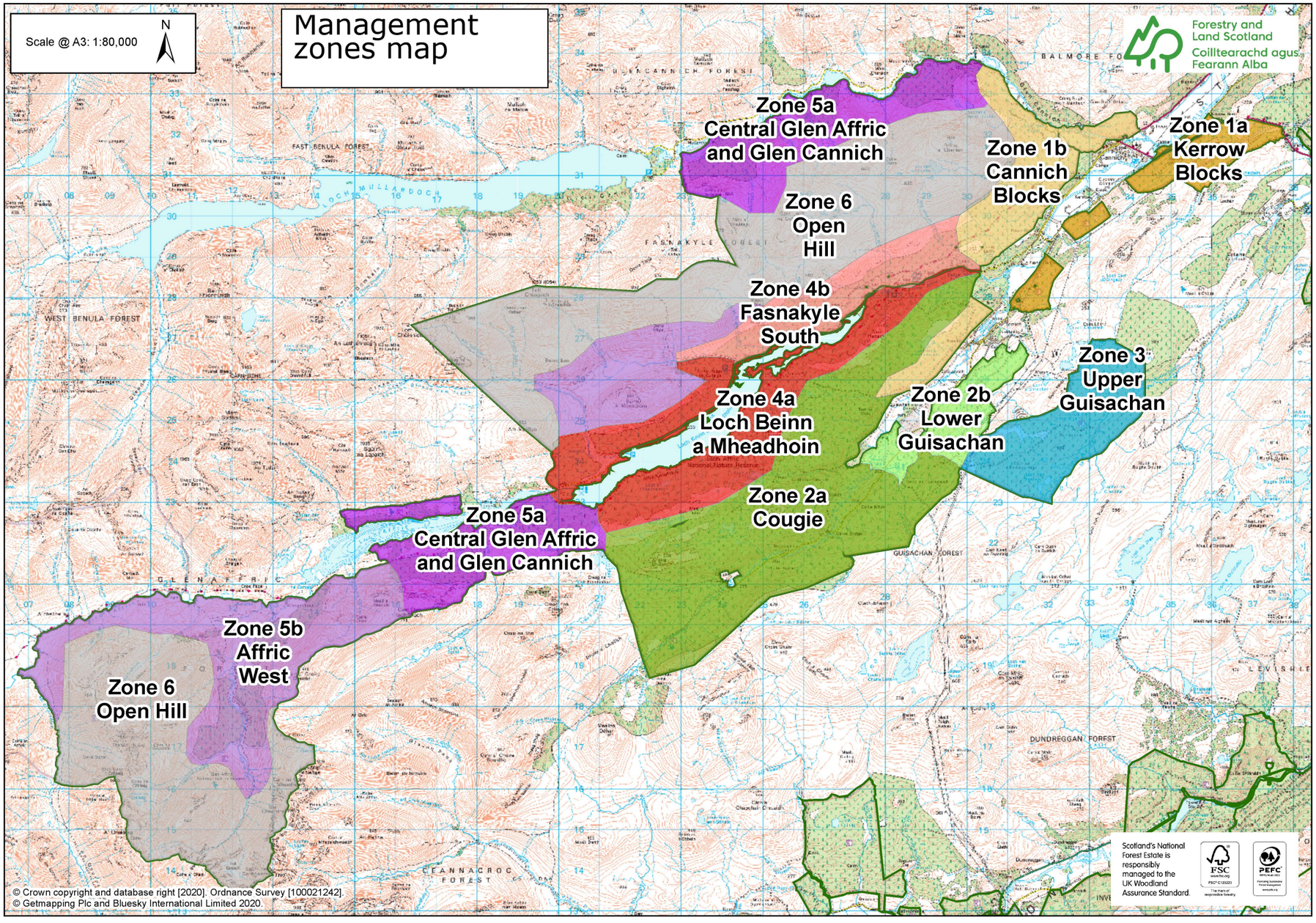
The overall plan objectives are:

- Restore and protect native Caledonian Pinewood, PAWS and open habitats
- Expand forest cover where site types are suitable
- Maintain favourable condition for the SAC, SSSI and SPA
- Maintain “Wildness” experience of Glen Affric
- Maintain high quality recreation facilities

## 5.1 Management

The whole plan objectives will be met by:

- Controlling deer grazing pressure through culling
- Maintaining existing enclosures
- Creating new enclosures where suitable for tree establishment
- Removing non-native tree regeneration within the CPI and PAWS
- Planting of native broadleaves where regeneration is not occurring
- Prioritising removal of DNB infected stands and non-native mature stands within the CPI. All DNB infected Lodgepole pine (178ha) will be felled in the Caledonian Pinewood buffer by 2030
- Restoring peatland where recommended according to guidance "Deciding future management options for afforested deep peatland"
- Maintain existing recreation facilities
- Continue partnership working with communities and other stakeholders
- Minimising new forest roads and maximising forwarder tracks to keep development to a minimum, especially for “single use” roads.
- Allowing forest roads to grow over when they are no longer needed. This will include bridges being removed/ replaced with quad / pedestrian bridges.


Scale @ A3: 1:80,000
N
Management zones map
Forestry and Land Scotland
Coilltearachd agus Fearann Alba
Zone 5a Central Glen Affric and Glen Cannich
Zone 1b Cannich Blocks
Zone 1a Kerrow Blocks
Zone 6 Open Hill
Zone 4b Fasnakyle South
Zone 3 Upper Guisachan
Zone 4a Loch Beinn a Mheadhoin
Zone 2b Lower Guisachan
Zone 2a Cougie
Zone 5a Central Glen Affric and Glen Cannich
Zone 5b Affric West
Zone 6 Open Hill
EAST BENULA FOREST
WEST BENULA FOREST
FASNAKYLE FOREST
GUISACHAN FOREST
DUNDREGGAN FOREST
CEANNACROC FOREST
GLEN AFFRIC
Scotland's National Forest Estate is responsibly managed to the UK Woodland Assurance Standard.
FSC
PEFC
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# 6.0 Analysis and Concept

The LMP area is over 17,000ha. Across this area there are varied issues and objectives. In order to explain each of these areas, management zones have been created. These are areas of similar characteristics which have been further sub-divided as necessary to reflect management objectives. Map 3 (and map above) shows the geographical split.

## 6.1 Zone 1a- Kerrow Blocks

### 6.1.1 Key Features and Issues

- Forms back drop to Cannich and Tomich villages and visible from public roads.
- Beauly- Denny powerline passing through the block – this results in fragmented blocks ; areas of open ground/ loss of planting area; and increased hazard due to overhead power lines during felling and other management.
- Unpermitted sheep grazing is preventing natural regeneration establishing to the desired density
- Discrete blocks so more boundary fences to maintain, more neighbours.
- Undesignated ruined townships in Kerrow West that are currently overgrown
- Previous felling coupes have been retained in these blocks for good access during winter months with minimal forest road transport, and an agreed timber haulage route.
- PAWS in most of the blocks- see Map 23

### 6.1.2 Management Objectives

- Restore PAWS and establish productive Scots pine and conifer/broadleaf mixtures.
- Identify and reserve felling coupes for easy access during the winter

### 6.1.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| Restore PAWS and establish productive Scots pine and conifer/broadleaf mixtures | Good natural regeneration of birch | Lack of windfirm boundaries<br><br>Current even age forest limits opportunities for phased felling and reduces biodiversity benefits of diverse structure<br><br>Similar aged forest<br><br>Potential birch monoculture due to good natural regeneration | Slow down current rate of felling, create coupes using existing windfirm boundaries and create new boundaries during restocking to develop a more diverse age structure.<br><br>Enrich regeneration sites with scots pine, oak and Norway spruce to reduce birch monoculture and increase productivity.<br><br>Improve areas of regenerating birch<br><br>Develop structured approach to monitoring and controlling sheep grazing |

| | | | |
|---|---|---|---|
| | | Sheep grazing impacts on the successful establishment of BL and soft conifers | |
| Identify and reserve felling coupes for easy access during the winter | Good roads and access to haulage routes<br><br>Timber wagons do not need to pass through villages | Forest roads will need maintained | Plan and design coupes that offer easy access to agreed timber haulage routes.<br><br>Ensure that forest roads are maintained for winter use |

## 6.1.4 Management Prescriptions

Past management has created large areas of similar age stands. Predicted wind damage of these stands is minimal (see map 13) and there has been little damage to date. The proposed coupe sequencing in this zone will slow down the rate of felling. This will have the effect of creating more varied age structure and also maintaining timber production for the LMP at a sustainable level.

All three Kerrow blocks have good natural regeneration of birch which will be taken advantage of for restocking clearfell coupes. This has had the effect of creating uniform age pure birch stands. The natural regeneration will be enriched with Scots pine, rowan and oak to create more varied species stands in the future. There will also be planting of line mixtures of Norway spruce and Oak in areas which will allow future thinning of the Norway spruce and out with the PAWS . Stand quality of extensive birch regeneration will be improved through re-spacing and cleaning.

This zone has problems with sheep entering the forest from surrounding agricultural ground. In the past sheep have been culled to remove the grazing pressure. In the future, grazing and browsing by livestock will be monitored and where necessary reduced through fencing, control and removal as necessary.

Zone 1a has good roads and access to good haulage routes. The timber volume from here will not need to be transported on small roads and long forest roads it therefore offers opportunities for coupes that can be easily accessed during winter, when other coupes in North Region may be inaccessible due to snow. Felling in these coupes does not need to be transported through Cannich and Tomich so reduces timber traffic in these communities. The felling coupes have been designed to minimise the landscape impact so that views from Cannich and Tomich are not compromised. Archaeological features will not be damaged during felling operations.

## 6.2 Zone 1b- Cannich Blocks

### 6.2.1 Key Features and Issues

- Fertile soil with a southerly aspect
- Steep ground in some areas
- Highly visible from Cannich and Tomich
- Native Caledonian Pinewood and PAWS with non-native conifers interspersed
- Scheduled Ancient Monument of Comar Dun

### 6.2.2 Management Objectives

- Restore PAWS and Caledonian Pinewood areas
- Manage Comar Dun in agreement with Historic Environment Scotland

### 6.2.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| Restore PAWS and Caledonian Pinewood areas | Natural regeneration of Scots pine and birch establishing at reasonable density<br><br>Fertile sites have responded well to restocking already | Moratorium on Scots pine planting in the Caledonian Pinewood areas.<br><br>Non-native natural regeneration establishing<br><br>Sheep grazing pressure | Continue felling of mature non-native stands retaining scots pine<br><br>Delayed felling of some coupes from the previous plan to break up the structure of the forest retain some forest cover.<br><br>Continue restocking with native broadleaves<br><br>Investigate scarification of sites to encourage natural regeneration of native broadleaves and Scots pine<br><br>Continue removing any encroaching sheep<br><br>Continue cutting out non-native regeneration. |
| Manage Comar Dun in agreement with Historic Environment Scotland | Comar Dun has been clearfelled in the past which has opened up the view and revealed the site | Trees are regenerating within and around the dun | Cut out regenerating trees that are within the Scheduled Ancient Monument area<br><br>Keep open area around the Dun to maintain views of the strath. |

## 6.2.4 Management Prescriptions

This zone is highly visible from the villages of Cannich and Tomich. Large areas have been felled in the past. They have been restocked with some Scots pine and native broadleaves. There is also good natural regeneration in some areas. Some areas are not regenerating naturally due to dense ground vegetation, we will investigate scarifying these sites to encourage natural regeneration or establishment via planting.

The felling and restock coupes are designed to the scale and topography of the landscape, straight edges will be avoided. The upper edge of the forest will be planted to create a diffuse boundary and will be more fitting to the topography. This will maintain and enhance the views from Tomich and Cannich. Some coupes have been delayed from the previous plan in order to prioritise coupes in the Caledonian Pinewood that are infected with DNB. This will slow down felling in zone 1b, break up the age structure of the forest and reduce the visual impact on the views from Cannich and Tomich.

Because of the moratorium on planting Scots pine all restocking will be with native broadleaves with the plan that Scots pine will regenerate amongst the broadleaves and over time a pinewood habitat will be achieved.

Deer culling and removing sheep will continue to allow trees to establish though natural regeneration.

Comar Dun is a Scheduled Ancient Monument (SAM), it was opened up when the forest around it was clearfelled. Since then trees are regenerating around and within it. These will be removed before they reach 10cm dbh to maintain the dun and surrounding area as open. The larger area around the Dun is expected to stay open, when trees regenerate they will be removed once they encroach on the view from the dun.

## 6.3 Zone 2a- Cougie

### 6.3.1 Key Features and Issues

- Caledonian Pinewood with extensive areas of non-natives
- Some areas will be steep ground
- Timber transport through villages of Tomich and Cannich
- Public access to Cougie Farm and Plodda Falls.
- Dothistroma needle blight infecting and killing Lodgepole pine in the Caledonian pinewood.
- Natural regeneration is good on south side of the glen, poor on the north
- Scheduled Ancient Monument (SAM) present south of Badger Falls. This is an old illicit whisky still.

### 6.3.2 Management Objectives

- Restore native pinewoods
- Protect SAM from future damage

### 6.3.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| Restore Caledonian Pinewood areas | Areas of native scots pine already present<br><br>Good natural regeneration on south side of Glen | Moratorium on Scots pine planting in the Caledonian Pinewood areas.<br><br>Non-native natural regeneration establishing<br><br>Extensive areas of Lodgepole pine infected with Dothistroma Needle Blight (DNB)<br><br>Poor natural regeneration on north side of glen<br><br>Steep ground on north side of the glen<br><br>Forest road requires upgrading so new quarry required. | Continue felling of mature non-native stands retaining scots pine prioritising those infected with DNB. This will require winch extraction to the east of Cougie farm.<br><br>Continue restocking with native broadleaves<br><br>Investigate scarification of sites to encourage natural regeneration of native broadleaves and Scots pine<br><br>Continue cutting out non-native regeneration.<br><br>Establish a new quarry near Garbh Bridge to source road stone to maintain the road for timber haulage. Location of quarry to be confirmed. |
| Maintain heritage site at Badger Wood Whisky still Scheduled Ancient Monument | Site of interest to visitors | Trees may fall on the remains and damage them | Remove trees adjacent to the site that may threaten the remains of the still. |

### 6.3.4 Management Prescriptions

Coupes around Cougie farm will be prioritised over the whole plan areas for removal. Mature scots pine within these coupes will be retained as seed source for regeneration. This is because there is a large area of non-native trees here and also much of this is infected with DNB and threatens to infect the native pinewoods. We will start from the west and cut to the east because:
a) This clears the glen in a structured way, removing seed source for non-natives at a landscape scale

b) It means that as felling progresses eastwards there will be less forest road to be maintained at a standard for timber haulage and it can return to a state that will allow light vehicle access for stewardship purposes in the future.

Clearfell sites on the south side of the glen are regenerating well, with good stocking of birch and native broadleaves. On the north side the regeneration is not establishing so well such as Ulsterman's wood, this may be due to the southerly aspect that encourages ground vegetation to a point that prevents tree regeneration. Planting native broadleaves may be considered in these areas to enrich the natural regeneration and establish a mixed broadleaf and Scots pine stand. It may also be possible to scarify sites to encourage natural regeneration of native tree species, this would not be undertaken until the non-native seed sources have been removed. Deer will continue to be culled to encourage establishment of natural regeneration.

Non-native tree regeneration will continue to be cut as it occurs. This should reduce over time as the non-native seed sources are removed.

The steep ground to the north of the Abhainn Deabhag to the east of Cougie farm will require winch work to extract timber. The winch bays will be created at the top of the steep ground with a forwarder track through coupe 01862 to allow access to the winch bays by forwarder. Coupe 01862 will be felled prematurely to remove the non-native conifers and provide good brash for a long term forwarder access track. Brash will also be used from the skyline operation where trees are snedded at the winch bays.

To maintain the forest road to Cougie Farm for timber haulage a new quarry will be established. This means that we can source stone locally and avoid further haulage through the Tomich and Cannich and also use stone that reflects the local geology of the site. This road will also be kept open for public access to Plodda car park and Cougie Farm. The location and size of this quarry is yet to be agreed but is likely to be near Garbh Bridge.

## 6.4 Zone 2b- Lower Guisachan and Plodda

### 6.4.1 Key Features and Issues

- High recreation use but very localised around Plodda Falls
- Mature mixed conifer stand with areas of cleared windblow 10 years ago
- This created good areas of natural regeneration in groups
- Mature designed landscape character associated with Guisachan House and Estate (including the Gladstone Pines)
- Iconic trees and attractive mixed forest
- Fertile soils and site types

### 6.4.2 Management Objectives

- Manage Lower Guisachan under a Continuous Cover Forestry system (CCF) to create a mixed age forest of diverse conifer species reflecting the designed landscape of Guisachan House and estate.
- Maintain high quality recreation facilities in the Plodda area.
- Manage Plodda area under Minimum Intervention to clear any windblow and underplant with Douglas fir, retain mature Douglas fir and establish new trees for the future.

### 6.4.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| Manage Lower Guisachan and Plodda under Continuous Cover Forest System | Diverse stands of mixed conifer species.<br><br>Felled windblown groups 10 years ago are now regenerating well with conifer and broadleaves. | Risk of further windblow if we undertake a thinning<br><br>Retaining non-natives could seed in to the Caledonian Pinewood | Lower Guisachan:<br>- expand existing felled groups<br>- thin the matrix<br>- conventional first thin of Sitka spruce and Douglas fir stands age 20-30 years old<br>- uniform thinning of larch seed stand<br><br>Plodda:<br>- minimum intervention<br>- remove windblown trees<br>- underplant gaps that have been created with Douglas fir |
| Maintain high quality recreation facilities in Plodda | Good existing, car park, path network, signage and viewing platform | Cost of maintenance | - Keep paths clear, maintain car park<br>- Continue providing leaflets<br>- Regularly inspect the viewing platform and maintain when necessary |

## 6.4.4 Management Prescriptions

Lower Guisachan is adjacent to Guisachan House and estate which is made up of parkland and a designed landscape. The forest is a diverse age and species mixture of mature conifers. It had sporadic windblow in the past which was cleared up approximately 10 years ago. This created many gaps within the canopy that have regenerated well with a mixture of mostly conifer and some broadleaf species. Given the nature of the designed landscape and the mixed age and species structure of the forest it was decided to manage this area under a continuous cover system. This will mostly be an irregular shelterwood system taking advantage of the groups that have already been created, expanding them to increase areas of natural regeneration to create a more diverse age and species stand.

These are some stands of 20-30 years old which will have a conventional first thin to create racks and remove some trees from the matrix. There is another uniform stand of larch that is a registered seed stand, this will be thinned in a uniform way to gradually reduce the canopy over subsequent thinnings to allow an understorey to establish. See Map 22 and Appendix 17 detailing the CCF prescriptions.

Plodda falls is a high recreation site with an average number of cars during the Summer of 50 and frequently over 100 on busy days. It has a car park, signage and a small network of paths with a viewing platform of the top of Plodda Falls. The forest is made up of large mature Douglas fir that give the area a character of big tree country. There has been windblow in the past which has been cleared up however there has been minimal natural regeneration. To retain the big tree feel of the site the area will be managed on a minimum intervention system. This means that there will not be any active thinning or felling but only windblow clearance. In order to establish future trees the gaps created from windblow clearance will be underplanted with Douglas fir.

The visitor facilities at Plodda Falls will be maintained to ensure the visitor experience is not compromised. This will include maintaining the car park, signs, leaflets and paths. The viewing platform will be regularly inspected and maintained to be safe for visitors.

## 6.5 Zone 3- Upper Guisachan

### 6.5.1 Key Features and Issues

- Upland plateau with a mix of dry heath and deep peat
- Planted extensively with Lodgepole pine with other conifer species in smaller areas.
- Visible from public road for visitors entering Glen Affric
- Lodgepole pine heavily infected with DNB with some tree deaths
- Neighbouring land owner RSPB
- Peatland restoration in RSPB land has non-native conifer regeneration seeding from FLS land.

### 6.5.2 Management Objectives

Convert commercial plantation to more natural open woodland, riparian woodland and bog habitats where suitable.

### 6.5.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| Convert commercial plantation to more natural open woodland, riparian woodland and bog habitat where suitable. | Site made up of dry knolls, wet hollows, open water and water courses. | Wet sites make timber extraction difficult.<br><br>Bridges required to cross water courses.<br><br>Non-native conifers are seeding in to adjacent RSPB peatland restoration site. | This zone will be felled over a period of 30 years but prioritising the coupes nearest the RSPB reserve.<br><br>The sites will be restocked with native broadleaves and scots pine on the drier knolls with alder and willow along the riparian corridors.<br><br>Where the ground is very wet and the peat is deeper than 50cm the area will be restored through, drain blocking and ground smoothing where necessary. |

### 6.5.4 Management Prescriptions

The whole zone is broken down in to large coupes that reflect the scale of the landscape, this also makes the harvesting more economical and minimises traffic both on and off forest roads.

The coupes will be prioritised to be felled from the RSPB boundary, this will reduce the amount of non-native seed being transported in to the RSPB peatland restoration site. These coupes are not high priority on the whole plan scale and as such are programmed to start in the orange phase

The coupe shapes have been designed to minimise new roading which will reduce environmental impact and investment in roads that will not be needed for timber haulage in the future.

The site is a matrix of dry heath with deep peat in the hollows intersected by  many burns . There are a number of lochans  also present.  As such this is not a site that should be restocked with productive conifers and will be returned to  a mixture of native broadleaves and Scots pine on the heathland areas, with  broadleaves such as alder, willow and aspen at low density planted in the riparian zones. Where peat depth is over 50cm these areas will be restored to peatland through drain blocking and ground smoothing where necessary.

## 6.6 Zone 4a- Loch Beinn a Mheadhoin

### 6.6.1 Key Features and Issues

- Highly visible from scenic public road
- Highly and increasingly popular visitor destination, most visited part of Glen Affric NSA, with built visitor facilities including car parks, toilets, viewpoints and waymarked paths.
- Increasing numbers of visitors using lochside, laybys and car parks as base for overnight camping.
- Loch is identified as high in phosphate due to sediment accumulation.
- Increasing demands for infrastructural development.

### 6.6.2 Management Objectives

- Maintain high quality recreation facilities and visitor experience

- Maintain and improve the scenic value of the zone

### 6.6.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| Maintain high quality recreation facilities and visitor experience | Existing car parks, signage, viewpoints, toilets and paths. | Increasing visitor numbers and therefore pressure on facilities<br><br>Increasing cost of maintenance<br><br>Bridges require upgrades | Continue monitoring visitor numbers and overnight camping<br><br>Maintain car parks, toilets, paths and signage<br><br>Cut back encroaching vegetation and trees from around the viewpoints. |
| Maintain and improve the scenic value of the zone | All zone is minimum intervention<br><br>Highly scenic area | Pressure to increase visitor facilities | Limit development within forest area to conserve special qualities of landscape and environmental designations. |

## 6.6.4 Management Prescriptions

This is the most highly used recreation zone in the forest see map 17. It includes 4 car parks, 2 toilet facilities, signage and leaflets, 2 viewpoints. All car parks have machines to collect parking fees. The visitor numbers are increasing with some minibuses using the facilities and overnight camping becoming more popular. This is often accompanied by fires and rubbish being left.

The money from car parking only covers a part of the management costs it is therefore not viable to increase the facilities provided but important to maintain the existing facilities. This includes visitor zone thinning for safety and maintaining views from viewpoints and also along the main access road that is starting to become partly closed in by birch regeneration.

Development will only be undertaken when absolutely necessary and will be done in a way that is sympathetic to the scenic and environmental qualities of the area.

## 6.7 Zone 4b- Fasnakyle South

### 6.7.1 Key Features and Issues

- Forest includes large areas of non-native conifers, as contiguous blocks and interspersed with native species.
- Moderate, though expanding recreation use on paths and forest road as popularity of Affric Kintail Way grows.
- Hillsides form backdrop of the north east end of NSA/ Special Landscape Area.
- Area includes steep ground and limited access by forest road.
- Rock outcrops suitable for use as roadstone

### 6.7.2 Management Objectives

Restore  Caledonian Pinewood whilst acknowledging the important scenic and increasing recreational qualities of the zone.

### 6.7.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| Restore Caledonian Pinewood whilst acknowledging the important scenic and recreational qualities of the zone. | Extensive areas of native scots pine, both plantation and ancient woodland | 2 remaining coupes of non-native conifers to be removed. Will require a new road and at least one bridge. Will require traffic control.<br><br>Large volume of larch timber that poses a risk of infection by Phytophthora ramorum.<br><br>Natural regeneration in the zone has been successful in some areas and not successful in others.<br><br>The moratorium on scots pine means that we cannot restock with Scots pine. | Over the period of the plan all mature non-native conifer will be removed from this zone. All scots pine in these coupes will be retained where it is not likely to threaten infrastructure or is a health and safety risk.<br><br>Use of scarification of previous clearfell coupes will be considered to encourage natural regeneration.<br><br>Continued deer culling will reduce the browsing pressure on natural regeneration.<br><br>The red phase felling will include the larch in order to remove this before it became infected with P ramorum.<br><br>New road will access the red and orange coupes initially and will be allowed to grow over in the future to maintain quad bike access for stewardship and deer management purposes. The new bridge will be removed and a bridge for ATV access will be replaced. |

## 6.7.4 Management Prescriptions

This zone has been progressively felled to remove non-native conifers and restore it back to a native pinewood. There are 2 remaining coupes to be removed. These will require a new road and bridge to access both coupes. The initial coupe felled in the first 5 years could be accessed with just a single bridge. The first phase felling coupe will include all the larch within these areas to remove the risk of Phytophthora ramorum infection in the future. Both coupes contain substantial areas of plantation scots pine that will be retained as a seed source to encourage natural regeneration in the felled areas.

It is accepted that felling the coupes in the west first (01189 and 01993) will open up the second phase coupes (01185 and 01923) to wind damage. However given that there is only 5 years between felling it was deemed a reasonable risk in order to remove the larch as soon as possible.

Restoring the pinewood has been done by clearfelling and replanting with scots pine in the past, however since 2013 there has been a moratorium on planting scots pine in the Caledonian Pinewood. As such natural regeneration has been relied upon to achieve restocking of scots pine. This has been successful in some locations and not in others. Continued deer culling will improve natural regeneration. We will also look at the use of scarification to encourage natural regeneration where it is not occurring.

## 6.8 Zone 5a- Central Glen Affric and Glen Cannich

### 6.8.1 Key Features and Issues

- Restrictions on planting Scots pine within the CPI
- Conflicting objectives with neighbouring sporting estates about deer populations
- Continued natural regeneration of non-native conifers

### 6.8.2 Management Objectives

- Caledonian Pinewood restoration
-

### 6.8.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| Caledonian Pinewood Restoration | Current plantation is of native seed provenance<br><br>Scots pine is regenerating | Moratorium on planting Scots pine<br><br>Deer browsing pressure<br><br>Natural regeneration of non-native conifers | See Appendix 14 Deer Management Plan and Map 16 Deer Management<br><br>Non-native conifer regeneration will be removed as it occurs |

### 6.8.4 Management Prescriptions

This zone has areas of mature Caledonian pinewood with areas of good regeneration of scots pine and birch. There is some natural regeneration of non-native conifers, especially in the Glen Cannich area, this will be cut on a regular basis as it occurs. Over time all non-native conifers will be removed. Deer will be managed as per Appendix 14- Deer Management Plan.

## 6.9 Zone 5b- Affric West

### 6.9.1 Key Features and Issues

- Highly designated for environment and landscape reasons
- 3rd party use of forest roads and bridges.
- Expanding recreation use on forest road as popularity of Affric-Kintail Way and events increases.
- Fenced enclosures successfully expanding area of woodland into remoter parts of the glen.
- Work with partners (Trees for Life) to establish a mixed species woodland within enclosures.
- Potential intrusion of fencelines on landscape character and reduction of the area's remote character – impacting on the special qualities of the NSA, a Wild Land
- Host to rare montane willow populations which require protection/ aim to expand.
- Birch has become well established in enclosures, whilst other species are less well represented
- Two new fences proposed to increased enclosed area.

### 6.9.2 Management Objectives

- Caledonian Pinewood restoration

### 6.9.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| Caledonian Pinewood Restoration | Extensive fence enclosures with successful regeneration of birch and Scots pine | Designations for SAC/SSSI and SPA and NSA and wildland designations.<br><br>Moratorium on planting Scots pine<br><br>Deer browsing pressure<br><br>Fenced enclosures create straight boundaries impacting the landscape and can also obstruct flying birds. | See Appendix 14 Deer Management Plan and Map 16 Deer Management<br><br>Where sites are established above browsing height the fences will be removed to reduce the chance of bird strike, reduce the visual impact and create more organic edges to the forest.<br><br>Two new areas will be fenced and planted with native broadleaves to extend the enclosed area and increase the wooded area.<br><br>There will be additional new planting within existing enclosures to increase woodland cover inside the fences. |

### 6.9.4 Management Prescriptions

This zone is made up of open ground with establishing native woodland in enclosures. There is some regeneration out with the enclosures however this is often heavily browsed by deer as is the open habitat. Deer culling will continue to reduce deer populations to a level that allows trees to regenerate.

Where enclosures are stocked to at least 1600 stems per hectare and above browsing height fences will be removed. The 2 new enclosures will be created by building new fences and planting native broadleaves within them. The fences will be marked to reduce the chance of bird strike. There will be landscape appraisals made of these fence lines to ensure they are fitting with the landscape (see Appendices 15 and 16).

There will be additional planting of native broadleaves within existing enclosures to increase forest cover in these areas.

## 6.10 Zone 6- Open Hill

### 6.10.1 Key Features and Issues

- Range of open habitat types including important heathland.
- Deer browsing pressure reducing the quality of the habitats and preventing the tree line from extending uphill.
- To the west an unfenced boundary allows deer immigration
- Includes Munro peaks
- Path access to high mountains is popular with walkers and mountaineers throughout the year.
- Montane willow remnant population
- Special Protected Area (SPA) for Golden Eagle

### 6.10.2 Management Objectives

- Maintain favourable condition for SAC, SSSI and SPA
- Increase area of montane willow

### 6.10.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| Maintain favourable condition for SAC, SSSI and SPA | Glen Affric SSSI is in favourable condition.<br><br>SPA is in favourable condition for Golden Eagle | Affric and Cannich Hills SSSI is in unfavourable condition due to over grazing.<br><br>The SAC is in unfavourable condition for the heathlands due to over grazing. | See Appendix 14 Deer Management Plan and Map 16 Deer Management for deer management in this zone. |
| Increase area of montane willow | Already completed 30 ha on Fasnakyle Hill | Sourcing willow means only small amounts can be produced in a single year.<br><br>Need to keep deer pressure down to allow montane woodland to establish. | Continue taking cuttings of willow in Glean na ciche, growing on and planting on Fasnakyle Hill<br><br>Continued deer culling to protect the trees and allow them to establish. |

### 6.10.4 Management Prescriptions

This zone is made up of open ground with a matrix of different habitats, including lochs, bog woodland, wet and dry heath and blanket bog. The Glen Affric SSSI is in favourable condition as deer browsing has been reduced in the past and so the habitats have improved. The Affric and Cannich SSSI is in unfavourable condition due to over grazing by deer.

Continued culling of deer will reduce browsing pressure to improve the SAC and SSSI qualifying features. See Appendix 14 and Map 16 for details on deer management.

There are no plans that would restrict access to the mountains for walkers and climbers.

## 6.11 Timber Transport

### 6.11.1 Key Features and Issues

- To restore Caledonian Pinewood all non-native conifers need to be removed
- Large volumes of timber need to be extracted on single track roads through the villages of Tomich and Cannich. This creates problems with local residents

### 6.11.2 Management Objectives

- Remove non-native conifers from the Caledonian Pinewood area.

### 6.11.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| Remove non-native conifers from the Caledonian Pinewood area. | Forest roads exist to most of these coupes.<br><br>Could be potential for new haulage route. Either through Kerrow or Corrimony.<br><br>Good quality timber in some coupes. | Lodgepole pine infected with DNB has low timber value and minimal brash for machine floatation.<br><br>DNB could be transferred to the rest of the Caledonian Pinewood unless Lodgepole pine is felled and removed.<br><br>Non-native conifers will seed in to the Caledonian Pinewood unless removed.<br><br>Large volumes to be hauled on single track roads through Tomich and Cannich. | The volume of timber harvested each year will be an average of 30,000m$^3$ for the first 10 years of the plan. This would be approximately 4 timber wagons per day. |

### 6.11.4 Management Prescriptions

The communities of Cannich and Tomich are very concerned about timber traffic through the villages. The felling coupe sequence has been designed to fell an average of 30,000m$^3$ per year for the 10 years of the plan. This equates to approximately 4 timber wagons per day. Map 14 Timber Haulage Routes indicates the volumes to be hauled along the 3 different routes over the plan period and in to the future.

This has been consulted with the community to show the plan over the next 10 years. There could have been options to reduce the annual felling volume and fell them over a longer period however this will take longer to remove non-native conifers from the glen and remove the DNB infected Lodgepole pine.

There may be options in the future to create a new timber haulage route from Upper Guisachan through the RSPB reserve at Corriemony or through the open hill ground to exit through the Kerrow east block. These will be investigated with relevant land owners as options for the future.

## 6.12 Flood Management

### 6.12.1 Key Features and Issues

- Cannich Village is not a SEPA Potentially Vulnerable Area or Objective Target Area but the community have raised the issue of flooding and if the scale of felling in Glen Affric could increase the flood frequency and severity.

### 6.12.2 Management Objectives

The felling and restocking programme will not increase the frequency and severity of flooding events in Cannich, Tomich and Glenurquhart.

### 6.12.3 Analysis and Concept

| **Objective** | **Opportunities** | **Constraints** | **Concept** |
|---|---|---|---|
| The felling and restocking programme will not increase the frequency and severity of flooding events in Cannich, Tomich and Glenurquhart. | Controlling felling and restocking programme could reduce flood risk.<br><br>Peatland restoration will improve water storage and therefore reduce peak flows.<br><br>Woodland creation will increase rainfall interception and soil filtration, reducing surface runoff and therefore reducing risk of flooding. | Need to remove non-native conifers from the Caledonian Pinewood.<br><br>Deforestation of quarry areas will increase surface water flow. | **Glen Affric Catchment**<br>SEPA have not identified this area as a Potentially Vulnerable Area however Tomich has been known to flood occasionally. All forestry activity in the glen will follow normal UKFS guidelines which include slowing the flow of water through good riparian and buffer management<br><br>**River Cannich Catchment**<br>SEPA have not identified this as a Potentially Vulnerable Area. However Cannich Village is identified locally as an area prone to flooding and it is understood that the source is river flooding from River Cannich. There is minimal felling planned in Glen Cannich. Also all activity will follow the UKFS guidelines, which will slow the flow and help reduce peak flow at Cannich village. Of course, if during the development of the plan further opportunities arise to contribute to flood risk management, we can explore these with stakeholders and regulators at the time.<br><br>**Glen Urquhart Catchment**<br>Drumnadrochit is within SEPA's Inverness and the Great Glen Potentially Vulnerable Area and SEPA have identified the town as an Objective Target Area for river flooding. The forest plan occupies a small area (around 400ha) at the top end of the catchment upstream of Drumnadrochit. The plan for this area is to remove non-native conifers, replant with native broadleaves and Scot's pine and |

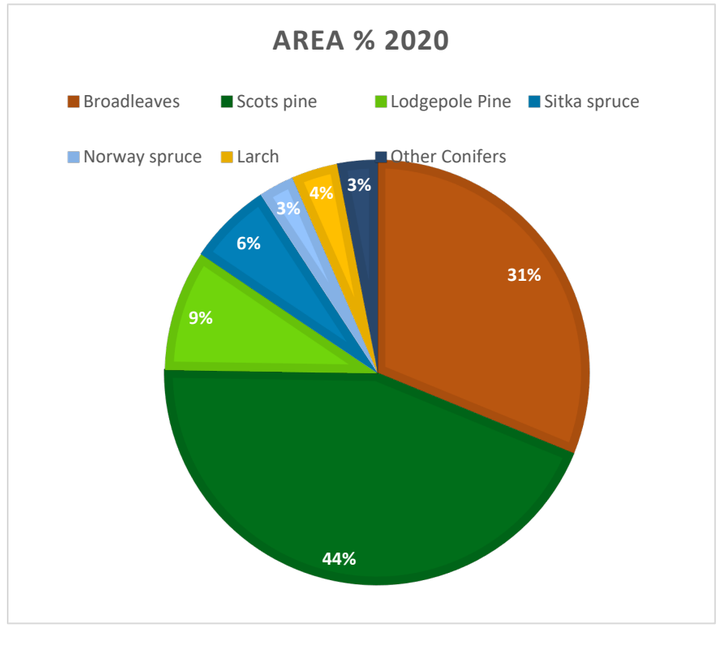
| | | | |
|---|---|---|---|
| | | | restore peatland where soils and topography are suitable. Whilst the removal of trees can have a negative effect on peak flow, because the area is only 400ha of the 14,759ha catchment, the effect on peak flow at Drumnadrochit is unlikely to be significant. Additionally the activity of peatland restoration should at least partially offset the local effect on peak flows through drain blocking etc. Other forestry in Glen Urquhart will continue to provide benefits to slowing the flow in the River Enrick and to Drumnadrochit. |

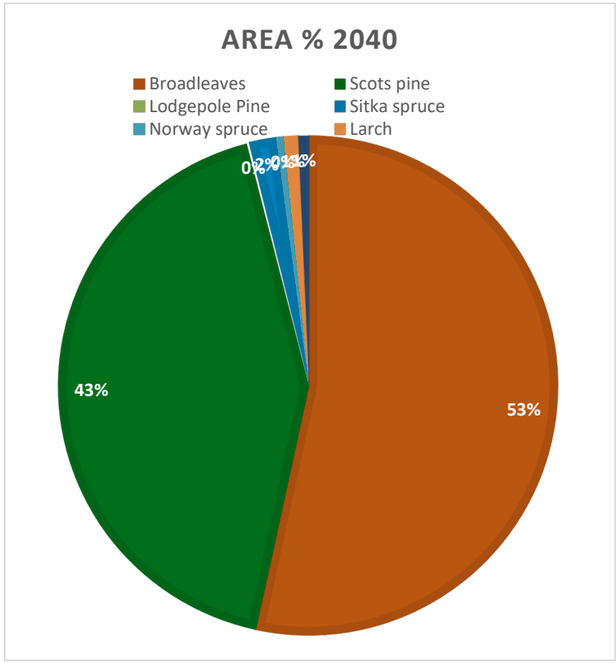
## 6.12.4 Management Prescriptions

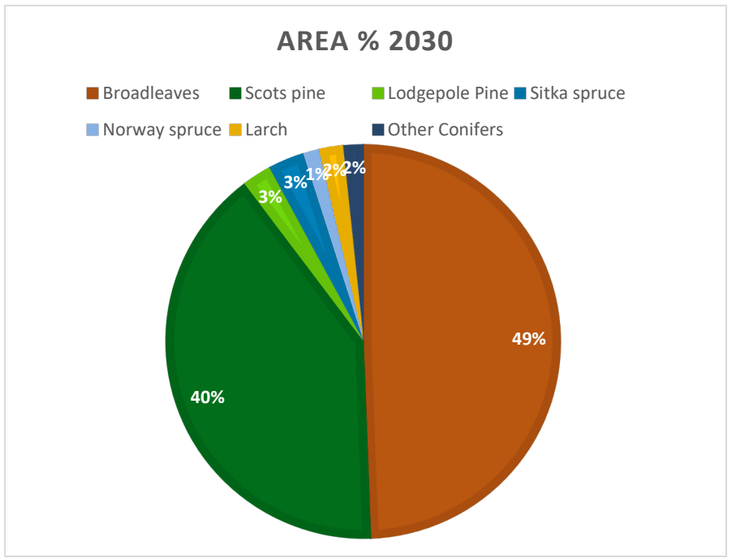
Clearfelling in the Land Management Plan will not exceed 20% of the forest area at any time. Restocking through planting and natural regeneration will re-establish forest cover as soon as possible which will reduce the risk of flooding. Peatland restoration at Upper Guisachan and Beinn a Mheadhoin will reduce flood risk (in a small way) within the Glass and Enrick catchments.

# 7.0 Land Management Plan Proposals

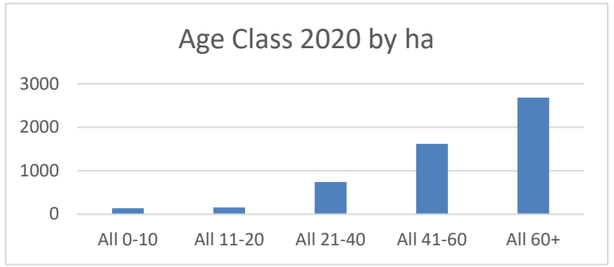
## 7.1 Species Composition

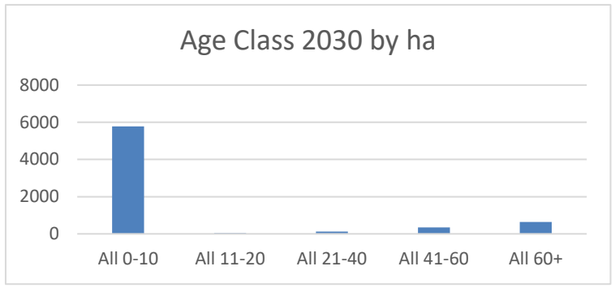


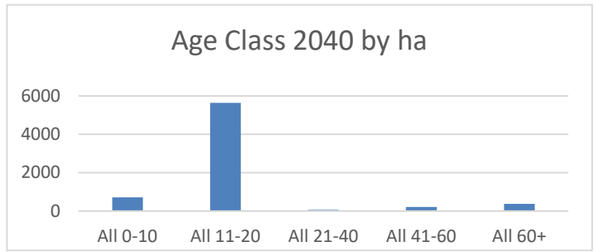




## 7.2 Age Composition






## 7.3 Scale of Proposed felling areas

Total Forested Area: 7485

| Felling | Phase 1 | % | Phase 2 | % | Phase 3 | % | Phase 4 | % | Long Term Retention/ Minimum Intervention/ Natural Reserve | % | Area outwith the 20yr plan period | % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Area (ha) | 710 | 9% | 485 | 6% | 365 | 5% | 391 | 5% | 5379 | 72% | 155 | 2% |

## 7.4 Production Forecast