# Appendix 1 - Background information

# Site and woodland description

# Location, aspect and general composition

The forests - and adjoining open ground - of Ardintoul, Bernera, Moyle, Ratagan and Leachachan form the Glenelg Peninsula Land Management Plan area - situated on the west coast mainland of Scotland opposite the Isle of Skye, with shores onto the Kylerhea Narrows, Loch Alsh and Loch Duich. It covers a total of 2,678 ha and is bounded by small settlements at Ratagan, Letterfearn, Totaig, Moyle and Ardintoul with several additional disparate properties/neighbours (see Map 1 – Location)

# Landform

The forests of Ardintoul and Ratagan are on the north-east facing coastal slopes of Beinn a' Chuirn, a rugged massif rising to a height of 603 metres above sea level. The steep slopes of Sgurr a' Bhraonain at the southern end of this coastal flank rise above Ratagan village (afforested slopes to the treeline) with a separate south-west facing forest area at Moyle within Glen More. The separate (more westerly) Ardintoul/Bernera block has extensive conifer afforestation on the mid-contour slopes of Beinn a' Chuirn, Beinn Fhada and Glas Bheinn – where the terrain characterised by a series of broad terraces leading down toward the coast where native woodland occupies a short, precipitous slope fringing the loch shores.

#### Elevation

The LMP area lies between sea level and 580 m above mean sea level (Beinn a' Chuirn). Afforestation is to maximum 310 m above m.s.l. on the slopes above Loch Duich.

# Neighbouring land use

There are a number of residential houses neighbouring the forest (within settlement zones: Ratagan, Leachachan, Letterfearn and Druidaig), by land under crofting tenure at Moyle and where the LMP area bounds common grazings within Glenmore (i.e. extensive grazed unimproved moorland) and by farmland at Bernera (livestock grazing and native woodland scheme).

The Druidaig and Beolary estate has (deer) sporting interests. There is a fish farm situated just off shore at Ardintoul although there are no longer staff premises/accommodation and the few houses there are seasonal let/holiday homes (having right of access through the FLS block from Glen Bernera to reach these properties).

# Geology, soils and peat

# Geology

The Moine Thrust (containing very rare rock type eclogite) runs through the north-east of the Ardintoul/Bernera block of the LMP area. No planting will occur within 10 metres of any important exposed rocks as per guidance from Nature Scotland. There are two un-notified Geological Conservation Review (GCR) sites within the LMP boundary. These are Totaig (Moine interest) and Glen More (Caledonian igneous interest). These sites have no statutory protection but are still considered of national interest. Access to, and visibility of, significant rock outcrops will be maintained with no additional afforestation proposed by the LMP.

The majority of the Ratagan/Leachachan block is on granite with syenite, granophyre and allied types (BGS Code 34) with low nitrogen availability.

The underlying rock in the Moyle section is Mica-schist, semi-pelitic schist and mixed schists (BGS Code 11) with moderate nitrogen availability.

The rock under Ardintoul is predominantly undifferentiated gneiss (BSG Code 1) with some Quartz-feldspar-granulite (BSG Code 10) in the north western part.

# Soils

Soil classification within the LMP area was originally derived from James Hutton Institute data captured at a scale of 1:250k (i.e. low resolution). FLS have surveyed most afforested terrain more exactly in recent decades (at 1:10k resolution). Maps 9a and 9b illustrate the distribution of soil types across the landholding. As is characteristic with soil formation over impermeable bedrock(s), soil structure, fertility and wetness is largely determined by terrain slope, aspect and prevailing climate: where gradients are slack or non-existent then peat formation is more common (bogs, mires, peaty gleys) whilst increasing gradients have influenced post-glacial vegetation cover and soil formation processes to give loamier podzols and surface water gleys.

# Climate and predicted climate change

The LMP area has an annual average accumulated temperature range of 1,000 to 1,200 day-degrees above 5°C. Typical annual rainfall is 1,963 mm (Glenelg) with an average annual soil moisture deficit of 50 to 100 mm (0 - 100 mm: classified as 'Wet'). Forest Research's Ecological Site Classification model summarises the site as having a Cool, Moderately Exposed and Wet climate.

Future climate predictions are difficult to make accurately to a local level. The Adaptation Scotland programme provides an overview of UK climate projections extrapolated from historic Meteorological Office climate data. Currently this modelling does not provide regional discrepancy projection(s) but draws broad brush conclusions for this region for the 21st century and is expected to result in:

Warmer summers and a longer growing season;

Fewer frost days and milder (overall) winters;

Increased instances and periods of summer drought;

Increased winter rainfall and summer rain storms;

Increased wind – currently anticipated as an increase in frequency of storm events as opposed to an increase in peak wind speeds.

Forestry has a significant role to play in mitigating (or not) the effects of climate change. Building resilience against extreme weather events underpins all our proposals but is particularly relevant within the Glenelg Peninsula LMP in relation to tree health (susceptibility to future pest/disease threat) and protecting overhead power line networks, public road infrastructure, water courses and settlements from slope and tree/forest stability concerns within their vicinity.

#### Key habitats and species

Notable EPS, Scottish Biodiversity Strategy species priorities and actions supported by this LMP: Black grouse, Raptors, Pine marten, Otter, Juniper, Bats, Badger, Pearl Bordered Fritillary, Slender-striped Rufous, Common toad and Water vole.

Notable Scottish Biodiversity Strategy habitat priorities supported by this LMP: Blanket bog, Upland heathland (wet and dry heaths), Upland birchwood (NVC W4 and W11 but some localised W7 and W17 character)

Non-native Species within this LMP: Rhododendron ponticum, Buddleia species

Plantation on Ancient Woodland Sites:

# Hydrology

Under SEPA's River Basin Management Plan (RBMP version 3) there are currently no anticipated pressures or actions required against Forestry, or any land management category, for surface or ground waters within, adjacent to or downstream of the LMP area.

#### **Surface Water**

Three waterbodies adjoining the LMP area are monitored under SEPA RBMP and their historic and current (2021) condition given in the following table.

Water body ID	Water body Name	Overall Condition 2013 - 2020	Overall Condition 2021	Condition Objective 2027
20429	Glenmore River	Good	Good	Good
200352	Loch Alsh	Good	Good	Good
200111	Loch Duich	Good	Good	Good

Other surface water bodies in the Plan area (e.g. burns and lochans) are smaller than the threshold for baseline monitoring (only rivers with a catchment area >10 km² and lochs with surface area >0.5 km²) and are therefore not classified under the Water Framework Directive.

# **Ground Water**

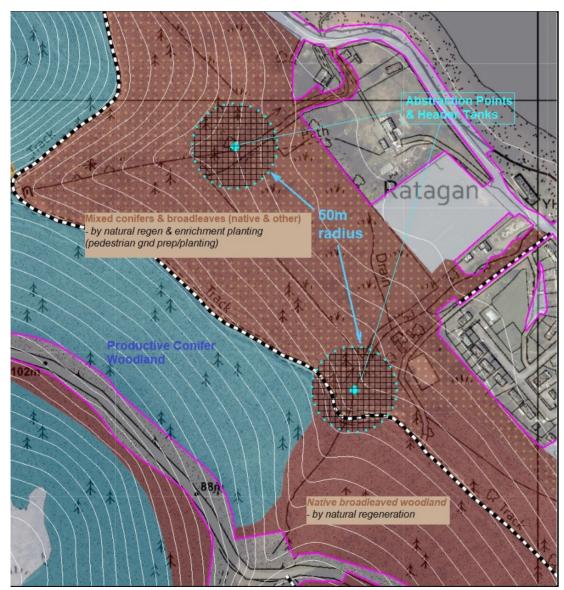
The LMP lies within the Wester Ross, Assynt and Kintail groundwater zone (ID: 150700) with Current Condition – last monitored: 2020 – as Good.

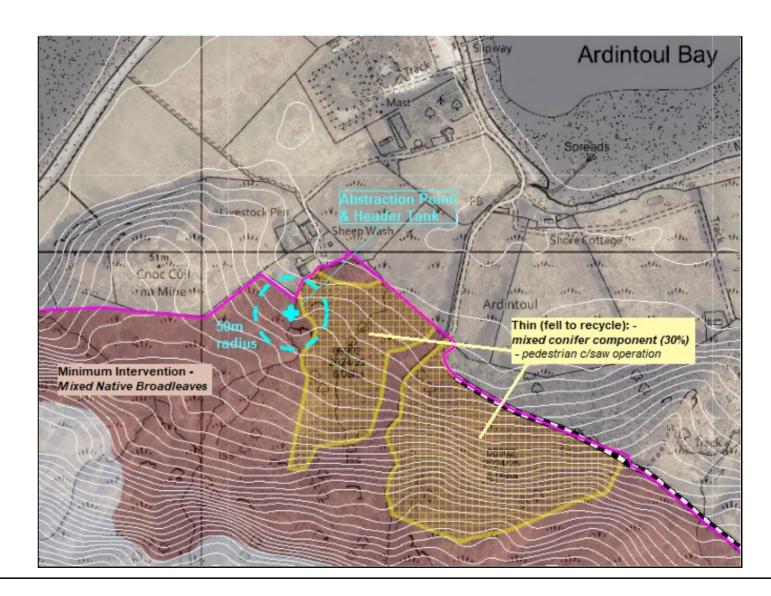
# **Flooding**

Glenelg Peninsula LMP area lies within SEPA's Highland and Argyll Flood Risk Management Plan area (2021) and there are no Target, or Potentially Vulnerable, Areas identified for flooding within this area.

# **Private Water Supplies**

Most historic private water supplies situated within FLS forest ground for communities along the Loch Duich shoreline have been superceded by installation of a public water main in the early 2000's. Two abstraction points are still in place (indicated on left hand map below). Other remote properties around the boundaries of FLS' landholding have either abstraction points and catchments outwith FLS ownership (and influence) or else utilise boreholes (also situated outwith FLS land) to provide domestic water supply. One surface water catchment abstraction point is in use at Ardintoul (right hand map below). Both maps illustrate the forest habitat that exists (and – in the instance of Ratagan – is still naturally regenerating) within their proximity. There is some proposed conifer felling proposed within the notional 50 m buffer zone of the Ardintoul abstraction point within Plan period (see LMP section 2.3) and enforcement of UKFS Forestry and Water guidance (2017) as well as contractors following at least the minimum conditions stipulated in the Forestry and Water Scotland 'Know the Rules' best practice guidelines.

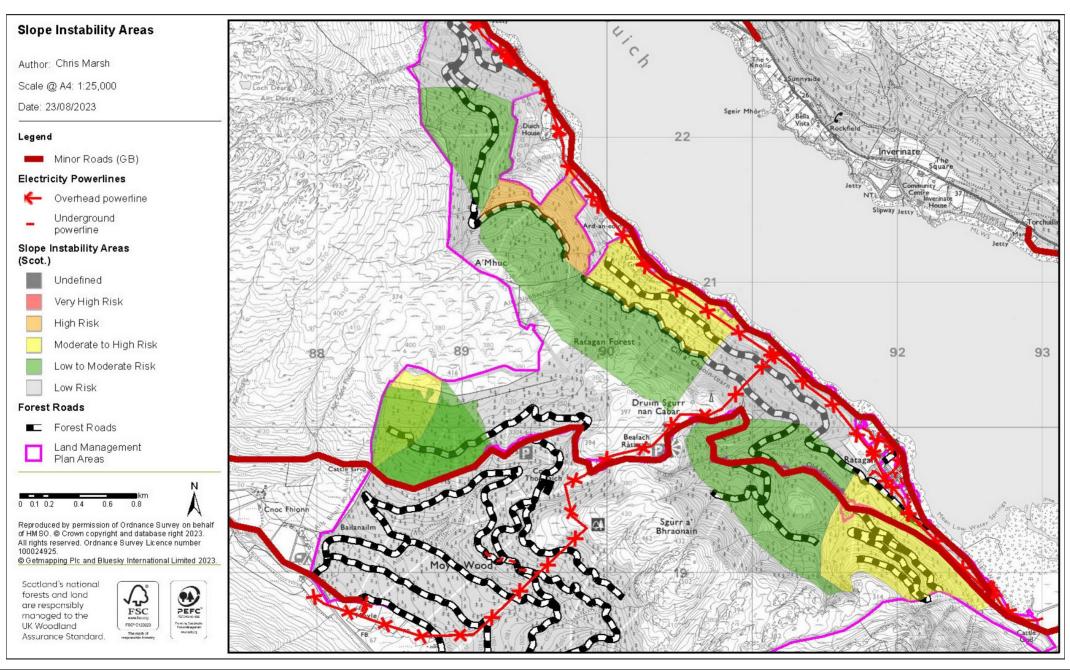




# Steep ground assessment

The steepest slopes – often with mature/maturing productive woodland growing - are located in the Ratagan and Leachachan forest areas, above Loch Duich and its shoreline settlements, in close proximity to the sole overhead 33 kV powerline supplying these communities and two council-defined Lifeline public roads: the coastal Ratagan-Totaig road and C1223 Shiel Bridge-Mam Ratagan-Glenelg road. FLS commissioned geotechnical surveys of these slopes (2013) to arrive at an understanding of where the *hazard* of instable slopes and the associated *risks* posed to infrastructure, people and the environment are and classifies these by severity. This has allowed consideration of a programme of remedial restructuring work, prioritised to address and alleviate the most serious hazard zones and – in so doing – reduce the risks posed into the future. FLS' *Technical Guidance Note for Long-term Management on Steep Slopes* (2015) is used to inform this process.

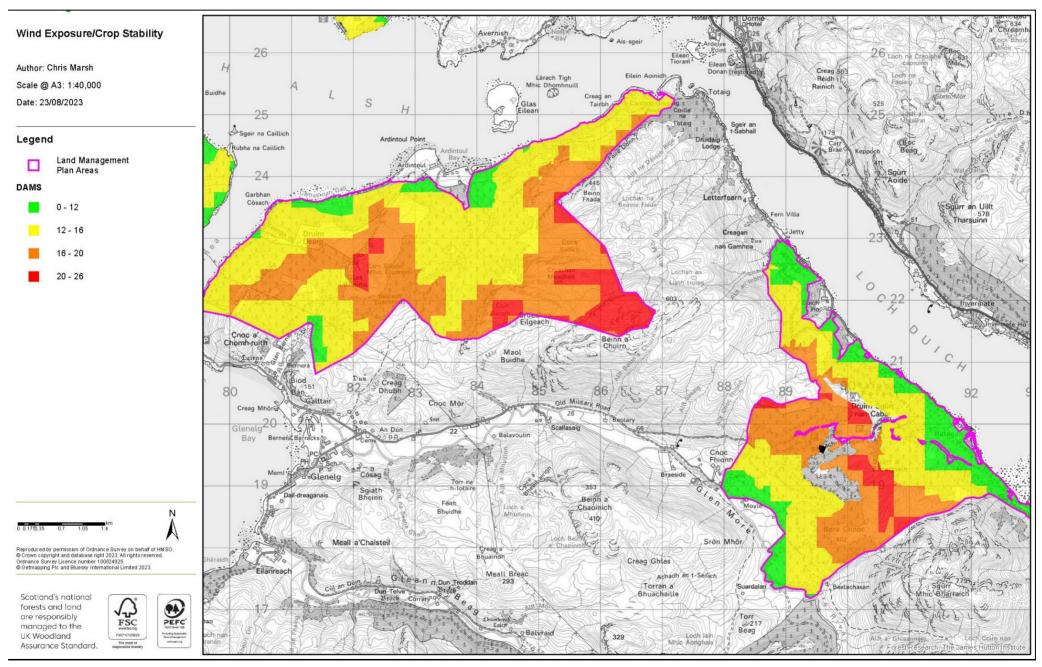
This LMP's **Map 2** illustrates the slope instability areas within the wider overall context of issues and constraints pertaining to FLS land. The map below shows the individual geotechnical survey areas and their derived instability classification. The commissioned survey work also identified specific 'point hazards' within each survey area that will require resolution in pre-operational planning of proposed civil engineering or felling works. The survey reports also recommend each specific felling operation be preceded by more detailed operation-focused assessment of how practical works might best be orchestrated or stipulating additional mitigation measures required to ensure work is done in the safest and most effective way to achieve objectives.



#### Windthrow risk

(see map below)

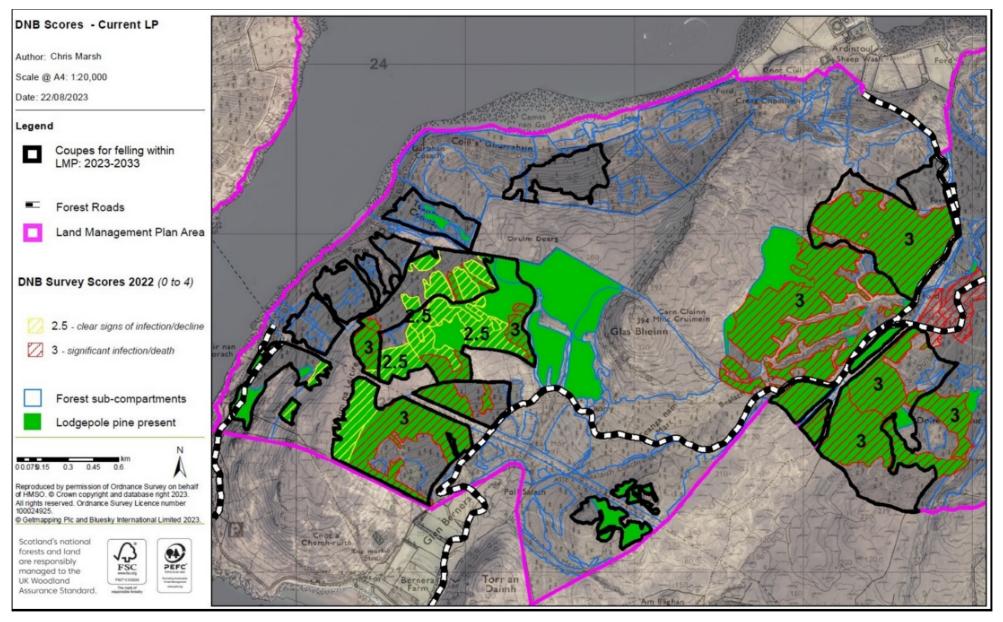
The majority of soils in the LMP area are suitable for growing productive timber tree species with only shallow to moderate rooting depths. Afforested upland areas have a DAMS (exposure score rating) in the range of 17 to 20 and consequently are inappropriate for a thinning management regime simply in terms of maintaining crop stability in such exposed locations until maturity/timber fruition. {Note: thinning is most typically prescribed when the DAMS score is 16 or less}. Afforested hill flanks/slopes typically have 14 to 16 DAMS scores but productive timber trees presently growing there are either too mature to initiate a thinning regime and/or the slopes are too steep for thinning to be practically and routinely undertaken. The most accessible terrain with comparative shelter is the lower ground within Leachachan and Moyle forest areas. Here DAMS range from 12 to 15 - offering the best opportunity for introducing thinning on younger crops. However Moyle tree crops in these areas are too mature to initiate thinning now (though future productive timber crops established here may adopt such management). The majority of the Leachachan forest area is ultimately to be incrementally restructured to a largely native woodland composition by sequential clearfelling as non-native timber crops mature there and (native) natural regeneration is encouraged to replace these.



#### Plant health

FLS Tree Health Governance was revised in 2022 – essentially switching the approach to managing pest and diseases as 'business as usual' instead of the previous approach based upon tackle specific threats with focused action groups. As a land manager FLS has Legal and Good Forestry Practice responsibilities under the UK Forestry Standard with suspected pests and diseases reported to Plant Health Inspectors and forestry authority (Scottish Forestry) and the biosecurity measures recommended by the authority carried out.

Dothistroma needle blight has caused deterioration of much of the lodgepole pine woodland in the Ardintoul/Bernera block from the earliest years of this century and signs of infection have increased and spread incrementally since this time in most pre-2000-afforested stands (see map below). The DNB Crop Condition Score - graded in half-point intervals from 0 (Healthy) to 4 (crop dead/high mortality) - records all infected areas as 2.5 or 3 at last survey (2022) - a total area of 188.5 ha. This 2024-2034 LMP proposes clearfelling 137.7 ha of these crops: 21.4 ha for productive conifer restocking, 7 ha for native woodland restocking and 109.3 ha for peatland restoration - leaving just one 39 ha, and one 11.3 ha, contiguous area scheduled for phase 3 felling (2034-2038).



Chalara ash dieback is evident on several young ash in mixed native woodland within the LMP area. There are no sizeable ash trees in the vicinity of any forest roads or trails that might represent a future safety concern should infection spread still further. There are no additional biosecurity measures stipulated to minimise contact or spread by forest users.

Phytopthera ramorum – whilst not recorded on the landholding – is a major fungus-like pathogen affecting larch and spreading northwards from an initial infection zones in the south and west of the country. The current FLS Larch Strategy (revised January 2022) for this vicinity/landholding is both reactive and pre-emptive as follows:

Eradicate the disease by felling infected trees and areas of trees notified for felling by Scottish Forestry to the timescale enforced by a Special Plant Health Notice;

Decrease the area of larch woodland across the national forest by 20% (of a 2021 baseline) by April 2027;

Construct access to greater than 80% of all larch coupes by April 2027;

Fell all difficult and complex larch coupes by 2032.

Currently there is a total of 40 hectares of larch trees within the landholding of which 23.6 ha (60%) is proposed for felling by 2034. Larch trees/woodland still present in 2034 (at Plan expiry) are easily accessible from the forest road network should a *P. ramorum* infection occur and a consequent SPHN be served requiring prompt felling.

# Fire risk

(see also LMP section 4.9)

Risk Source	Risk Level – High/ Moderate/ Low	Mitigation
Ignition Sources		
History of wildfire	Moderate – Two instances of heath/forest fire arising from uncontrolled muirburn (neighbouring ground) in the last twenty years.  No history of wilful fire raising or antisocial behaviour at public thresholds.	Emphasise FLS' expectation that planned and notified muirburn be controlled at all times (i.e. adequately resourced) as per Muirburn Code.  Precautionary signage at public thresholds if fire raising becomes a concern.
Public access, Visitor numbers	Low- Low visitor numbers, short duration activities (minimal camping)	Precautionary signage at public tiresholds if the raising becomes a concern.  Precautionary signage at thresholds during high fire risk periods of weather.
Fuel	20W Visitor Hambers, short daration activities (minimal camping)	Trecautionary signage at thresholds during high hier risk periods of weather.
Surface fuels in young stands before canopy closure	<b>Moderate</b> - Mix of age structure throughout forest - surface fuels in young stands before canopy closure	Manage forest as a mosaic of age structures to minimise fuel load at any one time. Broadleaved woodland in riparian corridors will act as buffers.
Surface fuels in open or felled woodland	Moderate - Mix of open or thinned woodland as well as closed-canopy stands	Maintain minimum fallowing (5-years on account of pine weevil populations post-harvesting). Proactively restock non-regenerating woodland coupes.
Dry understorey or ground vegetation	<b>Moderate</b> - Low to medium amounts of dry understorey or ground vegetation, especially dead vegetation after winter	Maintain varied age structure throughout forest, restoration of peatland and establishment of riparian/broadleaved buffers.
Tree health damage, die-back	<b>Low</b> – Comparatively healthy trees.	Monitor tree heath and manage diseased/ damaged trees
Tree mortality, windthrow, deadwood, or brash	<b>Low</b> – Comparatively low levels of combustible deadwood and post-felling brash	Monitor tree health and morbidity extent with respect to any fuel load increase. Remove brash if deemed a risk in areas where fire raising likely.
High-risk (flammable) species (e.g. heather, gorse, young conifers)	<b>Moderate</b> – Gorse and extensive areas of conifers growing on slopes above settlements. Heather moorland on upland plateaus/hill summits.	Maintain mature trees and particularly Scots pine element within forest.  Control extent of gorse along roadsides when prolific and continuous
Free draining, organic or dry peat soils	<b>Low</b> – Predominantly peaty and surface water gleyed soils on afforested ground. Wetter gleyed soils, mires and deep peats occupying much of the open ground.	Restore deep peats and keep wet flushes open.
Site Conditions & Land Use		
Slopes, gullies, south facing slopes	<b>Low</b> – Prevalent weather is (winter) frequently and persistently very wet, (spring/summer/autumn) mainly cool and humid (though with occasional protracted dry spells).	Restock with species appropriate to soil type and conditions to ensure health trees. Riparian buffers and smaller coupes to reduce risk in event of fire.
Flammable habitats or a history of wildfire nearby	<b>Low-Moderate</b> – open moor and forest as well as agricultural land. History of muirburn on adjacent landholding.	Manage as a healthy mosaic of habitats and species. Establish broadleaved buffers along bisecting watercourses and bordering settlements. Maintain good neighbourly relations and be vigilant during muirburn season.
Assets and values at risk		, , , , , , , , , , , , , , , , , , , ,
Proximity to people, property, utilities, or infrastructure	Moderate – Ratagan-Totaig road has a comparatively high number of adjacent private properties. Relatively few other buildings/settlements at close proximity to fire-susceptible woodland. A small number of low voltage (at low height) and a main high voltage line (& pylons) located within managed open ground wayleaves corridors (reduced fire susceptibility).	LMP has designed open, predominantly broadleaved woodland acting as buffer close to private properties. All settlement areas are below afforested areas.  Allow routine vegetation control within wayleave corridors.
Ecological, historical, or FLS business assets	<b>Low</b> - No designated habitat with respect to flora and fauna. Natural Reserve areas are coastal broadleaved woodland. One scheduled monument (stone built broch).	
Response		
Remote site, no on-site staff (late detection)	<b>Low</b> – Neighbours/ local residents and recreation users would detect fire early.	Increase site surveillance during periods of very high or extreme fire danger.
Accessibility constraints for fire fighting	Low - Good site access, good roads and load bearing bridges, hard standings	Maintain roads and access
Proximity to water sources	Low - Water source nearby. Insurance for fire-fighting costs including helicopter response	

FLS continues to work closely with the Scottish Fire and Rescue Service (SFRS) to prevent and tackle wildfires that threaten Scotland's National Forests and Land. FLS support SFRS in their lead role for fire prevention and suppression through creating annual Fire Plans, maintaining a year-round staff duty and response rota, and providing SFRS with additional logistical support at incidences of fire on or close to FLS land. FLS' primary objective is always to protect people's health, safety and wellbeing.

Warmer summers, with increased incidences of droughty periods, will increase the periods when vegetation (standing biomass) can potentially succumb to wildfire. Areas of open vegetation – including upland heath, fallowing ground and young restocked/regenerating native woodland – have an increased capacity to burn on account of the quicker drying characteristics of these more open, shorter stature habitats and constituent plants vis-à-vis established woodland. As a consequence, instances of fire raising (e.g. unsolicited fires started in or within the vicinity of car parks and visitor thresholds/public access corridors) needs to be regularly monitored for and control measures (including precautionary signage) adjusted accordingly to minimise any increased potential wildfire risk to extensive areas of vulnerable establishing woodland.

Deer/Herbivore Management				
see Appendix 8 - Deer Management Plan.				

# Landscape character and visibility

The two forest blocks that comprise the Glenelg Peninsula LMP area: Ardintoul/Bernera and Moyle/Ratagan/Leachachan clothe the seaward slopes of Beinn a' Chuirn - a rugged massif located between the coastal strath of Glenmore and the sea lochs of Loch Duich and Loch Alsh. Most of the key points for viewing the LMP area are external vantage points situated along main road A87 – the main tourist route to Skye. This Plan has identified and utilised five viewpoints (see **Map 1**) for assessing the visual impact of the LMP's management proposals – and presented as **Appendix 5** – Visualisations.

The following detail summarises the main Landscape Character Types (LCTs) within, or pertinent to, the Glenelg Peninsula LMP area (illustrated spatially on **Map 10**):

<u>Rugged Coastal Hills</u> – is a transitional LCT of low rocky hills and plateau which occurs on broad coastal promontories on the Lochalsh mainland. The far western part of the LMP area is located in this LCT. Key relevant characteristics are:-

- Low, coastal hills of 200-300 metres formed on variable underlying rocks.
- Divided by east-west glaciated valleys and fjords.
- Coastal location, but sheltered by islands, and mainland peninsulas to the north.
- Generally well covered with a mosaic of forest plantations, woodlands, heath and grasslands.
- Forestry and tourism are the dominant land uses.
- Settlement is largely absent, and roads usually coastal and single track.
- Sense of isolation on long, cul-de-sac routes.
- Coastal location affords views to islands, fjords and surrounding mountain ranges.

The <u>Rugged Massif</u> LCT occurs to the east of the plan area, covering a large proportion of the mainland and parts of south-east Skye. The majority of the LMP area is located in this LCT. Key relevant characteristics are:-

- Massive form of hills and mountains, usually forming ranges.
- Broad rugged summit areas, occasionally with clearly defined peaks.
- Broad bases and gentle, convex foot slopes.
- Extensive ranges divided by u-shaped valleys with moraines, screes and exposed rock.
- Slopes with shoulders divided by corries and u-shaped valleys with burns and waterfalls.
- Occasional features of undulating rocky plateaux, and areas of smooth moorland and peat hags.
- Margins include large scale plantations.
- Limited evidence of human activity in the interior, typically tracks for deer stalking, and reservoirs.
- Extensive high level views of the vast mountainous interior.
- Wild character due to sparse habitation, natural landform and water courses, and sense of remoteness.

The eastern part of the LMP area is located on the edge of the mountainous <u>Interlocking Sweeping Peaks</u> LCT. The mountains tend to have defined peaks and ridgelines, distinguishing them from the surrounding, more rugged, massive mountains. Key relevant characteristics are:-

- Glaciated mountainous landscapes with pyramidal rock peaks.
- Sweeping, concave slopes with screes plunging directly into deep glens or lochs.
- Mountain peaks and slopes often seen as repetitive elements within a group, appearing to interlock and overlap when viewed along glens and fjords.
- Fragments of broadleaf woodland along water courses and the coast, naturally relating to landscape form.
- Landcover of lower slopes of grassland and heather.
- Infrequent but prominent coniferous woodland plantations on accessible foot-slopes.
- Largely uninhabited and few roads or structures.
- Low level views are enclosed, directed upwards or along glens and fjords.

#### Public access and recreation

Two ScotWays Rights of Way (ROW) are present within the LMP area – one a coastal trail from Totaig to Glenelg, the other leading from Ardintoul Bay in a southerly direction over external hill ground and down to Bernera. A circular route – encompassing the Ardintoul/Bernera forest road and the Ardintoul-Glenelg coastal trail - is defined by the local authority as a Core Path. These trails are illustrated on LMP Map 2. The forest roads of Leachachan, Ratagan and Moyle are popular walking routes for the local community as well as tourists/summer visitors.

There are two formal car parks within the LMP area – both situated towards the highest point of the Mam Ratagan public road. The lower car park also has picnic tables.

#### Historic Environment

The FLS Heritage record for the Glenelg Peninsula LMP area is itemised here by general location:

**Coire na Comhstri** (NG 8058 2333 – *undesignated farmstead*; NG 8049 2318 and undesignated *unroofed building*) – A farmstead, comprising two unroofed buildings, and a separate unroofed building both depicted on the first edition of the OS 6-inch map (Ross-shire 1880, sheet cxxvii), but not shown on the contemporary OS 1:10,000 map (1971).

**Ardintoul** (NG 8304 2372 – undesignated *Mine*) – the site of old workings of a small talc mine (active 1931-'33) can still be discerned in overgrown grass- and woodland SW of fields and old farm steading at Ardintoul.

Ardintoul Dun (NG 8434 2355 - undesignated stone circle) - a very low, tumbled rock circle on a hillside knoll believed to a dun (not highly conspicuous).

Ardintoul (NG 8461 2319 - undesignated stone structure) - identified in 2022 during pre-harvesting walkover survey: the low remains of a small rectangular building.

**Caisteal Grugaig** (NG 256 860 – scheduled broch) – a comparatively well-preserved broch standing a maximum height of four metres and clearly demonstrating several classic broch structures/features. The designation extends to a total 45 x 45 m area incorporating the broch and an area in which traces of activities associated with its construction and occupation still survive. The monument is of national importance for its potential contribution to an understanding of prehistoric defensive architecture and domestic life on account of the component features and state of preservation.

**Ob Inbhir Sgeinnidh** (NG 8702 2534 – undesignated *unroofed building*) – unroofed building (period unassigned) depicted on 1<sup>st</sup> edition OS 6 inch map (1880) but not on contemporary OS 1:10k map (1972).

Ratagan Forest (NG 9078 2073 – undesignated *unroofed shieling hut*) – single unroofed (possible) shieling hut depicted on 1st edition OS 6-inch map but not contemporary maps.

**Cill a' Chaoin-tearn** (NG 908 207 – undesignated **burial ground and chapel**) – site of an old chapel dedicated to Saint Kentigerna and associated now-disused, burial ground – the last burial taking place about 1870.

Fort Augustus – Bernera Military Road (NG 930 186 – undesignated *military road and bridges*) – General Wade's military road (18th century) shares the route of the modern road for the most part to the bealach Mam Ratagan. At two bends in this historic road there remains two early bridges at NG 9165 1940 and NG 9123 1966 - now isolated and disused due to having been superseded by the modern road with culverts. A short section of the military road between NG 9072 1988 and NG 9043 1980 is no longer discernible within the steep, afforested slopes (mature and windblown trees) below the bealach. This will be marked and conserved through any future forest operations.

An Allt na h'Inghinn bridge (NG 9071 1978 – unscheduled *ruinous C18<sup>th</sup> stone bridge*) – Wade's road bridge site discernible but not much now visible (@ 2009 FCS-commissioned survey).

**An Allt na h'Inghinn bridge** (NG 9166 1995 – unscheduled **single-spanned arched stone bridge**) – thought to be associated with military road to Bernera Barracks this bridge is situated further downstream (towards Loch Duich shoreline) than the other, ruinous bridge over this burn.

# **Invasive Species**

Invasive non-native species for the LMP area include *Rhododendron ponticum* and some Buddleia species. These species have been the subject of previous efforts to control, if not eradicate, them during the last Plan period. This has utilised glyphosate as a foliar spray on small plants and (for large *Rhododendron* bushes) cutting/dismantling and stem treatment of cut stumps with glyphosate.

In 2022, FLS produced a revised approach to prioritising rhododendron control across the national estate on account of the negative impact on biodiversity that this species poses to woodland and open ground habitat particularly on Scotland's oceanic west coast. Parts of the LMP area are now defined as Priority Rainforest Rhododendron area – where control is judged as making the biggest difference to landscape-scale biodiversity conservation. FLS are currently collaborating with other partners in an Alliance for Scotland's Rainforest project that intends new control measures to eradicate seed sources in the area.

# Renewable energy developments, utilities and other infrastructure

There are four telecommunications masts located, active and managed within the LMP area (defined by lease agreement):

# Ardintoul/Bernera block

Community broadband mast – with ancillary power cabling – on Glas Bheinn (NG 8194 2243)

# Moyle forest

Radio telecoms mast – with ancillary power cabling – at NG 8911 1916

#### Ratagan forest

Mobile phone telecommunications mast at NG 9094 2015

Mobile phone telecommunications mast at NG 9070 2017

There are horse stables – currently leased locally – at Ratagan (NG 9036 2131).

There is a former FCS campsite (now disused) at Saraig (NG 9018 2122) with a closed up toilet block.

The LMP area accommodates a number of overhead electricity lines – 33 kV (local supply) and 132 kV (longer distance power transmission) and are illustrated on Maps 2 to 6. This infrastructure is owned and managed by Scottish and Southern Electricity Networks with corresponding maintenance access rights established with FLS. At the time of LMP renewal, SSEN are proposing – through formal planning application – the replacement of the 132 kV line (running through part of the Ardintoul/Bernera block) with a new 132 kV line. The new line is intended to be constructed parallel and to the south of the existing line/wayleave corridor prior to the existing line being decommissioned and its infrastructure removed. The potential implications of this line replacement/relocation has been incorporated into the felling and restocking proposals of this Plan (Map 4a and LMP section 4.1.1: coupes 08001, 08002 and 08004): line replacement works could be integrated with mature forest harvesting proposed there and restocking undertaken subsequently. There is no net deforestation envisaged through powerline replacement/relocation as the new line requires an unplanted 80 m wayleave corridor however removal of the old line relinquishing an existing un-planted 80 m wayleave corridor which can then be afforested.

# Appendix 2 – Consultation Record

Initial intention to review the Glenelg Peninsula LMP was notified by email to the statutory and local stakeholders listed below (1/11/22) and a corresponding FLS webpage was established to host Plan revision documentation. The table below details subsequent contact/discussion between FLS and stakeholders since this time. Where formal responses were received by letter or email, they have been included here after the table.

Two public scoping meetings were also promoted locally and held (Glenelg & Arnisdale Hall, 9/3/23; Inverinate Community Centre, 6/3/23) with a summary of topics raised and discussion attached here also.

Some additional face-to-face meetings were undertaken with neighbours upon request and any subsequent communication pertinent to the LMP revision is also included within this appendix.

Consultee	Initial Notification	Response	FLS Follow-up	
Scottish Environment Protection Agency (SEPA)	1/11/22	Letter received by email 07/11/22 – not included here. Available on application to FLS Planning Forester at chris.marsh@forestryandland.gov.scot	FLS accept all relevant points raised and are incorporated into LMP text. Some points are not relevant this Plan area i.e. thinning controls, woodland creation techniques, fords, use of vole/tree guards.	
Scottish Forestry	1/11/22	No reply expected (inclusion in scoping is a pre-requisite and proof of FLS' efforts to engage with statutory and other stakeholders over LMP revision.		
Historic Environment Scotland (HES)	1/11/22	Letter received by email 17/11/22 – not included here. Available on application to FLS Planning Forester at chris.marsh@forestryandland.gov.scot	Accept all HES advice relating to SAM management and incorporate into LMP text — including requirement for prior consultation and consent with HES with regard to new forest operations proposed within the full extent of scheduled ground.	
Nature Scot	1/11/22	Letter received by email 07/11/22 – not included here. Available on application to FLS Planning Forester at chris.marsh@forestryandland.gov.scot	LMP includes recommended viewpt visualisations re NSA sensitivities and request to expand riparian wdlnd through felling/restocking phase. Compliance with UKFS and marine SAC consultation for all proposed coastal operations. FLS engaged in local DMG. No intention to restrict access or increase afforestation of GCR sites.	
Loch Duich Community Council	1/11/22	Email 15/2/23 — comm councillor suggesting a local meeting be held at Inverinate Community Centre to allow local discussion of FLS draft plans.	Meeting arranged and held at Inverinate Community Centre (9/3/23). Notes attached.	
Glenelg & Arnisdale Community Council	1/11/22	Email 10/2/23 – happy to hear a local scoping meeting is being held – asking for any promotional material for noticeboard/social media page.	Provided local meeting poster pdf by email and posted physical posters on village noticeboard and at forest entrances. Comm councillor attended public meeting at Glenelg Hall, 9/3/23.	
Highland Council (Forestry)	1/11/22	No response.		
Highland Council (Archaeology)	1/11/22	No response.		
Highland Council (Access Officer)	1/11/22	No response.		
Highland Council (Roads Operational Manager)	1/11/22	No response.		
SSE	1/11/22	Letter received by email 24/11/22 – not included here. Available on application to FLS Planning Forester at chris.marsh@forestryandland.gov.scot	Email 30/11/22 – noted the stipulation – and need for compliance – with the FISA and HSE guidance with respect to overhead 132kV line. FLS will adhere to guidance in all forest ops and any future afforestation plans.	
Glenelg Deer Management Group	1/11/22	No response.		
Skye and Wester Ross Fisheries Trust (SWRFT)	1/11/22	No response.		
Scottish Water	1/11/22	No response.		

Consultee	Initial Notification	Response	FLS Follow-up	
Kyle and Lochalsh Community Trust	1/11/22	No response.		
Glenelg & Arnisdale Development Trust	1/11/22	Represented at public scoping meeting at Glenelg Hall 9 <sup>th</sup> March 2023.	FLS to contact GADT at some later date (irrespective of LMP revision timescales) to joint walk and map/GPS the line of installed cabling for community broadband mast on Glas Bheinn.	
Lochalsh Trails Club	1/11/22	No response.		
Wester Ross Biosphere	1/11/22	No response.		
Mountaineering Scotland	1/11/22	No response.		
RSPB		Letter 28/11/22 – attached here.	Later correspondence (18/4/23, A MacLennan: RSPB Conservation Officer) to ensure seasonal WTE protection in active & future Ardintoul felling. Then site visit with FLS: agreed new WTE platform in adjacent woodland.	
Neighbour (Glenelg)		Email 8/2/23 – Keen to contribute to forest planning consultation, offered to provide and chase up local council/trust contacts re FLS' local meetings proposal.  Agreed to and hosted a face-to-face house meeting 15/2/23 to discuss neighbourly concerns.  Attended public meeting at Glenelg Hall 9th March.	Narrows and coastal woodland felling/regeneration objectives). Neighbours concerned over propose	
Neighbour 1 (Letterfearn)		Email 8/3/23 — Request FLS to maximise indigenous trees for wildlife and sustainability. Maximise connectivity and inter-connectivity of forest tracks and paths incl missing link between Leachachan forest road and Ratagan forest roads.	Email 20/3/23 – explaining where native woodland restoration is proposed in new draft Plan. Offered to pass request for new trails links to FLS Visitor Services for consideration (and recent local public meetings had also raised this).	
Neighbour 2 (Letterfearn)		Email 8/3/23 — Supports Trees for Life and re-wilding agenda, wants more natural regen in new Plan (and associated deer control, no use of plastic guards). Complaint about condition and waymarking of Totaig-Ardintoul trail (heard others share this view including tourists). Would like a connecting link between Leachachan and Ratagan forest roads.	int link to Visitor Services for consideration. Explained where natural regen is being used within LMP area for restoring native woodland and that deer control was critical to this success. Offered to meet face-to-face (no response).	
Neighbour (Ratagan)		Email 23/3/23 — Attended Inverinate Com Centre meeting and wanted to raise points re rainforest/oakwood restoration. Considers that monocultural birchwood not a good enough restoration objective (hazel, ash, oak, alder etc?). Keen to preserve integrity of old broadleaved woodland around Duich House conserved (and larch and spruce regen controlled).		
Neighbour (Duich House)		Email/text? 23/3/23 — sorry to miss local meeting. Keen to discuss neighbourly concerns.  24/3/23 Hosted face-to-face meeting at house — concern over scale, duration, landscape and possible flooding impact of forest plans in Leachachan block. Requesting more broadleaved species (in native woodland restoration) for disease resilience, use of larger transplants for quicker restoration. Concern at state of forest trail (Totaig-Ardintoul) and lack of trail link between Leachachan and Ratagan forest areas (a new bridge possible?). Also preference for leafier, winding trails not just 'industrial' forest roads. Concern for public road from timber lorries/haulage.	flooding, explanation of FLS native woodland restoration principles (i.e. no non-natives included) and intention, pass all trail and access link comments to FLS Visitor Services (as outwith Plan revision remit). Approval of imposition of any special conditions on, timber haulage on the public road is made by council TEC Service not FLS so any concerns should be raised with them.  Neighbour ultimately disappointed that the "public consultation" did not result in any adoption recommendations made.	

# Glenelg Peninsula LMP Revision – Spring 2023 – External Scoping

2 evening public meetings arranged:

Inverinate Hall 7pm Mon 6<sup>th</sup> March & Glenelg Hall 7pm Thurs 9<sup>th</sup> March

Advertised by **Facebook** posts: Loch Duich Comm Council, Glenelg & Arnisdale Dvlpmnt Trust and Kyle & Lochalsh Community Trust and posters on **Noticeboards**: Letterfearn, Ratagan, & Glenelg council noticeboards. Inverinate filling station, Glenelg shop and **FLS threshold posters** @ Totaig trail gate, Leachachan trailhead (tree), Glen Bernera forest gate.

<u>Meeting Format</u>: 4 A1 maps displayed: Colour OS 25k map; Current woodland/tree species distribution map; map of future woodland habitats objective (brown: native woods, blue: productive forests); a draft Felling map for 1st and 2nd five-years of Plan & the peatland restoration zones.

At the outset of both meetings, CM outlined extent of FLS ownership, current woodland/open ground composition, ongoing harvesting (Ardintoul), future habitats ambition (coastal and riparian native woodland increases but also productive forest zones). Main drivers for next 10 years: new SSE OHPL accommodation, continued rationalisation of large timber crops on steep Ratagan slopes, peatland restoration exploration, increased connectivity of native woodland (coastal + riparian).

# Meeting notes: Mon eve - Inverinate Comm Centre

10 people attended (8 Letterfearn/Ratagan, 2 Shiel Bridge) and FLS' Chris Marsh & Chris Nixon.

Questions/issues raised (and any FLS response):

- Poor state of Totaig-Ardintoul footpath (to be re-routed during felling, possibly re-routed later)
- Controls, responsibilities/liabilities re public roads/Shiel Bridge & timber haulage (explained Consultation Route status and purpose, some Timber Transport funding is upgrading some parts of the public road through Glen More). Some scepticism expressed that upgrade work is not sufficient or comprehensive enough to stop deterioration. (Contact council TEC Services).
- Seasonality of harvesting? (Any time of year unless wildlife and weather constraints)
- Use of local provenance tree stock in native tree planting? (Yes, always use of local "Z105" provenance if available or else next nearest provenance zone).
- Regenerating spruce in NBL regen zones: is this being managed? (Yes, it is monitored whilst native trees establishing, conifers to be cleared when practical to clear all in one or two operations not expensive, repeated part-clearance over many years).
- Any Atlantic rainforest? (No, mainly upland birchwood species prescribe tho' oak, ash, elm hazel is present in some ravines)
- Any possibility of a new link path between ends of parallel Ratagan forest roads? (this had been considered b FLS previously but terrain side slope making this difficult, will however take the meetings suggestion to FLS Visitor Services for further thought).
- Is FLS felling of all conifers on coastal slopes? (No: one stand to be left for long term as potential new sea eagle nest site).

# Meeting notes: Thurs eve - Glenelg Hall

Six people attending (1 local dvplmnt trust, 1 comm councillor, 3 residential neighbours + FLS Chris Marsh, Chris Nixon & Becky Milne).

Questions/issues raised (and any FLS response):

• Growing local awareness and concern re a recent SSE planning application for new (larger) overhead powerline (FLS aware of proposals within Glenelg Plan area and anticipate

incorporating the new line and roading and decommissioning of the old line with no net loss in woodland which is all productive non-native conifers).

- Scepticism over the effectiveness of new roadworks to strengthen existing public road against cumulative timber haulage impacts. (Consent for, and any controls on, timber haulage is the responsibility of local authority TEC Services. Contact them to raise concerns to try and address misgivings).
- Be aware of 240 Volt cabling in glen above Ardintoul provides power to a community mast site on Glas Bheinn (CM to contact GADT director Andrew Gilbert at a later date to walk and GPS this line for future forest management purposes).
- Maintaining the quality of the internal forest roads is important as they are also used by local residents and visitors accessing Ardintoul for business/residential purposes.
- Good to see some peatland restoration within Plan proposals.
- Are FLS aware of the Lochalsh Collaboration project lead by Kyle & Lochalsh Comm Trust (No but KLCT are included in this Plan consultation exercise including notification and promotion of these local meetings. CM will continue to share LMP news with KLCT as a result despite their nil response to date).

The following notes summarise discussion at **Glenelg LMP Review Internal Scoping meeting** - 11th April 2022 2-4 pm (MS Teams).

Present: Ian Allsop, Malcom Macdougal (chair), Chris Marsh, Colin Leslie, Joan Cumming, Shona Amos, Iain Inglis, Becky Milne, Renate Jephcott, Hugh Mackay, Russell Cooper, Sally Phillips, Liam Matheson, Chris Nixon. Apologies: Mike Beveridge, Ruairidh Maclennan, Paul Hibberd, Isabelle Destor, Doug Mitchell, Graeme Prest, Alex Macleod, Martin Gilmartin, Anna Torode.

Theme	Observation	Recommendation
Native Woodland	Coastal & riparian woodland tends to be Upland Birchwood in character. Aspen an important component in coastal zones. Proximity of adjacent non-native crops - as well as seedbank non-natives in PAWS clearfell areas - are a threat to integrity of restoring native woodland and therefore a management challenge.	Continue to remove non-native sbcpts from within coastal native woodland (i.e. restore integrity & connectivity). Future habitat design to expand extent of nat wdlnd during phased clearfell/restock of neighbouring, maturing non-native conifer plantation.
	Non-native clearfell on Totaig-Ardintoul plateau during last Plan period now showing good <b>NBL nat regen</b> recruitment as required by Plan.	Programme of routine removal (FTR) of nat regen (seedbed) non-native cons required to ensure integrity of new/follow-on native woodland.
	ASNW survey (2020?) observed high herbivore impact.	Review survey findings (localised/extensive? Impacts historic/ongoing?). Consider actions/management change to address negative impacts & set positive impacts in train.
		Don't necessarily consider PAWS conservation or expansion as higher priority over other native woods at the outset of LMP revision.
Harvesting & Restocking	Some <b>challenging terrain</b> (for felling/extracting) but good experience and confidence gained in last Plan period - ultimately all coupes 'doable'. There are admittedly tree line non-natives left after very steep slope clearfells on account of inaccessibility (often nat regen) or the acceptable safety of motor-manual fellers working v. steep/unstable terrain. Moyle forest by contrast almost all harvester/forwarder workable. Recent Wades Road coupe - difficult and tight working with winch, chipping and stacking constraints: a successful proof of concept/method for working other tight ravine areas of Plan (& beat).	Could begin to consider sequential removal of mature conifers from steepest, least stable slopes including PAWS ravines to initiate restoration phase.
	<b>Timber haulage</b> : Sea export (done in 00's) useful option but was always a concern to comply with adequate marine SAC protection. FES special project team analysed timber export (sea vs road) concluding - if road upgraded and maintained (to preserve road condition & acceptable traffic flow) road export was FES' preferred export route even from remote coupes. Always have (and will) consult and agree with council a Traffic Management Plan for allowable frequency and timings of road haulage.	Successful STTF funding bid (with FLS, private estates & council collaborative support) will see imminent main road improvements (weak sections re-constructed, passing places extended, extensive resurfacing) so road haulage will be default future export method. One coastal mature timber coupe (NW corner: Camus nan Gall) is only realistically exportable by sea: consider working in tandem with neighbouring Kinloch Hills coupes also dependant on floating pier/seaexport.

	Frustration at slow development of <b>Skye Trident line upgrade proposals</b> (delaying FLS felling as new access in/out Bernera basin requires collaborative thinking). There are extensive timber crops along Kylerhea Narrows coupes that began blowing in 2005 and incrementally ever since. Timber quality and volumes deteriorating. May lose these sites for future prescribed forestry as inaccessibility leads to neglect. Need collaborative roading solution asap to tackle.	Planner to liaise with FLS staff engaged in Skye Trident discussions to determine mutually agreeable future access and felling timings.
	Restocking: concern that the necessary steep-slope whole tree harvesting (timber and chipped brash exported) is exporting not recycling nutrients where carried out (Ratagan face and Wades road coupes). Inability to gnd prep v steep slopes means hot planting and so losses to weevil are high. Covid lockdown years meant two seasons of hot planting lost and these v steep sites grassing over (even higher losses from moisture & nutrient competition, physical interference, voles): restocking here very challenging.	
	Have trialled some <b>alternative timber tree species</b> in restock in recent years (attempting wider spp range for future resilience). Early monitoring shows silver fir and western red cedar struggling to establish so far.	Continue to consider appropriate alternative timber tree species where soils and growing conditions realistically give options. Trying to reduce future fertilising requirement to zero admittedly limits species range and it is not sensible to plant unsuitable species as crop stress makes them more susceptible to future pests/diseases anyway (i.e. counter-productive).
		Env team keen to ensure commercial non-native stands have new and broad native broadleaved buffer zones into future habitat prescription. These not always to be achieved by restock as some decent native riparian woodland (i.e. seed source) present.
Operational Access / Civil Engineering	Currently extending Ardintoul West forest road spur. <b>Bernera-Ardintoul road</b> has shared access with fish farm and a few residential properties at Ardintoul. Cows in Glen Bernera often stand on/soil the forest road - affecting self-draining/drying out character of unbound stone road.	
	Both blocks now have sufficient quarries/available stone to maintain existing road network and construct currently planned/approved roads. Moyle block has quarry capacity for both Moyle and Ratagan/Leachachan forest roads.	No additional quarry sites required assuming SSE to be instructed to provide their own stone for any new OHPL access routes.

	<b>Slope stability</b> of some areas of the Ratagan and Leachachan forests is a concern for maintaining harvesting and timber haulage potential into the long term future (wetter, more windy climate).	Landslide near Ratagan during last Plan period was clear indication slope stability consideration vital in future forest operations as well forest design. Plan revision requires good site consults with relevant teams and civil engineers to ensure intended access/operations are permissible where road formation and slopes may be unsuitable for delivery.	
	Frustrated by lack of progress of <b>Skye Trident</b> project as some future roading decision-making has been serially delayed for years now on account of lack of detail.	Engage with SSE to develop/define mutually beneficial future roadline (to OHPL pylons and future clearfell/restock coupes)	
Natural/ Historic Environment	Key species include otter, badger and white-tailed eagle (resident & expanding in range & numbers locally). No Black Grouse records here or even adjacent although much made (in last Plan) of possible arrival as BG observed in Glen Shiel/Loch Cluanie suggesting expansion possible from east/Glen Moriston. Also BG historically resident (but missing) on neighbouring Kinloch Hills (FLS). Bryophyte study (2013?) may have some particular spp interest/concerns and therefore mngmnt recommendations.	Ongoing management to comply with scheduled species protection/disturbance avoidance. General direction of management given in last Plan only increasing the suitability of the site to successfully accommodate BG if/when arriving. Review wildlife records for Plan area to ensure sensitive and protected species are adequately accommodated in future management and forest design.	
	Heritage: Grugaig broch (by Totaig) is only scheduled ancient monument although several old military road bridges situated alongside Mam Ratagan public road have been focus of active conservation measures during last Plan period.	Review management prescription(s) for historic features in last Plan and revise (Matt Ritchie consult) to make relevant to new Plan and Plan period.	
	Quick inspection of existing soils/peat data shows extensive 11b (Calluna/Eriophorum blanket bog) at high proportions in upper Ardintoul area worth investigating for <b>peatland restoration</b> potential.	Investigate with Peatland team for areas where peatland restoration is (or might be) appropriate.	
	FLS North Region currently have insufficient (non-native) <b>Natural Reserve plantation.</b> There may be opportunities to designate some stands as such within Plan area. Big/mature conifers provide nesting opportunity for raptors esp WTE.	Liaise with Environment team to explore/agree potential non-native 'Natural Reserve' stands.	
	Rhodendron present at low densities but widely scattered in forests on Loch Duich flanks (neighbouring estate/garden escapee)	Observe and note its presence/distribution through Plan revision site visit to assess any significant incursions/spread potential.	
Deer Management	Landholding is within Glenelg Deer Management Group (includes three neighbouring estates with some sporting interests)	Intention to maintain existing fencing in good repair. Notify DMG on Plan revision and so opportunity to engage.	

	<b>2020 deer survey</b> for the two blocks gave av. 4 deer per 100 hectare - suggesting very low density but highly likely to be localised hotspots. There was significant incursion of deer into Moyle during last Plan period but this was successfully mopped up. WRM walkover (summer 2021) indicated that native tree regeneration is really poor but may not	Wildlife ranger manager (WRM) believes ranger can target specific areas identified as being particularly sensitive to deer browsing i.e. NBL regen or restock zones. FM and Planning foresters to inform WRM of specific areas/issues in order to focus effort.
	always be a result of deer impacts.	specific areasy issues in order to joeds egyore.
Landscape	Ratagan/Leachachan slopes are within <b>Glen Shiel NSA</b> and therefore an important vista to manage sensitively and to minimise negative visual impact. Previous Plan had initially and conciously prescribed a 'mosaic' of smaller coupe shapes to limit impact of felling. Susbsequent amendments to approve much larger coupes (as practical constraints meant larger coupes were required to allow complex winch ops on steep slopes) had actually resulted in a relatively acceptable appearance.	Landscape architect and Planner to re-coupe Ratagan/Leachachan coupes for more 'broad brush' treatment on account of comparative success of large coupe clearfells to date.
	Other (non-NSA) areas of LMP are also very conspicuous from <b>other key exterior viewpoints.</b> Thinking on new LMP visualisation viewpoints: 1) looking across from Kylerhea Wildlife Hide/picnic area; 2) long distance view from Reraig/Balmacara/Ard Hill area; 3) Eilean Donan castle/Dornie hall car park; 4) Morvich causeway/Shiel Bridge A87 corner; 5) a Glenmore viewpoint with good Moyle forest overview.	Consider Carr Brae viewpoint for new visualisation location rather than Eilean Donan/Dornie causeway: better elevation and side-on view of Ratagan/Leachachan forests. Eilean Donan view dominated by Totaig headland (outwith FLS landholding) and actually with dwindling (poor) visibility of Ratagan and Ardintoul flanks/forests.
	Treeline/upper margins: Some clearfell prior to last Plan period had left conspicuous 'eyebrows' in treeline above Ratagan but these now less obvious as restock below has established to close visual gap. Accepted that some non-natives on high crags/ravine clefts almost impossible to reach and so difficult to manage/control.	Planner/Landscape architect to review treeline eyebrows, inaccessible PAWS/remnant conifer areas and emergent, scattered 'tree-scape' on open hill.
	<b>External views</b> : also important to consider views out from LMP area. Notably Mam Ratagan bealach car park and nearby (council) car park/picnic site (classic Five Sister panoramic vista) - important to keep these open where possible/practical.	Planner/Landscape architect to review impact of management proposals on key external viewpoints.
	Increased tourism footfall/drive-by places even more emphasis on managing aesthetics of this extensive LMP area and landmass.	
Visitor Services /Facilities	Coastal footpath (Totaig-Ardintoul-Glenelg ferry) is an important trail for visitors and locals alike (walking/running/informal mountain-biking). Extensive section through conifer rides near Ardintoul in poor state (drainage, formation and even practical waymarking/route finding).	Explore possibility to re-route trail to take in sections of new forest roading (currently) being extended here. Re-route other poor sections to align/connect with this (flatter ground, more robust soils, formal trail

		formation to allow ATV access for trail maintenance as well as deer management).
	Community-owned ferry company promote coastal trail which provides circular routes for walkers and MTBs. Number of users only expected to increase over time (in line with general tourism trend).	Need to consider possible negative impacts of increased visitor numbers with potential wildlife disturbance especially WTEs. Possible EIA determination required in any new or re-routed trails proposals.
		Conifer clear fell on Totaig plateau criticised at the time as possibly instrumental in loss of active golden eagle eyrie. Worth considering impacts of any new trails on future re-occupation by GEs. Suggest trail re-routeing needs concerted planning (outwith LMP) and probable EIA.
	Increased tourism footfall/drive-by places even more emphasis on providing and managing resilient, quality public access.	Don't forget (or under estimate) the importance of other trails within Plan area that are heavily and habitually used by locals as well as for hill running event Dirty 30.
Tree Health	Several discrete stands of larch (p30s, p70s, p00s) within Plan area as well as singleton, firebreak 'frames' and low density intimate mix with SS (Mam Ratagan/Leachachan) - representing a potential <b>Phytopthera ramorum</b> host risk	Apply FLS Larch strategy in Plan revision - prioritising removal where possible/practical within Plan period or ensuring roading is sufficient to access larch easily in the event of an SPHN.
	<b>Dothistroma infection</b> aerial survey in recent years has identified several Lodgepole pine stands with DNB scores of 3->4 (of max 5): some (currently) phase 3 coupes in west and centre of Ardintoul block and a discrete area on Mam Ratagan slopes.	Plan to prioritise clearfell of high scoring DNB stands/coupes in next Plan felling schedule.
Estates/ Renewables/ Utilities	An upgrade of the Ft Augustus - Skye overhead powerline has been proposed for some years now ('Skye Trident' project). Current line and wayleave corridor crosses FLS ground in Glen Bernera and forests flanking Kylerhea Narrows.	Liaise with utility company to determine future powerline corridor and its construction/maintenance access requirements and timing. There may be opportunities for new roading to serve long term forest management objectives.
	There was previous interest from Glenelg community in exploring potential (small-scale) hydro and/or wind turbine schemes.	Await any relevant feedback when hosting external scoping (public meetings) and resulting from notification to community councils (statutory consultees) of Plan review process.

# Appendix 3 – 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 & notify SF)	Upto 10% of coupe size	Upto 5 planting seasons after felling (allowing fallow periods for <i>Hylobius</i> ).	Change within native species group (e.g. Scots pinewood to upland birchwood); non-native conifers (e.g. Sitka spruce to Douglas fir), and non-native to native species (allowing for changes to facilitate Ancient Woodland policy).		Departures of upto 60 m from the centre of the roadline.
Approval by exchange of letters and map	10 to 15% of coupe size	Over 5 years	Change of coupe objective likely to be consistent with current policy (e.g. from productive woodland to open ground, open ground to native tree species).	Upto 5 ha.	Departures of greater than 60 m from the centre of the planned roadline.
Approval by formal plan amendment	Greater than 15% of coupe size		Major change of objective likely to be contrary to policy (e.g. native to non-native tree species, open ground to non-native species woodland).	More than 5 ha.	As above, depending on sensitivity.

# 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 tree, rows of trees or small groups of trees that are impacting on important infrastructure (as defined below\*), either because they are encroaching on or have been de-stabilised 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 75 cubic metres per Land Management Plan per calendar year.

A record of the volume felled in this way will be maintained and will be considered during the five year Land Management Plan review.

A 5-year fallow period between felling and any prescribed 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 of reducing the use of insecticide applications during subsequent restocking and establishment phase. Given the drive to minimise the use of pesticides on FLS landholdings, delaying restocking operations might be the most appropriate option to successfully establishing the next generation of trees. Where and when this is a preferred option outside tolerance limits agreed with Scottish Forestry – prior approval will be sought to address any adjacency issues resulting from proposed delayed restocking.