Forestry and Land Scotland
Coilltearachd agus Fearann Alba

Appendix I: Land Management Plan Brief

See Ormaig and Salachry LMP brief.

Forestry and Land Scotland
Coilltearachd agus Fearann Alba

Appendix: Land Management Plan Brief

Contents

1. Key Background Information
2. Strategic drivers
3. Draft Land Management Plan Objectives
4. Stakeholders

1. Key background information

Introduction

The Ormaig and Salachry Land Management Plan (LMP) covers a total of 944Ha, incorporating two forest blocks;

- Ormaig ~ 737Ha
- Salachry ~ 207Ha

It is located on the west coast of Mid Argyll in Argyll & Bute local authority, neighbouring the village of Kilmartin. The Oban to Lochgilphead A816 road runs through the LMP area, splitting the Salachry forest block. The forests lie within a prominent area of landscape, designated by the local authority as an Area of Great Landscape Value (AGLV). Loch Craignish is situated to the west of Ormaig forest block, thus being very visible in the landscape from the water and the peninsula of Craignish and Ardfern village to the west. The adjoining land is that of open hill and farmland, as well as new woodland creation and a quarry. Both forest blocks lie on the periphery of Kilmartin Glen, an area rich in archaeology, with Ormaig in particular holding a large number of archaeological sites.

This management plan will replace and renew the previous Ormaig and Salachry Land Management Plan (Scottish Forestry (SF) File Ref LMP-WAFD-11-2016). This new plan will identify issues raised within the plan area and provide a management approval for the two forest blocks for the next ten years. They are associated not only by their geographic proximity to each other but also by their similar attributes, such as their climate, topography, soils, age, infrastructure and community connection.

Silvicultural Potential

Elevation ranges from sea level in the west of Ormaig to 220m at the top of Creag Mhor (north east of Ormaig) and 230m Creag Madaidh Beag (south west Ormaig). In Salachry forest block the elevations range from 90m above sea level to 220m.

The geography is sloped hills and flat plateaus. The underlying geology is a complex of quartzite and hornblende schists, phyllites and epidiorite, with bands of limestone, basalt and graphitic schists. The geology is banded along a north-east south-west axis in Ormaig, typical of Knapdale.

Continentality is in the range 22.5-25, which is slightly higher than for much of Scotland, suggesting lower than average rainfall for Argyll. The climate data for the forest blocks indicate the upper parts are highly exposed, and mostly warm and wet. The western shoreside section of Ormaig is more sheltered and drier. These relative exposure levels are also reflected in the

DAMS data, with almost it being a 50% split between scores of 11-16 in the lower sheltered areas and 17 – 21 in the upper sloped areas, there are none in the lowest category (0 – 11). Climate change predictions suggest that the climate will become generally warmer and wetter, with more extreme rainfall events and storms.

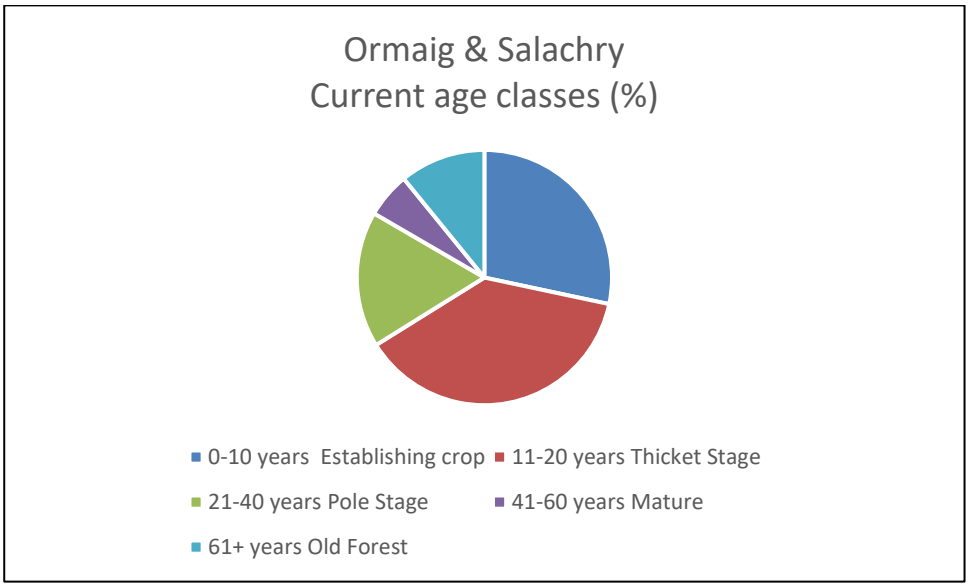
Steep ground within the forest (over 35%), is quite common along the sides of the knaps and shore-facing slopes in Ormaig. These slopes are often rough and rocky. However, there are no areas of slope instability associated within either of the blocks. A few areas of boggy ground are located within the forest, some like Lochan Druim Bhuidhe, would have held standing water. This particular site has been affected by forest drainage and ploughing when the forest was first established. There are multiple watercourses, many now opened up as riparian corridors and some feeding private water supplies. Scottish Water has a public catchment at the southern tip of Ormaig for the village of Kilmartin, and the south-east section of Ormaig and eastern half of Salachry provide as a catchment for the River Add downstream, flowing into the Moine Mhor NNR to the south. Kilmartin Burn, running to the east of Ormaig block is classified as "Good" quality (SEPA), thus any watercourses feeding into the river could affect this. Fish farms are located on Loch Craignish. One fish farm accesses a jetty at Port na Moine, Old Poltalloch, through the forest. There are also utility lines splitting both forest blocks in half.

Existing crop

Approximately 70% of the site is under woodland cover, with Sitka spruce accounting for 74 % of the planted species and broadleaves covering 16% of the forested area.

The current split in terms of age classes structure is approximately:

Age	Area (Ha)	Area (%)
0-10 years Establishing crop	185.9	28
11-20 years Thicket Stage	248	38
21-40 years Pole Stage	113.2	17
41-60 years Mature crop	37.6	6
61+ years Old Forest	71.4	11



Pie chart showing age of trees by area, as a percentage

There has been a lot of restructuring in the forest blocks, adding to age diversification, visualized in the chart above.

There is a reasonably element of larch within the LMP area, 3% of the forested area. Due to the risk of *Phytophthora ramorum* pre-emptive felling of the larch might be required.

Operational Access

The forests have a current road network totaling approx. 22.35km, allowing economic operational access . However, only 16km of that roading is classified as “A” or “B”, thus 6km is only really a track. There are access rights over a number of the roads for properties, the fish farm and neighbouring land management.

The West Loch Awe Timber Haul Route (WLATHR) starts in the south via Salachry forest, thus providing a major key access route up West Loch Awe.

Natural Environment

Important species present include Golden eagles, White-tailed eagles, Hen harriers, Osprey, red squirrels, otters, badgers, Black grouse, barn owls and butterfly species. Habitats include bogs, upland heathland, fen, marsh & swamp, acid grassland, upland calcareous grassland, purple moor-grass & rush, shrub, upland birchwood and open water. There are no formal designations in the blocks, however, there are areas of Ancient Woodland Sites (AWS) in the western section of Ormaig block.

The blocks lie in Knapdale/Melfort Area of Great Landscape Value (AGLV). The Landscape Character Assessment (LCA) has the blocks situated in the “Upper Parallel Ridges- Argyll”.

The islands to the west in Loch Craignish are classified as Environmentally Sensitive Areas by the Scottish Government.

FLS have identified 16.7Ha of Natural Reserve (NR) in the north-west of Ormaig forest.

Areas of deep peat have been identified in the plan area which will undergo further assessment to identify suitability for habitat restoration, Peatland Edge Woodland, or productive conifer restock, as well as soil surveys undertaken.

INNS??

Cultural Environment

There are five Scheduled Monuments (SM) within the plan area;

- Craig Madaidh Mor, mine
- Dun Mac Samhainn, dun
- Dun Mac Samhainn, cairn
- Ormaig rock art
- Glenmoine, cup-and-ring marked rock

There are several undesignated features across the plan area which are recorded in the heritage layer, such as heritage features, lochs, quarries, agricultural features, old drove roads, Ladys Seat, Kilmartin Eye; all of either local, regional and national significance.

Community Use

There are no formal Forestry and Land Scotland (FLS) trails in either forest blocks. However, there are a number of Core Paths running in Ormaig forest block, leading to key locations such as the Ladys Seat and the cup & ring marks.

Due to the location Ormaig next to Kilmartin Village, many local visitors and tourists to Kilmartin Glen access the forest for recreation. The forest road into Salachry forest is the start of the WLATHR, thus providing an access into the forested areas of West Loch Awe.

Neighbouring reservoirs/fisheries

There are fish farms in Loch Craignish to the west of Ormaig forest, with access and infrastructure via Ormaig.

Wildlife

Red and Roe, and small numbers of Sika deer are the primary herbivores species present, these and other damaging herbivore numbers are monitored and controlled by FLS wildlife management teams. External deer fencing exists along the southern side of Ormaig, with stock fencing around the other neighbouring edges. A stock fence also exists around Salachry forest block. These fences reduce the free flow of deer and sheep/cattle movement from neighbouring land. Deer numbers are approx. 36.9 deer/km2.

To establish native woodland and species diversity, deer control will be a key management option.

2. Strategic drivers

To realise the vision as set out in the Scottish Forestry Strategy 2019-2029, six priorities for action have been identified for implementation:

- Ensuring forests and woodlands are sustainably managed
- Expanding the area of forests and woodlands, recognising wider land-use objectives
- Improving efficiency and productivity, and developing markets
- Increasing the adaptability and resilience of forests and woodlands
- Enhancing the environmental benefits provided by forests and woodlands
- Engaging more people, communities and businesses in the creation, management and use of forests and woodlands

To demonstrate how we will have regard to the Forestry Strategy in our work, we have identified the relevant Forestry Strategy 'Priorities for Action' in our Corporate Outcomes section of the second FLS Corporate Plan 2022-2025. These, alongside key issues and site specific challenges, have informed our draft land management objectives, as illustrated in Table 12 below.

3. Land management plan objectives

- Maintain sustainable quality timber production.
- Plan and construct cost effective access to inaccessible crops and for establishment success.
- Develop a programme to remove most larch in phase 1 or phase 2 if phase 1 not feasible.
- Protect, connect and enhance the Ancient Woodland Site (AWS).
- Protect and enhance the Scheduled Monuments (SMs) and heritage features.
- Restore and maintain areas of bog/wetland habitat, and other priority/protected species & habitats.
- Provide scope and opportunity for potential increased recreational use by local communities and tourists, as well as enable/compliment the community action plans.
- Provide opportunity for appropriate and well managed and integration with neighbouring land owners.
- Ensure that coupes are well scaled and shaped and roads sited to relate to landscape character and scenic quality. Scale, shape and plan coupes to maximise cost efficiencies for felling and access provision and re-establishment effectiveness.
- Protect current and new infrastructure in plan area- access rights for third parties, A816, WLATHR, forest roads, tracks, core paths etc.

Table 12 – Relationship between relevant corporate outcomes and the site specific draft LMP objectives

Corporate Outcomes Relevant to LMP	Operational Actions To Deliver Outcome Relevant to LMP	Draft LMP Objectives
Outcome 1: Supporting a Sustainable Economy FLS supports a sustainable rural economy by managing the national forests and land in a way that encourages sustainable business growth, development opportunities, jobs and investments.	• Managing the national forests and land in accordance with the UK Woodland Assurance Scheme (UKWAS) to ensure that timber and other products produced by FLS are guaranteed to be from a sustainably managed resource. • Developing our forest planning processes to ensure long-term sustainable productivity of the national forests and land. Providing a sustainable supply of timber to Scotland's timber processing sector. Implementing the Restocking Strategy for the national forests and land and develop a new plant and seed supply strategy. • Supporting Scottish tourism and the visitor economy through the core path provision. • Support the venison processing sector through our deer management.	• Maintain sustainable timber production (maintained timber income, clearfell/restock). • Plan roads/tracks to give access to less accessible crops. • Plant the right trees on the right site, taking into account future climate changes and risks and pests & diseases.

Corporate Outcomes Relevant to LMP	Operational Actions To Deliver Outcome Relevant to LMP	Draft LMP Objectives
Outcome 2: Looking after Scotland's national forests and land Scotland's national forests and land are looked after; biodiversity is protected and enhanced; and more environmental services are provided to people.	• Managing the national forests and land to further the conservation and enhancement of biodiversity. • Maintaining and enhancing our work on peatland restoration. • Collaborating with partners on integrated landscape-scale approaches to habitat management and restoration. • Continuing to implement the Larch Strategy in order to reduce the rate of expansion of Phytophthora ramorum.	• Continue to restore and maintain areas of bog habitat (reduce carbon release, diversify habitat) • Protect, expand and enhance the Ancient Woodland Sites. • Protect and enhance protected/priority species & habitats. • Develop a programme for pre-emptively removing larch.
Outcome 3: Scotlands national forests and land for visitors and communities Everyone can visit and enjoy Scotland's national forests and land to connect with nature, have fun, benefit their health and wellbeing and have the opportunity to engage in our community decision making.	• Maintaining access for core paths to promote fun in the outdoors, focussing on improving entry level experiences for everyone to enjoy and gain health benefits. • Continuing to remove barriers to ensure that people from all backgrounds can and do access the full range of benefits of the national forests and land. • Continuing to engage communities in decisions relating to the management of the national forests and land. • Continuing to support community empowerment by enabling communities to	• Provide scope and opportunity for potential increased recreational use by local community and tourists.

Corporate Outcomes Relevant to LMP	Operational Actions To Deliver Outcome Relevant to LMP	Draft LMP Objectives
	make use of the national forests and land to benefit their communities.	

4. Stakeholders

Argyll & Bute Council- Planning/Access/Roads
Nature Scot (NS)
Scottish Environment Protection Agency (SEPA)
Dunadd Community Council (DCC)
Argyll Fisheries Trust
Historic Environment Scotland (HES)
Royal Society of Protection of Birds (RSPB)
Argyll Timber Transport Group (ATTG)
Confederation of forest industries (Confor)
Scottish Government Rural Payments and Inspections Directorate (SGRPID)
West of Scotland Archaeology Service (WoSAS)
Scottish Wildlife Trust
British Dragonfly Society
Neighbouring land owners/Internal properties
Scottish Forestry (SF)
Fish Farm

Appendix II: Analysis of Previous Plan

See Ormaig and Salachry mid-term review.

Forestry and Land Scotland
Coilltearachd agus Fearann Alba

LMP 5 Year Progress and Compliance Review

Ormaig & Salachry West Region

Date

Updated March 2023

Summary details

LMP Approval file reference	**LMP-WAFD-11-2016**
Date LMP approved	**8-9-2016**
Date LMP expires	**7-9-2026**

Amendments

Date sought for approval	Coupe reference	Details	Approved?	Comments. Trends e.g. windblow?
18-4-2018	**07004**	**Fell along with phase 1 approved coupe 07421.**	**Yes 3-7-2018**	
8-10-2019	**08130**	**Restock amendment from SS to 50/50 MB/MC nat regen and 70/30 MB/Open on rocky slope.**	**Yes 15-11-2019**	
10-1-2022	**08589/08961/08220/08509**	**Habitat restoration.**	**EIA screening-CNR 4-7-2022**	
19-8-2022	**08589**	**Restock amendment from 70/30 SS/LP to 60/40 MB/open on sloped area.**	**Yes 4-11-2022**	
4-11-2022	**08126/08148/08100/08147**	**Tree felling along entrance road, 20m buffer.**	**Yes 9-12-2022**	

Internal stakeholder meeting: date 28-3-2023

Present	Jeni West, Donald McNeill, James Robins, Donald Sansom, Ross Blackwell, David McPhie, Franco Giannotti, Donald McCuig, John Taylor, Rhod Watt, Freya Williamson

Strategic feedback including from external stakeholders since approval of LMP

Has Phase 1 been implemented as planned?

Felling
Includes LISS/CCF felling, completed thinning, coppicing, felling of individual trees. Is this on target for the first phase? List ALL coupes scheduled to be felled in the first 5 years, coupes brought forward and trees felled in exceptional circumstances (refer to 40m3 spreadsheet)

Coupe no.	Felling date	Approved area (ha) + volume	Comparison to LMP: area, location, timing	Comments: divergence beyond tolerances? Refer to amendments.
07017	2017	16.85		
07020	2020	4.29 1,651m3		Delayed felling due to COVID-19.
07421	2018	21.35 13,684m3		Merged phase 1 coupe 07021 & phase 2 coupe 07004
07007	2017	4.76		
08103		25.41		
08104	2020	38.06 19,802m3		
08130		19.70		
08132	2021	17.68 21,699m3		
08589	2018	5.34		
08137	2017	4.71 2,352m3		Winch work on larch at back of coupe completed June 2018.
08147	2020	3.87 2,815m3		

Restocking, new planting, natural regeneration
Is this on target for the first phase of the LMP? Please list ALL coupes that were scheduled to be planted/regenerating in the first 5 years

coupe no.	Restock type and date	Approved area (ha)	Comparison to LMP: area, method, density, species	Comments on divergence beyond tolerances. Refer to amendments.
07017	Planted 2021	16.85	4.39Ha SS 2.99Ha NS 2.63Ha NF 0.36Ha GF 0.25Ha Car 0.25Ha Asp	Site rocky and rough in places, significant parts unmoundable, majority flat-planted.

				Approx 30% of site wont reach OGB4 due to rock & harvesting residue (lots windblow).
07020	Planted	4.29		Delayed felling due to COVID-19, therefore delayed restocking.
07421	Planted 2021	21.35	10.54Ha SS 2.3Ha WH 0.85Ha NS 0.53Ha Asp 0.53Ha Other Alders 0.35Ha Ha 0.35Ha Row	Site steep and rocky, significant areas flat planting. OGB not achieved over significant sections of site.
07004	Planted 2021	4.76	0.97Ha OK 0.83Ha Bi 0.83Ha Asp 0.12Ha Car	Rocky site, therefore minimal mounding.
08103		25.41		
08104		38.06		
08130	Planted & Nat regen 2022	19.70	Planted: 2.74Ha NS 1.17Ha WRC	Restock amendment (8-10-2019).
08132		17.68		
08589		5.84		Habitat restoration. Restock amendment
08137	Planted 2019	4.71	0.84Ha NS 0.84Ha SS	No ground prep. Larger open area due to site conditions.
08147		3.87		

Are herbivore levels at an appropriate level for the crop for Phase 1?

The deer pressure is a constant issues in Ormaig & Salachry. Constant movement of deer to/from private landowners (Poltalloch/Tibertich/Kintraw).

Road programme
Is this on target now and for the period of the LMP? Are relevant permissions in place?

Planned road or quarry, OS grid ref.	Description: length, area, construction	Date EIA /EIA scoping (valid 5 years),	Renewal needed?	Date of works completed or proposed	Comments.

		Prior Notification (valid 3 years)			
NM 8245 0349	OM14 210m OM14 410m			Completed.	Approved during previous FDP?

Permissions
Have permissions been obtained if relevant?

Area	EIA or EIA scoping and date (valid 5 years)	Planning permission date (valid 3 years)	Renewal needed?	Comments.
08589/08961/08220/08509	EIA screening opinion- CNR 4-7-2022		No	Habitat restoration. EIA opinion expires 3-7-2025.

Has Phase 1 complied with special conditions and consents approved for agreed LMP?

SAC, SPA, NSA etc	SEPA	SAMs, Battlefields, Historic Gardens	EIA scoping : forest roads, forestation, quarries	Prior notification for forestry private ways
				08103 ATV tracks- PN approval 17-11-2020
				08589 ATV track- PN approval 17-11-2022
				08132 Forwarder track- PN approval 15-1-2021
				07016 ATV track- PN approval 5-12-2022

Has Phase 1 complied with special conditions relating to mitigating local impact
This may include neighbours affected by forestry works, specific legal interests, impact on local amenity, impact on local communities

Ormaig house consulted before and during 08104 operations. Old Poltalloch residents consulted before operations in Ormaig.

Have there been any significant incidents?
This may include activities or operational incidents resulting in actual or potential breaches of the UKFS.

None.

Has Phase 1 met the stated objectives? Are they still appropriate, and will they be appropriate for the rest of the LMP?
This includes compliance with current UKFS and UKWAS requirements, Corporate Plan, and National Spatial Overview. If it doesn't, review the LMP brief. Cross reference to appropriate plans. Are there knock on consequences? Are there changes in the aspirations of external stakeholders? Are the proposals still achievable within the resources?

Objective	Issue	Comment. Action taken
Timber production of 25.9Km3; 179.9Ha in plan period; 141.4Ha phase 1. 96.4Ha phase 2.	Covid-19 delayed felling coupes.	162Ha felled in phase 1.
167Ha restocking in plan period; 141.4Ha phase 1. 96.4Ha phase 2.	Covid-19 delayed restock areas.	30.23Ha planting in phase 1.
Construct 1.5km new forest roads for phase 1 coupe access.		620m road constructed in phase 1.
Species diversification.		Restocking has included species diversification. Proposals for BL regen on coastal face.
Control WH in Ormaig.		WH removal programmed, awaiting contract to non-native removal.
PAWs restoration on coastal slopes in Ormaig.		Conifer been felled in 08103.
Improve riparian habitats.		

Improve visual aspects along public road in Salachry.		Crop from 07020 cleared to improve visual aspect from public road.
Protect archaeological features, especially SMs.		Archaeological features protected during operations.
Protect water catchments.		Ormaig water supply protected during harvesting of 08104.
Increase designed open space and deadwood habitats.		Open space been designed into restock areas. Open peatland habitat restoration proposed in 08589.

Detailed proposals for Phase 2

Felling (including LISS/CCF felling, thinning, coppicing, other felling of individual trees)
Is this on target for the second phase of the LMP? Please list ALL coupes that were scheduled to be felled in the next 5 years.

Coupe no.	Felling date	Approved area (ha) + volume	Comparison to LMP: area, location, timing	Comments: divergence beyond tolerances? Refer to amendments.
07004	2018			Amendment for felling of 07004 with phase 1 07421.
07013	23/24	11.27 6,487m3		
08101	24/25	32.57		
08119	23/24	33.03 16,988m3		

Restocking, new planting, natural regeneration
Is this on target for the second phase of the LMP? Please list ALL coupes that were scheduled to be planted/ regenerating in the next 5 years.

coupe no.		Restock type and date	Approved area (ha)	Comparison to LMP: area, method, density, species	Comments on divergence beyond tolerances. Refer to amendments.
07004					Already restocked as part of 07421.
07020					As LMP
07013					As LMP

08103					As LMP
08104					As LMP
08589					As LMP
08147					As LMP
08101					As LMP
08119					As LMP

Are herbivore levels at an appropriate level for the crop for Phase 2?

Deer pressures are high. The increasing number of restock sites provides an opportunity for more deer culling, more ranger coverage will also help reduce deer numbers and enable better protection.
The ATV access tracks are increasing with every restock site, providing greater and easier access.
Direct weekly hour ranger coverage will be increasing in 23/24, with damage assessments being carried out throughout the year.
Opportunities to undertake larch thinning will be welcomed by deer management, with options to create deer lawns and removal of roadside vegetation in these areas.

Road programme
Is this on target for the remaining period of the LMP? Are relevant permissions in place?

Planned road or quarry, OS grid ref.	Description: length, area, construction	Date EIA /EIA scoping (valid 5 years), Prior Notification (valid 3 years)	Renewal needed?	Date of works completed or proposed	Comments.
SR21 South Salachry Spur NM 850 042	290m Max. 15m width.	Currently not approved	Approval required	Proposed 23/24	Proposed line surveyed. EIA screening opinion to be submitted to SF April 2023.

Do you anticipate any problems with Phase 2? Are there any big ticket items?

Wildlife rangers will need to consider H&S thoroughly in Salachry with the restock sites close to the council road and MOP access.
Currently no larch infections in Ormaig & Salachry- need to act quickly to remove mature larch, thin younger larch where possible and react if SPHN issued in the forest blocks.

Observations
To highlight anything that may need commenting on.

Summary Please choose one as appropriate

Existing plan is still relevant and reflects the Regions and external; stakeholders aspirations. The operations planned for the remainder of the approval period will help deliver the original brief. No alterations to the brief are necessary. All permissions and determinations are up to date.	X
Existing plan requires some adjustment but within the scope of exchange of letters or a formal amendment. All permissions and determinations are up to date.	
Existing plan requires significant change to the proposals, or the timing of these, which will require revised submission. Permissions and determinations will require renewal	

Signed	Jeni West
Author	Jeni West
Job title	Planning Forester
Date	28-3-2023

Approval by Manager for rest of 10 year period:

Signed	*Donald McNeill*
Job title	Planning Manager
Date	30/03/2023

Appendix III: Background Information

Context

History

Ormaig and Salachry forest blocks are situated in Mid-Argyll between Lochgilphead and Oban.

Salachry was acquired in 1959 and planted between 1962 and 1964, predominantly with Sitka spruce (SS). Consequently, the resultant forest was even-aged. The southern part of Ormaig was acquired in 1956. This was planted mostly with SS between 1959 and 1962. The remainder was purchased in 1968, again planted with SS. Felling commenced in Ormaig in 1997 and in 1999 in Salachry. Only about 20% of the first rotation crop remains, the rest having been felled and replanted with commercial conifers or left to regenerate with native broadleaves. Variable amounts of windblow have occurred in both forests, most due to opening up the forest through felling to restructure it. In 2013, the start of the West Loch Awe Timber Haul Route (WLATHR) was constructed through the north-east section of Salachry, providing access to the Carreg Ghael windfarm and subsequently a timber haul route through west Loch Aweside to Kilchrenan.

Prior to acquisition in the 1950's, Ormaig had been part of an old estate, centered on Old Poltalloch House, with some elements of a designed landscape being created, with tracks constructed and estate buildings erected. The walled garden was sold in 2012. Much of the western side of Ormaig also comprises Ancient Woodland sites, reflecting historic native woodland presence, as well as some historic plantation woodland associated with the estate.

Physical site factors

Geology Soils and landform

The Ormaig and Salachry land management plan (LMP) sits within Nature Scots Landscape Character Assessments as "Upland Parallel Ridges-Argyll"

Detailed descriptions and a map of the areas can be found at https://www.nature.scot/professional-advice/landscape/landscape-character-assessment/scottish-landscape-character-types-map-and-descriptions.

The underlying geology is a complex of quartzite and hornblende schists, phyllites and epidiorite, with bands of limestone, basalt and graphitic schists. The geology is banded along a north-east south-west axis in Ormaig, typical of Knapdale.

Water

Water is an important component of the land, therefore, when felling and restocking operations are carried out, UKFS (5th edition) will be strictly adhered to, as well as the "Managing forest operations to protect the water environment" practice guide (Managing forests in acid sensitive water catchments (confor.org.uk). Timber extraction will normally avoid crossing burns or main drains, but, where necessary, each crossing will be piped or bridged.

All felling and restocking will comply with the Controlled Activities Regulations (CAR) 2001 General
Binding Rules with respect to appropriate buffer strips between any planting and the water courses and water bodies.

Site assessment prior to forest operations will identify recommended actions to meet these requirements.

The plan proposals along the riparian and tributary corridors should aim to enhance the riparian habitat.

Overall ecological status

The south-east section of Ormaig and eastern half of Salachry provide a catchment for the River Add downstream, flowing into the Moine Mhor National Nature Reserve (NNR) to the south. Kilmartin Burn, running to the east of Ormaig block is classified as "Good" quality (SEPA), thus any watercourses feeding into the river could affect this.

Climate

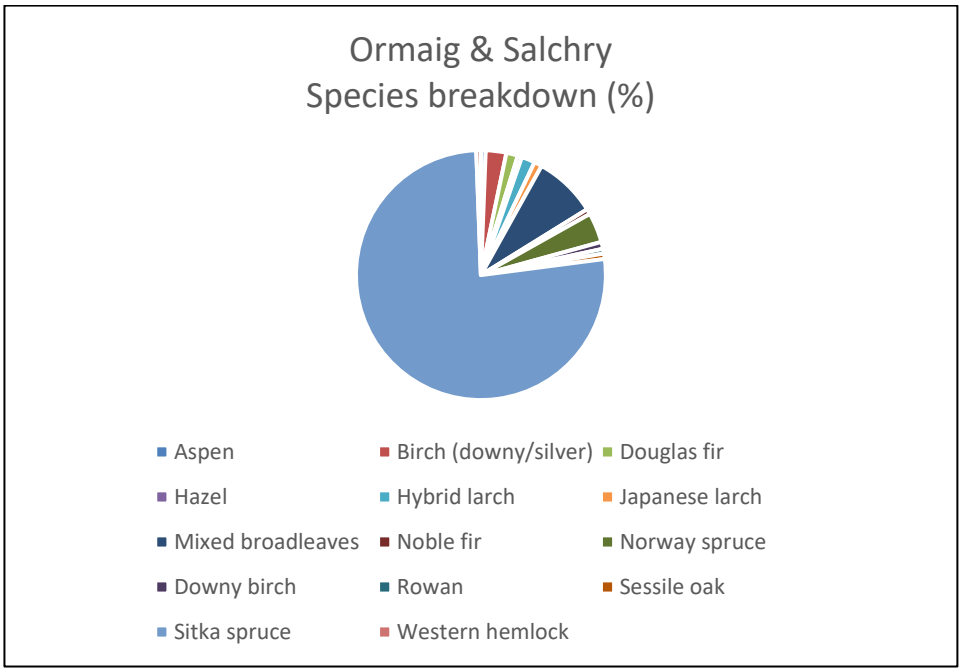
Continentality is in the range 22.5-25, which is slightly higher than for much of Scotland, suggesting lower than average rainfall for Argyll. The climate data for the forest blocks indicate the upper parts are highly exposed, and mostly warm and wet. The western shoreside section of Ormaig is more sheltered and drier. These relative exposure levels are also reflected in the DAMS data, with almost it being a 50% split between scores of 11-16 in the lower sheltered areas and 17 – 21 in the upper sloped areas, there are none in the lowest category (0 – 11). Climate change predictions suggest that the climate will become generally warmer and wetter, with more extreme rainfall events and storms.

The existing forest

Species, age structure and yield class

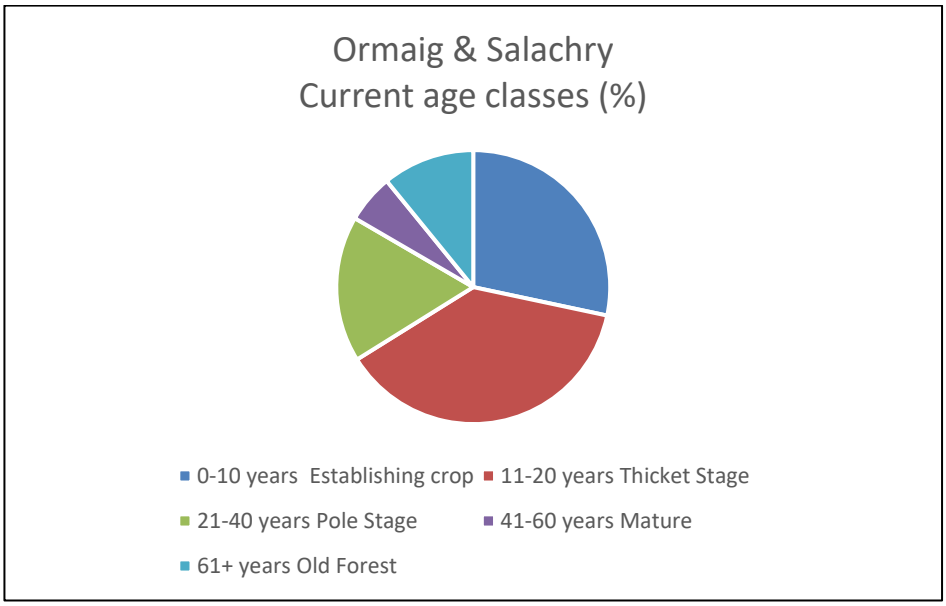
The LMP area, 944Ha is covered by approx. 67% woodland and 33% open. The chart below shows the species breakdown of the existing forest, with Sitka spruce accounting for 76% of the tree species and broadleaves 16%.

Chart- Species percentages in Ormaig and Salachry



The age structure in Ormaig and Salachry is quite well diversified. The chart below highlights the age classifications, with the higher percentages being in the establishing crop and thicket stage.

Chart- Age classification in Ormaig and Salachry



Neighbouring Land Use

The adjoining land to the south of Ormaig is open hill habitats on the upper slopes with establishing broadleaves on the slope facing Kilmartin. To access Ormaig you pass Kilmartin Quarry and then farmland. There is open hill/farmland to the north east of Ormaig, with the open hill/steep slopes of Creag nam Fitheach to the northern boundary. A fish farm is situated of the south-western corner of Ormaig off Port na Moine in Loch Craignish. Access to the fish farm is through the forest block on the existing forest road network.

There are private forests to the north-west of Salachry Forest and the south-west, with private farmland adjoining to the north-east and south-east. To the east of Salachry Forest lies Torran, an FLS acquisition with proposals submitted to Scottish Forestry (SF) for native woodland creation, mixed with open hilltops, and priority habitats. The A816 splits Salachry Forest block in two, with the West Loch Awe Timber Haul Route (WLATHR) running through the eastern section of Salachry.

Landscape

Landscape character assessment

The LMP area is classified by Nature Scot as “Upland Parallel Ridges- Argyll”.

Key Characteristics

Upland plateau tops of sloping terrain.

Landscape Zones

See map 2 for Landscape character assessment.

Landscape Guidelines

Landscape and terrain have been used to appropriately design management coupes.

Landscape designations

The blocks sit within Argyll & Bute Council local landscape area, “Knapdale/Melfort”.

Environmental designations

Special Site of Scientific Interest (SSSI), SAC, SPA

There are no specific designations within the LMP blocks.

Archaeology: Scheduled Monuments / Unscheduled

There are five Scheduled Monuments (SM) within the plan area;

- Craig Madaidh Mor, mine
- Dun Mac Samhainn, dun
- Dun Mac Samhainn, cairn
- Ormaig rock art
- Glenmoine, cup-and-ring marked rock

Habitats

A number of protected habitats in the forest blocks including;

- Peatland
- Acid Grassland
- Upland Heathland
- Fen, Marsh & Swamp
- Upland Birchwood
- Upland Calcareous Grassland
- Purple Moor-Grass & Rush Pasture

Species

A number of protected species are present in the forest blocks including White-tailed eagles, Hen harriers, Ospreys, red squirrels and important butterfly species.

Biodiversity

There are Ancient Woodland sites (AWS) in Ormaig Forest adjacent to Loch Craignish, on the slopes to the west. These areas include areas of Plantation on Ancient Woodland Sites (PAWS).

The deadwood ecological potential in the blocks is predominantly classed as “low”, with areas of “medium” and “high” in the AWS areas and riparian corridors.

Social factors

Recreation & Community

There are no formal Forestry and Land Scotland (FLS) trails in either forest blocks. However, there are a number of Core Paths running in Ormaig forest block, leading to key locations such as the Ladys Seat and the cup & ring marks.

Kilmartin Village lies to the east of Ormaig Forest, with the local community using the forest roads and old drovers roads for recreational purposes. The core path linking heritage features in

Kilmartin Glen runs through Ormaig, providing access from Kilmartin to Carnasserie Castle and the Scheduled Monuments within the block.

Appendix IV: Land Management Plan Consultation Record (including letters of correspondence)

Private and confidential consultation record.

Appendix V: Deer Management Plan

See Ormaig and Salachry deer management plan (DMP)

Forestry and Land Scotland
Coilltearachd agus Fearann Alba

Annex ……

Deer Management Plan (DMP) – Ormaig & Salachary Forests

Background

This DMP should be used as a supporting document for the Land Management Plan (LMP). The DMP should also be used in conjunction with FLS Deer Management Strategy.

The Ormaig and Salachry Land Management Plan (LMP) covers a total of 944Ha, incorporating two forest blocks;

- Ormaig ~ 737Ha
- Salachry ~ 207Ha

It is located on the west coast of Mid Argyll in Argyll & Bute local authority, neighbouring the village of Kilmartin. The Oban to Lochgilphead A816 road runs through the LMP area, splitting the Salachry forest block. The forests lie within a prominent area of landscape, designated by the local authority as an Area of Great Landscape Value (AGLV). Loch Craignish is situated to the west of Ormaig forest block, thus being very visible in the landscape from the water and the peninsula of Craignish and Ardfern village to the west. The adjoining land is that of open hill and farmland, as well as new woodland creation and a quarry. Both forest blocks lie on the periphery of Kilmartin Glen, an area rich in archaeology, with Ormaig in particular holding a large number of archaeological sites.

Steep ground within the forest (over 35%), is quite common along the sides of the knaps and shore-facing slopes in Ormaig. These slopes are often rough and rocky. However, there are no areas of slope instability associated within either of the blocks. A few areas of boggy ground are located within the forest, some like Lochan Druim Bhuidhe, would have held standing water. This particular site has been affected by forest drainage and ploughing when the forest was first established. There are multiple watercourses, many now opened up as riparian corridors and some feeding private water supplies.

National & Local objectives

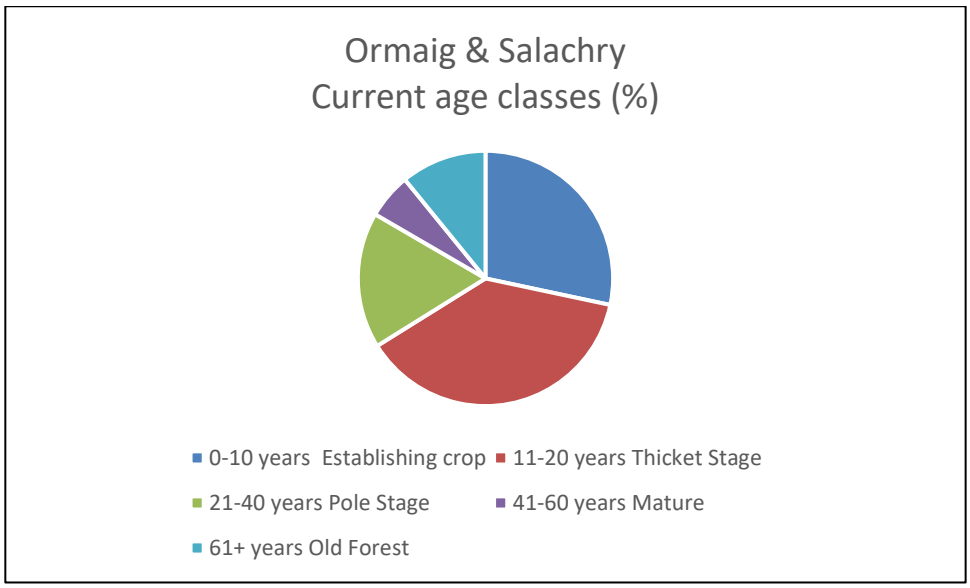
- Local and National objectives should be linked in here.
- National
    - Contributing to Scottish Forestry - Forestry Strategy (also includes Climate Change)
    - Deer Management Strategy Deer management strategy - Forestry and Land Scotland
    - Scottish Biodiversity Strategy Biodiversity strategy: consultation - gov.scot (www.gov.scot)
- Local
    - Insert as applicable

Existing crop

- Approximately 70% of the site is under woodland cover, with Sitka spruce accounting for 74 % of the planted species and broadleaves covering 16% of the forested area.

- The current split in terms of age classes structure is approximately:

Age	Area (Ha)	Area (%)
0-10 years Establishing crop	185.9	28
11-20 years Thicket Stage	248	38
21-40 years Pole Stage	113.2	17
41-60 years Mature crop	37.6	6
61+ years Old Forest	71.4	11



- Pie chart showing age of trees by area, as a percentage

- There has been a lot of restructuring in the forest blocks, adding to age diversification, visualized in the chart above.
- There is a reasonably element of larch within the LMP area, 3% of the forested area. Due to the risk of *Phytophthora ramorum* pre-emptive felling of the larch might be required.
- Reference section in LMP.

Deer Species and other herbivores

- Red and Roe, and small numbers of Sika deer are the primary herbivores species present.

  You do occasionally get some ingress from sheep when fences are breeched.

- A thermal drone survey is planned for Ormaig in Feb/March 2025. Salachry is likely to be covered in the 25/26 financial year along with the West Loch Awe LMP area.

Forest objectives regarding deer culling

- Deer culling to date has been delivered by direct staff
- Authorisation from NatureScot under Section 5(6) for the taking or killing of deer during close season & Section 18(2) for the taking or killing of deer at night (That is between one hour after sunset and one hour before sunrise).
- Herbivore impact in the PAWS areas looked to be quite high last time Richard Thompson did a site visit and has suggested fencing small squares to allow a few trees in each to get established and help with seed source spread in some of the newly harvested sites along the shore line of Ormaig.

- Objectives for deer management are to lower the population to a density between 1 and 5 per km^2, or the point at which the full range of site native trees can successfully naturally regenerate.

Link to Deer Dashboard

- Most of data is used to create this DMP can be found in the Deer Dashboard

Population Modeling and Future Culls

Salachary deer culling

Date	Red	Sika	Roe	Total culled
2021	1	1	1	3
2022	1	1	0	2
2023	7	8	7	22

Ormaig Deer culling

Date	Red	Sika	Roe	Total culled
2021	30	4	18	52
2022	31	5	19	55
2023	50	5	16	71

Planned culls for 2024/25

Forests	Red	Sika	Roe	Total culled
Ormaig	60	4	32	96
Salachary	4	2	13	19

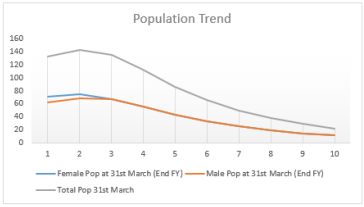
Red Deer Population Model

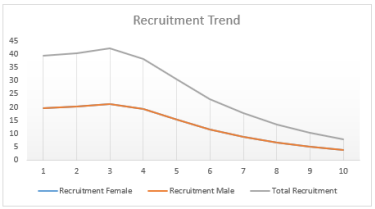
Ormaig	
Yr 1 EUD km2 @ 1st April	16.78
Start Yr Population	123.5008
Area (ha)	736

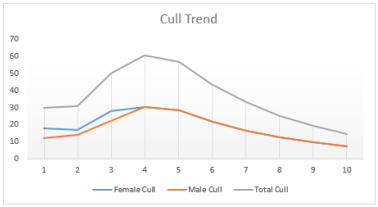
Sex Ratio	Female	Male	
	56%	44%	100%

Baseline Red Deer Population Model

Financial Year (FY)	Population at 1st April (Start FY)	Population at 1st April (Start FY)	Total Population	No per 100ha 1st April	Kid % of pop at 1st April	Recruitment Female	Recruitment Male	Total Recruitment	Est Annual Mortality/Immigration %	Female Immigration/ mortality	Est Annual Mortality/Immigration %	Male Immigration/ mortality	Female pop 31st Aug	Male pop 31st Aug	Population 31st Aug	No per 100ha 31st Aug	Set % Cull	Female Cull	Male Cull	Total Cull	% Cull Achieved
2021	69	54	124	16.8	57	20	20	39	0	0	0	0	89	74	163	22.1	0.0	18	12	30	18.4
2022	71	62	133	18.1	57	20	20	40	0	0	0	0	91	82	173	23.5	0.0	17	14	31	17.9
2023	74	68	142	19.3	57	21	21	42	0	0	0	0	95	89	185	25.1	20.0	28	22	50	27.1
2024	67	67	135	18.3	57	19	19	38	0	0	0	0	86	87	173	23.5	35.0	30	30	60	35.0
2025	56	56	112	15.3	54	15	15	30	0	0	0	0	71	71	143	19.4	40.0	29	29	57	40.0
2026	43	43	86	11.6	54	12	12	23	0	0	0	0	54	54	109	14.8	40.0	22	22	43	40.0
2027	33	33	65	8.9	54	9	9	18	0	0	0	0	41	41	83	11.2	40.0	17	17	33	40.0
2028	25	25	50	6.7	54	7	7	13	0	0	0	0	32	32	63	8.6	40.0	13	13	25	40.0
2029	19	19	38	5.1	54	5	5	10	0	0	0	0	24	24	48	6.5	40.0	10	10	19	40.0
2030	14	14	29	3.9	54	4	4	8	0	0	0	0	18	18	37	5.0	40.0	7	7	15	40.0







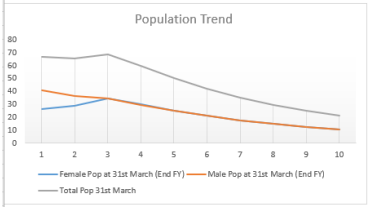
Roe Deer Population Model

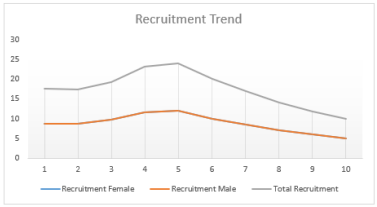
Ormaig	
Yr 1 EUD km2 @ 1st April	9.16
Start Yr Population	67.4176
Area (ha)	736

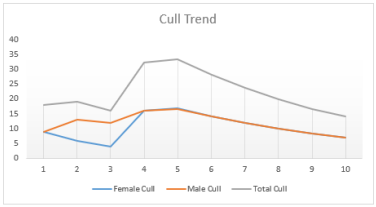
Sex Ratio	Female	Male	
	39%	61%	100%

Baseline Roe Deer Population Model

Financial Year (FY)	Population at 1st April (Start FY)	Population at 1st April (Start FY)	Total Population	No per 100ha 1st April	Kid % of pop at 1st April	Recruitment Female	Recruitment Male	Total Recruitment	Est Annual Mortality/Immigration %	Female Immigration/ mortality	Est Annual Mortality/Immigration %	Male Immigration/ mortality	Female pop 31st Aug	Male pop 31st Aug	Population 31st Aug	No per 100ha 31st Aug	Set % Cull	Female Cull	Male Cull	Total Cull	% Cull Achieved
2021	26	41	67	9.2	67	9	9	18	0	0	0	0	35	50	85	11.6	0.0	9	9	18	21.2
2022	26	41	67	9.1	67	9	9	17	0	0	0	0	35	50	85	11.5	0.0	6	13	19	22.5
2023	29	37	66	8.9	67	10	10	19	0	0	0	0	39	46	85	11.5	0.0	4	12	16	18.9
2024	35	34	69	9.4	67	12	12	23	0	0	0	0	46	46	92	12.5	35.0	16	16	32	35.0
2025	30	30	60	8.1	80	12	12	24	0	0	0	0	42	42	84	11.4	40.0	17	17	33	40.0
2026	25	25	50	6.8	80	10	10	20	0	0	0	0	35	35	70	9.6	40.0	14	14	28	40.0
2027	21	21	42	5.7	80	8	8	17	0	0	0	0	30	30	59	8.0	40.0	12	12	24	40.0
2028	18	18	35	4.8	80	7	7	14	0	0	0	0	25	25	50	6.7	40.0	10	10	20	40.0
2029	15	15	30	4.0	80	6	6	12	0	0	0	0	21	21	42	5.7	40.0	8	8	17	40.0
2030	13	13	25	3.4	80	5	5	10	0	0	0	0	18	18	35	4.8	40.0	7	7	14	40.0







Sika Deer Population Model

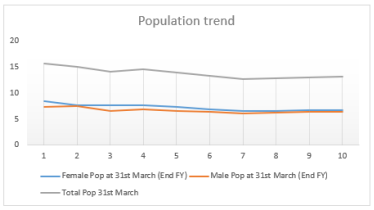
Ormaig

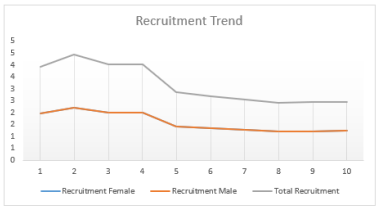
Yr 1 EUD km2 @ 1st April	2.14
Start Yr Population	15.7504
Area (ha)	736

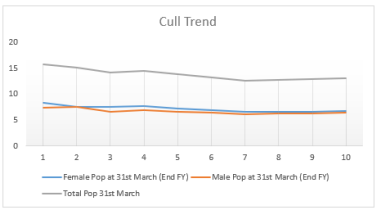
Sex Ratio	Female	Male	
	47%	53%	100%

Baseline Sika Deer Population Model

Financial Year (FY)	Population at 1st April (Start FY)	Population at 1st April (Start FY)	Total Population	No per 100ha 1st April	Kid % of pop at 1st April	Recruitment Female	Recruitment Male	Total Recruitment	Est Annual Mortality/Immigration %	Female Immigration/ mortality	Est Annual Mortality/Immigration %	Male Immigration/ mortality	Female pop 31st Aug	Male pop 31st Aug	Population 31st Aug	No per 100ha 31st Aug	Set % Cull	Female Cull	Male Cull	Total Cull	% Cull Achieved
2021	7	8	16	2.1	53	2	2	4	0	0	0	0	9	10	20	2.7	0.0	1	3	4	20.3
2022	8	7	16	2.1	53	2	2	4	0	0	0	0	11	10	20	2.7	0.0	3	2	5	24.9
2023	8	8	15	2.1	53	2	2	4	0	0	0	0	10	10	19	2.6	0.0	2	3	5	26.1
2024	8	7	14	1.9	53	2	2	4	0	0	0	0	10	9	18	2.5	20.0	2	2	4	20.0
2025	8	7	15	2.0	37	1	1	3	0	0	0	0	9	8	17	2.4	20.0	2	2	3	20.0
2026	7	7	14	1.9	37	1	1	3	0	0	0	0	9	8	17	2.3	20.0	2	2	3	20.0
2027	7	6	13	1.8	37	1	1	3	0	0	0	0	8	8	16	2.1	20.0	2	2	3	20.0
2028	7	6	13	1.7	37	1	1	2	0	0	0	0	8	7	15	2.0	15.0	1	1	2	15.0
2029	7	6	13	1.7	37	1	1	2	0	0	0	0	8	7	15	2.1	15.0	1	1	2	15.0
2030	7	6	13	1.8	37	1	1	2	0	0	0	0	8	8	15	2.1	15.0	1	1	2	15.0







Protection Options – cull/fence/tubes

- Both forest blocks are surrounded with stock fences and some old stone dykes on the Ormaig forest. You have a mix of open ground and private forest neighbouring both blocks.
- Deer culling is best option with improving deer glades and good ATV access within both forest blocks to increase habitat protection.

Infrastructure: Roads/ATV tracks/glades/larders/equipment

Operational Access

The forests have a current road network totaling approx. 22.35km, allowing economic operational access . However, only 16km of that roading is classified as “A” or “B”, thus 6km is only really a track. There are access rights over a number of the roads for properties, the fish farm and neighbouring land management.

- Wildlife ranger has access to 4x4 pickups / quad bikes / capstan winches to assist with deer extraction.

Collaborative working opportunities

- No deer management groups present covering the Ormaig / Salachary forest blocks but good local communication with neighboring parties regarding landscape deer management.

Venison

- FLS subscribe to the Scottish Quality Wild Venison scheme. SQWV
- All venison is quality assured and sold to Highland Game
- Two FLS larders closest to these forest blocks is Ford & Cairnbaan deer larders

Appendix VI: Provenance guidance chart

Species	Guidance
SS	Improved QSS standard throughout Alaska (ASS) provenance may be considered (if available) for its slower growing properties in specific locations. i.e Short Rotation Forestry (SRF) in Windfarm renewables developments.
VPSS	Limited use in best locations
SP	High rainfall type specified as standard. W20
NSP	From the nearest appropriate zone near CFR areas
LP	Only ALP being used in mixture with SS on poorer sites
DF	Seed stand or coastal origin
ESF	Czech or central European
NF	Registered seed stands
GF	Scottish registered seed stands
WH	Registered seed stands with low fluting
WRC	Scottish seed stands
NS	Seed stands, Eastern European or Harz
JCR	Northern Japanese range
NBL	Region of Provenance 10, Native Seed Zone 106
XC	PSSB will advise on any other minor species
Notes: PSSB can provide the most up to date guidance on provenance selection including advice on best suited seed stands. Virtually all seed supplied by PSSB comes from registered seed stands and is based on geographic area compatibility. Use of VPSS has declined as seed orchard QSS improves and this also has a wider genetic base for resilience purposes.	

Appendix VII:

Abbreviations used in the plan

Abbreviation	Meaning
ASNW	Ancient Semi-Natural Woodland
ATV	All Terrain Vehicle
CCF	Continuous Cover Forestry
DAMS	Detailed Aspect Method of Scoring (A modelled windiness score used to calculate the probability of damaging winds occurring)
ESC	Ecological site classification (based on soil and climate information, aids tree species choice)
EIA	Environmental Impact Assessment
FSC	Forest Stewardship Council
FLS	Forestry and Land Scotland
Ha	Hectare
LISS	Low Impact Silvicultural System
LMP	Land Management Plan
MAI	Mean Annual Increment (Average annual growth a tree of stand of trees has experienced to a specific age)
MI	Minimum intervention (minimum level of management)
NR	Natural Reserve
NSA	National Scenic Area
PAWS	Plantation on Ancient Woodland Site
PEFC	Programme for the endorsement of forest certification
RBMP	River Basin Management Plan
SAC	Special Area of Conservation (habitats)
SEPA	Scottish Environmental Protection Agency
SF	Scottish Forestry
SSSI	Site of Special Scientific Interest
SPA	Special Protection Area (birds)
SPHN	Statutory Plant Health Notice
UKBAP	UK Biodiversity Action Plan

UKFS	UK Forestry Standard
UKWAS	UK Woodland Assurance Standard
YC	Yield Class (Index of potential productivity of even-aged stands of trees. Measured in units of cubic metres per hectare per year)

Species abbreviations	
Species	AR = Alder BI = Birch (downy/silver) CAR = Common Alder DF = Douglas Fir EL = European Larch HAW = Hawthorn GF= Grand Fir GWL = Goat Willow HAZ = Hazel HL = Hybrid Larch JL = Japanese Larch LP = Lodgepole Pine MB = Mixed Broadleaves SS = Sitka Spruce MC = Mixed Conifers MCP = Macedonian Pine NBL = native broadleaves (including SP where suitable for conservation) NF = Noble Fir NS = Norway Spruce OK = Oak (robur/petreae) RC = Western Red Cedar ROW = Rowan SP = Scots Pine SS = Sitka spruce WCH = Wild Cherry / Gean WH = Western Hemlock XL = Larch XWL = Other Willows

Forestry and Land Scotland
Coilltearachd agus Fearann Alba

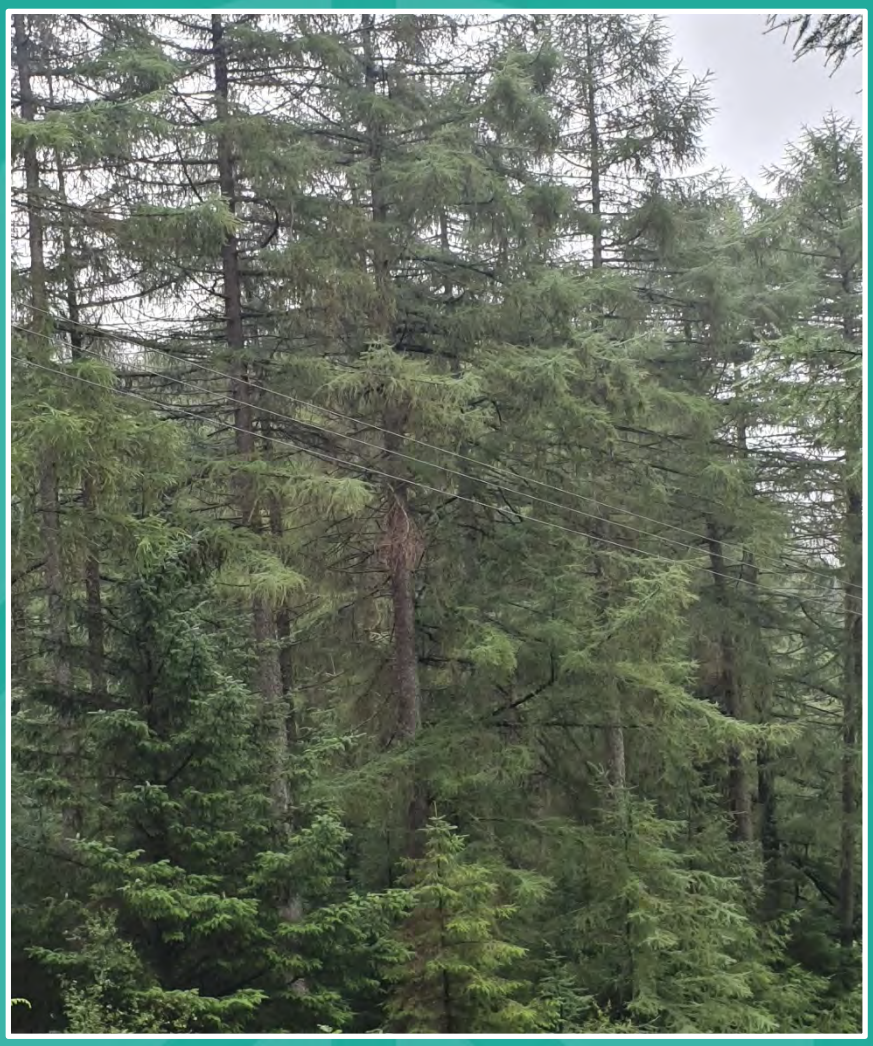
Appendix VIII:

Scottish Forestry Phytophthora ramorum on larch Action Plan

Scottish Forestry
Coilltearachd na h-Alba

Phytophthora ramorum on larch Action Plan

June 2021



Review Date;	June 2022	Review Date;	
Review Date;		Review Date;	

Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulation

Is e Coilltearachd na h-Alba a' bhuidheann-ghnìomha aig Riaghaltas na h-Alba a tha an urra ri poileasaidh, taic agus riaghladh do choilltearachd

Scottish Government
Riaghaltas na h-Alba
gov.scot

Table of Contents

1. Audience 2
2. Background and context 2
3. Picture at the start of 2021 3
4. Strategic national objectives 3
4.1 Priority Action Zone (PAZ); 5
4.2 Risk Reduction Zone (RRZ); 7
4.3 *P. ramorum* Management Zone (MZ); 9
4.4 Options for proactive larch felling available in RRZ and MZ 9
5. Review of progress 9
Appendix 1 – Zone maps 10
Appendix 2 – Q&A 11
Appendix 3 – Tolerance Table 12

1. Audience

Primary audience for this Action Plan is the Scottish forestry sector and all those with an interest in trees, woodlands and forestry in Scotland. Specifically, those with responsibilities for managing larch trees whether as land owner, agent, manager or regulator.

2. Background and context

Actions for the health of Scotland's trees, woods and forests are set within the overarching sustainable forest management principles set out in the UK Forestry Standard and Scotland's Forestry Strategy. Such actions must also have regard to the aims of the Scottish Biodiversity Strategy. Legislation relating to plant health matters does not override other legislative requirements – and vice versa.

The fungus-like pathogen *Phytophthora ramorum* ('*P. ramorum*') was first detected in GB in the nursery trade in 2002 and then in established gardens in 2007. It was not until 2009 that Ramorum was found to be infecting Japanese larch in south west England, and the first confirmed infection on larch in Scotland was found in November 2010 on the Craignish peninsula.

P. ramorum on larch causes needle necrosis, shoot dieback, bleeding cankers and death of trees – which can be rapid (one to two seasons). The three main commercial larch species in Britain (Japanese, European and hybrid) can be infected.

Dispersal of *P. ramorum* from larch is primarily via asexual spores from sporangia that are produced on needles, these being distributed by rain splash, mist, and water movement. Long distance spread can occur in moist winds, movement of infected plant material and associated growing media, and soil movement on people, vehicles and animals. Research indicates that the most significant period for sporulation on larch occurs in the autumn (over a period from September to needle drop, depending on the season). Sporulation risk is also heightened in late spring and generally lower over summer months. Weather may play a role in locally significant events.

The highest risk areas in Scotland, climatically, are in the western half of the country, but infections can establish elsewhere if the microclimate is suitable and host plants are present (such as larch or *Rhododendron ponticum*). Modelling work undertaken by the UK Centre for Ecology and Hydrology (CEH) on behalf of the Scottish Government helped refine areas potentially at high risk.

P. ramorum is regulated under EU emergency measures (2002/757/EC), now implemented by the Plant Health (Official Controls and Miscellaneous Provisions) (Scotland) Regulations 2019. *P. ramorum* is recognised as a tree pest which shall not be landed in, or spread within, Great Britain. Such measures are achieved through the use of Statutory Plant Health Notices (SPHNs) requiring the felling of infected larch by land owners by a specified date.

In 2012 an area of the south west experienced the most significant surge in the scale of new infections seen in Scotland, resulting in between 5,000 and 6,000 hectares of larch becoming affected over a single year. This prompted the establishment of the '*P. ramorum* Management Zone' (MZ) where SPHNs were no longer required to be issued and rules regulating the movement of larch roundwood were only applied when timber was transported out of the MZ. This localised derugulation resulted in greater freedom for the sector to manage the remaining resource. Observed infection rates in the MZ over following years were significantly lower, however, infections continued to spread towards the outer edge of the MZ. New infections have been observed on larch trees in the MZ area each year.

Over the last 9 years infections have been detected across most regions of Scotland, with greatest success of control seen when early detection and early control measures are applied, especially in areas known to be climatically less favourable to reinfections.

Between 2018 and 2020, in parts of southern and western Scotland outside the MZ, particularly in Dumfriesshire and parts of the Cowal peninsula, infection levels reached a scale where the necessary actions from ground surveys through to forest opeartions that would be required to control local outbreaks was greater than the capacity of the local resources of the sector to deliver on the swift timescales required for successful control of local infections.

3. Picture at the start of 2021

Acknowledging the continuing scale of infections in some areas and feedback from stakeholders within the sector, a review of the policies that have been in place since 2013 was completed. The outcomes are detailed in this document.

This revised action plan was developed over winter and spring 2020/2021, with input from the sector, to ensure that resources and conflicting priorities were considered against the backdrop of continued efforts to control the spread of *P. ramorum.*

The areas of Scotland where ongoing successful control of infection is being achieved represent over 65% of Scotland's larch resource (see Priority Action Zone (PAZ) area in Appendix 1).

4. Strategic national objectives

Control of the spread of *P. ramorum* infection as part of the sustainable management of Scotland's forests through:

- Eradicating geographically isolated infections wherever possible;

- Balancing outbreak control objectives with other principles of sustainable forest management (SFM) in areas where infection eradication is no longer deemed a viable option.

It is recognised that eradication of the disease on larch is not achievable in all areas of Scotland. Infected larch sites are required to be felled as soon as possible and ideally prior to either of the two known peaks in *P. ramorum* sporulation, with the most significant peak being in autumn and a second one in late spring/early summer.

Highest priority will be given to areas of Scotland where control of localised infections is achievable and can prevent infections spreading to new areas and reaching levels where eradication becomes unachievable. Priority will also be given to areas where remaining healthy larch resource is sufficient to justify the priority actions. The map in Appendix 1 defines where the national priorities have been set. This will be reviewed annually by the end of June.

In support of this, Scotland has been divided into three zones:

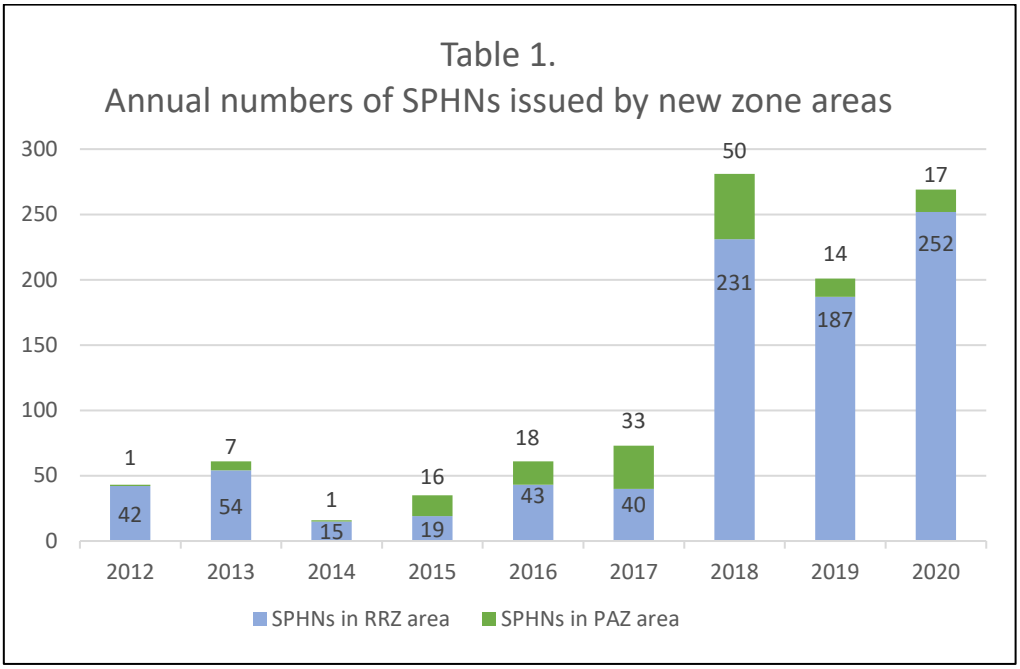
- The **Priority Action Zone (PAZ)**
  Is the area where actions will have the greatest impact on controlling spread of *P. ramorum*. Outbreaks to date have been limited in scale and control efforts have been successful at eradicating infections on larch. See table 1 for annual breakdown of historic SPHNs that would have been covered by the new zones, figures do not cover the area that became the MZ in 2014. Prioritisation of survey and regulatory efforts will ensure Statutory Plant Health Notices (SPHNs) are issued quickly, with felling required, wherever possible, before the end of August in the year of detection.

  This area contains roughly 2/3 of Scotland's larch resource, including areas like Speyside and Deeside where larch may still have a long term future. Parts of Eastern Scotland also have a significantly greater proportion of larch in the stocked forest area, with NFI figures showing larch comprising over 14.8% of the stocked conifer area in Tayside and Fife compared to the national average of 7.6%.

- The **Risk Reduction Zone (RRZ)**
  Is the area where spread and scale of infection is beyond what can be controlled locally with available resources. The principal aim is now to reduce the risk of *P. ramorum* to the sector.

  Statutory actions in the form of SPHNs will continue to be used as the main tool to ensure consistency of control efforts across the range of land ownerships. Timescales for felling will not be as short as in the PAZ (typically a year or more from initial detection to required SPHN felling date will be acceptable).

- The ***P. ramorum* Management Zone (MZ)**
  Is maintained in the way it was set up in 2014, with SPHNs only used in exceptional circumstances.
  The Plant Health (Forestry) (Phytophthora ramorum Management Zone) (Scotland) Order 2014 (legislation.gov.uk)



4.1 Priority Action Zone (PAZ);

Purpose:
To eradicate local infections by felling affected trees rapidly after detection.

Action	Responsible	Start	Due	Desired Outcome
Aerial survey	SF Tree Health Team	Late May annually	Early June with second survey in August	Priority to survey PAZ before RRZ. Infection is detected as early as possible.
Follow up field surveys	SF Tree Health Team	Early June		Priority for field surveys up to 4 symptomatic trees felled to get best sample at time of initial survey. Where sufficient evidence of infection is identified from field survey, landowners / managers will be notified from mid-June onwards.
*Issue of SPHNs	SF Conservancy	ASAP following field survey	ongoing	Initiate the fast felling of affected trees by landowner.

Standard SPHN approach is to ensure felling of all larch within a 250m buffer of infections prior to the end of February in the year following detection	Landowner	Before the second sporulation after detection	**The end of February in the year following detection	Removal of risk associated with sporulating standing trees prior to second sporulation period in the spring, plus removal of trees that may have become infected in the autumn sporulation period. Retain option for a landowner or agent to include the whole larch coupe. Neighbouring landowners will only be affected if they have larch growing within 250m of the identified symptomatic trees.
A reduced felling area of all larch within a 100m buffer of infections is an option but **only** where felling of the SPHN is completed prior to the end of August in the year of detection	Landowner	Before the first sporulation after detection	**The end of August in the year of detecton	Removal of risk associated with sporulating standing trees prior to main sporulation period in the autumn. Retain option for a landowner or agent to use 250m buffer or include the whole larch coupe as a second phase of the SPHN. Neighbouring landowners will only be affected if they have larch growing within 100m of the identified symptomatic trees. Felling of all trees in 100m buffer zone acceptable if felled along with symptomatic trees.
Wherever possible, symptomatic trees felled swiftly after receiving SPHN	Landowner	As soon as possible when an SPHN has been served	ASAP prior to autumn in the year of detection	Removal of risk associated with sporulating standing trees.
Extensions to SPHN	SF Conservancy	Only for specified restrictions which inhibit rapid response		In all circumstances every effort must be taken to fell symptomatic trees immediately. Extensions may be considered for the following reasons; • Breeding season for specific species • Core path/ROW requiring closure • Exceptional site conditions requiring specialist equipment and planning • Overhead and underground services requiring 3rd party consultation and planning • Complex ownership arrangements involving multiple owners

				Other exceptional circumstances may arise and this should be communicated to SF Conservancies immediately for consideration.

*SPHNs will be issued by SF on suspicion. If sufficient evidence is found at first visit, landowners may be offered the opportunity to accept an SPHN at a lower threshold of cetainty – allowing them an earlier start on an SPHN, to utilise the 100m buffer option. Confirmation of infection will still be sought using laboratory analysis of symptomatic material.

Exemptions to these strict SPHN deadlines may be required where there are conflicts between legislation or other key principles of sustainable forest management (SFM). Decisions on these will be taken on a case by case basis and **are at the discretion of SF Conservancies.

Where land managers receive SPHNs in both the PAZ and RRZ, SF will work with land managers to facilitate rapid action in the PAZ.

4.2 Risk Reduction Zone (RRZ);

Purpose:
To make it easier for the sector to swiftly comply with control actions in the PAZ.
To promote removal of larch trees in the RRZ with a partnership approach, using targeted, cooperative and strategic considerations.

Action	Responsible	Start	Due	Desired Outcome
Aerial survey	SF Tree Health Team	June	June and July	Symptomatic infection areas are mapped and risk based approach applied to prioritising survey resources to areas where actions can have greatest effect. Review and confirmation of Zone boundary.
Follow up field surveys	SF Tree Health Team	July	July and August	Priority areas of RRZ surveyed once PAZ surveys are complete.
Issue of SPHNs	SF Conservancy	August	Ongoing	Landowners / agents given notification of minimum felling areas required under SPHN and timescale for this.
Ensure felling of all larch within a 250m buffer for SPHN sites	Landowner	Felling to start as soon as practicable after receiving SPHN	The end of August, in the year following detection	Allowing longer timeline for planning and operations to incorporate the principles of sustainable forest management.

Extensions to SPHN	SF Conservancy	Only for exceptional circumstances which prevent rapid response		In all circumstances every effort must be taken to fell symptomatic trees immediately to reduce risk of further local spread of infection. Extensions to set deadlines may be considered where sites have operational issues including the following; • Breeding season for protected species • Core path/ROW requiring closure • Exceptional site conditions requiring specialist equipment and planning • Overhead and underground services requiring 3rd party consultation and planning • Complex ownership arrangements involving multiple owners • Proximity to boundary with PAZ – sites distant from the PAZ will be considered with greater leniency by SF This list is not exclusive. Conservancy staff will consider special circumstances on a site by site basis. This must be balanced with the desire to reduce risk to healthy larch in the area.

4.3 *P. ramorum* Management Zone (MZ);

Purpose:
The removal of all larch over time.

Action	Responsible	Start	Due	Desired Outcome
Demonstrate the strategy to remove all larch within the MZ covered by existing management plans	Land owners	At review and mid-term review	At 5 or 10 years from approval date	The removal of all larch over the period of a management plan.
Guidelines set up for the RRZ will apply in the MZ	Conservancy			
Where management plans do not exist, SPHNs may be used if required	Conservancy			SPHNs will not be used unless change in pathogen behaviour is observed or suspected, especially in terms of host species.

4.4 Options for proactive larch felling available in RRZ and MZ

Forest Plan holders, to review their plans, with strategic cooperation from SF, with the aim of removing all larch as soon as is possible within SF forest plan guidelines and UKFS
Tolerance table as laid out in Appendix 3 lays out some of the options available in the RRZ and MZ.

5. Review of progress

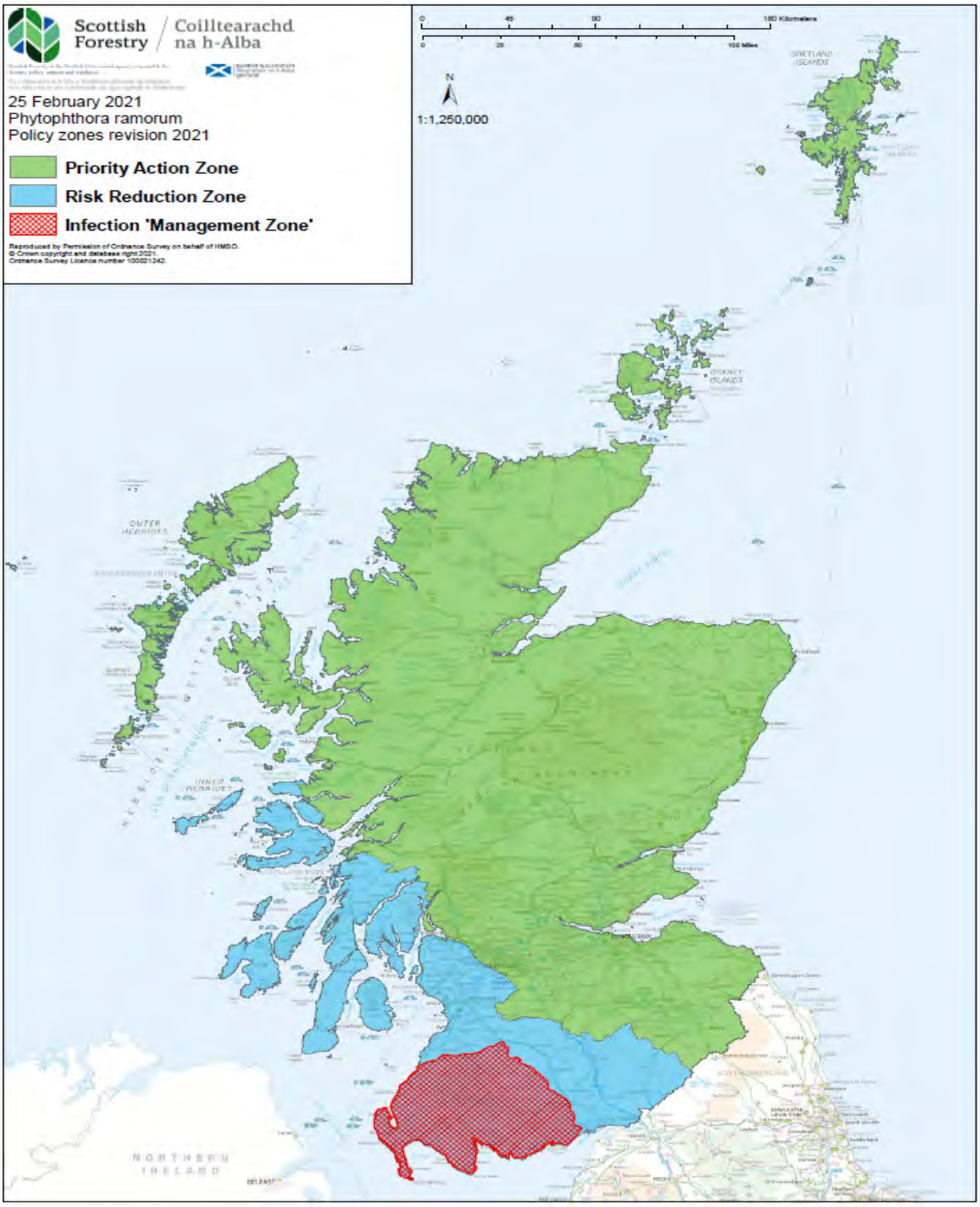
Deliverables (SPHN compliance reporting and survey outputs): Annually by end March.

Policy review or confirmation (SF Head of Tree Health to lead review of the existing zone boundary between RRZ and PAZ to be completed once all areas of the PAZ have been covered by early season surveys): Annually by end June.

Scottish Forestry
Coilltearachd na h-Alba

Appendix 1 – Zone maps

Map of the policy zones for *P. ramorum* on larch in Scotland.
A more detailed map can be accessed via the Scottish Forestry map viewer.



Scottish Forestry
Coilltearachd na h-Alba

Appendix 2 – Q&A

Link to Frequently Asked Questions Here

Appendix 3 – Tolerance Table

Table of working tolerances specific to larch and available for all approved Forest Plans in the Risk Reduction Zone (RRZ) – including the MZ in order to help reduce sporulation of *Phytophthora ramorum* on larch spp.

Approval process	Adjustment to felling period	Timing of restocking and species component	Felling of larch within a mixed coupe	Changes to road lines
SF approval normally not required	Fell date for phase 2 can be moved forward where larch comprises 50% or more of the coupe species component.	Changes to restocking proposal that exclude larch and closely related species in the same genus e.g. Sitka and Norway spruce. Up to 3 planting seasons after felling.		
Approval normally by exchange of letters and map	Felling moved between phases 1 and 2 where larch comprises less than 50% of the coupe species component.	Changes to restocking proposals that include larch or closely related species in the same genus, e.g. Sitka and Norway Spruce. Between 3 and 5 planting seasons after felling.	Areas of pure larch up to 20% of coupe area within phase 1 and 2 can be felled to remove the sporulating host, with restocking deferred until the rest of the crop is felled. Where the larch constitutes more than 20% of the coupe component, then the whole coupe must be felled and restocked together.	New road lines (subject to EIA screening opinion) or tracks within existing approved plans necessary to allow the extraction of larch material. Where necessary Prior Approval should be dealt with directly with the relevant Planning Authority.
Approval by formal plan amendment is required	Advance felling into current or 2nd phase for pre-emptive larch removal.			Where a new public highway entrance or exit is required. Where necessary Prior Approval should be dealt with directly with the relevant Regional Council.

NB: Larch felled in the autumn and winter, when the presence of *P. ramorum* cannot be assessed visually must be treated as infected and will therefore require a movement licence. When carrying out operations where the clearance has not been on the Public Register or through the consultation procedure it is important that due diligence is undertaken to identify sites that will require to be protected.
SPHNs will still be issued and should be complied with accordingly. This tolerance table is offered to assist in the pre-emptive early removal of the host species.

Forestry and Land Scotland
Coilltearachd agus Fearann Alba

Appendix IX:

FLS Larch Strategy

Forestry and Land Scotland
Coilltearachd agus Fearann Alba

FLS Larch Strategy 2022

An approach to managing larch on the national forests and land in response to *Phytophthora ramorum* and the revised Scottish Forestry Action Plan June 2021.

Contents:

- Background
- Aim of the Strategy
- Implementation
- Statutory Plant Health Notices
- Pre-emptive felling
- Zones of Action
- Figure 1: Zonal map of Scotland
- Regional Impact
- Supporting guidance
- Figure 2 – Larch Strategy volumes per zone and region

Background

The fungus-like pathogen *Phytophthora ramorum* ('*P. ramorum*') was first detected in GB in the nursery trade in 2002. In 2009 it was found to be infecting Japanese larch in south west England, and the first confirmed infection on larch in Scotland was found in November 2010 on the Craignish peninsula.

P. ramorum can affect Japanese, European and hybrid larch and causes needle necrosis, shoot dieback, bleeding cankers and death of trees – which can be rapid (one to two seasons).

It is mainly dispersed via asexual spores from sporangia (produced on needles) and that are distributed by rain splash, mist, and water movement. Long distance spread can occur via moist winds, movement of infected plant material and associated growing media, and soil movement on people, vehicles and animals.

The highest risk areas in Scotland, climatically, are in the western half of the country, but infections can establish elsewhere if the microclimate is suitable.

P. ramorum is regulated under EU emergency measures (2002/757/EC)[1], and is recognised as a tree pest which shall not be landed in, or spread within, Great Britain. This is in part achieved through the use of Statutory Plant Health Notices (SPHNs) requiring land owners to fell infected larch by a specified, earliest possible date that is ideally prior to the autumn or the late spring early summer sporulation peaks.

In 2012 an area in south west Scotland experienced the most significant surge of new infections, with over 5,000 hectares of larch becoming affected over a single year. This prompted the establishment of the '*P. ramorum* Management Zone'.

Over the last 9 years infections have been detected across most regions of Scotland. It is recognised that eradication of the disease on larch is not achievable in all areas of Scotland.However, early detection and the early application of control measures, especially in areas known to be climatically less favourable to reinfections, have been vital in exercising some control of the disease.

[1] now implemented by the Plant Health (Official Controls and Miscellaneous Provisions) (Scotland) Regulations 2019

Aim of the Strategy

This strategy provides direction for the management of larch on the national forests and land in response to the threat of Phytophthora ramorum.

It will be kept under regular review, particularly in response to Scottish Forestry Larch Action Plan revisions.

Strategic management includes both Scottish Forestry SPHN requirements and FLS pre-emptive felling.

The aims of the strategy are to:

- Ensure compliance with the Scottish Forestry Action Plan June 2021
- Protect the Larch resource in the less vulnerable areas of NE Scotland
- Reduce the business risk to FLS of a reactive approach (SPHN driven)
- Provide access to all remaining mature (35 years or older) larch in vulnerable areas
- Implement a more proactive strategy that will focus on:
    - A more ambitious felling programme based on current and anticipated infection spread
    - A sustainable approach to removal of difficult coupes as identified in the “difficult and complex larch coupes” project
    - Focus on timeous removal of all mature larch in areas at risk

Implementation

Much of our Larch felling will continue to be carried out as part of existing Land Management Planning proposals for Sustainable Forest Management.

However, this strategy will govern how we manage felling in compliance with SPHNs and via pre-emptive felling.

Statutory Plant Health Notices

In line with the Scottish Forestry Action Plan June 2021, FLS will enact control of Phytophthora ramorum by:

- Complying with all SPHNs issued by Scottish Forestry to eradicate geographically isolated infections wherever possible (Priority Action Zone)
- Balancing outbreak control objectives with other principles of sustainable forest management
- Take a partnership approach in areas where infection eradication is no longer deemed a viable option (Risk Reduction Zone). This includes a "Management Zone" in SW Scotland where all larch is deemed to be infected and as such SPHNs are not generally served.

Pre-emptive felling

In committing to a more proactive approach to risk management, FLS intends to remove more larch than the minimum required by law. These pre-emptive felling ambitions are largely aligned to the Scottish Forestry policy and the previously identified vulnerable zones, with some variance for higher risk forests such as those west of Loch Lomond noted below.

The proposed extent of larch removals are presented as minimum thresholds. These will be exceeded in some areas to reflect hot-spots (such as Carron Valley), operational efficiencies, and strategic response to any disease spread from each year's pending surveys.

Zones of Action

The proposed actions are applicable within the zones laid out in this schematic[2].

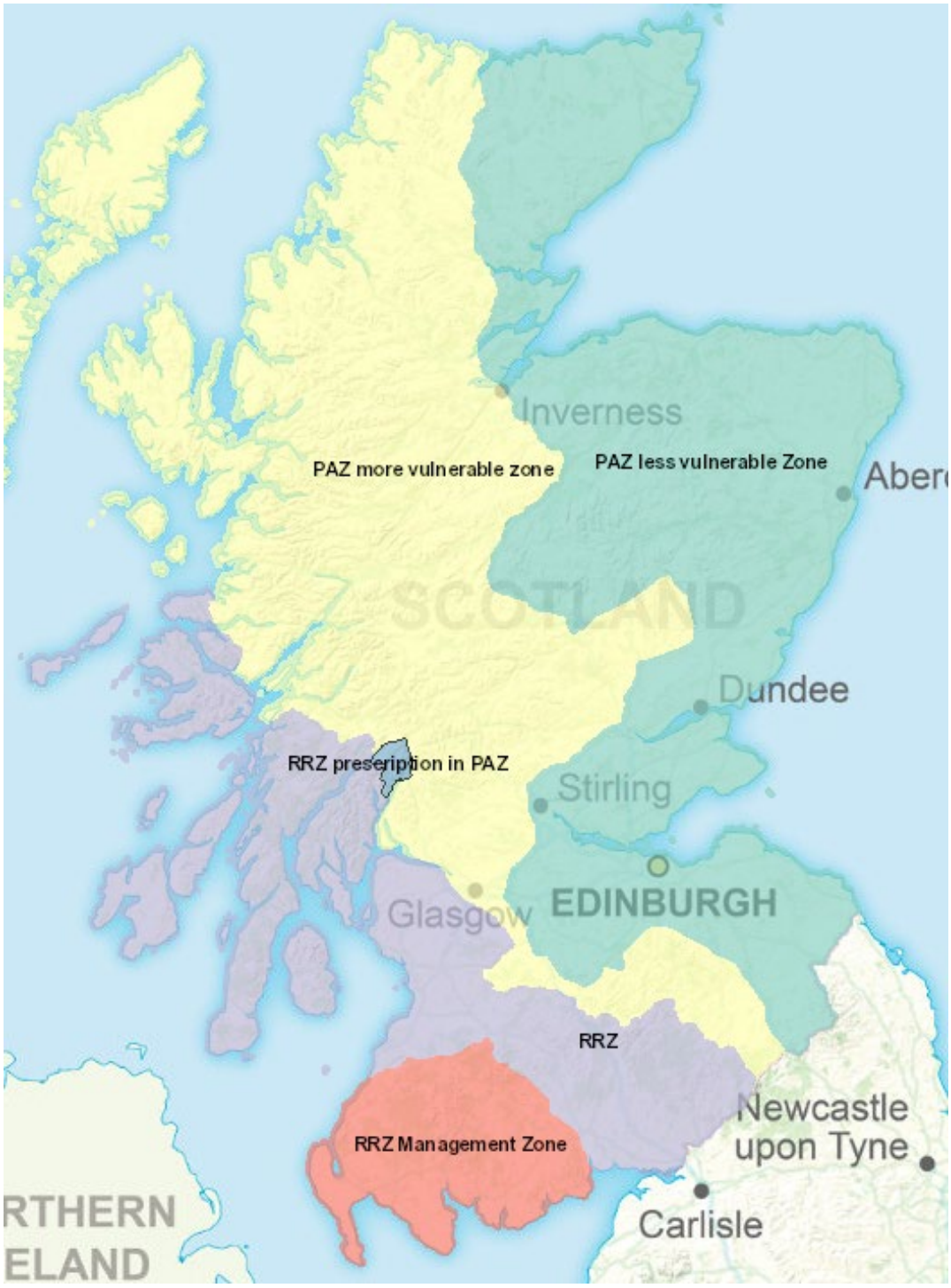


Figure 1 Map of risk zones

[2] Shapefiles for the zones are available in Forester Web Working Data

○ Priority Action Zone (PAZ)

In the more vulnerable zone we will –

- Remove at least 20% of the larch by April 2027 (against an April 2021 baseline and focusing on the areas closest to the boundary of the Risk Reduction Zone)
- Fell the "difficult and complex larch coupes" by April 2032 (starting with those most at risk to disease and maintaining a balanced annual programme)
- Construct access to at least 80% of all mature larch by April 2027.

In the less vulnerable areas of the Priority Action Zone, pre-emptive felling will be the exception rather than the rule. There are no felling targets set or strategic access provision proposals for these areas.

○ Risk Reduction Zone (RRZ)

In this zone we will –

- Remove at least 50% of the remaining Larch and all mature larch by April 2027 (based on an April 2021 baseline))
- Maintain a balanced, annual programme to fell by April 2032, any remaining "difficult and complex larch coupes"

Note, this zone includes the forest blocks west of Loch Lomond (Cruach Tarbert, Glen Croe, Butterbridge and Ardgarten).

○ Management Zone (Part of Risk Reduction Zone)

In this zone we will –

- Endeavour to remove all larch by April 2032 (in compliance with the SF policy)

Within this, there will be a commitment to remove **all** "live" mature larch by April 2027. There will be no commitment to remove areas of young larch (including natural regeneration) that are "not known to be infected".

Regional Impact

For additional information, indicative volumes of timber to be felled by Region are included in figure 2, appended to this document.

South Region

Within the Management Zone, the removal of all mature larch by April 2027 **and** programmed removal of all "live" larch by April 2032

Within the Risk Reduction Zone at least 50% of larch **and** all mature larch to be removed by April 2027

Within the priority action Zone at least 20% of larch to be removed **and** access constructed to at least 80% of all mature larch by April 2027

Any "difficult and complex larch coupes" not felled under the requirements of 2027 will be removed by April 2032.

Central Region

Within the Risk Reduction Zone, including blocks west of Loch Lomond (Cruach Tarbert, Glen Croe, Butterbridge and Ardgarten), at least 50% of larch ***and*** all mature larch to be removed by April 2027

Within the Priority Action Zone, at least 20% of larch to be removed ***and*** access constructed to at least 80% of all mature larch by April 2027.

Land Management Plan revisions in the more vulnerable area of the Priority Action Zone should prioritise removal of all mature larch within 10 years. Any "difficult and complex larch coupes" not felled under the requirements of 2027 will be removed by April 2032

Infections in forest blocks should be subject to a "block level SPHN" **or** see the removal of at least 50% of all larch **and** all mature larch within 5 years

West Region

Within the Risk Reduction Zone, at least 50% of larch **and** all mature larch to be removed by April 2027

Within the Priority Action Zone, at least 20% of larch removed ***and*** access constructed to at least 80% of all mature larch south of Loch Leven and west of Loch Linnhe by April 2027

Any “difficult and complex larch coupes” not felled under the requirements of 2027 will be removed by April 2032

East Region

Within the Priority Action Zone (in all forests west of the A9 and in previously flagged blocks in the Angus Glens) at least 20% of larch to be removed ***and*** access constructed to at least 80% of all mature larch by April 2027.

Land Management Plan revisions in the more vulnerable area of the this zone should prioritise removal of all mature larch within 10 years.

Any “difficult and complex larch coupes” not felled under the requirements of 2027 will be removed by April 2032

Infections in forest blocks should be subject to a “block level SPHN” **or** see the removal of at least 50% of all larch **and** all mature larch within 5 years

North Region

Within the Priority Action Zone at least 20% of larch in the more vulnerable area to be removed by April 2027. No pre-emptive felling required in the less vulnerable zone.

Any “difficult and complex larch coupes” not felled under the requirements of 2027 will be removed by April 2032

Supporting guidance

This document is supported by the FLS Larch Strategy 2022 Appendix which covers supplementary information and guidance on:

1. FLS implementation of SPHNS
2. Pre-emptive felling on the FLS estate: proactive to get ahead
3. Procurement toolbox: DP contractors for delivering SPHNs
4. FLS SPHN layer, monthly reporting and SPHN management
5. Restocking after larch felling and Nat regen
6. Biosecurity requirement for P Ramorum (Scottish Forestry)
7. Wood movement and processing licences

Figure 2 – Larch Strategy volumes per zone and region

	Baseline standing	Fell in year*	Target standing	Fell in year*	Target standing	Fell in year*	Target standing	Fell in year*	Target standing	Fell in year*	Target standing	Fell in year*	Target standing
All regions	**01/12/2021**	**31/03/2022**	**31/03/2022**	**31/03/2023**	**31/03/2023**	**31/03/2024**	**31/03/2024**	**31/03/2025**	**31/03/2025**	**31/03/2026**	**31/03/2026**	**31/03/2027**	**31/03/2027**
PAZ Less Vulnerable Zone	**1,324,190**	**26,484**	**1,324,190**	**52,968**	**1,324,190**	**52,968**	**1,324,190**	**52,968**	**1,324,190**	**52,968**	**1,324,190**	**52,968**	**1,324,191**
PAZ Vulnerable Zone > 20% over 5 years	**1,883,788**	**84,770**	**1,836,693**	**139,400**	**1,770,761**	**136,763**	**1,704,828**	**134,126**	**1,638,896**	**131,488**	**1,572,963**	**128,851**	**1,507,030**
PAZ Vulnerable Zone > 50% over 5 years	**50,590**	**1,012**	**50,590**	**7,083**	**45531**	**6,880**	**40,472**	**6,678**	**35,413**	**6,476**	**30,354**	**6,273**	**25,295**
RRZ - Other	**586,200**	**47,924**	**550,000**	**104,000**	**468,000**	**97,720**	**389,000**	**97,560**	**307,000**	**91,280**	**228,000**	**89,578**	**147,542**
RRZ - Management Zone	**311,791**	**21,825**	**296,201**	**39,909**	**268,140**	**41,905**	**236,961**	**37,540**	**208,900**	**39,535**	**177,721**	**35,698**	**149,132**
Total	**4,156,559**	**182,015**	**4,057,675**	**343,360**	**3,876,622**	**336,236**	**3,695,451**	**328,871**	**3,514,399**	**321,747**	**3,333,228**	**313,368**	**3,153,190**
North Region													
PAZ Less Vulnerable Zone	262,217	5,244	262,217	10,489	262,217	10,489	262,217	10,489	262,217	10,489	262,217	10,489	262,217
PAZ Vulnerable Zone > 20% over 5 years	526,924	23,712	513,751	38,992	495,309	38,255	476,866	37,517	458,424	36,779	439,982	36,042	421,539
North Region Totals		**28,956**		**49,481**		**48,743**		**48,006**		**47,268**		**46,530**	
West Region													
PAZ Vulnerable Zone > 20% over 5 years	455,456	20,496	444,070	33,704	428,129	33,066	412,188	32,428	396,247	31,791	380,306	31,153	364,365
RRZ - Other	307,861	24,018	290,000	52,600	249,000	52,960	206,000	49,240	165,000	47,600	124,000	46,943	82,017
West Region Totals		**44,514**		**86,304**		**86,026**		**81,668**		**79,391**		**78,097**	
East Region													
PAZ Less Vulnerable Zone	1,010,617	20,212	1,010,617	40,425	1,010,617	40,425	1,010,617	40,425	1,010,617	40,425	1,010,617	40,425	1,010,617
PAZ Vulnerable Zone > 20% over 5 years	338,435	15,230	329,974	25,044	318,129	24,570	306,284	24,097	294,438	23,623	282,593	23,149	270,748
East Region totals		**35,442**		**65,469**		**64,995**		**64,521**		**64,047**		**63,574**	
Central Region													
PAZ Less Vulnerable Zone	51,356	1,027	51,356	2,054	51,356	2,054	51,356	2,054	51,356	2,054	51,356	2,054	51,356
PAZ Vulnerable Zone > 20% over 5 years	322,835	14,528	314,764	23,890	303,465	23,438	292,166	22,986	280,866	22,534	269,567	22,082	258,268

	Baseline standing	Fell in year*	Target standing	Fell in year*	Target standing	Fell in year*	Target standing	Fell in year*	Target standing	Fell in year*	Target standing	Fell in year*	Target standing
All regions	**01/12/2021**	**31/03/2022**	**31/03/2022**	**31/03/2023**	**31/03/2023**	**31/03/2024**	**31/03/2024**	**31/03/2025**	**31/03/2025**	**31/03/2026**	**31/03/2026**	**31/03/2027**	**31/03/2027**
PAZ Vulnerable Zone > 50% over 5 years	50,590	1,012	50,590	7,083	45531	6,880	40,472	6,678	35,413	6,476	30,354	6,273	25,295
RRZ - Other	186,420	15,148	175,000	37,000	145,000	30,800	120,000	33,800	91,000	30,640	64,000	29,855	36,705
Central Region totals		**31,715**		**70,027**		**63,172**		**65,518**		**61,704**		**60,265**	
South Region													
PAZ Vulnerable Zone > 20% over 5 years	241,446	10,865	235,410	17,867	226,959	17,529	218,509	17,191	210,058	16,853	201,607	16,515	193,157
PAZ Vulnerable Zone > 50% over 5 years													
RRZ - Other	91919	8,757	85,000	14,400	74,000	13,960	63,000	14,520	51,000	13,040	40,000	12,780	28,820
RRZ - Management Zone	311791	21,825	296,201	39,909	268,140	41,905	236,961	37,540	208,900	39,535	177,721	35,698	149,132
South Region totals		41,448		72,176		73,394		69,251		69,428		64,993	

* Includes volume increment @ 4% of standing per annuam

Figure 1 larch baseline and targets by zone, region and year

Forestry and Land Scotland
Coilltearachd agus Fearann Alba

Appendix X:

West Regions Regional Historical Asset Management Plan

Forestry and Land Scotland
Coilltearachd agus Fearann Alba

Regional Historic Asset Management Plan

West Region 2022

The West Scotland region incorporates the following zones identified within the **National Spatial Overview**: East Lochaber; Mull; Argyll; and elements of the North Western Coast and Northern Glens.

The region includes a significant group of early prehistoric funerary and ceremonial monuments in mid Argyll and on Mull (including the long cairn of Auchoish; the rock art of Achnabreac [managed by Historic Environment Scotland] and Ormaig; and the stone rows of Cnoc Fada and Maol Mor on Mull); a significant group of late prehistoric duns and hillforts (including Castle Dounie, Drum an Duin and Dun a Choin Duibh in Knapdale, and the hillfort of Dun Deardail in Glen Nevis); and several significant deserted townships (including Kilmory Oib and Arichonan in Knapdale and Aoineadh Mor in Morvern) requiring a particular focus on Historic Asset Risk Assessments.

Vision

We are committed to undertaking conservation management, condition monitoring and archaeological recording at our significant historic assets; and to helping to develop, share and promote best-practice historic environment conservation management. We are proud to support *Our Place in Time: the Historic Environment Strategy for Scotland* and *Scotland's Archaeology Strategy*; and often seek to contribute to the *Scottish Archaeological Research Framework*.

Our **Corporate Plan** sets out our priorities in terms of integrated land management. One of our key outcomes is describes as *"looking after Scotland's national forests and land, [ensuring that] Scotland's national forests and land are looked after; biodiversity is protected and enhanced; and more environmental services are provided to people*." It notes that "*the scale of our national forests and land allows us to manage whole landscapes; restoring, enhancing and linking habitats. The diversity of our national forests and land means that we look after a range of rare and threatened species and many significant historic assets*."

To meet this outcome we will "*develop an asset management approach to the historic environment within Scotland's forests and land*." Taking an asset management approach to the historic environment within Scotland's national forests means that we can inform and direct our resources and investment. In developing our asset management approach we have followed the *Historic Environment Policy for Scotland* and Historic Environment Scotland's *Managing Change in the Historic Environment: Asset Management* guidance note.

General background

The key **UK Forestry Standard (UKFS) legal requirement** in relation to the protection and conservation of scheduled monuments within our planning framework is that "*[1] Scheduled Monuments must not be damaged and consent must be obtained from the relevant historic environment authority for any works that have the potential to damage the monument*" (UKFS 2017, 83).

The key **UK Forestry Standard (UKFS) legal requirement** in relation to the protection and conservation of listed buildings within our planning framework is that "*[3] Listed building consent must be obtained from the local authority or relevant historic environment authority to demolish a listed building or structure or any part of it, or to alter it in any way which would affect its character, inside or out*" (UKFS 2017, 83).

The key **UKFS good forestry practice requirement** in relation to the management of historic landscape-scale designations within our planning framework is that "*[2] Forests should be designed and managed to take account of policies associated with historic landscapes, battlefield sites, historic parks and gardens, and designed landscapes of historic interest*" (UKFS 2017, 84).

The key **UKFS good forestry practice requirement** in relation to the management of the historic environment within our planning framework is that "*[4] Forest management plans and operational plans should set out how important historic environment features, including veteran trees, are to be protected and managed*" (UKFS 2017, 84).

The key **UKFS good forestry practice guidelines** in relation to the conservation of the historic environment within our planning framework are that we should "*[15] Manage trees and shrubs that may damage important historical sites and features: limit the establishment of woody vegetation and consider removing large trees vulnerable to windthrow*; *[18] Aim to maintain the open settings for features of historical interest; where appropriate monitor changes in vegetation and consider using grazing or mowing [cutting or flailing] as part of the management plan";* and *"[19] Manage public access so that open settings for [relevant] historic features are not subject to erosion or damage caused by visitor pressure"* (UKFS 2017, 89-90).

Operational context / text for LMPs

Our key priorities for archaeology and the historic environment are to undertake conservation management, condition monitoring and archaeological recording at significant historic assets; and to seek opportunities to work in partnership to help to deliver *Our Place in Time: the historic environment strategy for Scotland* (2014) and *Scotland's Archaeology Strategy* (2015). Significant archaeological sites will be protected and managed following the *UK Forestry Standard* (2017) and the FCS policy document *Scotland's Woodlands and the Historic Environment* (2008). Harvesting coupes, access roads and fence lines will be surveyed prior to any work being undertaken in order to ensure that upstanding historic environment features can be marked and avoided. At establishment and restocking, work prescriptions remove relevant historic environment features from ground disturbing operations and replanting. Where appropriate, significant historic assets are recorded by archaeological measured survey, see active conservation management and may be presented to the public with interpretation panels and access paths. Opportunities to enhance the setting of important sites and landscapes will be considered on a case-by-case basis (such as the views to and from a significant designated site).

The *Regional Historic Asset Management Plan* includes conservation management intentions for designated historic assets on the National Forest Estate. Details of all known historic environment features are held within the *Forester Web Heritage Data* and included within work plans for specific operations to ensure damage is avoided. Significant historic environment features will be depicted on all relevant operational maps.

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

Regional Historic Asset Management Plans

It is a long-accepted principle that government agencies with large estates should be responsible for the care of historic assets in their stewardship. To this end, we have developed a **Designated Historic Assets Register** geodatabase for use alongside our strategic planning and operational GIS datasets. We also seek to make use of prioritised conservation plans, including historic assets in relevant operational plans and strategies where appropriate.

The five ***Regional Historic Asset Management Plans*** (RHAMP) contain conservation management intentions for designated historic assets on the national forest estate, including:

- **Scheduled Monuments**;
- **Listed Buildings**; and sites from
- the ***Inventory of Gardens and Designed Landscapes in Scotland***; and
- the ***Inventory of Historic Battlefields***.

The RHAMP describes an ongoing programme of conservation management, condition monitoring and detailed archaeological recording at relevant significant designated historic assets. It identifies and records any major conservation works, significant condition monitoring programmes (including **Historic Asset Risk Assessments**) and archaeological measured surveys undertaken.

The RHAMP does not identify landscape-scale management proposals in regard to setting or *Inventory* designations, as these are considered and consulted upon on a case-by-case basis within our strategic **Land Management Plans**. However, the RHAMP will inform these discussions as part of the wider ecosystem approach (*Applying an ecosystem approach to land management planning*, FLS 2018). The RHAMP also does not identify individual protective actions in regard to ensuring that damage is avoided during forestry operations, as these are considered on a case-by-case basis within our operational **Work Plans**.

Details of all known historic environment features are held within the ***Forester Web Heritage Data*** and included alongside datasets provided by Historic Environment Scotland within our work plans for specific operations to ensure damage is avoided. Significant historic environment features will be depicted on all relevant operational maps.

Part 2 of this RHAMP details individual conservation management priorities and actions.

Regional Priorities

Regional priorities highlight significant elements of the historic environment – both distinct areas and particular themes – relevant to that region that should be highlighted within the relevant **Land Management Plans** and regional strategies. Sites and landscapes appropriate for access provision, interpretation and presentation may be reflected in the relevant **Visitor Experience Strategy**. Individual sites with interpretation are highlighted below in the **Conservation Management Actions** tables. Some upstanding drystone or masonry-built sites with public access will require **Historic Asset Risk Assessments** and monitoring.

Surveying new acquisitions is also a priority, ensuring that the **Heritage Data** is kept up-to-date.

Neolithic and Bronze Age funerary and ceremonial monuments

The region includes a significant group of early prehistoric funerary and ceremonial monuments in mid Argyll and on Mull, including the long cairn of Auchoish (173); the rock art of Achnabreac [managed by Historic Environment Scotland] and Ormaig (5488); and the stone rows of Cnoc Fada (4364) and Maol Mor (10859) on Mull.

Such monuments can have significant archaeological potential to enhance our knowledge of prehistoric ceremonial and burial rites, social organisation and the past environment. But they are also quiet, reflective places, where visitors come to experience their antiquity and enjoy their mystery. Opportunities to present both appropriate sites and the archaeological methodology behind their conservation should be identified.

Iron Age Hillforts and Homesteads

The region includes a significant group of late prehistoric duns and hillforts, including Castle Dounie (10091), Drum an Duin (2420) and Dun a Choin Duibh (2421) in Knapdale; and the hillfort of Dun Deardail (2893) in Glen Nevis (on a spur from the popular West Highland Way). Opportunities to present both appropriate sites and the archaeological methodology behind their conservation should be identified.

Medieval or Later Rural Settlement: deserted townships and lost farmsteads

The region includes several significant deserted townships, including Kilmory Oib (270) and Arichonan (5797) in Knapdale and Aoineadh Mor (7866) in Morvern. Each is presented and interpreted within the regional recreational framework, requiring a particular focus on Historic Asset Risk Assessments.

West Region RHAMP (2022)
Conservation Management Actions

The main objectives of historic asset conservation management are to ensure the historic asset's stable condition or to slow its gradual decay. All scrub vegetation and regenerating trees within the relevant area will be cut off at ground level using appropriate hand or power tools and removed. Bracken encroachment shall be controlled within appropriate areas as necessary through strimming, bashing and / or chemical spraying, as appropriate. Any tree felling, harvesting or thinning work within the relevant area (and including a buffer zone of 20m around it) will be planned and organised to avoid any damage to the historic asset in the course of felling and timber extraction. **Scheduled Monument Clearance** will be necessary in advance of any forestry works, conservation management, consolidation or repair and development that may cause damage or disturbance within the scheduled area. No replanting will take place within the scheduled area (nor usually within a buffer zone of 20m around it).

The Assessment of Cultural Significance score (see *Taking and asset management approach to the historic environment within Scotland's national forests*, FLS 2019), any relevant archaeological measured surveys, site condition monitoring programmes and major conservation management actions are recorded below. For the majority of sites, condition is monitored by Historic Environment Scotland's Field Officers, who can also propose management recommendations. At a very basic level, to inform the **Designated Historic Assets Register**, relevant sites have been assessed to provide a score between 0 and 9, where 9 represents historic assets of high cultural significance. Historic assets with a high score will be priorities for investment.

Scheduled Monument	NGR	Historic asset (those in bold should be highlighted in Land Management Plan)	Assessment of Cultural Significance	Archaeological Measured Survey (year undertaken)	Major conservation management action (year undertaken / year action due) [dates in red tbc]	Historic Asset Risk Assessment / condition monitoring programme	HES Field Officer Condition Score	HES Field Officer Risk Score
113	NN031594	Appin Murder Memorial Cairn	1					
173	NR870911	**Auchoish long cairn**	7		**[1]** remove regen and scrub			
201	NM826003	Dun Mac Samhainn cairn	5					
209	NR668308	Killocraw, cup-marked stone, 800m E of	5					
251	NR733351	Crois Mhic Aoidh, standing stone 2100m SW of Beinn an Tuirc	4					
270	NR781902	**Kilmory Oib Township, cross-slab and holy well**	8	HBS (2015) and AMS (2014).	Monitor the condition of the large central larch tree; consider programme of consolidation works (**SMC** will be required). Site has interpretation and public path.	**HARA req'd.**		
288	NM938078	**Rubha na Fidhle, chapel, settlement and rock carvings, Loch Awe**	6	AMS and geophysics (2012)	**[1]** fell and remove the mature trees on SE side (undertaken in 2014) **[2]** scrub clearance			
2420	NR781912	**Druim an Duin fort**	9	AMS (2012).	**[1]** Tree, scrub and sapling clearance around dun **[2]** Consider path from public road.			

Scheduled Monument	NGR	Historic asset (those in bold should be highlighted in Land Management Plan)	Assessment of Cultural Significance	Archaeological Measured Survey (year undertaken)	Major conservation management action (year undertaken / year action due) [dates in red tbc]	Historic Asset Risk Assessment / condition monitoring programme	HES Field Officer Condition Score	HES Field Officer Risk Score
2421	NR804640	**Dun a Choin Dhuibh dun**	8	AMS (2012)	**[1]** Tree, scrub and sapling clearance around dun			
2484	NR745268	**Gort na h'Ulaidhe long cairn**	**7**	AMS (2015).	**[1]** cut bracken annually **[2]** maintain footpath			
2541	NN059513	Salachail, cairn 460m NE of	5					
2858	NN275413	Inveroran Old Military Road	3					
2893	NN127701	**Dun Deardail**	9	AMS (2011); excavation (2015 – 2017).	**[1]** path upgrade and interpretation panel (2012)			
3315	NR666337	Dun a'Bhuic, dun SW of Cleongart	5					
3721	NR765272	Ardnacross, chambered cairn 800m NNW of	5		**[1]** Control the growth of heather.			
3824	NM943407	Achacha, cairn and standing stone 400m WNW of	5					
3861	NR790916	Barnluasgan, enclosure 530m NNE of	5		**[1]** Monitor infirm and windblown trees, pollard / fell as appropriate, cut up and remove.			
3874	NR803634	Cnoc Dubh na Leitreach, cairns 150m SSW of, Achaglachgach	5		**[1]** Remove windblown tree			
3892	NM935411	Dalrannach, cairn 255m WNW of	4					
4140	NM971145	Kilmun, burial ground and chapel	5		**[1]** Monitor impact of conservation grazing.			
4146	NM978122	Ardchonnel, crannog 300m NE of [Innis Chonnel]	6					
4149	NM929153	Lochavich House, enclosure, 800m WNW of	5					
4159	NM977105	Barr Mor dun	6	AMS (2012)	**[1]** Eradicate rhododendron.			
4173	NM993127	Ardchonnel, long cairn 1200m ENE of	5					
4190	NM965142	Kilmun, enclosure 600m WSW of	4					
4214	NM972110	Loch Awe, Innis Errich, chapel and burial ground	7		**[1]** careful scrub clearance **[2]** remove windblown trees.			
4349	NM494552	Dun Urgadul, Mull	5					
4353	NM545455	Cill An Ailean, Chapel and Burial Ground, Mull	7					

Scheduled Monument	NGR	Historic asset (those in bold should be highlighted in Land Management Plan)	Assessment of Cultural Significance	Archaeological Measured Survey (year undertaken)	Major conservation management action (year undertaken / year action due) [dates in red tbc]	Historic Asset Risk Assessment / condition monitoring programme	HES Field Officer Condition Score	HES Field Officer Risk Score
4364	NM439520	**Cnoc Fada stone row**	8	AMS (2016)				
5283	NR975951	Brainport Bay, stone alignments and quern quarries	3		**[1]** realign deer fence **[2]** eradicate rhododendron.			
5439	NM868035	Ford, cist 35m ENE of Ford Hotel	4					
5474	NM822002	Dun Mac Samhainn dun	3					
5488	NM822027	**Ormaig rock art**	9	AMS (2007 and 2014)	**[1]** Fell surrounding coupe (undertaken in 2011) **[2]** monitor condition using programme of detailed surface recording (ongoing). **[3]** review footpath (2020)			
5490	NM819001	Creag Madaidh Mor mine	3					
5491	NM828000	Glenmoine, cup-and-ring marked rock 200m NNW of	4					
5513	NM798660	Corrantee Lead Mine	3	AMS (2013)	**[1]** initial phase of scrub control and sapling clearance (particularly on upstanding masonry) **[2]** remove standing crop from scheduled area			
5656	NM489456	Cnoc nan Dubh Leitre meeting place 1600m S of	5					
5797	NR774912	**Arichonan township**	8	HBS (2015) and AMS (2014)	**[1]** consider programme of masonry consolidation works (**SMC** will be required). [2] Maintain interpretation and footpath.	**HARA req'd.**		
6236	NM813718	Rubha an Fhaing Dhuibh settlement	5	AMS (2012)	**[1]** initial phase of scrub control and sapling clearance (2012).			

Scheduled Monument	NGR	Historic asset (those in bold should be highlighted in Land Management Plan)	Assessment of Cultural Significance	Archaeological Measured Survey (year undertaken)	Major conservation management action (year undertaken / year action due) [dates in red tbc]	Historic Asset Risk Assessment / condition monitoring programme	HES Field Officer Condition Score	HES Field Officer Risk Score
					[2] Follow up scrub control and sapling clearance.			
6275	NM793681	Ballnaselich, cairn 200m N of [AKA Polloch Cairn]	5		**[1]** Create open space around cist **[2]** follow up scrub control and sapling clearance.			
7265	NR793920	Barnluasgan, enclosure 950m NNE of	5		**[1]** Monitor infirm and windblown trees, fell as appropriate, cut up and remove.			
7642	NN218784	Leanachan, motte 250m SW of	3		**[1]** Initial phase of scrub control and sapling clearance (2012)			
7796	NM659492	Beinn Bhan standing stone	4					
7802	NM702642	Eorna Cottage, cairn 450m W of	5					
7818	NM686652	Salen Cairn	5					
7866	NM653519	**Aoineadh Mor**	7		**[1]** Conservation grazing. **[2]** Site Condition Monitoring report.	**Condition Monitoring req'd.** Monitor effects of conservation grazing by fixed point photography.		
9751	NN295846	Cranachan Bridge Incised Mass Stone	6					
10091	NR767932	**Castle Dounie**	9	AMS (2011).	**[1]** undertake full archaeological record and evaluation (2011) **[2]** realign access path (undertaken in 2011). **[3]** Maintain footpath.			
10131	NR779894	Loch Coille-Bharr, crannog, Knapdale	7					
10333	NR840907	Carn Ban, cairn, Cairnbaan	5		**[1]** scrub and heather control **[2]** monitor grazing			

Scheduled Monument	NGR	Historic asset (those in bold should be highlighted in Land Management Plan)	Assessment of Cultural Significance	Archaeological Measured Survey (year undertaken)	Major conservation management action (year undertaken / year action due) [dates in red tbc]	Historic Asset Risk Assessment / condition monitoring programme	HES Field Officer Condition Score	HES Field Officer Risk Score
10334	NR762881	Achadh na Cille, burial ground 450m NW of Rubha nan Sgarbh	8		**[1]** Conservation grazing. **[2]** careful scrub clearance **[3]** monitor mature trees			
10335	NR778898	Loch Coille-Bharr, mill and lade, Knapdale	6	HBS (2015) and AMS (2014)	**[1]** scrub and sapling control **[2]** monitor mature trees. **[3]** Fence to control access (H&S). [4] undertake masonry repair to buttress gable (2020) (**SMC** will be required).	**HARA req'd.**		
10336	NR782907	Loch Coille-Bharr, enclosure 220m NW of	5					
10337	NR787911	Dun, enclosure and cairn, 200m W of Barnluasgan	5		**[1]** Remove windblown trees.			
10341	NR777870	Achnamara clapper bridge	8	AMS (2017)	**[1]** Drystone masonry consolidation (2018).			
10342	NR790904	Gartnagreanoch, chambered cairn, Knapdale	5					
10343	NR761860	Rubha Cladh Eoin, fort, Knapdale	6					
10859	NM436530	**Maol Mor stone row**	8	AMS (2016)				
10871	NR922930	Dun, 260m E of Loch Glashan	5	Survey and excavation (2003)				
12957	NR855908	**Achnabreac III**	8	AMS and excavation (undertaken in 2010).				
12958	NM496540	**Baliscate Chapel**	9	Excavation (2012)	**[1]** control scrub.			

Listed Buildings

HB Number	Grid Ref	Cat.	Historic asset (those in bold should be highlighted in Land Management Plan)	Assessment of Cultural Significance	Archaeological Measured Survey (year undertaken)	Major conservation management action (year undertaken / year action due)	Historic Asset Risk Assessment / condition monitoring programme
4720	NM965421	C	Barcaldine Bridge	3		Bridge in use **(monitored and maintained by Civil Engineers)**.	
6827	NH300009	B	**Invergarry Bridge**	8		Foot bridge in use **(monitored and maintained by Civil Engineers)**. Major repairs undertaken (2011).	
50812	NR968942	C	Minard Castle Folly	3		Folly. Unused; managed decay. Easy public access?	**HARA req'd.**
50834	NH200005	C	Greenfield Cruck Barn	3		Derelict **(managed by Estates Team)**.	

Inventory of Gardens and Designed Landscapes in Scotland

GDL Number	Block	Name	Comments

Inventory of Historic Battlefields

BTL Number	Block	Name	Comments
BTL26		Battle of Mulroy	Minimal areas of NFE included within this large landscape designation.
BTL29		Blar na Leine	Minimal areas of NFE included within this large landscape designation.

Forestry and Land Scotland
Coilltearachd agus Fearann Alba

Appendix XI:

Landscape Character Assessment

Landscape Character and Views

The Ormaig and Salachry forest blocks are located in 'Upland Parallel Ridges' landscape type (NatureScot Landscape Character Assessment). Key characteristics are:-

- Upland landscape of long, parallel ridges and narrow, linear lochs and glens.
- Tightly packed ridges follow a SW-NE alignment.
- Steep, sharp, ridge-tops, with dramatic rocky outcrops.
- Extensive conifer plantations.
- Deciduous scrubby woodland on steep, sheltered slopes of ridges and on loch edges.

Ormaig:
The landform within the Ormaig forest block reflects the LCA description, comprising of parallel ridges, hillocks and long narrow glens with topography ranging between sea level to 226m AOD. Thus creating a low undulating landscape where the majority of the forest interior; with exception of prominent hill tops; is largely 'hidden' from external views in the wider landscape. Therefore, the landscape character of the forest edges become the most prominent aspect of the forest in key views. Key locations include:

- Along the coastline of Loch Craignish where Ormaig Forest forms the backdrop to several islands within the sealoch in views from Ardfern and the Craignish Peninsula.
- The south eastern edge is prominent in views from Kilmartin and is the backdrop to Carnassarie Castle
- The northwestern corner is prominent in southern and open views from the A816 as travellers cross the floodplain of the Banbreck River.
- The settings for 5 SAM sites and Old Poltalloch House

The proposed restock for Ormaig recognises that commercial forestry is a key component of the existing landscape character. However, it also serves to sensitively integrate the commercial forest into the wider landscape through expansion of native woodland cover at key locations. This includes:

- Strengthening the Atlantic rainforest along the eastern edge of Loch Craignish to reduce the prominence of conifer plantations in views
- Use a network of riparian planting to emphasise the watercourses and associated topography to fragment the conifer planting.

- Diversify the conifer mix on the ridge tops to reduce the appearance of single species in views from the west and northwest.
- Strengthen the broadleaf planting along the south eastern edge of the forest block in the vicinity of Kilmartin and Carassarie Castle to reduce the prominence of commercial forestry, tie the forest into the wider landscape and provide autumn colour.
- Improve and provide more sympathetic sittings for SAM sites, Old Poltalloch House and Loch Druim an Rathaid.

Salachry:
The landform within Salachry also reflects the LCA description and is similar to Ormaig. The A816 road corridor divides the forest block, however, views are limited to roadside forest edge with views into the forest block curtailed by steep high ground and dense forest cover. Elsewhere the forest is largely self-contained and is either not visible in the wider landscape or merges homogenously with adjacent commercial forestry blocks.

The priority of the restock is to retain productive forest where possible whilst recognising key sensitive areas relating to landscape and visual impact and habitat creation. Therefore, the proposals include:

- Broadleaf planting along roadsides to reduce the sense of scale of the conifer planting and to add visual interest for road users.
- Broadleaf planting along riparian corridors and on areas of rocky and steep ground to tie the forest into the overall landscape setting by providing a visual and habitat link with the underlying local topography and hydrology.
- Reduces the overall visual scale of the productive forest in the landscape by diversifying away from a single species planting.

Forestry and Land Scotland
Coilltearachd agus Fearann Alba

Appendix XII

Unexpired EIA determinations / PNs