

Loch Kemp Storage - EIA Report

Appendix 19.1: Whitebridge Plantation, Dell Estate

Woodland Management Plan (2022 – 2041)

November 2023

ash



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Whitebridge Plantation, Dell Estate
Woodland Management Plan

2022 - 2041

Please refer to the Long Term Forest Plans (LTFP) Applicant's Guidance for more information on what should be included in this template. As a guide, your LTFP should be 15-20 pages long.

Please insert further tables and charts as required. Append maps, ensuring that they are clearly labelled.

A. Description of Woodlands

A.1 Property Details			
Property Name:	[REDACTED]		
Business Reference Number:	[REDACTED]	Main Location Code:	[REDACTED]
Grid Reference: (e.g. NH 234 567)	[REDACTED]	Nearest town or locality:	[REDACTED]
Local Authority:	[REDACTED]		
LTFP Plan area (hectares):	[REDACTED]		
Owner's Details			
Title:	[REDACTED]	Forename:	[REDACTED]
Surname:	[REDACTED]		
Organisation:	[REDACTED]	Position:	[REDACTED]
Primary Contact Number:	[REDACTED]	Alternative Contact Number:	[REDACTED]
Email:	[REDACTED]		
Address:	[REDACTED]		
Postcode:	[REDACTED]	Country:	[REDACTED]
Agent's Details			
Title:	[REDACTED]	Forename:	[REDACTED]
Surname:	[REDACTED]		
Organisation:	[REDACTED]	Position:	[REDACTED]
Primary Contact Number:	[REDACTED]	Alternative Contact Number:	[REDACTED]
Email:	[REDACTED]		
Address:	[REDACTED]		
Postcode:	[REDACTED]	Country:	[REDACTED]

Declaration

I hereby apply for a permission to fell the trees described in this application and I certify that:

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

Do you give consent for Scottish Forestry to access your land? Delete as appropriate.	YES	NO			
<p>You are not obliged to give us consent to enter your land, however if we are denied access to your land, and cannot carry out an assessment because of this, we may reject your application.</p> <p>This consent is for access to assess this application as well as monitor compliance with any subsequent approval, where applicable</p>					
Signed:		Print:		Date:	

A.2 Location and Background

Provide details on the wider context of the LTFP area. Append a 1:25,000 or 1:50,000 map with contours and the grid reference of the main forest entrance. The map should show the estate boundary based on the Business Reference Number (BRN) and the woodland boundary, if different.

Located in Stratherrick on and around the undulating rocky outcrops of Tom Rathail, Torr Pataig and Torr an t-Sagairt at an elevation of 200-300m the Dell Estate woodland known as the Whitebridge Plantation is a diverse woodland dominated by coniferous species managed with the principal objective of producing a commercial crop of timber.

There are no areas of Ancient Woodland but the eastern areas around Torr an t-Sagairt and Tom Rathail have been wooded since at least the late 19th century and there are approximately 88ha recorded on the Ancient Woodland Inventory as Long-Established Woodland of Plantation Origin (LEPO) (See Constraints Map). There are no remnants of this early woodland remaining with rotational thinning, felling and replanting having been a significant feature of woodland management throughout the 20th century with some areas now into their third and possibly fourth rotation of productive conifers.

The remainder of the woodland area, around Torr Pataig and Torr Cluanie, was established in the mid to late 1950's and these areas have also been subject to rotational thinning, felling and replanting.

The soils are generally mineral and support good tree growth with SS achieving Yield Class 20 + on better soils and Scots Pine achieving Yield Class 8.

Upland brown earths, peaty podsols and peaty gleys occur throughout. The only significant area of deep peat in the woodland is sub comp't 11b & 11b1 where there is evidence of former peat cutting.

Scots Pine and Larch were probably the main species of the older woodland and both species continue to be a major feature of older restock sites and the 1950's plantings. However, restructuring felling and restocking over the last 30years has seen the faster growing and higher yielding Sitka Spruce become an increasing feature of the woodland.

The most recent clearfell was carried out in 2017 in sub compartment 9a. This area is currently due to be restocked in spring 2023.

Storm damage occurred throughout the woodland during the gales of winter 2015 with sporadic windblow causing damage in many of the p1950's stands.

Vision

Describe your long term vision for the LTFP area.

The long term vision for the woodlands at Dell is to continue their development as an integral element of a wider land management enterprise where they make a positive and lasting contribution to the management of the estate and the wider Stratherrick landscape. This will be achieved by managing them as an economic timber resource which also provides a sustainable environment for sporting operations and contributes to local biodiversity through the provision of important habitats.

Management Objectives

Give your objectives of management and also how you will manage the forest area sustainably. Your objectives should be specific and you should also be able to measure their outcomes.

No.	Objectives (including environmental, economic and social considerations)	Indicator of objective being met
1	To implement sustainable woodland management using prescriptions in line with the UK Forestry Standard.	Management operations to adhere to relevant guidance and recommendations.
2	To maintain and enhance the productive potential of the woodland in terms of the growth and harvesting of a commercial crop of timber through the implementation of appropriate thinning and felling regimes.	Timing harvesting operations to ensure yield is maximised over the rotation period. Maximising revenue from timber sales and recording sales details.
3	To fell stands most affected by windblow or prior to the onset of significant windblow as they approach Terminal Height.	Changes in woodland structure recorded in sub compartment database.
4	To thin other areas to ensure increasing structural diversity and timber quality.	Maintain record of timber sales details linked to sub compartment database.
5	Enhance the ecological value of the woodlands through the creation of new habitats such as native broadleaved woodland and deadwood.	Sub compartment records record increasing species diversity over the period of the plan

A.6 General Site Description

Provide details under each of the headings below. Append maps if appropriate for each subsection.

A.6.1 Topography

The woodland is located around a series of low rocky hills with steep slopes and exposed rocky ridges with generally northerly and westerly aspect.

A.6.2 Geology and Soils

Soils are varied in the locality due to a complex underlying geology which includes schists, sandstone and granite. Upland brown earths, peaty podsolis and peaty gleys occur throughout. The only significant area of deep peat in the woodland is sub comp't 11b & 11b1 where there is evidence of former peat cutting

A.6.3 Climate

Located on the southeast side of Loch Ness the climate for the woodlands is generally cool and wet but being centrally located the area can experience high summer temperatures and severe winter frosts. DAMS scores across the woodland area vary from 10 in the lower lying areas to 14 at higher elevations.

A.6.4 Hydrology

The woodland is located within the Loch Ness Drinking Water Protected Area with watercourses draining westerly towards Loch Ness and northerly into the Fechlin River and then on towards Loch Ness. A watercourse dissects the woodland on its route from Loch Paiteag towards Loch Kemp and onto Loch Ness.

A.6.5 Windthrow

Sporadic windblow is a feature of the woodlands with the occasional damaging storm causing larger scale damage.

Compartment 11 has been badly affected in recent years and requires clearance.

A.6.6 Adjacent Land Use

Upland agriculture with semi improved and rough grazings are an important feature of the surrounding landscape which also includes open rocky moorland managed for sporting purposes. The settlement of Whitebridge is located nearby to the east of the woodland.

A.6.7 Access

There is an existing network of tracks within the woodland, some of which are suitable for timber haulage with others requiring upgrade to facilitate future harvesting operations. The woodland has direct access to the public road network on the B862. As a Consultation Route, consultation with Highland Council Roads and Transport is required prior to using the route for timber transport.

A.6.8 Historic environment

There are no scheduled ancient monuments within the woodland, but the Highland Council Historic Environment Record and Canmore National Record of the Historic Environment record the site of a medieval to 19th Century on the western slope of Tom Rathail.

A.6.9 Biodiversity

There are no nature conservation designations covering the woodland, but the Easter Ness Site of Special Scientific Interest and Special Area of Conservation designated for its wide range of woodland types reflecting the varied geology and associated soil conditions is located approximately 2km to the northwest of the woodland.

The Knockie Lochs Site of Special Scientific Interest and Special Protection area for breeding population of Slavonian Grebes is located approximately 2km southwest of the woodland.

The woodlands provide suitable habitats for a wide range of species some of which will be resident within the woodland and others with larger territories may forage occasionally within the wood. All flora and fauna is protected by a range of legislation and a suite of guidelines for forest operations have been developed to ensure impacts are minimised.

Some species whose populations are under particular threat receive a greater degree of protection. The EU Habitats and Species Directive (1992) provided this and in February 2007 this was revised and now requires forestry operations which could cause an offence, to European Protected Species (EPS), to proceed under licence.

Otter are a European Protected Species that are known to occur within or frequent the Dell Estate woodlands.

Red Squirrels, a UK Biodiversity Action Plan Species, Pine Marten and Badger are resident in the woodland and/or wider countryside.

A.6.10 Invasive Species

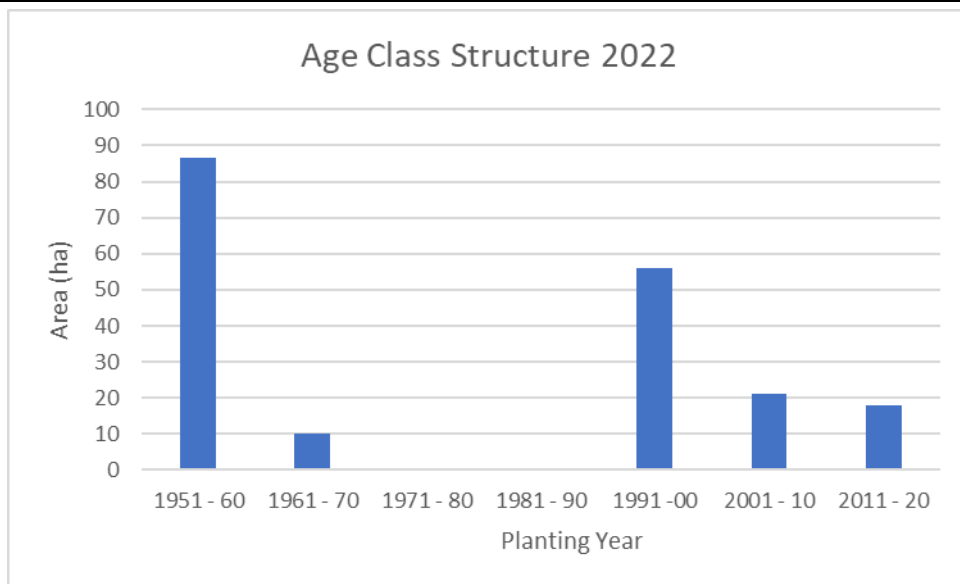
Currently there are no invasive species within the woodland.

A.7 Woodland Description

Provide a brief description of woodland types and any relevant past management. Also complete the Tables below, with reference to Appendix 2 of the Long Term Forest Plan – Applicant’s Guidance.

A sub compartment database detailing species, age class, area and proposed felling dates has been prepared Appendix 1.

The current age class distribution is dominated by the expansion of the woodland in the 1950’s along with what is likely the replanting of areas felled during the second world war and subsequent restructuring of this areas in the late 90’s and early 00’s.



Sitka Spruce and Scots Pine are the dominant species throughout the woodland with a wide range of other species occurring including Larch, Douglas Fir, Norway Spruce and Serbian Spruce. Lodgepole Pine is the principal species on the deep peat in compartment 11. Mixtures of SP/HL, DF/HL and MC/NBL also occur resulting in a diverse woodland environment.

Semi natural broadleaved tree natural regeneration, most birch, does occur in mixture with conifers on many of the restock sites planted during the period 2000 – 2004. The proportion of conifer v's broadleaved species does vary greatly in such areas including (sub compartment's 7i, 7i1, 7i2, 8b, 10d & 10d1). These areas are recorded as MC/NBL on the sub compartment database.

Areas of open ground feature throughout the woodland providing structural and visual diversity. Natural regeneration of conifer and birch does occur at low stocking density in these areas adding further diversity.

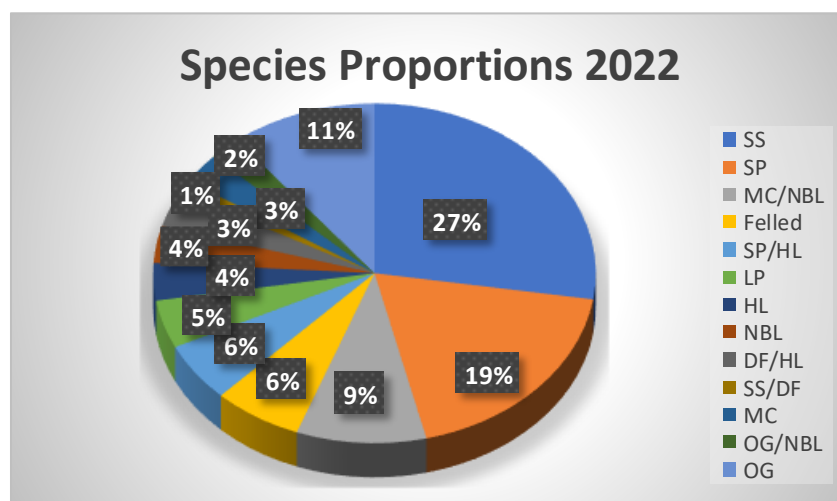




Table 1 - Area by species

This shows the current and future species composition within the entire Long Term Forest Plan area.

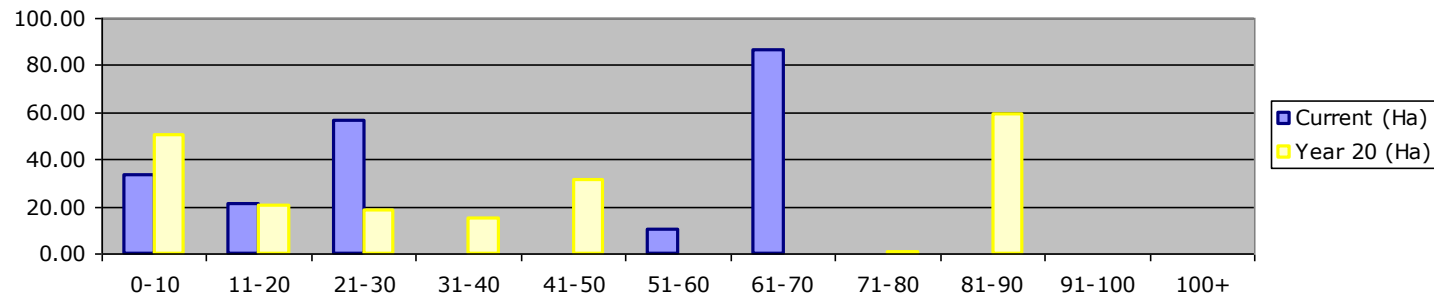
Area by species						
Species	Current*		Year 10*		Year 20*	
(Add relevant species groups, or OG/OL)	Area (ha)	%	Area (ha)	%	Area (ha)	%
SS	61.40	26	73.03	31	76.52	32
SP	43.77	18	43.52	19	43.52	18
MC/NBL	22.28	9	22.28	10	22.28	9
SP/HL	13.24	6	13.23	6	13.23	6
LP	10.74	5	0	0	0	0
HL	8.48	4	0	0	0	0
NBL	10.39	5	22.14	9	25.77	12
DF/HL	8.16	3	7.88	3	7.88	3
SS/DF	2.76	1	2.76	1	2.76	1
MC	9.75	3	8.16	3	2.33	1
OG/NBL	5.46	2	5.45	2	5.45	2
OG	25.06	11	36.37	16	37.26	16
Felled (awaiting restock)	15.51	6	0	0	0	
Total	237.00	100	237.00	100	237.00	100

* Of whole Forest Plan area (including open ground (OG)). Any mixtures such as Mixed Conifer (MC) should be broken down and included as an individual species component where a species occupies more than 10%.

Table 2 – Area by age

This shows the woodland area broken down by age class and will show how well the woodland is distributed across the age classes. This information can be provided as a chart below. Double click on the chart below and paste your area figures into the spreadsheet that appears. Note: This has been updated so that age classes are 10 years, unlike the original Applicant's guidance of 20 years.

Age class (years)	Current	Year 20
	Area (ha)	Area (ha)
0-10	33.3	50.1
11-20	21.1	20.1
21-30	56.2	18.1
31-40	0.0	15.2
41-50	0.0	31.6
51-60	10.2	0.0
61-70	86.4	0.0
71-80	0.0	1.0
81-90	0.0	58.9
91-100	0.0	0.0
100+	0.0	0.0
Total	207.20	195.0



A.8 Plant Health

Provide details on any known plant health issues within the LTFP area and their effect on the forest plan.

Currently there are no significant tree health issues within the woodland although the risk of Phytophthora ramorum in Larch is a concern. Larch is a relatively minor species within the woodland but its presence in the landscape, particularly in the autumn, is visually significant.

B. Analysis of Information

B.1 Constraints and Opportunities

Identify constraints and opportunities. Append maps as appropriate and provide map reference.

Factor	Constraint	Opportunity
Windblow	<p>Sporadic windblow is a feature of the woodlands with the occasional damaging storm causing larger scale damage.</p> <p>Compartment 11 has been badly affected in recent years and requires clearance.</p> <p>An awareness of Critical & Terminal Heights of stands in relation to windblow is necessary to ensure felling is carried out prior to the onset of significant windblow.</p>	<p>Clearfelling will address this issue whilst generating revenue from timber sales.</p> <p>Clearfelling of sub compt's 11b & b1 a crop which is now commercially overmature and also create an opportunity for greater species and structural diversting through restocking.</p>
Loch Ness Drinking Water Protected Area (Water Quality)	<p>The Water Framework Directive (WFD) requires that works must be carried out in a manner that prevents any deterioration in the ecological status of any water bodies.</p>	<p>Carrying out all operations in adherence to The Forest & Water Guidelines V4 and the General Binding Rules associated with the WFD will lead to an improvement in water quality in the longer term.</p>
Nature Conservation Protected Species	<p>Species such as Red Squirrel & Otter may be present in the woodland area and their presence could impact on forest operations.</p>	<p>Planning works for out-with sensitive periods will help mitigate potential impacts on protected species.</p>

Potential Peatland Restoration	The most significant windblow within the woodland in recent years is in compartment 11 where Lodgepole Pine was planted on Deep Peat.	<p>Where works cannot avoid sensitive periods, surveys may be required prior to commencing operations to identify wildlife constraints and potential mitigation.</p> <p>In the longer term, the proposed management operations will enhance the habitat for these species.</p> <p>Clearfelling this area will allow an opportunity. Once felled the cleared area will be left as open ground and its potential for Peatland Restoration will be fully assessed.</p>
Outline how you intend to incorporate the constraints and opportunities into the management objectives.		
The constraints & opportunities listed above will be integrated into the detailed site planning and management of the various forestry operations which will be implemented to deliver the objectives of the Forest Plan.		

C. Management Proposals

C.1 Silvicultural Practice

Outline silvicultural practice and management prescriptions. Include any past management practice that is relevant and the strategies to address the issues identified during the analysis phase.

The principal silvicultural policy for the Dell Woodlands over the next 20 years will focus upon the

continued restructuring of the coniferous woodlands as they become increasingly susceptible to windblow and/or approach economic maturity.

It is a principal aim of this plan to maximise revenue from mature stands prior to the onset of significant windblow which is likely to cause timber degradation and increased harvesting costs.

The clearance of windblown stands within sub compartments 11b and b1 are a priority.

The potential for infection from *Phytophthora ramorum* on stands of mature Larch is also a factor in deciding felling dates.

Restocking of felled areas will be predominantly carried out with productive conifers within 5 years of felling to ensure an on-going economic contribution to the estate from its woodlands but the use of open ground and native broadleaved species to create permanent areas of woodland will ensure the woodlands make an increasing contribution to the local landscape and biodiversity whilst also developing more permanent shelter for the agricultural operations.

Deer fencing will be required to prevent deer damage on restock sites where soft conifers and broadleaves species are being planted.

C.2 Prescriptions

Please provide maps as set out in Appendix 2 of the Forest Plan Applicant's Guidance and complete the associated Tables. Provide any further details required along with the map references.

C.2.1 Felling

The felling proposals are outlined in the ***Felling Proposals Map***

The location of felling coupes identified for felling within the Phase 1 & 2 has been influenced mostly by the condition of the crop with the extent of windblow in compartment 11 being an important factor. The spruce crops in sub compartments 7e & g have reached economic maturity and are identified for felling in Phase 1 along with the mature Larch in 10b.

The size and shape of the coupes have been influenced by the existing woodland structure and the desire to ensure windfirm edges on adjacent stand.

Improvements to the access roads within the woodland will be required to facilitate efficient harvesting and haulage and to ensure that the impacts of diffuse pollution arising from felling and extraction is manageable and minimised.

C.2.2 Thinning

Thinning operations will be on-going throughout the period of the plan on a 5–7-year cycle.

Opportunities will be looked at for first thinning the pole stage crops planted in the 2000's with

proposed areas for thinning shown on the Thinning Proposals Plan.

Where first thinning is being carried out, this will typically comprise the removal of 1 line in 7-8 to facilitate extraction with selective thinning of the remaining trees.

C.2.3 LISS

The SP/HL and DF/HL mixtures in sub compt's 7a & c have some potential for low impact silviculture and thinning in these areas will focus on reducing the proportion of Larch and developing greater stability in the retained Scots Pine with the aim of reducing the basal area of the stand over the period of the plan to a level where the light regime is favourable for the natural regeneration of light demanding species.

C.2.4 Long Term Retentions (LTR) / Natural Reserves

A total of 39.9ha (mostly native broadleaved woodland) are identified in the plan as **Long Term Retention** and will generally be subject to limited management. The retention of these areas will ensure any environmental benefits arising will be retained and enhanced over the period of the plan.

Where site conditions allow, opportunities for small scale felling and thinning operations, where such operations contribute to the overall objectives of the plan, will be sought.

C.2.5 Restocking Proposals / Natural Regeneration

The focus of the restocking operations within the Dell woodlands will be to maintain or enhance the productivity of the commercial woodland whilst considering current environmental & landscape considerations. "Improved" Sitka Spruce planting stock will be the dominant species used in the restocking with elements of Scots Pine and other conifers.

Native broadleaves with native Scots Pine and Open Ground will be used on suitable sites to increase structure diversity and enhance the local landscape in the medium to longer term.

Planting densities will be 2,500 for the conifers & a minimum of 1,100 for the native broadleaves.

The native broadleaves planted will preferably be from Seed Zone 201 – if this zone is not available, trees from zones 105, 106 or 202 will be used.

Native Scots Pine from the Northeast or South-Central Pine Seed Zones will be used.

Species proportions for area restocked with Native species will broadly reflect the following;

45% Birch

20% Native Scots Pine

10% Rowan

5% Sessile Oak

5% Rowan

5% Willow

5% Common Alder

5% Aspen

The area that was previously felled in Compartment 9a under felling licence FLA01500 is programmed for restocking during planting season 2023-24 and will be planted with native broadleaves with open ground being used in a manner that reflects the topography.

Restocking will normally take place within 3years from felling however, felling and restocking will be managed to ensure desired 2m height separation from the adjacent restocking coupes.

Sub compartments 11b, b1 & d will be assessed for their potential as peatland restoration sites upon completion of harvesting operations.

The Restocking Proposals Map can be found in appendix 1 – Map 8

Table 3 – Felling

This shows the scale of felling within the felling phases in the context of the whole Forest Plan. This includes any areas of 'LISS – Fell' (i.e. removal of final overstorey).

SCALE OF PROPOSED FELLING AREAS (including LISS final fell areas)													
Total Forest Plan Area:		234.83		hectares									
Felling	Phase 1	%	Phase 2	%	Phase 3	%	Phase 4	%	Long Term Retention	%	Area out-with 20yr plan period	%	
Area (Ha)	23.2	10	4.47	2	13.5	6	32.3	14	39.9	17	93.3	40	

Table 4 – Thinning

This shows the area of thinning over the first 10 years of the Forest Plan.

Species	Thinning (ha)
Total	

Table 5 – Restocking

This table provides information on the restocking proposals for the first 10 years of your Forest Plan. Restocking should be listed on a coupe by coupe basis.

Felling Phase	Map Identifier(s)	Species to be planted	Area (ha) to be planted
Phase 1	10b & e	ss	5.4
Phase 1	7f & g	nbl	1.9
Phase 1	7e	ss	1.7
Phase 1	11a3, b1 & d1	ss	6.0
Phase 1	11b & d	og	7.0
Phase 1	10e1	og	1.2
Phase 2	10a1 & e	sp	3.9
Phase 2	10h & h1	nbl	0.57
Total Restocking Area			27.67

C.2.6 Protection

Red, Roe and Sika Deer are all present in and around the woodland area and are managed to support the important sporting enterprise at Dell where paying guests visit to stalk deer in both the woodland and wider moorland environment.

This does pose a challenge for restocking, but the aim is to maintain deer populations at a level which allows satisfactory establishment of Sitka Spruce on restock sites without the need for fencing. Where more palatable species are planted then deer fencing or the use of tree shelters for broadleaved species is required. This approach has proved successful in recent years with successful restocking in sub comp'ts 5f & 11c.

C.2.7 Fence erection / removal

Restocking in sub compt's 7g & 10a1 will require deer fencing and/or the use of tree shelters to ensure satisfactory restocking.

C.2.8 Road Operations

The existing track network within the woodlands provides good access for management operations with the access tracks in the northern and eastern woodland areas being suitable for HGV's and timber haulage.

Access improvements are required on approximately 1km of existing track to facilitate harvesting operations in the western areas of compartments 7 & 11. (See Constraints Map)

These improvements include clearance of encroaching trackside vegetation, some resurfacing and widening of corners using locally won material.

Both operations are within the stated thresholds of the Environmental Impact Assessment (Forestry) Regulations and the site is not seen as 'sensitive'.

Prior to any work on the new forest road, an application will be submitted to the local authority for consent under the Prior Notification regulations.

C.2.9 Public Access

The woodlands at Clach Liath is managed in line with the Scottish Outdoor Access Code and suitable responsible public access is encouraged. Although there are no core paths or formal waymarked routes through the woodland, the existing forest roads network is used by walkers and occasionally mountain bikes. It may be necessary to restrict access over parts of the forest road network for safety reasons during certain parts of the harvesting and operations. Wherever possible, alternative routes will be highlighted and any restrictions will be kept to the minimum timeframe necessary to ensure the safety of members of the public, forestry contractors and estate staff.

C.2.10 Historic Environment

As stated in section A.6.8 above, the only recorded archaeological feature in the woodland is the site of a medieval to 19th Century on the western slope of Tom Rathail at approx. grid ref NH 480 150.

No works are proposed in proximity of the historic site during the period of this plan.

Should other unrecorded archaeological features be encountered during management operations, these will be protected in line with UK Forestry Standard Forests and the Historic Environment.

C.2.11 Biodiversity

The enhancement and protection of biodiversity will be a major feature in the planning of all operations with particular consideration being given to the European Protected Species and the UK Biodiversity Action Plan species.

Red Squirrels, Otter, Pine Marten and, Badger, are some of the important conservation species that may frequent the woodland and the wider countryside around the estate and woodland management has the potential to impact upon these important species.

Opportunities will be sought for the retention of areas of Norway Spruce and Scots Pine for the benefit of Red Squirrels and harvesting operations will aim to avoid sensitive times of year in relation to breeding seasons.

Otter will use the watercourses in the forest for foraging and may have holts or "lying up" areas within the woodland

FCS Guidance Notes 32 "Forest Operations and Birds in Scottish Forests" and 34 "Forest Operations and European Protected Species in Scottish Forests" will be adhered to and, where required, harvesting operations will avoid sensitive times of year in relation to breeding seasons.

Where works cannot avoid sensitive times of year, appropriate pre commencement surveys will be carried out to identify sensitive locations requiring protection during operations.

Deadwood is an important woodland habitat and standing dead trees and fallen debris provide a wide range of microhabitats creating suitable conditions for fungi, lichens, invertebrates and mosses.

Existing broadleaves within conifer clearfell and thinning areas will be retained so far as is reasonably practicable and where their retention does not create a hazard and threat to public safety.

C.2.12 Tree Health

Currently, there are no known plant health issues within the forests at Dell but the risk of infection within stands of Larch by *Phytophthora ramorum* is of concern.

Phase 1 felling of the mature Larch in sub comp't 10b will minimise the impact of this damaging tree pathogen should it occur in the locality.

C.2.13 Invasive species

There are no invasive species within the woodlands at Dell.

C.2.14 New Planting

There is no new planting proposed during the period of the plan.

C.3 Environmental Impact Assessment and Permitted Development Notifications

Please indicate the total area (hectares) for each project type and provide details as requested by sensitive or non-sensitive area.

Type of Project	Sensitive Area		Non-sensitive Area		Total
	%Con	%BL	%Con	%BL	
Afforestation	%Con	%BL	%Con	%BL	0.0ha
Deforestation	%Con	%BL	%Con	%BL	0.0ha
Forest Roads		ha		0.8ha	0.8ha
Quarries		ha		0.5ha	0.5ha

Provide further details on your project if required.

See C.2.8

C.4 Tolerance Table

	Map Required (Y/N)	Adjustment to felling period*	Adjustment to felling coupe boundaries**	Timing of Restocking	Changes to Restocking species	Changes to road lines	Designed open ground ***	Windblow Clearance* ***
FC Approval normally not required	N	Fell date can be moved within 5 year period where separation or other constraints are met	Up to 10% of coupe area	Up to 2 planting seasons after felling	Change within species group e.g. evergreen conifers or broadleaves		Increase by up to 5% of coupe area	
Approval by exchange of email and map	Y		Up to 15% of coupe area	Between 2 and 5 planting seasons after felling subject to the wider forest and habitat structure not being significantly compromised		Additional felling of trees not agreed in plan Departures of more than 60m in either direction from centre line of road	Increase by up to 10% Any reduction in open ground within coupe area	Up to 5 ha
Approval by formal plan amendment may be required	Y	Felling delayed into second or later 5 year period Advance felling into current or 2 nd 5 year period	More than 15% of coupe area	More than 5 planting seasons after felling subject to the wider forest and habitat structure not being significantly compromised	Change from specified native species Change between species group	As above, depending on sensitivity	More than 10% of coupe area Colonisation of open areas agreed as critical	More than 5 ha

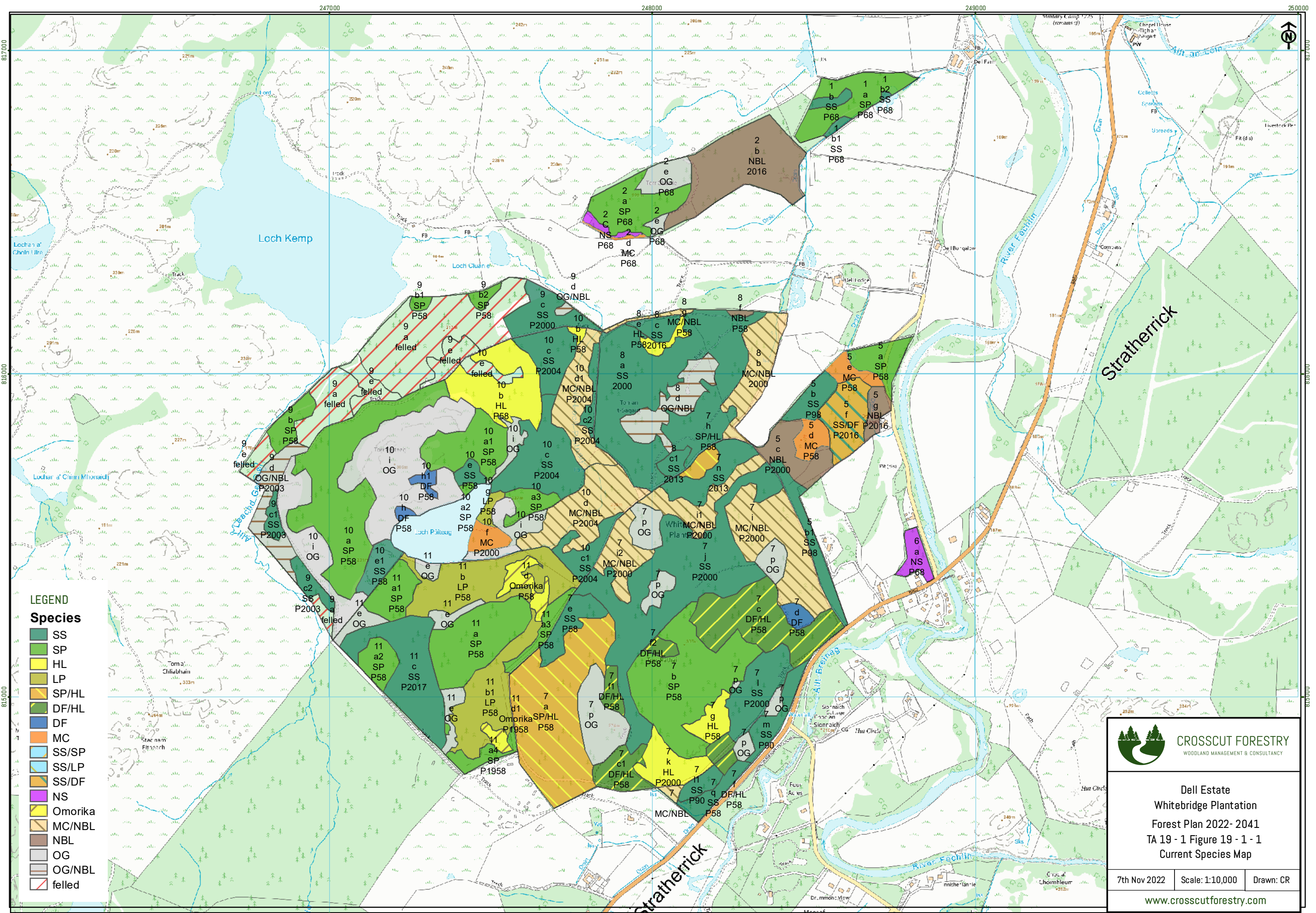
Note

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

** No more than 1 ha, without consultation with Scottish Forestry, where the location is defined as 'sensitive' within the Forestry (Environmental Impact Assessment) (Scotland) Regulations 2017.

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

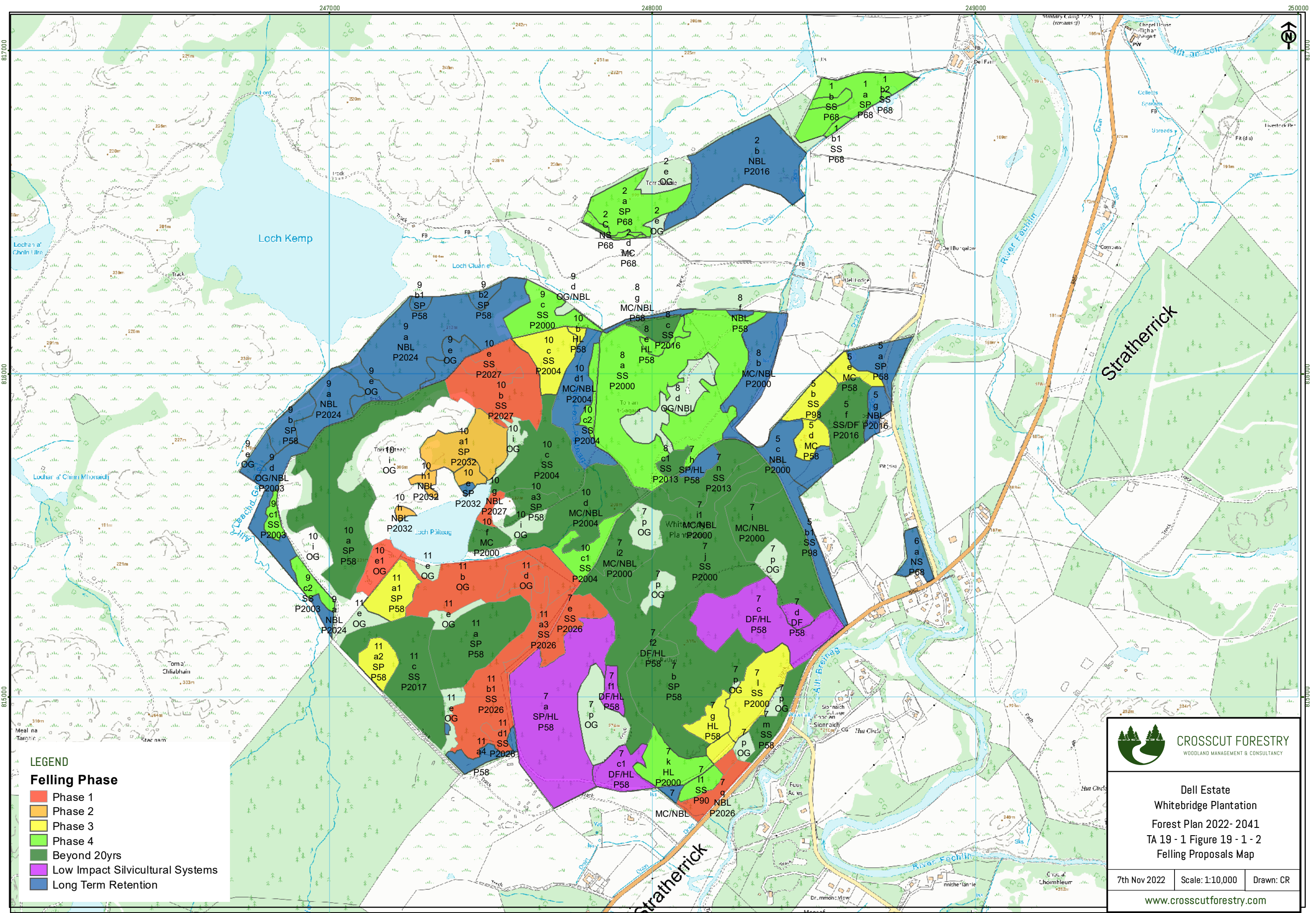
****Where windblow occurs, Scottish Forestry must be informed of extent prior to clearance and consulted on clearance of any standing trees.



Dell Estate
Whitebridge Plantation
Forest Plan 2022- 2041
TA 19 - 1 Figure 19 - 1 - 1
Current Species Map


7th Nov 2022 Scale: 1:10,000 Drawn: CR

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LEGEND
Felling Phase

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Beyond 20yrs
- Low Impact Silvicultural Systems
- Long Term Retention

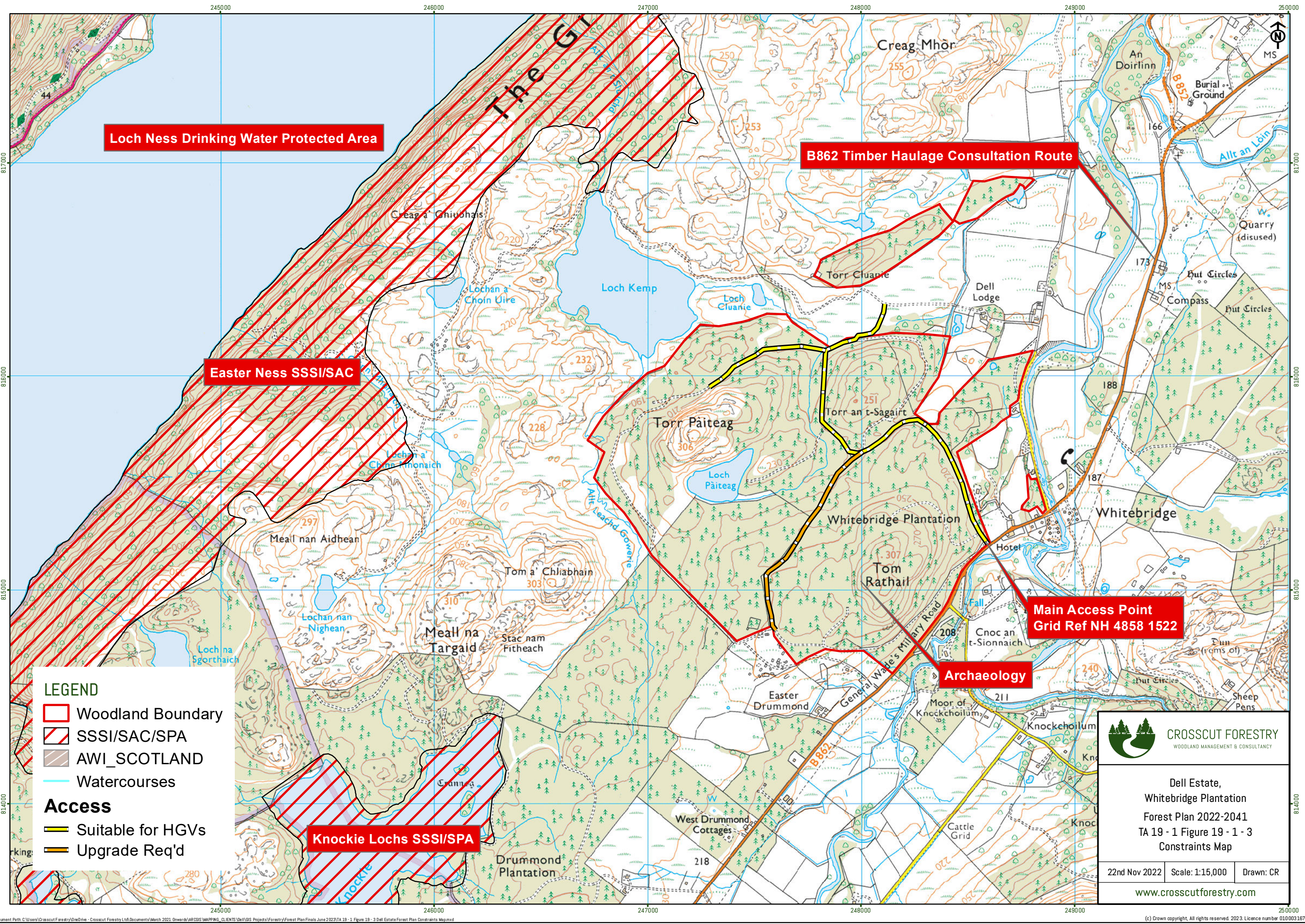


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Dell Estate
Whitebridge Plantation
Forest Plan 2022- 2041
TA 19 - 1 Figure 19 - 1 - 2
Felling Proposals Map

7th Nov 2022	Scale: 1:10,000	Drawn: CR
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Loch Ness Drinking Water Protected Area

B862 Timber Haulage Consultation Route







Easter Ness SSSI/SAC

**Main Access Point
Grid Ref NH 4858 1522**

Archaeology

Knockie Lochs SSSI/SPA

LEGEND

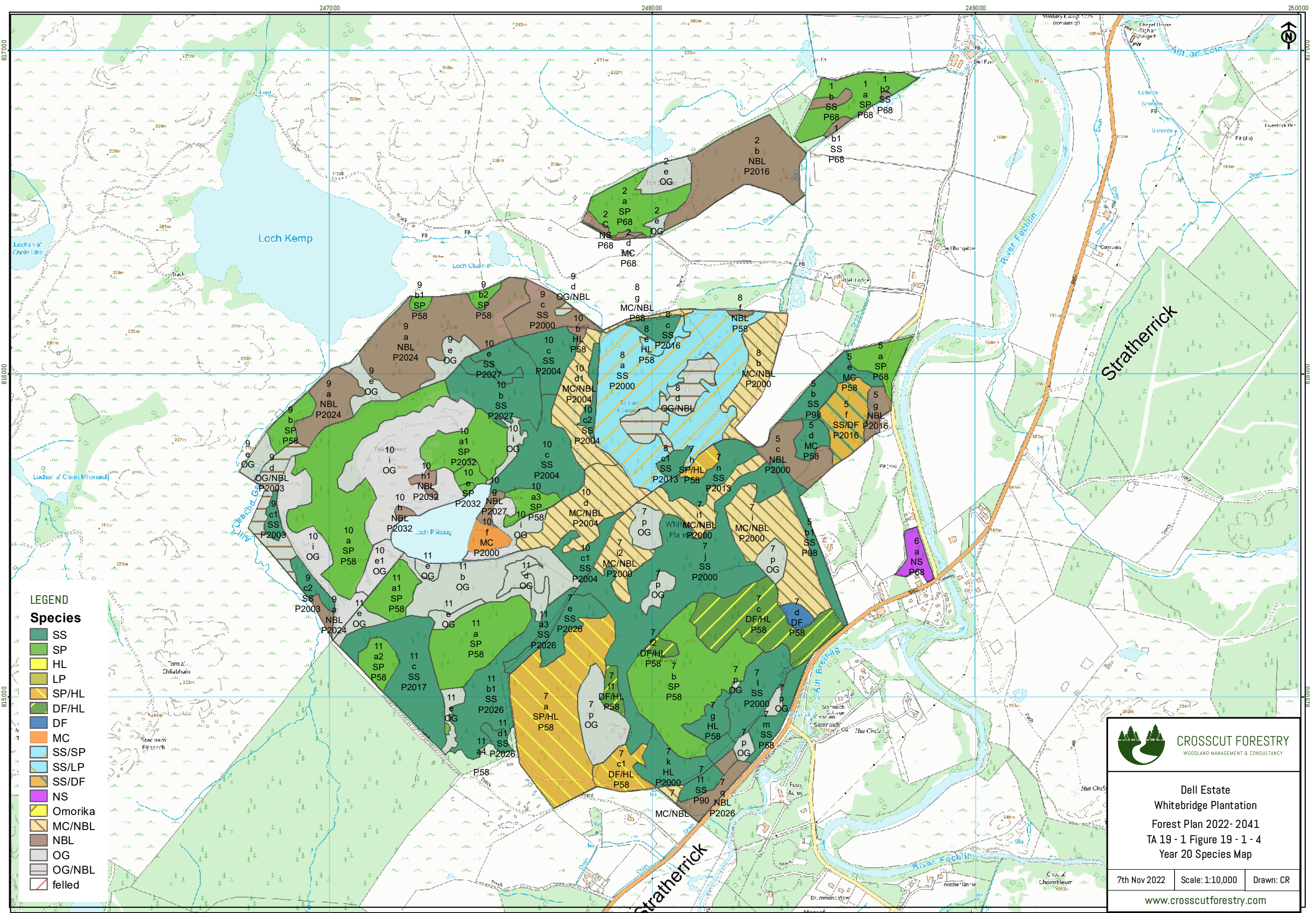
-  Woodland Boundary
-  SSSI/SAC/SPA
-  AWI_SCOTLAND
-  Watercourses
- Access**
-  Suitable for HGVs
-  Upgrade Req'd



Dell Estate,
Whitebridge Plantation
Forest Plan 2022-2041
TA 19 - 1 Figure 19 - 1 - 3
Constraints Map

22nd Nov 2022 | Scale: 1:15,000 | Drawn: CR

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- LEGEND**
- Species**
- SS
 - SP
 - HL
 - LP
 - SP/HL
 - DF/HL
 - DF
 - MC
 - SS/SP
 - SS/LP
 - SS/DF
 - NS
 - Omorika
 - MC/NBL
 - NBL
 - OG
 - OG/NBL
 - felled



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Dell Estate
Whitebridge Plantation
Forest Plan 2022- 2041
TA 19 - 1 Figure 19 - 1 - 4
Year 20 Species Map

7th Nov 2022 Scale: 1:10,000 Drawn: CR
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