Tay Forest District

Barracks

Forest Design Plan

Approval date: ***

Plan Reference No: ****

Plan Approval Date: *****

Plan Expiry Date: ******

CSM 6 Appendix 1b

FOREST ENTERPRISE - Application for Forest Design Plan Approvals in Scotland

Forest Enterprise - Property

Forest District:	Tay Forest District
Woodland or property name:	Barracks
Nearest town, village or locality:	Bridge of Gaur
OS Grid reference:	NN440 530
Local Authority district/unitary Authority:	Perth & Kinross Council

Areas for approval

	Conifer	Broadleaf
Clear felling	440HA	0.0HA
Selective felling	0	0
Restocking	296.00HA	56.0HA
New forest roads -1200m in 2016 & 800m in 2019		

1. I apply for Forest Design Plan approval*/~~amendment approval~~* for the property described above and in the enclosed Forest Design Plan.

2. * I apply for an opinion under the terms of the Environmental Impact Assessment (Forestry) (Scotland) Regulations 1999 for afforestation* & new forest roads/~~deforestation*/ / quarries~~* as detailed in my application.

3. I confirm that the initial scoping of the plan was carried out with FC staff on **17/12/2009**

4. I confirm that the proposals contained in this plan comply with the UK Forestry Standard.

5. I confirm that the scoping, carried out and documented in the Consultation Record attached, incorporated those stakeholders which the FC agreed must be included.

6. I confirm that consultation and scoping has been carried out with all relevant stakeholders over the content of the of the design plan. Consideration of all of the issues raised by stakeholders has been included in the process of plan preparation and the outcome recorded on the attached consultation record. I confirm that we have informed all stakeholders about the extent to which we have been able to address their concerns and, where it has not been possible to fully address their concerns, we have reminded them of the opportunity to make further comment during the public consultation process.

7. I undertake to obtain any permissions necessary for the implementation of the approved Plan.

Signed …… Forest District Manager

Signed…… Conservator

District ……

Conservancy……

Date ……

Date of Approval:……

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Summary of Proposals:

The main objective for this plan is to commence the process of restructuring the Barracks from a resource composed mainly of productive conifer species into a more diverse forest where native species and bog restoration are regarded as key components of the forest matrix.

It is anticipated that restructuring will be achieved over a number of forest design plans given the scale of the area and to counter adverse environmental impacts resulting from large scale harvesting over a shorter time period within an acid sensitive catchment. A key factor for harvesting in the Barracks is a long standing proposal to develop a rail head between the main Barracks block and Whitecow as an alternative to road haulage. The fesibility of this proposal has a strong influence on forest design and function - particularly the White Cow and whether it is managed as either a productive forest or designated as a forest reserve with minimal intervention.

Summary of proposals for 2011 – 2021 Forest Design Plan

- Identify and sequence harvesting of coupes where windthrow issues are anticipated
- To include the White Cow as a productive forest or convert to natural reserve depending on outcome of railhead
- Promote bog restoration by the removal of exotic conifers to encourage biodiversity within suitable locations
- Increase native woodland cover within riparian areas to increase levels of biodiversity by creating habitat corridors
- Retain areas for productive forest identified through the Ecological Site Classification process
- Continue to manage resident deer populations and, through co-operation with neighbours, counter incursions from adjacent ground

1.0 Introduction:

1.1 Setting and context

The Barracks is Tay Forest District's most westerly forest block and is set in an exposed location on the eastern margin of Rannoch Moor. The area has a wild feel to it being positioned on a high open landscape and within view of mountain ranges running both north and south. There is a strong oceanic influence within the Barracks and surrounding area which run in parallel with interior climatic factors and create conditions typical of western boreal forest ranges.

Since the production of the 2001 – 2011 plan, progress on developing the proposed railhead has been frustratingly slow and felling has been delayed until this option is exhausted. A decision will be taken in 2011 on whether the rail option will go ahead - however, timber haulage by road remains a viable alternative and one that will be adopted if the rail option is not successful. However, a sustained programme of conservation felling to promote bog restoration has between carried out, focusing primarily on the removal of lodgepole pine and checked Sitka spruce. This will continue in the new plan and will be complimented by an increase in promoting bio-diversity through increased levels of native species, creation of more robust habitat networks and expansion of particular habitats like bog woodland.

A.	Forest:	Barracks			
B.	Forest District:	TAY			
C.	Local Planning Authority:	Perth & Kinross Council			
D.	Grid Reference:	NN 440 530			
E.	Forest Plan area:	4642 ha			
F.	Plan period:	1 April 2011 – 31 March 2021			
G.	Area submitted for approval:	Conifer	Broadleaves	Open space	
	Felling	418	0	17	
	Replanting	160	56	100	
	New forest road	1200m in 2016 & 800m in 2019			...

H. Supplementary documentation available for inspection at:
Tay Forest District, Inver park, Dunkeld, PH8 0JR

1.2 History of plan

There has been one Barracks Forest Design plan to date which was approved in 2002.

1.3 Planning Context

The management of the Forestry Commission Scotland's national forest estate is guided by Scottish Forestry Strategy (SFS) 2006, which sets out seven key themes:-

- **Climate change**
- **Timber**
- **Business development**
- **Community development**
- **Access & Health**
- **Environmental quality**
- **Biodiversity**

Table 1. Relevant issues under the SFS and Tay Forest District Key Themes

SFS Key Themes	Relevant issues identified for Barracks FDP
Climate Change	Opportunities for contributing towards national targets for renewable energy via woodfuel.
Timber	Identification of sites for continuing to grow quality timber sustainably.
Business Development	Through timber harvesting, woodland establishment and maintenance.
Community Development	Encourage communities who wish to become more involved in the management of, or outputs from, their local forest
Access & Health	Informal access routes.
Environmental Quality	Continue working with local archaeologists and Historic Scotland to protect the ancient monuments in our care.
Biodiversity	Continue to expand the area of native woodland and open bog. Work with SNH to protect and enhance the scheduled and locally important sites in our care.

Table 2. Initial brief and objectives for developing management proposals

Brief	Objectives
Climate change	• where soil stability and rooting depth will not currently allow extended rotations, shorter cycles can be used to supply woodfuel market • utilise resilient species (like Sitka spruce, Scots pine and Birch) to provide insurance for the future
Maintain production of quality timber	• initiate clearfell programme • restock according to good silvicultural practice for species selection and planting density
Maintain and enhance existing natural habitats	• create an open space corridor along the pylon line and the wet area adjacent • retain some meadowland along the pylon line and at the east end for brown hares and skylarks • protect statutory sites according to agreed guidelines • extend locally important habitats (birds, butterflies, badgers) as opportunity arises through other forest operations
Preserve historic features	• protect all known features including Unscheduled Ancient Monuments
Access and health	• maintain existing forest roads and informal paths to facilitate public access

2.0 Analysis of previous plan

2.1 Analysis from previous plan

The 2001 – 2011 plan was compiled in part on the assumption that a railhead would be constructed in the vicinity of White Cow and the West Barracks to reduce the need for road haulage. To date, slow progress has been made in establishing a railhead - negotiations with Network Rail have been slow and protracted. This factor, couple with low timber prices for most of the plan period, has impacted significantly on plan implementation. Therefore, no harvesting has yet taken place within the Barracks One result from the delayed harvesting programme is that the likelihood of significant windthrow has increased in some locations, necessitating a review of the proposed sequencing of the previous plan in order to address these concerns.

3.0 Background Description

3.1 Physical site factors

3.1.1 Geology Soils and landform

Like much of its surrounding landscape, the underlaying geology of the Barracks is composed of Rannoch Moor granite and schists of the Moine. Parent materials are mainly granitic material and are of a sandy loam texture with variable stone content.

Landform is irregular with peaty flats and slopes marked with mounds and ridges to form a complex soil pattern composed of freely drained and or impeded soils on mounds and ridges to poorly drained soils with deep peats in the flushes and hollows.

3.1.2 Water

The Barracks lies within an acid-sensitive catchment. Past planting in the older parts of the forest had been carried out very close to burnsides and so necessitated a programme of tree removal in the 1990's to maintain an open structure around key riparian zones. This increases the buffering distance and ensures that any air pollution captured by the tree canopy does not flush straight into the watercourses after heavy rain.

There is an outtake for the nearby hydro-electric scheme from Gleann Duibhe. This diverts water through a tunnel into Loch Eigheach. The Allt Chomraidh is also used as a private water supply downstream from the forest.

When felling and restocking are carried out the Forest and Water Guidelines (3rd Edition) will be strictly adhered to. Timber extraction will normally avoid crossing the burns or main drains but, where necessary, each crossing point will be piped or bridged. Branches will be kept out of watercourses and trees will generally be felled away from the watercourses. When restocking, planting will normally be kept back from the watercourses, although broadleaves may be planted or regenerated to provide dappled shade.

Any herbicide treatment will follow the procedure specified in Forestry Commission Field Book 8 "The Use of Herbicides in the Forest".

Any waste arising from forest operations will be disposed in a responsible manner or recycled (e.g. old fencing material). Where appropriate, disposal will be through registered outlets. This does not include branches, timber offcuts and roots scattered

across felling sites, which are regarded as green manure returning nutrients to the soil as it breaks down.

3.1.3 Climate

Climatic influence on the Barracks is cool and wet. Accumulated temperatures range from 744 to 1010 day-degrees and a moisture deficit from less than 5mm to approximately 60mm.

Exposure is significant with a DAMS range of 16-19 covering the majority of the area coupled with heavy accumulations of snow are common as are late spring frosts

3.2 Biodiversity and environmental designations

The area to the west of the railway (the White Cow) is a small part of the National Scenic Area that stretches across Rannoch Moor to Glen Coe. This area also marches with Rannoch Moor NNR (which is also a SAC, SPA, SSSI and a Ramsar site).

3.3 The existing forest

3.3.1 Age structure, species and yield class

Nearly 70% of the Barracks was established in the 1960's and 70's and is mostly composed of Sitka spruce and lodgepole pine with yield class ranges from 4 to 12. There was a further planting in the 1990s of about 1000 hectares, still mostly Sitka spruce and Lodgepole pine, but also 10% native species and over 30% open space.

In general, owing to ground conditions, the growth and form of lodgepole pine varies from very poor to some pockets of reasonable quality. In the West Barracks, there are significant areas of slow-grown lodgepole pine of good form. There are significant areas of good quality Sitka spruce, especially in the south eastern section, and includes many examples where it is now emerging from the nursing mixture with lodgepole pine. There are pockets of Scots pine, but these are generally growing poorly and may reflect a poor provenance or the relatively high rainfall.

3.3.2 Access

Access by road is achieved via an unclassified pubic road which runs around the western end of Loch Rannoch. At Bridge of Gaur a forest road which runs for approximately 2.0km through Finnart Estate before reaching the Barracks.

Within the Barracks an established internal road network exists to serve large sections of the forest. As indicated on the current & future roads map, additional sections of forest road will be required within the bounds of this current plan in order to access particular coupes scheduled for clearfelling.

Dissecting the Barracks in half is the Glasgow to Fort William railway which is owned and operated by Network Rail. This is a single track line which operates a regular daily service as well as special summer steam train excursions that on occasion create issues relating to accidental forest fires.

3.3.3 LISS potential

Potential for LISS within the Barracks is very limited on account of soils, exposure and suitable species.

3.4 Landscape and land use

3.4.1 Landscape character and value

The character of the Barracks is one of remoteness in a wide and open landscape served by Rannoch Moor to the west and mountains of Glen Lyon and Corrour to the east and North.

There is very much a feeling of wildness present in the Barracks given by the sense of scale generated by its uncompromising surrounding landscape and from its own deceptive area.

In terms of landscape value, the Barracks represents the last significant conifer forest west of Loch Rannoch before encountering Rannoch Moor which extends into and beyond Glen Coe.

3.4.2 Visibility

The main publicly visible point for the Barracks is the Glasgow to Fort William railway where the White Cow and West Barracks can be viewed from both sides of the track. Glimpses on the forest are gained on its approach from Finnart Estate but its full extent can only be gained by viewing it from elevated areas like the distant mountain ranges of Glen Lyon and Corrour.

3.4.3 Neighbouring landuse

Surrounding the Barracks are the estates of Blackmount, Meggernie and Lochs, which are traditional sporting enterprises. To the west is land owned by Scottish Natural Heritage where conservation management is the primary objective with focus on deer control as the sole intervention.

The most significant issue affecting the Barracks is the presence of very large and mobile populations of red deer primarily on the southwest and southeast boundaries. During the most recent deer counts undertaken by the Red Deer Commission in 2008, a total number of deer 13,290 deer where recorded within the Breadalbane deer management group area.

To counter deer pressure, significant time has been spent on maintaining existing march fences and culling deer within the forest.

3.5 Social factors

3.5.1 Recreation

There is low level recreational use at the Barracks which extends to occasional individual or groups of walkers, mountain bikes and, perhaps, fishing interest during the summer season.

3.5.2 Community

The most immediate community to the Barracks is found at the hamlet of Bridge of Gaur and shortly after by Rannoch Lodge which again hosts a small population. There are no organised community groups in the immediate locality or evident desire for local participation in the Barracks at present. However, the forest does lie within the wider area covered by the Rannoch and Tummel Community Council.

3.5.3 Heritage

Within the Barracks there are examples of heritage features which include iron age bloomeries and 19th century sheilings.

3.6 Statutory requirements and key external policies

In terms of key external policies influencing forest management in the Barracks, the most significant is the National Forest Estate – Strategic Pan (2009 – 2013) compiled by Forest Enterprise Scotland as key driver in implementing the Scottish Forestry Strategy (2006) established by the Scottish Government for taking forestry forward into the new century.

Under the SFS the following strategic directions were identified;

- To maximise the value to the Scottish economy of the wood resource becoming available for harvesting over the next 20 years
- To create a diverse forest resource of high quality that will contribute to the economic needs of Scotland throughout the 21st century and beyond
- To ensure that forestry in Scotland makes a positive contribution to the environment
- To create opportunities for more people to enjoy trees, woods and forersts in Scotland
- To help communities benefit from woods and forests

At the local level the Tay Forest District Strategic Plan (2009 – 2013) embodies national strategies and puts forward mechanisms for implementation of policy and objectives within the context of individual forest blocks such as the Barracks.

The area west of the railway (the White Cow) is part of the National Scenic Area that stretches across Rannoch Moor to Glen Coe. This area also marches with an NNR (which is also a SAC, SPA, SSSI and a Ramsar site) and the watercourses feed into the River Tay SAC.

4.0 Analysis and Concept

In order to define the new FDP, a process of stakeholder discussion, review of supportive data and ground truthing were used to produce Analysis and Concept maps showing key elements that conspire to form future design and long term vision of this forest.

4.1 Analysis of constraints and opportunities

Factor	Opportunity	Constraint	Concept Development
Quality Sitka Spruce growing within eastern end of Barracks	Continue to capitalise on this income generating resource.	The current moratorium on planting Lodgepole Pine as a nurse, in order to reduce the risk from Red Band Needle Blight.	Employ site species selection technique in order to ensure successful future spruce crops with minimal reliance on nurse species. Embed site & species selection within FDP restocking plan.
Construction of railhead between Whitecow & main Barracks	Enables timber from White Cow and main Barracks block to be efficiently transported directly to major consumers like Irvine biofuel heat plant.	High financial cost of securing an agreement with Network Rail.	FC to seek political support in negotiations with Network Rail.
Areas of remnant bog planted with Sitka Spruce and Lodgepole Pine	Strong potential to increase areas biodiversity levels by expanding bog system through blocking existing man made drains and removing introduced species.	Varied tree size and quality making commercial harvesting not viable. Soft ground conditions requiring heavy thatching and need for specialised machinery. Costly motor manual work which would entail large numbers of cutters to make significant progress.	Seek to focus on lodgepole Pine in order to reduce regeneration levels and commercially harvest areas which are viable. Retain areas of spruce where development potential is very limited. Motor manual fell selected areas and seek to block drains in order to raise water table.

			Undertake planting of native species along riparian areas and drier knolls.
Windblow occurring on account of delayed felling	Opportunity to increase levels of deadwood. Material could be used to block man made drains.	Sequencing of current design plan preventing targeted approach to clearing windblow	Survey and identify priority coupes for harvesting where windblow is evident and re-sequence within the context of new FDP.
Construction of railhead not possible	Creation of natural forest reserve at White Cow Improved roading infrastructure to facilitate road haulage. Reduced level of expenditure on fence maintenance.	Costs involved with improving current road network, additional maintenance costs. Local concerns over increased haulage on single track public roads.	Seek to secure new stacking area near Bridge of Gaur in order to allow secondary handling and prevent excess damage to current forest road network. Insist that future road haulage is undertaken by lorries equipped with tyre pressure reduction system. LTC contractors contribute towards roads maintenance on an annual basis.
Low levels of existing native species and future seed sources	Increase levels of biodiversity by promoting native species and establishing habitat corridors.	Existing forest cover is prohibitive in some areas and requires to be felled. Costs associated with establishing areas of native species	Sequence felling and restocking in order to enable native species planting.

Red band needle blight	Where possible, utilise other alternatives to Lodgepole Pine as nurse species and further strengthen presence of native species.	Current (likely to be short-term) moratorim on planting of Lodgepole Pine - the most effective nurse species on many of the sites.	Species distribution to be highlighted in FDP restock prescription.
Current internal roading infrastructure	Increase level of internal roading in order to access coupes scheduled for harvesting within plan period.	Costs incurred with establishing new sections of forest road over potentially difficult ground.	Target routes where minimal environmetal impact will result from construction of new roading infrastructure. Stipulate that future road haulage is undertaken by lorries equipped with tyre pressure reduction system. New routes will be sufficient in length to ensure economic viability of future harvesting operations.

4.2 Concepts of the plan

The main thrust of this FDP is to set in motion a transition towards greater biodiversity within the Barracks by the restoration of forest bog, increasing native species whilst maintaining a strong productive component that could include native broadleaves.

In order to achieve this vision the Barracks has been divided into three distinct zones which are defined by site dynamics. The most westerly section of the Barracks, White Cow, is separated by the Fort William to Glasgow railway and is essentially isolated from a commercial forestry perspective unless a rail link is established. If the rail link is not constructed, the only viable option will be to leave the White Cow as an area for natural reserve. The central section is identified as a prime area for biodiversity on account of significant areas of bog where small scale restoration work has already taken place by removing introduced species and blocking forest drains. There is a significant amount of checked spruce and low value pine in this area as a consequence of inappropriate planting, past fire damage and restrictions on fertilising and added drainage. In terms of restocking, Scots pine and downy birch would be planted on dry knolls within enclosures as a form of internal deer protection. On the eastern section of the Barracks, good tree growth is encountered and hence this area will be retained as productive forest with an added component of biodiversity brought through broadleaf planting in riparian areas.

5.0 Management Proposals

5.1 Forest stand management

5.1.1 Clear felling

For the duration of this and future plans, clearfelling will be the dominant form of harvesting intervention.
As highlighted in the Management map, certain coupes in felling phase 2016 – 2020 run contrary to standard adjacency convention. The rational for this stems in part from the low visual impact of these coupes (17121, 17116 & 17012) located in the forests centre and continuity of canopy cover brought through open areas/low stocking.

5.1.2 Thinning

Thinning, while desirable, will not be undertaken during this FDP but remains a long term aspiration for selected areas where long term production forestry has been identified as being sustainable, see Analysis & Concept map.

5.1.3 LISS

Due to site constraints, the opportunities for LISS within the Barracks are likely to be very limited in the productive conifers. However, in due course, there may be opportunities in the new native woodland areas in the future.

5.2 Future habitats and species

An opportunity exists within the Barracks to conserve UKBAP priority habitats in the form of blanket bog which has been recognised through an advisory site report produced by Jeff Waddell, FCS's ecological advisor on open land, see appendix iv. Within the site report, nine areas were identified as having the potential for restoration and amount to 25ha. In terms of area, this is small but in terms of the national forest estate, remains significant by Habitat type.

The increased level of biodiversity brought through increased levels of broadleaves will enrich riparian corridors linking to native woodlands in riparian zones outside the forest and, in time, act as seed sources for natural regeneration as well as habitat for keystone species, see future habitats and management map.

Replacing lodgepole with Scots pine marks a positive start in extending the area of native pine beyond the Blackwood both in the context of Forestry Commission and neighbouring land.

5.3 Restructuring

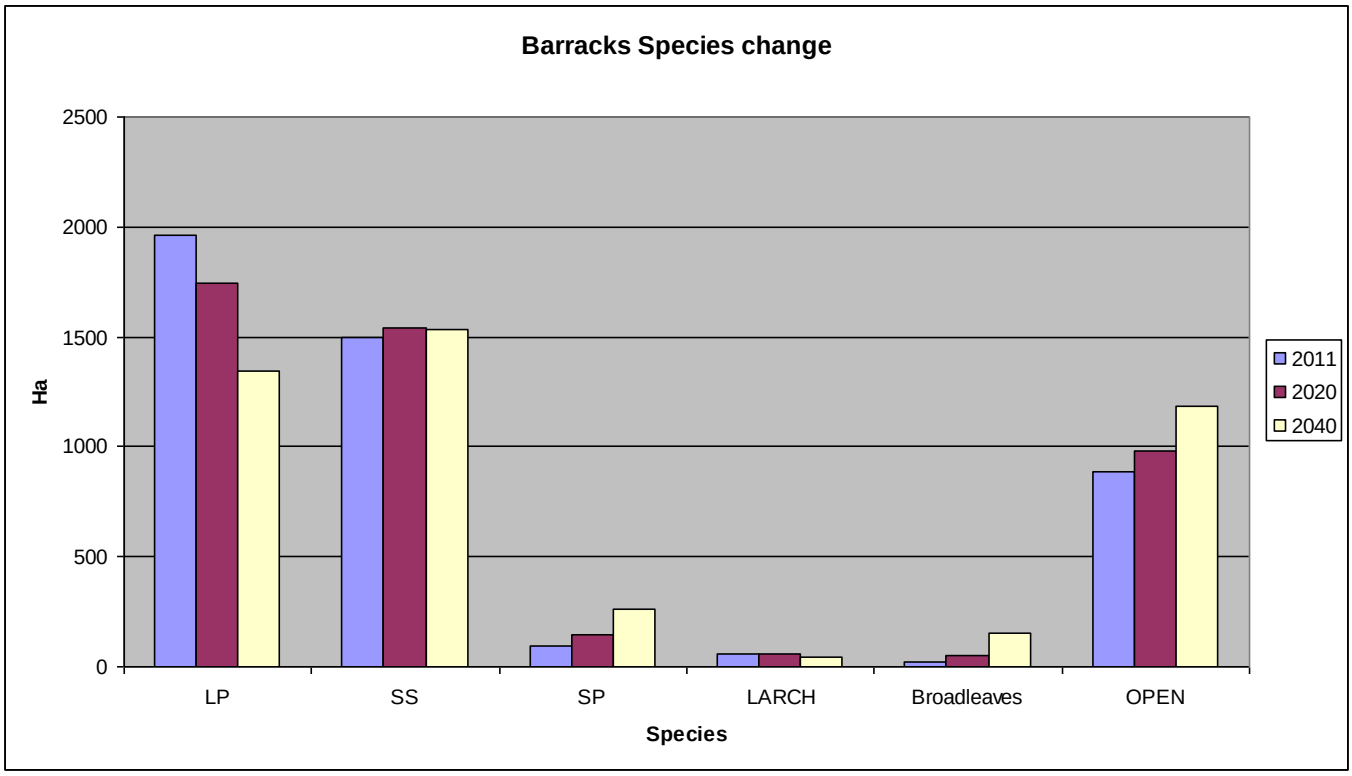
It is the intension of this FDP to start a process towards restructing the Barracks into a more diverse forest where there will be greater biodiversity but retaining a strong productive component which potentially include native broadleaves as well as conifers, see future habitats and management map.

5.4 Future management

Future management will be based on the implementation and review of sequenced harvesting the restocking plans. As coupes are harvested, an increased focus will be placed on deer management and the integrity of boundary fences to prevent crop damage and allow, where possible, natural regeneration to take place.

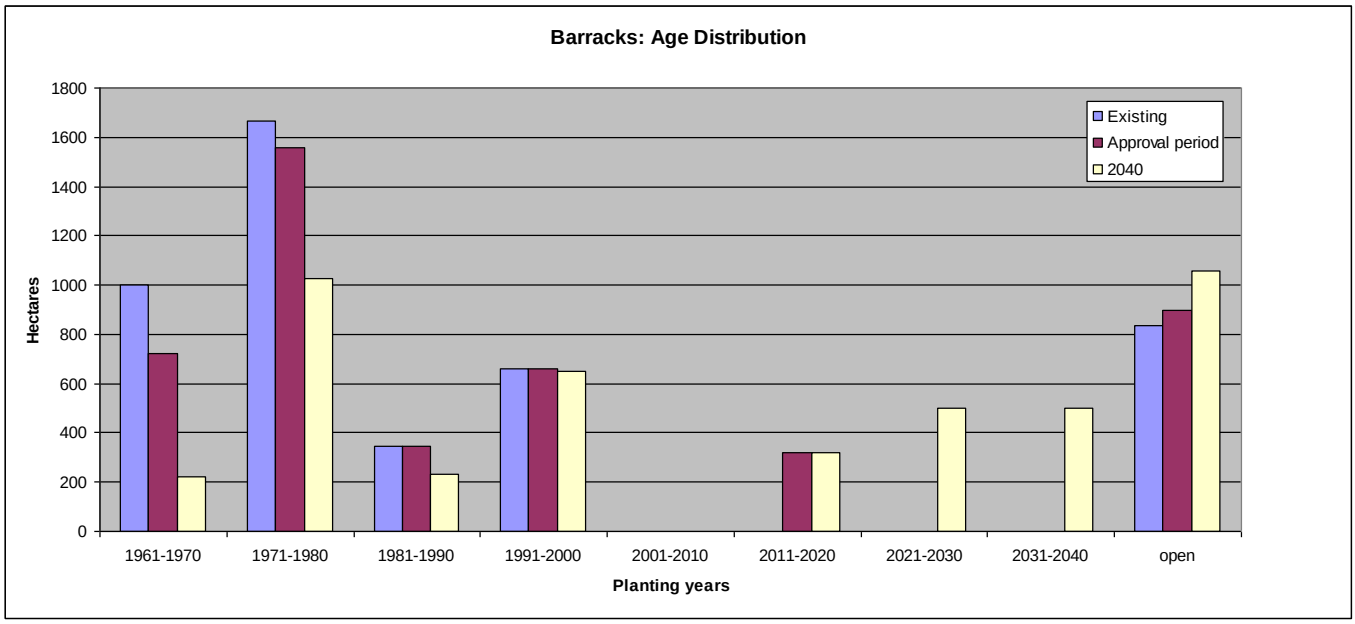
5.5 Species tables

Species	Existing	Approval period (2020)	Aspiration for 2040
Lodgepole pine	1959 (43%)	1748 (39%)	1347 (30%)
Sitka spruce	1496 (33%)	1542 (34%)	1537 (34%)
Scots pine	97 (2%)	146 (3%)	261 (6%)
Larch	62 (1%)	58 (1%)	41 (1%)
Broadleaves	22 (0.5%)	53 (1%)	151 (3%)
Open	890 (20%)	980 (22%)	1188 (26%)



5.6 Age structure

Planting in the Barracks was undertaken initially in 1961 and 70% of the area was planted in the first 25 years. There was a further 660 ha planted in the early 1990s. The current area of open space is 19%, but much of this was achieved by remedial burnside clearance to improve water quality and meet the new Forestry Water Guidelines that were developed at that time.



5.7 Management of open land

Open ground will be maintained and expanded through reductions in planted areas within individual coupes, taking into account soil types and potential for bog and riparian area development, see appendix iv.
It is accepted that an element of residual tree cover within open areas/bog will be a feature of the Barracks and little intervention to remove stunted conifers will be undertaken.

5.8 PAWS restoration

Within the Barracks, there are two small areas of Plantation on Ancient Woodland Sites (PAWS), but they have rather low ecological potential, because of the lack of native broadleaves. However they will be converted to native woodland over the next 20 to 30 years.

5.9 Deer management

Management of red and roe deer will be undertaken by Forestry Commission Scotland with the objective of maintaining population levels to a point where tolerable levels of crop damage are encountered and capacity for natural regeneration is maintained.

In terms of deer pressure, open range populations on land adjacent to the Barracks were recorded as following during the most recent Deer Commission Scotland (DCS) helicopter count in 2008; Blackmount Estate recorded at 14.8 per km2 , Meggernie at 21.9 per km2, Finart at 15.8 km2 and Lochs at 20.6 per km2 with the same 2008 count.
This external pressure is significant and consequently the condition and effectiveness of boundary deer fences are of prime importance to preventing incursions which will be difficult to address once in the forest environment. The Forest District maintains a protection plan for all its forest blocks as a formalised mechanism for identifying deer management issues at both strategic and operational level. Within the plan, captured data is used for future boundary fence budgeting, measuring deer populations & actual culls against impact on restock sites and areas where natural regeneration is being encouraged. This information is collected by local staff and external bodies and organisations to give a holistic view of deer dynamics effecting individual forest blocks.
During the period 2010 – 2011 a total of 3,300m of boundary fence was replaced at Barracks and monitoring and replacement programme to protect its boundaries in cojunction with internal deer control.

5.10 Critical success factors

In terms of delivering the restructuring of the Barracks, it is vital to get felling underway in the near future. Hopefully, this will be facilitated by a viable rail haulage option – if not, then haulage will commence by road. If, during the life of this plan, the railhead is not constructed then the White Cow will be reclassified as a natural reserve area within the bounds of the next scheduled revision covering 2021-2031.

The matching of tree species with appropriate sites will be a key factor is ensuring that satisfactory establishment and development of trees in both a productive and biodiversity context achieved.

Within the period of this forest design plan, sections of new forest road have been highlighted for future construction.These roads are necessary for reaching scheduled felling coupes in the plan period in order to make them economically viable given their current distance for existing roads. With the proposed increase in forest bog and biodiversity within the Barracks, roading density will be greatly reduced in contrast to the previous plan where focused was placed on production.

Deer management through a combination of maintaining march fences and culling must be considered a major critical success factor in meeting the future vision for the Barracks. This will require significant investment to replace sections of fenceline which have, or are, reaching the end of their effective life.

Within the restocking plan, there is a presumption that use of lodgepole Pine will be a permitted species to act as a nurse species in areas where Sitka Spruce is being restocked. If the moratorium on lodgepole pine planting proves not to be a temporary measure, other nurse species (Japanese larch, Scots Pine) will be employed as an alternative on Sitka spruce sites in order to allow the productive element of this plan to continue.

Appendix I: Forest Design Plan Consultation Record

Statutory Consultee	Date contacted	Date response received	Issue raised	Forest District Response
Forest Authority – Tim Barrat/Chris Stark	November 2009	December 2009	None	Attended scoping meeting at Birnham Institute on 17th December 2009 Attended field visit on the 21st of May 2010
SEPA – Bruce Meikle	November 2009	December 2009	None	Attended scoping meeting at Birnham Institute on 17th December 2009 Attended field visit on the 21st of May 2010
SNH – John Burrow	Novenber 2009 19/02/10	December 2009 17/05/10	None SNH is content to deal with this consultation without attending the site visit.	
RSPB – Bruce Anderson	November 2009	December 2009	None	Attended scoping meeting at Birnham Institute on 17th December 2009 Attended field visit on the 21st of May 2010

Appendix II: Tolerance Table

	Adjustment to felling coupe boundaries	Timing of restocking	Change to species	Windthrow response
FC Approval not normally required	0.5ha or 5% of coupe – whichever is less	Variation of less than 2 planting seasons from standard restock year, 4 years post-felling	Change within species group, e.g. conifers: native braodleaves	Up to 1.0ha
Approval by exchange of letters and map	0.5ha to 2.0ha or 10% of coupe – which ever is first		Greater than 15% species change	1.0ha to 5.0ha – if mainly windblown trees between 5.0ha to 10ha in areas of low sensitivity.
Approval by formal plan amendment	Greater than 2.0ha or 10% of coupe	Variation of greater than 2 planting seasons from standard restock year, 4 years post-felling	Increased native woodland component. Increase in native broadleaves and open/bog restoration	Greater than 5.0ha in areas of medium to high sensitivity

Appendix III. Design Plan Brief

The Barracks is Tay Forest Districts most westerly forest block and is set in an exposed location on the eastern margin of Rannoch Moor. The area has a wild feel to it being positioned on a high open landscape and within view of mountain ranges running both north and south. There is a strong oceanic influence within the Barracks and surrounding area which run in parallel with interior climatic factors and create conditions typical of western boreal forest ranges.

To date harvesting has not taken place on a commercial basis in the anticipation of a railhead being constructed which would negate lengthy haulage along forest and single track public roads. Delays in felling have not had a determinatal effect on the forest to date but levels of windthrow are increasing within certain locations.

On account of previous site and species selection, there are high occurrences of checked growth within Sitka spruce stands in the west of the forest. Within lodgepole pine, red band needle blight has been recorded but has had no significant impact on tree health. However, the current moratorium on planting lodgepole pine carries significant implications for restocking and future use of lodgepole as a nurse species.

The Barracks is located in an area where high levels of red deer are present and as a consequence pressure from incursions is a constant concern with regard to future protection of restock and development of nature regeneration. Boundary fencing currently is in a mixed condition and repair/replacement is necessary in a number of key areas.

As part of the national forest estate, this design plan for the Barracks contains the seven national themes as set out in the Scottish Forest Strategy (2006) and action points as detailed in the Tay Forest District strategic Plan (2009 – 2013).

Barracks Forest Plan brief

Date: 08 May 2009
Planning beat forester: R&T beat

Description

The Barracks comprises 4527 ha.: (43% LP; 33% SS; 3% SP; 1% Broadleaves and 20% open.)

The soils are predominantly deep peats, both flushed blanket bog (*Molinia*) and unflushed blanket bog (*Trichophorum/Calluna*), peaty gleys and podzols are also widespread, but represent a much smaller area. Species choice is mostly limited to SS, SP, ALP, and birch, with perhaps some EL on the driest podzols. On the unflushed deep peat SP or ALP will be required as a nurse to the SS.

Economic issues

The forest grows some potentially good SS on predominantly poor peaty soils where an ALP of SP nurse is required and helps produce a self thinning crop in an area where thinning would not be a practical proposition. Haulage is a key issue – whether by the proposed new loading area at the railway line or by road.

Environmental issues

Parts of the forest march with the internationally important Rannoch Moor conservation site. However, very little of the forest drains into this area and, therefore, the direct influence is very small.

Within the forest there are significant areas of blanket bog, which have very stunted trees growing on them and smaller scattered bogs and dubh lochans. These provide good habitat for a range of species, some of which are quite rare. In addition, the younger plantings are being well utilised by black grouse.

There are small remnants of ASNW in Gleann Duibhe and on the southern side of Gleann Chomraidh, consisting mainly of birch.

Landscape issues

The area to the west of the railway (the White Cow) is a small part of the National Scenic Area that stretches across Rannoch Moor to Glen Coe. The forest generally lies on low rolling terrain and, despite its scale, it does not have a great impact on the landscape. The main views are from the railway line and from the public road to Rannoch Station.

Social issues

Low level use at present – mainly walkers following the right of way through to Black Mount.

Brief

Consideration should be given to leaving the wettest blanket bog open or with sporadic tree cover, especially where there is a good network of open water.

Consider the scale of clearfells in this large landscape, especially with the importance of Black grouse to the area.

Identify opportunities for the restoration/expansion of native woodland throughout the extensive riparian zones.

Consider amelioration of the powerline wayleaves corridor effect.

Appendix IV. FES Head Office Advisory Site Report: Ecology, Open Habitats