

Appendix I: Forest Design Plan Consultation Record (External)

Statutory Consultee	Date contacted	Date response received	Issue raised	Forest District Response
Lochbroom Community Council	12/06/2012	No response received	-	-
Scottish Natural Heritage (Ullapool)	12/06/2012	29/06/12	General scoping comments and specific interest noted in the heronry at the north end of the forest and invertebrate interest in Corrieshalloch Gorge that could be affected by management of the Braemore Coupes.	The non native tree species in the heronry are causing significant negative impact to the PAWS. Felling will take place outwith breeding and nesting times. Sufficient alternative habitat is available. Design has accommodated water quality issues at Braemore.
Highland Council Forestry Department	12/06/2012	No response received	-	-
Wester Ross Fisheries Trust	12/06/2012	No response received	-	-
RSPB	12/06/2012	No response received	-	-
Highland Council Access Officer	12/06/2012	No response received	-	-
Scottish & Southern Energy	12/06/2012	15/06/2012	Avoid future risk to OHPL by good planning of habitat management proposals.	Productive forestry will be held back at least a full tree length from lines in future rotations. Ground between the edge of crops and the

				OHPL will be planted with species beneficial to wildlife, that can be managed on the utility company's cutting cycle of four years.
SEPA	12/06/2012	20/07/2012	Morphological pressures on the River Broom mean the water body is in poor condition.	Further discussion with SEPA has confirmed that forestry is not the significant negative pressure. Riparian woodland has been proposed to improve water quality and LISS has been proposed to help with run-off and slope stability issues.
Highland Council Ranger Service – Melanie Gaff	12/06/2012	No response received	-	-
Highland Council Archaeology	12/06/2012	No response received	-	-
RWE Renewables	28/06/2012	No response received	-	-
Braemore Estate	28/06/2012	10/07/2012	Access for timber wagons is currently not permitted up the Braemore Drive. Deer management is an issue of concern as is deer fencing.	Deer managers are working toward a local solution to deer mgmt. The fences have been inspected and maintenance work is now scheduled. Access issues will be dealt with by further negotiation and appropriate new planned roads on the NFE.

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Braemore Square	28/06/2012	No response received	-	-
NTS – Corrieshalloch Gorge	12/06/2012	No response received	-	-
Inverlael Farm	28/06/2012	06/08/2012	Concern raised over walkers leaving gates open at the Lael Glen access where stock is present and some concern noted regarding spread of bracken.	Estates issues passed to local staff for action.
Ullapool Community Trust – Woodfuel Project	28/06/2012	03/07/2012	The community are at the initial stages of developing a fuelwood processing facility and are identifying potential timber supplies.	The volumes at start up are relatively modest and FCS will identify suitable supplies following felling to support this developing local business.
Scottish Water	28/06/2012	No response received	-	-
Lochbroom Estate	28/06/2012	No response received	-	-
Foich Estate	28/06/2012	No response received	-	-
Kenny Maclean	28/06/2012	No response received	-	-
Ullapool Community Trust Hydro Project	28/06/2012	09/07/2012	the Ullapool Community Trust has expressed an interest in using Allt a'Mhuilinn and Allt a'Bhraighe for hydroelectricity.	Forest Liason Officers and NHFD will continue to work with the community to identify appropriate development opportunities.

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Mountaineering Council of Scotland	12/06/2012	19/07/2012	Raised the issue of mountain access at the Braemore end of the forest, currently difficult due to the private drive to Braemore House.	The issue has been passed to the CRT Manager and she is currently negotiating possible alternative routes with MCoS and the local access officer
Mail Drop to local residents	12/06/2012	No responses received	-	-
Ullapool News – Invitation comment at scoping stage	29/06/2012	29/06/2012	Mr R Burns in the Old Forestry Cottage opposite Lael Forest Garden phoned to discuss the potential impact of clearfelling on water run off.	Clearfelling between Braemore and the Lael main glen will be very limited during the next two phases. Civil engineers are aware of the potential risk of further material coming down the burn and will monitor the situation although it's acknowledged this is part of the active geology of the area. Restocking will be increased to help alleviate run off.
		30/07/12	Mr Fotheringham – Ross & Cromarty Access Forum and Mountain Rescue, phoned to discuss improving access for disabled ramblers at gates to the main glen.	The request has been passed to the CRT team for action. The points raised can easily be accommodated into work programmes during business planning.

CSM 6 Appendix 1b

FOREST ENTERPRISE - Application for Forest Design Plan Approvals in Scotland

Forest Enterprise - Property

Forest District:	North Highland
Woodland or property name:	Lael Forest
Nearest town, village or locality:	Ullapool
OS Grid reference:	NH 177 868
Local Authority district/unitary Authority:	Highland Council

Areas for approval

	Conifer	Broadleaf
Clear felling	91.8 Ha	0 Ha
Selective felling	30 Ha	5 Ha
Restocking	36.0 Ha	13.4 Ha
New planting (complete appendix 4)	5.0 Ha	32.4 ha

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* /~~deforestation~~* / roads* / ~~quarries~~* as detailed in my application.
3. I confirm that the initial scoping of the plan was carried out with FC staff on **7th June 2012**
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	Signed
For Forest District Manager	For Conservator
District North Highland FD	Conservancy
Date	Date of Approval.....
	Date approval ends:

*delete as appropriate

REQUEST FOR DETERMINATION UNDER THE E.I.A. (FORESTRY) (SCOTLAND) REGULATIONS 1999	
OPERATION	Road Construction (See Map 6 – CSM6)
LOCATION	Lael FDP
GRID REFERENCE	NH 177 868
IS THE LOCATION OF THE PROPOSED WORKS WITHIN A "SENSITIVE AREA", AS DEFINED IN THE REGULATIONS? IF SO, WHAT TYPE OF SENSITIVE AREA?	No
IF OPERATION IS AFFORESTATION, DEFORESTATION OR FOREST QUARRIES, WHAT AREA IS INVOLVED?	n/a
IF OPERATION IS FOREST ROADS, TRACKS OR PATHS, WHAT IS SPECIFICATION AND WHAT LENGTH & WIDTH IS INVOLVED?	Forest Road Construction (CAT 1a) Strone Nea Extens. – 251m long– 15m wide Inverbroom Spur – 668m long– 15m wide Foich Extension – 536m long – 15m wide Corrieshalloch Spur - 194m long – 15m wide
IS THE PROPOSED OPERATION IMMEDIATELY ADJACENT TO AN AREA OF THE SAME PROJECT TYPE WHICH HAS BEEN COMPLETED SINCE 6TH SEPT.1999? IF SO, GIVE DETAILS.	Yes – Roding is spur continuation of existing roads.
PROPOSED TIMING	Roding – 2012 to 2018
STATE ANY PERCEIVED IMPACT ON THE FOLLOWING..	
ARCHAEOLOGY	No impact is anticipated. Full GIS record exists and archaeology will be identified by workplan process and walk over survey prior to commencement.
CONSERVATION	No impact is anticipated. Full GIS record exists and species/habitat interest will be identified by workplan process and walk over survey prior to commencement.
LANDSCAPE	No landscape impact is anticipated from internal roding.
WATER	No impact
RECREATION / ACCESS	Not affected.
PEOPLE	No issues forseen
OTHER INFORMATION	None
SIGNED & DATED	Neil McInnes – 30/10/12

REQUEST FOR DETERMINATION UNDER THE E.I.A. (FORESTRY) (SCOTLAND) REGULATIONS 1999	
OPERATION	New Planting (See map 6 – CSM6)
LOCATION	Strone nea, Lael
GRID REFERENCE	NH 195 845
IS THE LOCATION OF THE PROPOSED WORKS WITHIN A "SENSITIVE AREA", AS DEFINED IN THE REGULATIONS? IF SO, WHAT TYPE OF SENSITIVE AREA?	No
IF OPERATION IS AFFORESTATION, DEFORESTATION OR FOREST QUARRIES, WHAT AREA IS INVOLVED?	37.4 Ha of afforestation – east of Strone nea
IF OPERATION IS FOREST ROADS, TRACKS OR PATHS, WHAT IS SPECIFICATION AND WHAT LENGTH & WIDTH IS INVOLVED?	N/A
IS THE PROPOSED OPERATION IMMEDIATELY ADJACENT TO AN AREA OF THE SAME PROJECT TYPE WHICH HAS BEEN COMPLETED SINCE 6TH SEPT.1999? IF SO, GIVE DETAILS.	No
PROPOSED TIMING	New Planting – 2012 to 2022
STATE ANY PERCEIVED IMPACT ON THE FOLLOWING..	
ARCHAEOLOGY	No impact is anticipated. Full GIS record exists and archaeology will be identified by workplan process and walk over survey prior to commencement.
CONSERVATION	Positive impact is anticipated, with an increase in restored habitat suitable for species already recorded. Workplan process will identify key issues pre-commencement of operation.
LANDSCAPE	Positive impact expected from increased area of native treeline woodland softening exisiting edges.
WATER	Positive impact anticipated by improving water quality and aquatic habitat through the establishment of appropriate NVC type woodland.
RECREATION / ACCESS	No impact.
PEOPLE	No impact.
OTHER INFORMATION	None
SIGNED & DATED	Neil McInnes – 30/10/2012

CSM 6 Appendix 4 FOREST ENTERPRISE - Application for Approval of New Planting (to be viewed with **Map 6**)

1. Forest Enterprise – Property

Forest District:	North Highland FD
Woodland or property name:	Lael FDP
Nearest town, village or locality:	Ullapool
OS Grid reference:	NH 195 845
Local Authority district/unitary Authority:	Highland Council

2. Proposed areas to nearest tenth of a hectare

New Planting	29.9 Ha
Open Ground	7.5 Ha
Total	37.4 Ha

3. Special areas and protected land

Designation	Area Name or Number	Comments
None		

4. Proposal details of new planting

Area Name or number	Gross Area (Ha)	P Year	Spp	Area (Ha)	Open Ground (Ha)	Field Identifier	Comments
Strone Nea	37.4	2018	MC/MB	29.9	7.5	n/a	Mixed Native Woodland of NVC appropriate to site
Total=	37.4			29.9	7.5		

I apply for Authority to plant as above and as shown on the attached map.

I undertake to obtain the necessary permissions from the appropriate statutory body before commencing work under any approval which is granted.

Signedfor FDM

SignedConservator

District **North Highland FD**
Date 30/10/2012

Conservancy

Approval Date.....Date approval ends:.....

Appendix II – FDP Internal Scoping Consultation

An internal scoping meeting was held on 7th June 2012 at the NHFD Forest District Office, Golpsie with the following officers in attendance:

Tim Cockerill	Forest District Manager
Graeme Findlay	FD Environment Manager
Ian Allsop	Beat Operations Forester
Stuart Waugh	Forestry Civil Engineer
Peter Mackay	Ross-shire Stewardship Forester
Neil McInnes	Planning Forester

Issues highlighted were as follows:

- PJM noted that the National Tree Collection manager had visited the forest garden and plans were now being formulated to extend the site to the north and south. LTR would be preferred to north of site to create suitable climatic conditions for the forest garden.
- Paths had been put in the main glen as part of the new hydro scheme planning consent conditions. The new trails will be shown in a revised Ross-shire forest trails leaflet next year.
- Ownerships were clarified for adjacent estates and PJM forwarded contact details for consultation. It was agreed to put notices in the Ullapool News and the Ross-shire Journal.
- At the north end of the forest a retention for a heronry is seeding western hemlock and spruce into a PAWS area. The remaining trees should be felled, the site cleared and native broadleaves should be planted.
- Deer numbers on adjacent ground are thought to be very high, following information provided by SNH helicopter counts. Deer managers are comfortable that – if the current fencelines are maintained – they will be able to protect broadleaf crops. Feral goats have been seen occasionally in the forest and sika and red deer are the predominant species.
- Access to the felling coupes was restricted at the Braemore end of the forest.
- Landscape is a high priority, the forest runs adjacent to the main tourist route to Ullapool and the Western Isles. In addition the forest can be seen very clearly from Ullapool and the very busy tourist route to Dundonnell.
- FCE noted that the quarries in lael were worked out and that future roading would need either new quarries or imported stone.

Follow up meetings and consultations have been held with Malcolm MacDougall (FD Planning Manager), Hugh Mackay (FD Programmes Manager), Ian Allsop (South Beat Operations Forester), Derick Macaskill (FD Wildlife Ranger Manager) and Renate Jephcott (FCS Landscape Architect North) to clarify issues and proposals.

Appendix III: Tolerance Table

	Adjustment to felling coupe boundaries (1)	Timing of regeneration	Timing of Restocking	Changes to species	Other	Windthrow clearance (2)	Changes to road lines , tracks or paths (other CE activity) (3)
FC Approval normally not required	0.5 ha or 5% of coupe - whichever is less		Up to 5 planting seasons after felling	Change within species group e.g. evergreen conifers; broadleaves		Up to 0.5ha	EIA implications will be considered
Approval by exchange of letters and map	0.5ha to 2ha or 10% of coupe - whichever is less	After 5 years				0.5ha to 2ha - if mainly windblown trees > 2ha to 5ha in areas of low sensitivity	Additional felling of trees not agreed in plan Departures of >60m in either direction from centre line of road
Approval by formal plan amendment	2ha or 10% of coupe		Over 5 planting seasons after felling	Change from specified native species Change between species groups		> 5ha	As above, depending on sensitivity

The consultation tolerances contained within this table are the standard recommended tolerances that are contained within OGB 36 – Forest Design Planning and CSM6, published by Forestry Commission, Edinburgh.

The preferred means of dealing with any adjacency issues will be through delayed felling, i.e. a coupe will not be felled until all surrounding crops are at least 2m tall. Where this is not possible any adjacency issues will be dealt with through delay restocking, i.e. a coupe will not be restocked until all surrounding crops are at least 2m tall.

Appendix IV – FDP Brief

Background Information

The Lael Forest Design Plan area is situated in Ross-shire, approximately five miles south of the village of Ullapool. The plan area extends to over 870 ha of largely mixed coniferous forests. The forest of Lael is predominantly productive with recreation also being a management priority. Landscape is an important issue, given the forest's close proximity to the main A835 tourist route to Ullapool, the far north west and the Western Isles. The forest is also prominent in the landscape when viewed from Ullapool and busy viewpoints on the A832 Dundonnell road. The woodlands are of significance for biodiversity having a high potential impact on water quality and containing significant PAWS area. Badger, pine marten, wildcat, peregrine falcon and red squirrel are also recorded locally.

Statement of Intent

The plan area will contribute toward biodiversity targets with full restoration of PAWS, expansion of native woodland and restoration of riparian woodland. In order to maintain the productive capacity of the forest in the long term, the remaining areas of productive soils will be assessed for site suitability to sustain timber production considering predicted changes in the local climate and restock species will be chosen accordingly. Areas affected by Dothistroma Needle Blight will be prematurely felled to protect forest health and maximise the amount of recoverable timber although at the time of this plan revision scots pine stands are among the healthiest in the forest district.

Brief & Objectives

The forest design plan will be drawn up in line with the Scottish Forestry Strategy's seven key themes, but with particular reference to those themes which are identified by the North Highland Forest District's Strategic Plan as significant in relation to the FDP area. These are:

- Climate Change
- Timber
- Community Development
- Access and Health
- Environmental Quality
- Biodiversity

The following paragraphs describe how North Highland Forest District will achieve the objectives listed above, with specific reference to the Forest District Strategic Plan.

North Highland Forest District Strategic Plan Target:	How This Forest Will Contribute:	How We Will Monitor the Achievement of This Target:
Key Theme One – Climate Change		
<i>(1.06) By using the Ecological Site Classification System and improved silvicultural techniques we will make increased use of resilient species to provide insurance for the future.</i>	The FD will concentrate productive conifer and broadleaves on appropriate soils, using species that will be resistant to pathogens.	Coupe objectives will be agreed at the harvesting 75% completion stage and recorded in the workplan by the Programme Manager. Achieve the area of restocking detailed in the coupe summary of this plan to be reviewed at years five and ten by the planning forester.
<i>(1.03) We will continue to support developing local woodfuel and biomass initiatives. We will also continue to grow our local firewood sales, both direct to customer and through local firewood businesses.</i>	We will prioritise the recovery of the maximum amount of wood fibre from sites. Where it is practical we will continue to provide firewood for local domestic users. We will work with the Ullapool Trust Community Woodfuel Project to identify suitable supplies from the NFE.	The Harvesting Forester will balance supply with demand, recording sales through local systems.
<i>(1.09) We will comply with Forest and Water Guidelines in a competent and effective manner.</i>	We will continue to enhance riparian woodland by the planting of appropriate species. We will ensure that we do not contribute to the decline in status of any water body within or affected by the FDP area. We will seek to build a productive working relationship with the Wester Ross Salmon Fisheries Board and SEPA to identify vulnerable areas and strengthen environmental resilience.	The condition of the affected water bodies will be monitored by SEPA. This will be considered as a critical factor at the Mid Term Review and be reported on by the Planning Forester.
Key Theme Two – Timber		
<i>(2.01) We will produce a forecast of timber production and match those predictions (currently 333m3/yr) to subsequent marketing plans.</i>	Production will be managed using the FD workplan system and coordinated by the FD programme manager to ensure programmes match forecast.	We will achieve clearfell production, in line with the management coupe plan and the volumes detailed in the coupe summary of this plan, explaining any variances where they occur. To be reviewed at years five and ten by the planning forester.
<i>(2.02) We will maintain our compliance with UKWAS, which will enable our customers to gain certification for their products for that and other associated certification schemes, e.g. FCS.</i>	UKWAS compliance will be maintained by employing sound management principles outlined in the Forest Design Plan.	We will continue to contribute towards national sustainability targets and will be audited by SGS at the determined frequency to ensure compliance.
<i>(2.04) We will choose species of correct origins (including improved stock) to best match our sites and will follow sound silvicultural practice to provide quality growing stock at the correct density.</i>	In the absence of Lodgepole pine, nutritional mixtures will include Sitka spruce in mixture with Japanese larch, Macedonian pine and other species appropriate to site and soils. Where possible ALP will be utilised.	We will agree species choice between operations and planning at harvesting 75% completion site meetings.

	On less challenging soils alternative species will be used to provide increased yields.	Compliance with agreed species choice will be monitored by the Programme Manager using the workplan system. Species choice and restocking boundaries will be monitored (10% of each year's programme) by the Planning Foresters on an ongoing basis and reported on at years five and ten.
<i>(2.05) We will work to increase the current annual thinning volume (26km3) and ensure all suitable areas are thinned.</i>	Where soils and exposure allow we will continue to maximise production and quality. We will seek to expand our thinning programme on steep ground, identifying resources through business planning systems.	Thinning will be monitored by the Programme Manager using the Thinning Control Programme.
<i>(2.06) We will continue to use self- thinning, nutritional species mixtures on sites with low fertility and on sites where thinning will result in crop instability.</i>	We will adopt the use of pathogen resistant species to nurse productive crops to ensure that fertiliser use is reduced. Where heather growth is a significant factor in low growth rates we will treat it with herbicides as an alternative to fertiliser.	Operations foresters will ensure that any programme of fertiliser is justified and approved following detailed foliar analysis.
<i>(2.13) We will increase the area of broadleaved woodland in the district from 1% to 5% by 2013.</i>	The inclusion of riparian woodland will have a significant impact on the proportion of the FD covered by broadleaf woodland. This will include expanding aspen dominated woodland. We will maximise the use of productive native broadleaved species where suitable soils coincide with PAWS.	The Environment Manager will ensure that riparian and other native woodland is monitored using existing spatial planning tools.
Key Theme Four – Community Development		
<i>(4.03) We will encourage communities that wish to become more involved in the management of, or outputs from, their local forests</i>	We will continue to work with the Ullapool Community Trust and with the wider community to identify suitable projects and funding opportunities.	The CRT Manager will monitor and record the outcomes of joint projects and will ensure local staff liaise with the groups mentioned.
Key Theme Five – Access & Health		
<i>(5.04) We will work with local access officers to identify those routes on the national forest estate that will form part of the core path network.</i>	We will continue to strengthen our relationship with the local access officer by regular communication. We will continue to improve the access route to Beann Dearg by improved internal landscaping.	Monitored by the Stewardship Forester and reported on through Business Monitoring Review.
<i>(5.05) We will protect public rights of way through woodland and take them into account in forest design and management.</i>	We will ensure that the status of the Core Path Network is protected during all operations and is enhanced by the forest planning process.	The Design Planning Forester will ensure that core paths are highlighted at revision stage and operations staff will liaise with local access office staff to ensure that access rights are protected.
Key Theme Six – Environmental Quality		
<i>(6.01) Detailed site planning and consultation with key stakeholder (particularly fisheries boards and SEPA), will be used to identify site and downstream issues for inclusion in subsequent operations.</i>	These forests form a fundamental component of the Loch Broom Catchment and all operations proposed will be carried out with water quality protection very much to the fore. SEPA has been a very helpful consultee during the scoping phase of this FDP revision.	The status of water bodies will be monitored at year five and ten reviews by the Planning Forester, using SEPA data.

<i>(6.05) We will take action to reduce sedimentation, including utilising higher quality roadstone.</i>	We will ensure that Forest & Water Guidelines and Controlled Activities Regulations are adhered to and that a robust network of riparian woodland is established. Extra measures will be taken when working coupes adjacent to Corrieshalloch Gorge to protect populations of <u>Lipsothrix ecucullata</u> . This will include siltation traps to reduce sedimentation and importing highest quality roading materials.	The Environment Manager will record the development of riparian woodland using existing FCS systems. Operations will be guided by the work plan process.
<i>(6.06) We will continue to include landscape as a major consideration in long-term forest planning and gradually resolve issues such as hard edges and unnatural geometric boundaries.</i>	We will design management coupes – working closely with the FCS Landscape Architect - to enhance the landscape with particular reference to the areas visible from the main tourist routes and Ullapool Village.	We will consult with the FCS Landscape Architect and ensure that landscape design follows best practice. Coupe shapes will be audited by the planning forester at years five and ten.
<i>(6.07) Where site or access conditions demand high cost solutions to landscape amelioration which cannot be delivered through conventional operations we will pursue the necessary additional resources</i>	The steep slopes of Creag an Fhithich above Inverbroom Lodge present a significant challenge for operations, however for landscape and biodiversity reasons it is important that the current larch crop is removed. We will secure the resources required to develop infrastructure to work these coupes safely and sensitively over the period of the plan.	The Programme Manager will incorporate the required roading into the operations programme, agreeing prescriptions using the workplanning process and will schedule the coupes through the BP process.
<i>(6.09) We will continue to improve the aesthetic value of the woodlands along major tourist routes to increase visitor enjoyment</i>	The A835 is a major tourist route, providing access to the north west and the Outer Hebrides. Lael Forest runs alongside the road for approximately 6 miles and the forest garden is adjacent to the road. We will establish native woodland along the full length of the forest, adjacent to the road to improve the aesthetic value of the forest and provide a visual and physical barrier between productive woodland and passing traffic.	The establishment of the native woodland will progress within the agreed management coupe phases. Progress will be monitored by the Design Plan Forester at 5yr and 10yr reviews.
<i>(6.10) We will continue to work with local archaeologists and Historic Scotland to protect the ancient monuments in our care and to ensure that cultural heritage issues are adequately addressed in any proposed developments (including acquisition of bare land).</i>	This FDP area has abundant archaeology, both scheduled and unscheduled. We will work with both Historic Scotland and the FCS archaeologist to deliver a programme of prioritised protection and conservation work. Operations will ensure that new coupes are surveyed prior to felling to ensure any undiscovered heritage interests are protected from unnecessary damage.	The Environment Manager will ensure that archaeology is monitored using the existing SAM Plan system and ensure that operations do not damage sites through using the workplan system.
Key Theme Seven – Biodiversity		
<i>(7.05) Progress will continue in restoring PAWS sites, normally by thinning to gradually remove the non-native species.</i>	Full surveys of the PAWS areas within the FDP area will inform the work programme, working towards full restoration. Where soils allow, we will restock PAWS with productive broadleaf species allowing the native flora to recolonise areas currently under exotic conifer plantation.	The Environment Manager will monitor the management and restoration of PAWS using existing environment systems.
<i>(7.07b) We will continue to restructure our large, even-aged, single species plantations through the forest design plan process. Improving species, age and habitat diversity will remain a priority.</i>	We will utilise a more diverse range of species and continue to promote the expansion of native woodland to enhance biodiversity. This will include supplementary species planting to expand riparian woodland. On PAWS sites we will use no less than 90% native species, concentrating on productive broadleaf species where soils allow.	We will expand natural reserve in line with FCS guidance, to be monitored by the Environment Manager using existing reporting mechanisms. We will commit a minimum of 5% of native woodland and 1% of plantation conifer as

	Where crop stability allows we will retain <i>P sylvestris</i> and <i>Larix</i> spp stands to help diversify the age structure of the forest. This will be concentrated in the main glen (north) of the forest. Enlarging the forest garden and managing it under LISS will also help us to achieve this target.	natural reserve across the FD – managed solely for biodiversity using minimum intervention. This plan's contribution will be monitored by the planning forester at years five and ten to ensure that these proposals do not compromise this target.
<i>(7.10) We will continue to take account of neighbouring designated sites during forest and operational planning with the aim of protecting and, where appropriate, enhancing their status.</i>	Deer management will take account of the need to contribute to the quality of Beinn Dearg and Fannich Hills designations. In the Braemore Wood the highest operations standards will be employed to ensure that water quality is not compromised for populations of <i>Lipsothrix ecucullata</i>	Deer Managers will continue to work with the North Ross Deer Mgmt Group to achieve realistic and effective population levels. Operations foresters will ensure that water quality is the priority in Braemore, adhering to Forest & Water Guidelines and Controlled Activities Regulations.
<i>(7.12) We will promote the profile and awareness of biodiversity requirements during stakeholder engagements, school visits and Forest Design Plan consultations and encourage active involvement in biodiversity projects by communities and volunteers.</i>	We will continue our active involvement with local schools and volunteer groups to deliver environmental projects.	The CRT Manager will monitor the delivery of educational and community events, coordinating through the business planning process. The Design Plan Forester will ensure that all relevant stakeholders contribute to the FDP revision process.

NB: The targets that are considered fundamental to the delivery of the aims of this forest design plan – the critical success factors – are highlighted in red in the table above. The delivery of these elements will be the primary factors by which the plans success is judged at mid-term and full review (5 & 10 yrs respectively)

Appendix V: Coupe Summary for First Two Phases (2012 -2022)

Coupe Number & Grid Reference	Area to Fell (Ha)	Predicted Volume (m3OB)	Proposed Restock Year	Area to Restock Within Plan Period (gross)	Comments
Coupe 1	2.5	1208	2018	2.2	Restock with productive native species
Coupe 2	3.4	1706	2018	2.4	Productive restock with associated open ground
Coupe 3	16.6	8522	2018	11.6	Productive restock with associated open ground
Coupe 4	18.7	6432	2018	13.1	Productive restock with associated open ground
Coupe 5	9.7	5257	2018	6.8	LISS and extension to Forest Garden
Coupe 6	16.2	9294	2018	9.8	Productive restock and riparian woodland
Coupe 7	5.0	2468	2018	3.5	Native woodland restock with associated open ground
Phase 1 Summary	72.1	34887		49.4	
Coupe 8	10.4	5305	2023	0.0	Productive restock and riparian woodland after fallow
Coupe 9	9.3	5220	2023	0.0	Productive restock and riparian woodland after fallow
Phase 2 Summary	19.7	10525		0.0	

Over the plan period we propose to clearfell approximately 91.8 Ha and restock 49.4 Ha. The difference in figures is accounted for by habitat restoration and restock that will be completed beyond the plan period due to fallow policy (to aid the reduction of pesticides associated with Hylobius control).

Appendix VI: Archaeological Record

SMR Number	NGRE	NGRN	Site Name	Site Type
NH17NE0007	219950	879340	Braemore House	House
NH18NE0004	218130	886030	Inverlael	Barracks
NH18NE0009	218500	885700	Inverlael	Deserted township
NH18NE0017	218500	885900	Inverlael farm	Dyke
NH18NE0018	218400	886100	Inverlael farm	Bothy; dykes
NH18NE0019	219000	885600	Inverlael farm	Sheepfold
NH18NE0020	218200	886300	Inverlael Farm	Field Boundary
NH18NE0021	218200	886200	Inverlael Farm	Field Walls
NH18NE0022	218200	886200	Inverlael Farm	Mound
NH18NE0024	218124	885975	Inverlael Farm	Former post office
NH18NE0028	219800	885800	Alltan Leacach	Shieling Hut
NH18NE0032	218200	886300	Inverlael	Enclosure
NH18SE0006	218420	884140	Inverbroom Bridge	Bridge
NH18SE0008	219540	880589	Auchindrean Bridge	Bridge
NH27NW0003	220300	878400	Braemore House	Tunnel; culvert
NH27NW0004	220000	879300	Braemore House	Stable
NH27NW0011	220066	879023	Braemore House	Icehouse
NH28NW0001	221250	885030	Gleann na Sguaib	Buildings; kiln

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NH28NW0002	220500	885200	Lael Forest	Enclosure
NH28NW0003	220090	885090	Lael Forest	Sheepfold
NH28NW0004	220500	885300	Glensguaib	Deserted farmstead
NH28NW0008	220300	885400	An Losaid	Farmstead
NH28NW0009	220300	885000	Allt na Moine	Shieling Huts
NH28SW0006	220300	884500	Allt na Moine	Shieling Huts
NH28SW0007	221400	884860	Gleann na Sguaib	Shieling Huts

Appendix VI: Habitat Management Prescriptions – Native Woodland

Soil Group	Soil Types Relevant to North Highland FD	Characteristics	Aim*	Species Prescription for Habitat Types Predominating in North Highland Forest District
1	Brown Earths	Soils with typically good aeration and drainage throughout the profile and well-incorporated organic matter. These soils are mainly * fertile and allow deep rooting. Likely vegetation to be encountered includes fine grasses, holcus, bracken, bramble, foxgloves, violets and a diverse range of herbs. * However Podzolic Brown earths where nutrients have been leached are "Very Poor"	NW	W19 Juniper wood with sorrel on 1, 1u, 1z and 1b from sheltered sites up to sub alpine areas with DAMS < 22 W18 Scots pine with heather on 1z in cool to warm with DAMS < 18 W11 Upland oak-birch with bluebell on 1, 1u and 1z in cool to warm with DAMS < 18
3 & 4	Podzols & Ironpan Soils	Developed on Acid * soils with high rainfall where nutrients are flushed into the lower horizons of the soil profile. Frequently induration or an impenetrable pan will prevent good drainage, resulting in a need to break this impediment with suitable cultivation that will allow freer draining and greater rooting depth. Vegetation common to these soils are ericaceous plants, grasses including deschampsia flexuosa, nardus, carex and molinia. Light bracken and feather mosses may also be present. * NOT fertile soils	NW RW	W18 Scots pine with heather on 3, 3m, 4, 4z and 4b Not in Sub-alpine climate, (Cool to Warm) DAMS < 18. W19 juniper wood with sorrel on 3 and 4b Possible up to Sub-alpine zone W17 Upland oak-birch with blaeberry on 3s and 3ms Mainly in Lower Cool to warm climate zone. DAMS < 18.
5	Groundwater Gleys	Dominant vegetation is commonly Deschampsia caespitosa, Holcus, salix spp and herbs. Occuring where a shallow water table causes waterlogging and therefore subject to compaction and poorly oxygenated. The soil is permeable but is affected by a fluctuating ground-water table. Moderate nutrient availability.	NW RW	W7 Alder-ash with yellow pimpernel on 5 and 5f Cool to Warm. Sheltered to Moderately exposed. (DAMS <16)
6	Peaty Gleys	Very Poor to medium nutritional availability, these soils are indicated by Molinia, Calluna and Erica spp, with sphagnum prevalent in the North and West. High winter water table can be expected and good drainage will be required to achieve best results.	NW	W18 Scots pine with heather on 6z "moist" to "fairly dry" W4 Birch with purple moor-grass on 6 and 6b. Cool to Warm. DAMS < 18.

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7	Surface Water Gleys	<p>Differing from groundwater gleys in that waterlogging is caused not by a high water table, but by induration preventing adequate drainage leading to a seasonally fluctuating water table. Resulting anaerobic conditions will restrict rooting.</p> <p>Indicative vegetation includes <i>Holcus</i>, <i>Juncus</i>, <i>Nardus</i> and <i>Deschampsia caespitosa</i>. Again poor to moderate nutritional availability can be expected.</p> <p>Drainage will be required along with micro site cultivation such as mounding.</p>	NW	<p>W11 Upland oak-birch with bluebell on 7b</p> <p>W18 Scots pine with heather on 7z possibly on margins leading to drier knolls.</p> <p>W7 Alder-ash with yellow pimpernel on 7, 7b and 7z Cool to Warm. Sheltered to Moderately exposed. (DAMS <16)</p>
8	Flushed Basin Bogs	<i>Juncus</i> spp are prevalent. A shallower peat type, nutrient rich and containing some mineral grains. Peat is black in colour.	NW	W4 Birch with purple moor-grass on 8b and 8c.
9	Molinia Bogs	Often existing on hillsides where flushing is more pronounced. Moderate nutrition available.	NW	W4 Birch with purple moor-grass on 9a, 9b, 9c and 9d suitable for the transitional areas at the margins between productive forest blocks and peatland restoration sites.
			OG	9e <i>Trichophorum</i> , <i>Calluna</i> , <i>Eriophorum</i> , <i>Molinia</i> Bogs will not be planted or restocked - restoration of peatland.
10	Unflushed Flat or Raised Bogs	Sphagnum dominated bogs, formed as peat levels rose to form a dome, reliant on precipitation for moisture and nutrients. Mineral grains are absent and the peat is reddish-brown and tends to be deeper.	OG	10b Upland flat or raised bogs – priority areas for peat restoration.
11	Unflushed Blanket Bogs	<i>Calluna</i> , <i>Eriophorum</i> , <i>Trichophorum</i> Bogs including the hill peats located on upland plateaux and hillsides deeply dissected by burns.	OG	11a A rare peatland type mainly restricted to the driest eastern uplands
			OG	11b,c,d Unflushed blanket bogs - priority areas for peatland restoration
14	Eroded Bogs	Very poor nutritional status characterised by bog asphodel, deer grass, bog cotton etc. Can be dominated by either deep and frequent eroded areas (haggs) or frequent pools of standing water (flows). Very deep peat.	OG	14 & 14h Hagged bogs – unsuitable for forestry or woodland – peatland habitat
			OG	14w Pooled bogs – common across Northern Scotland forming the ‘Flows’ – peatland.
15	Littoral Soils	Formed on coastal sands and shingles, such as the dunes found at Morrich More near Tain. The category is split into shingle (15s), dunes (15d) and then sands with varying water table depths (15e,w,g,i). These sands can be distinguished by various levels of mottling. Coastal grasses and heathland plants predominate.	NW	W16 Lowland oak-birch with blueberry limited to “Warm” climate

*NW – Native Woodland Expansion / RW – Riparian Woodland Expansion / OG – Managed Open Ground e.g. peatland restoration

NB – These prescriptions must be adopted within the local context set out in the main body of this FDP. Climate must be included as a determining factor in final species selection.

- Planting will generally become a mosaic of the woodland types recommended above, dictated by local conditions and agreed after “75% Site Completion Visits”
- Particular note should be made of the inadvisability of planting the peatland types 10 – 14 that may predominate on marginal FD sites
- No native woodland type likely to be suitable on sites wetter than SMR “Very Moist” and veg indicating SNR <4.5

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